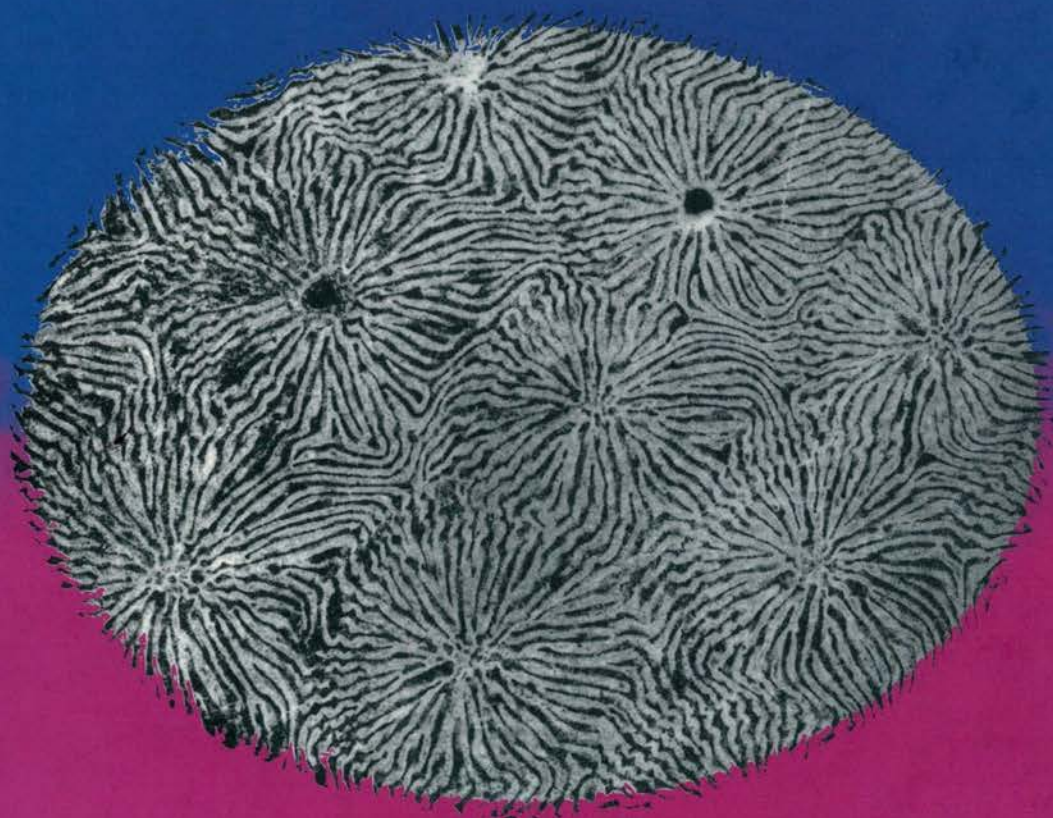
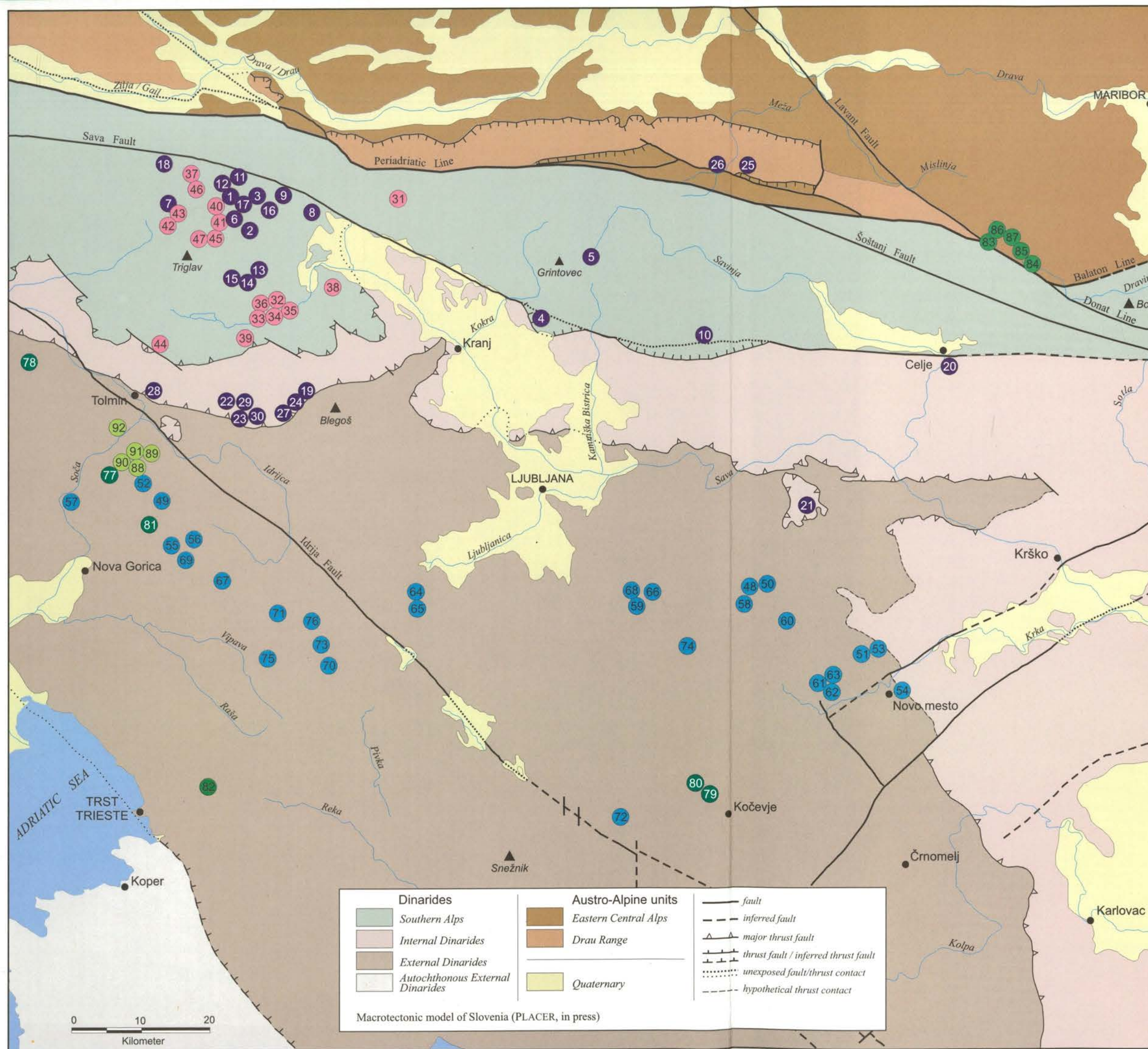


Dragica Turnšek

Mesozoic Corals of Slovenia





List of localities

- Triassic**
- 1–18 Carnian (Julian Carbonate Platform)**
1. Črna gora (N Julian Alps)
 2. Debeli peč (N Julian Alps)
 3. Frčkov vrh (N Julian Alps)
 4. Kamniške Alpe - road to Kravce
 5. Kamniško sedlo
 6. Krma (N Julian Alps)
 7. Krnica (N Julian Alps)
 8. Mežakla - Brezovec
 9. Mežakla - Kisovec
 10. Menina planina
 11. Mojstrana (N Julian Alps)
 12. Njivice at Mojstrana (N Julian Alps)
 13. Pokljuka - Šport hotel
 14. Pokljuka - Lemovce
 15. Pokljuka - Srenjski pašnik
 16. Radovna (N Julian Alps)
 17. Srednja gora (N Julian Alps)
 18. Vitranc (N Julian Alps)
- 19–30 Carnian (Slovenian Basin and Austroalpine unit*)**
19. Blegoš
 20. Celje (grad - castle)
 21. Dole at Litija
 22. Hudajužna
 23. Jesenica (near Cerkno)
 24. Leskovica
 25. Mežica - Hlevnik*
 26. Mežica - Pristava*
 27. Novaki
 28. Perbla (near Tolmin)
 29. Zakojca
 30. Zakriž
- 31–47 Norian-Rhaetian (Julian Carbonate Platform)**
31. Begunjsčica
 32. Bohinj-Babna gora
 33. Bohinj-Bitnje
 34. Bohinj-Boltarje
 35. Bohinj-Drenova gora
 36. Bohinj-Gradišče
 37. Dovški križ (N Julian Alps)
 38. Jelovica (Rovtarica)
 39. Kobla
 40. Kopice (N Julian Alps)
 41. Kot (N Julian Alps)
 42. Planja (N Julian Alps)
 43. Razor (N Julian Alps)
 44. Rdeči rob (S Julian Alps)
 45. Rušnata Mlinarica (N Julian Alps)
 46. Šplevta (N Julian Alps)
 47. Tominškova pot (N Julian Alps)
- Jurassic (Dinaric Carbonate Platform)**
- 48–58 Upper Jurassic (outer barrier reef)**
48. Bič (Dolenjsko)
 49. Čepovanski dol
 50. Gaber (Dolenjsko)
 51. Ivanja vas (Dolenjsko)
 52. Kal nad Kanalom (Banjska planota)
 53. Karteljevo (Dolenjsko)
 54. Mačkovec (Dolenjsko)
 55. Mrzovec (Trnovski gozd)
 56. Ojstrovca (Trnovski gozd)
 57. Plave at Soča
 58. Sela (Dolenjsko)
- 59–69 Upper Jurassic (inner barrier reef)**
59. Čušperk (Dolenjsko)
 60. Dobrič (Dolenjsko)
 61. Frata (Dolenjsko)
 62. Frata - Brezova reber
 63. Frata - Mali vrh
 64. Logaška planota OGG
 65. Logaška planota 1161
 66. Luče (Dolenjsko)
 67. Otlica (Trnovski gozd)
 68. Predole (Dolenjsko)
 69. Selovec (Trnovski gozd)
- 70–76 Upper Jurassic (back reef area)**
70. Bukovje (Hrušica)
 71. Col
 72. Draga (Kočevo)
 73. Hrušica OGG
 74. Korinj (Dolenjsko)
 75. Nanos
 76. Vodice (Javornik)
- Cretaceous**
- 77–81 Lower Cretaceous (Dinaric Carbonate Platform)**
77. Osojnica (Banjska planota)
 78. Robidišče (Banjska planota)
 79. Slovenski vrh (Kočevo)
 80. Slovenski vrh (Kočevo)
 81. Zavrh (Trnovski gozd)
- 82–87 Upper Cretaceous (Dinaric and Austroalpine shoal)**
82. Lipica
 83. Stranice - quarry
 84. Stranice - Dobrava
 85. Stranice - Radana vas
 86. Stranice - Rugelj
 87. Zreče
- 88–92 Senonian breccia**
88. Hoje (Banjska planota)
 89. Kanalski Lom (Banjska planota)
 90. Levpa (Banjska planota)
 91. Mešnjak (Banjska planota)
 92. Podsela (Banjska planota)

Dinarides

- Southern Alps
- Internal Dinarides
- External Dinarides
- Autochthonous External Dinarides

Austro-Alpine units

- Eastern Central Alps
- Drau Range
- Quaternary

fault

- inferred fault
- major thrust fault
- thrust fault / inferred thrust fault
- unexposed fault/thrust contact
- hypothetical thrust contact

Macrotectonic model of Slovenia (PLACER, in press)



Dragica Turnšek

Zbirka ZRC 16

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Mezozojske korale Slovenije

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Dragica Turnšek

Mesozoic Corals of Slovenia

Mezozojske korale Slovenije

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Z N A N S T V E N O R A Z I S K O V A L N I C E N T E R S A Z U

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ABSTRACT

This book is a synthesis of 25 years' research on the Mesozoic corals of Slovenia. The monograph includes 211 species of Scleractinia, belonging to 123 genera and 13 suborders. The corals were collected from 92 localities or groups of localities. Stratigraphically, these reefs are assignable to the Upper Triassic, Upper Jurassic, and Lower and Upper Cretaceous. Reefs of different ages were situated in different paleogeographical units.

The first part of the book describes the localities in stratigraphical order. The main lithological characteristics and fossil communities are described for each coral locality, and ecological control of reef growth and demise is discussed for every time-interval.

Triassic corals grew on the Julian Carbonate Platform and in the Slovenian Basin. Reef mounds existed from the Late Ladinian through the Cordevolian and Julian to the end of the Tuvanian in the Slovenian Basin. Progressively younger reefs occurred from the east to the west. Coral reefs on the Julian Carbonate Platform flourished through the entire Late Triassic from the beginning of the Cordevolian to the end of the Rhaetian.

The richest coral reefs in Slovenia are Late Jurassic in age. The coral communities existed from the middle Oxfordian to the end of the Kimmeridgian as part of a large coral-stromatoporoid barrier reef on the Dinaric Carbonate Platform. This reef complex is now exposed in an approximately 20 km wide belt, which extends from the Banjška planota through central Slovenia to Bela Krajina. The corals and especially the associated stromatoporoids enabled a subdivision of the reef into outer reef, inner reef, and back reef.

Lower Cretaceous coral reefs in Slovenia are relatively rare and occur, like the Jurassic reefs, only on the Dinaric Carbonate Platform. They are preserved in a few smaller localities in the interior and on the margin of the platform. They are assigned to the Barremian-Aptian and at one place to the Albian. We suppose that the reefs of Early Cretaceous age were probably much larger because the Senonian breccia of the northern slope of the platform contains abundant reworked Early Cretaceous corals.

In situ Late Cretaceous corals were found in only two places; individual colonies occur in the interior of the Dinaric Carbonate Platform whereas the only larger reef is situated north of the Periadriatic line. This is characterized by Gosau-type corals and belonged to the Austro-Alpine shoals.

The most important part of the monograph is the paleontological presentation of 211 coral species. All the published data are systematically compiled, revised and complemented with new data from Slovenia and elsewhere. The presentation of each species comprises a complete synonymy, a short description and all the important emendations in the systematics. Furthermore, it gives information about the geographical and stratigraphical distribution, which is also shown graphically for Slovenia. Each species is presented in a separate plate of illustrations. Lists of the species, localities and fossil assemblages are added in the appendix.

IZVLEČEK

Knjiga je monografski prikaz mezozojskih koral Slovenije in je rezultat 25 letnih sistematičnih raziskav. Obsega 211 vrst koral iz skupine Scleractinia, ki pripadajo 123 rodovom in 13 podredovom. Korale so bile odkrite v 92 nahajališčih oziroma sklopih nahajališč. Po starosti pripadajo zgornjemu triasu, zgornji juri ter spodnji in zgornji kredi. V posameznih obdobjih so vezane na različne paleogeografske enote.

V prvem delu knjige so v stratigrafskem zaporedju opisana nahajališča, njihove litološke značilnosti in fosilne združbe ter vpliv okolja na rast in izumrtje grebenov v določenem geološkem obdobju.

Triasne korale so vezane na Julijsko karbonatno platformo in Slovenski bazen. V Slovenskem bazenu so uspevale od zgornjega ladinija preko cordevola in jula do konca tuvala in so v združbi s spongijami gradile grebenske kope (reef mounds). Od vzhoda do zahoda si slede vedno mlajši grebeni. Na Julijski platformi pa smo dobili koralne grebene v vsem zgornjem triasu od začetka cordevola do konca retija.

Najbogatejša koralna nahajališča v Sloveniji so zgornjejurske starosti. Našli smo jih izključno na Dinarski karbonatni platformi. Po starosti smo jih uvrstili v zgornji oksfordij in kimmeridgij. Korale so skupaj s stromatoporoidi zgradile obsežen barierni greben, ki se ob robu platforme razširja v okoli 20 km širokem pasu od Banjške planote čez osrednjo Slovenijo do Bele Krajine. S

pomočjo fosilnih združb smo barierni greben razčlenili na lateralne pasove. Ob robu platforme je zunanji pas, vzporedno z njim poteka notranji pas, južno oziroma jugozahodno od obeh pa je zagreben.

Spodnjekredne korale so redke in prav tako kot jurske vezane na Dinarsko karbonatno platformo. Ohranjene so le v posameznih skromnih nahajališčih na platformi in njenem obrobju. Uvrščene so v barremijaptij in na enem mestu v albij. Verjetno so bila koralna nahajališča v spodnji kredi mnogo obsežnejša, ker na severnem obrobju platforme dobimo množico spodnjekrednih koral presedimentiranih v senonski breči.

Primarna zgornjekredna nahajališča koral so bila najdena le na dveh mestih; znotraj Dinarske platforme se dobe le posamezne kolonije, večje nahajališče gosavskega faciesa pa je odkrito severno od Periadriatskega lineamenta in spada k Avstro-alpiskim plitvinam.

Najvažnejši del monografije je paleontološka predstavitev 211 vrst koral. Sistematično so zbrani vsi doslej objavljeni podatki, ki so sedaj revidirani in dopolnjeni z najnovejšimi ugotovitvami doma in v svetu. Predstavitev vsake vrste obsega kompletno sinonimiko, kratek opis, vse važnejše spremembe v sistemu ter geografsko in stratigrafsko razširjenost. Razširjenost v Sloveniji je prikazana tudi grafično. Vsaka vrsta je predstavljena s samostojno tablo slik. Dodani so sezname vrst, nahajališč in fosilnih združb.

INTRODUCTION

Mesozoic corals in Slovenia have been systematically studied for several decades. It is now well known that they were especially abundant in certain periods, namely, in the Late Triassic, Late Jurassic, Early and Late Cretaceous. The Late Jurassic coral reefs in Slovenia are so large and contain such a diverse coral fauna that they can be placed among the largest and richest reef complexes in the world. The results of these studies were published in 17 scientific papers which focus on Mesozoic corals; complete reef communities were described in several additional publications.

This monograph synthesizes all the published data in one volume and completes them with current research in Slovenia as well as with up-to-date knowledge in this discipline.

The chapter on stratigraphy and paleoecology deals with the evolution of coral reefs on the territory of Slovenia through the whole Mesozoic. Emphasis is given to the relationship with paleogeography and the depositional environment. Ninety-two localities and groups of localities with corals are included. For each coral locality, the main lithological characteristics and fossil composition of the reef community are described. Modern concepts about regional and global controlling factors are applied to explain the initiation, growth and demise of coral reefs. Comparison with similar Tethyan reef buildups is discussed.

The chapter on systematics contains a list and taxonomic classification of suborders, families and genera; recent revisions and complementary descriptions by various authors are considered.

The most important part of the publication is the presentation of 211 coral species. These are described in alphabetical order regardless of their stratigraphic range. For every species the synonymy is updated from the last publication in the Slovenian literature. A short actualized description of characteristic structural elements is given. Some species are revised. Each species is further provided with a uniformly presented stratigraphic range in Slovenia and elsewhere, and with its paleogeographic position. These data are shown graphically for the Slovenian localities. Illustrations of species show a transverse and, if possible, also a longitudinal section and microstructure.

In comparison with previously published results, the present monograph contains supplementary synonymy as well as systematic and taxonomic revision of all species. Some species are now first described from Slovenian localities. Newly discovered localities are added; previously known localities are completed with new data.

The appendix comprises alphabetical lists of the species, localities and fossil assemblages.

The coral specimens are stored in the collection of the Ivan Rakovec Institute of Paleontology unless otherwise indicated.

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HISTORICAL REVIEW

Fossil corals from Slovenia were first mentioned in the literature in the middle of the last century. REUSS (1854) reported Cretaceous species from Stranice. KOSSMAT (1905) mentioned coral limestones on the Trnovski gozd Plateau. RAKOVEC (1933) compiled these data and added Early Cretaceous corals from Bela Krajina. URŠIČ discovered Cretaceous corals near Kočevje (URŠIČ, 1933) and ellipsactinian limestones near Metlika (URŠIČ, 1937).

Systematic research of Mesozoic reef fossils in Slovenia was initiated in the early 1950s simultaneously with systematic mapping for the Basic Geological Map of Yugoslavia, a project which started soon after the Second World War. Reef organisms of different ages were therefore studied in different periods.

Due to numerous newly discovered localities in southern Slovenia we first undertook a systematic investigation of Late Jurassic stromatoporoids (GERMOVŠEK, 1954; TURNŠEK, 1966; 1969) and only later on we studied corals of the same age and mostly from the same localities (TURNŠEK, 1972, TURNŠEK et al., 1981; DOZET & TURNŠEK, 1993). The ensuing studies dealt with Early

Cretaceous corals and reef communities from Osojnica on the Banjška planota (TURNŠEK & BUSER, 1974) and from the surroundings of Kočevje (TURNŠEK et al., 1992), with corals and reef communities from the Senonian breccia (TURNŠEK & BUSER, 1976), and with Late Cretaceous corals from Stranice (TURNŠEK, 1978, 1994). Triassic corals and associated reef communities were first studied as late as in the 1980s. BUSER et al. (1982) presented a preliminary overview on the distribution of Triassic reefs from the whole of Slovenia; TURNŠEK et al. (1984) focused on their paleoecologic significance. This work was followed by systematic paleontologic examination of selected Late Triassic coral localities especially from western Slovenia: from the Bača Valley and the surroundings of Cerkno (ČAR et al., 1981, SENOWBARY-DARYAN, 1981; TURNŠEK et al., 1982, 1987; TURNŠEK, 1985), from the Julian Alps (RAMOVŠ & TURNŠEK, 1984; TURNŠEK & RAMOVŠ, 1987; 1991; TURNŠEK & BUSER, 1989; 1991) and from the Kamnik Alps (RAMOVŠ & ŠRIBAR, 1993).

RAMOVŠ (1972) mentioned some corals from the Selška Sora Valley; KOLOSVÁRY (1967) wrote about some Triassic and Liassic corals from Slovenia.

SUMMARY DESCRIPTION OF LOCALITIES; THEIR STRATIGRAPHIC POSITION AND PALEOENVIRONMENTAL SETTING*

TRIASSIC

Triassic corals and coral reefs were found in two different stratigraphic levels: Carnian and Norian-Rhaetian. Some localities could be divided into substages. For the Carnian stage, a three-fold division, comprising Cordevolian, Julian and Tuvlian substages, is used throughout this work.

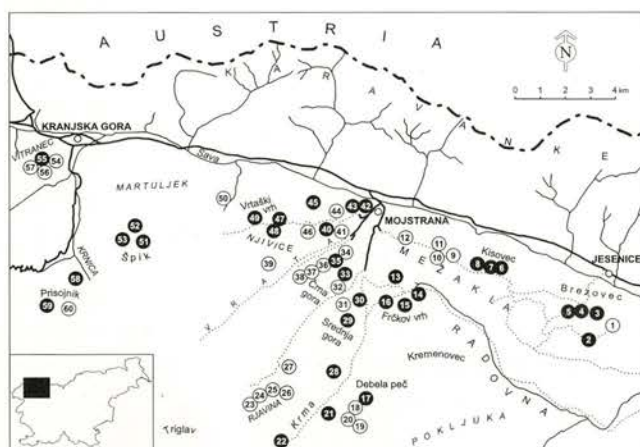
CARNIAN

Carnian corals occur in two different paleogeographic units: on the Julian Carbonate Platform and in the Slovenian Basin.

Julian Carbonate Platform

Corals and coral reefs of the Julian Carbonate Platform were found in numerous localities which are grouped in three different regions:

- a) the northern Julian Alps,
- b) the Pokljuka Plateau, and
- c) the Kamnik Alps.



* Classification of reefs according to WRIGHT & BURCHETTE (1996, p. 368)

a – In the northern Julian Alps the corals occur in an 800 m thick succession of massive grey limestone. They form patch reefs which vertically and laterally pass into bedded or massive algal limestone. Every “nest” is considered a different locality. From west to east their order is approximately the following: Vitranc, Krnica, Njivice, Mojstrana, Črna gora, Srednja gora, Debeli peč, Krma, Frčkov vrh, Radovna, Mežakla Plateau - Kisovec, Mežakla Plateau - Brežovec (Fig. 1).

Among corals, branching forms (*Margarosmilia*, *Tropidendron*, *Volzeia*) prevail, whereas massive colonies (*Cassianastraea*, *Gumbelastraea*, *Koilocoenia*) are less abundant. Corals are associated with rare sponges, chaetids, solenoporacean algae and microproblematica. The reef assemblage is characteristic of the Carnian. The age of these reefs is also constrained by their stratigraphic position: the underlying limestone contains Late Ladinian fossils *Daonella lomelli*, *Posidonia wengensis*, and *Protrachyceras archelaus*; the overlying rocks are assigned to the Julian on the basis of *Myophoria kefersteini* and *Trigonodus carniolicus*; the reefs pass laterally into Cordevolian *Diplopore* limestone (RAMOVŠ & TURNŠEK, 1984, p. 169-172) (Figs. 2, 3).

b – Coral reefs on the Pokljuka Plateau were found in a thick limestone succession exposed along the road between Hotel Šport and Srenjski pašnik (Fig. 4). The limestone is a light grey biolithite composed of more than 50 % of reef organisms; the remaining mass is biosparite. The biolithite complex could be divided into Cordevolian,

Fig. 1. : Map of the investigated Lower Carnian localities in the northern Julian Alps. a. Coral patch reefs (black circles). b. Diplopore limestone (white circles). Numbers in circles signify specimens of corals. They differ from numbers of localities used in this book.

After: RAMOVŠ & TURNŠEK, 1984.

Sl. 1. : Karta raziskanih spodnjekarnijskih nahajališč v severnih Julijskih Alpah. a. Koralni krpasti (patch) grebeni (črni krogi). b. Diploporni apnenec (beli krogi). Številke v krogih označujejo vzorce koral. Razlikujejo se od številke nahajališč v tej knjigi.

Po: RAMOVŠ & TURNŠEK, 1984.

Fig. 2: Schematized stratigraphical column of Triassic succession in the northern Julian Alps with the position of Lower Carnian reef buildups.

- a. Thin-bedded limestone, marl and dolomite.
- b. Massive dolomite.
- c. Dolomitized limestone.
- d. Coral patch reefs.
- e. Bioclastic limestones between coral patch reefs and diploporal limestone.
- f. Diploporal limestone.
- g. Bedded limestones; in the uppermost Ladinian with thin chert nodules.

After: RAMOVŠ & TURNŠEK, 1984.

Sl. 2: Shematski stratigrafski stolpec triasnih kamnin v severnih Julijskih Alpah s položajem spodnjekarnijskih grebenskih tvorb.

- a. Ploščasti apnenec, lapor in dolomit.
- b. Neplastnati zrnati dolomit.
- c. Dolomitizirani apnenec.
- d. Koralni krpasti (patch) grebeni.
- e. Bioklastični apneneci med koralnimi grebeni in diplopornim apnencem.
- f. Diploporni apnenec.
- g. Skladnati ali plastnati apneneci; v vrhnjem ladiniju vsebujejo tanke gomolje roženca.

Po: RAMOVŠ & TURNŠEK, 1984.



Julian and Tuvanian parts. In the eastern part of the Pokljuka Plateau, reef limestone laterally passes into micritic bedded limestone with chert. This siliceous limestone contains Cordevolian conodonts (BUSER & KRIVIC, 1979). Westwards, where the upper part of the reef section is exposed, lenses of thin-bedded limestone with chert are interstratified within the reef limestone. These "pockets" contain conodonts and lumachelles with the Tuvanian species *Halobia paraceltica* and *H. mediterranea* (KOLAR-JURKOVŠEK et al., 1983) (Fig. 5).

In the Cordevolian part of the succession, coral species belonging to the genera *Margarophyllia*, *Araiophyllum*, *Volzeia*, *Tropidendron*, and *Stuoresia* were

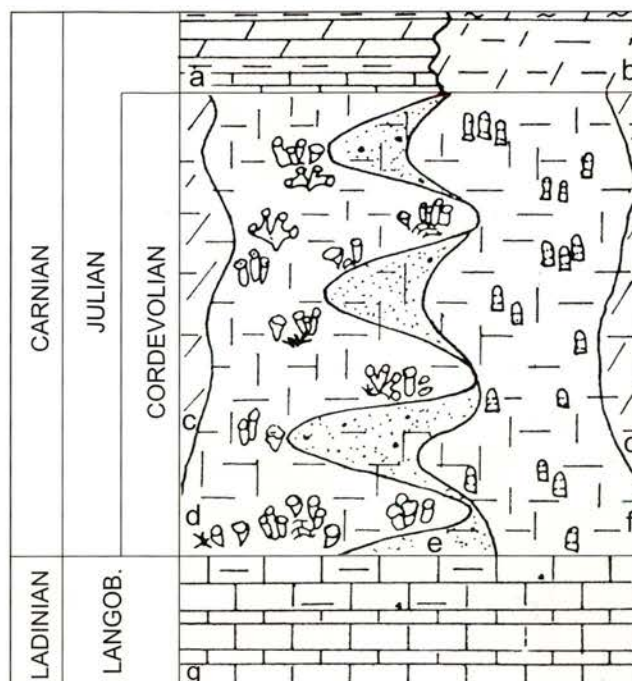


Fig. 3: Facies model of the Lower Carnian coral patch reefs and diploporal limestones in the northern Julian Alps.

- a. Coral patch reefs with several fossil communities.
- b. Bioclastic limestones between coral patch reefs and diploporal limestone.
- c. Diploporal limestone.

After: RAMOVŠ & TURNŠEK, 1984.

Sl. 3: Faciálni model spodnjekarnijskih koralnih krpastih (patch) grebenov in diplopornih apnencev v s. Julijskih Alpah.

- a. Koralni krpasti grebeni z raznimi fosilnimi združbami.
- b. Bioklastični apneneci med koralnimi grebeni in diplopornim apnencem.
- c. Diploporni apnenec.

Po: RAMOVŠ & TURNŠEK, 1984.

found; in the middle, i.e. Julian part, *Myriophyllum*, *Koilocoenia*, and *Margarosmia* prevail, in the Tuvanian *Coryphyllia*, *Craspedophyllia*, and new species of *Pokljukosmia*, *Rhopalodendron*, and *Protoheterastraea* are the most abundant (BUSER, 1986; TURNŠEK & BUSER, 1989). The differences of colony forms are shown in Fig. 6.

c – In the Kamnik Alps, Carnian reef limestones are very rare. Individual coral species were found under the Krvavec mountain, on the saddle Kamniško sedlo, and on the Menina planina. The coral community as well as facies type are identical with those in the Julian Alps and thus indicate the same depositional environment (BUSER et al., 1981, RAMOVŠ & ŠRIBAR, 1993).

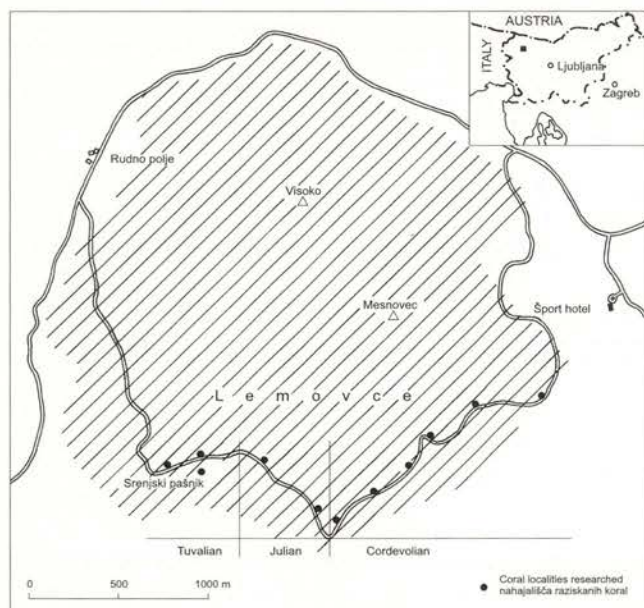


Fig. 4: Location map of the Carnian reef complex on the Pokljuka plateau. Reef fossils studied from the section along the road between the Šport Hotel (Cordevolian), Lemovce (Julian) and Srenjski pašnik (Tuvalian).

After BUSER in: TURNŠEK & BUSER, 1989.

Sl. 4: Lokacijska karta karnijskega grebenskega kompleksa na Pokljuki. Grebensi fosili so raziskani iz profila ob cesti: hotel Šport (cordevol), Lemovce (jul) in Srenjski pašnik (tuval).

Po BUSERJU v: TURNŠEK & BUSER, 1989.

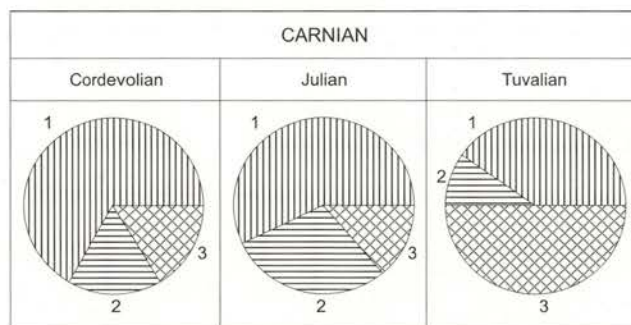


Fig. 6: Diagrams showing changes of fossil forms throughout the Carnian in the Pokljuka reef section: branching forms prevail in the Cordevolian, massive forms prevail in the Tuvalian.

1. Branching forms of fossils.

2. Solitary corals.

3. Massive forms of fossils.

After: TURNŠEK & BUSER, 1989.

Sl. 6: Spremembe fosilnih oblik skozi karnij v grebenskem kompleksu na Pokljuki; v cordevolu močno prevladujejo vejnate oblike, v tuvalu pa masivne.

1. Vejnate oblike fosilov.

2. Solitarne korale.

3. Masivne oblike fosilov.

Po: TURNŠEK & BUSER, 1989.

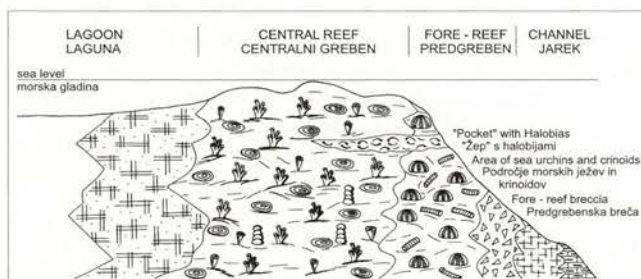


Fig. 5: Schematic facies zonation of a Carnian reef complex on the Pokljuka plateau.

- Lagoon: dolomite.
- Central reef: limestone with reef fossils (corals, stromatoporoids, chaetetids, and others).
- Fore-reef: limestone with sea urchins and crinoids, and fore-reef breccia; in some places "pockets" with halobias, which interfinger with central reef.
- Intraplatform channel: micritic limestone with cherts and thin-bedded limestone with conodonts.

After BUSER in: TURNŠEK & BUSER, 1989.

Sl. 5: Shematski facijalni prikaz conacije v karnijskem grebenskem kompleksu na Pokljuki

- Laguna: dolomit.
- Centralni greben: apnenec z grebenskimi fosili (korale, stromatoporoidi, hetetide in drugo).
- Predgreben: apnenec z morskimi ježki in krinoidi ter predgrebenska breča; mestoma se pojavljajo "žepki" s halobijami, ki se zajedajo v centralni greben.
- Intraplatformni kanal: mikritni apnenec z roženci in ploščasti apnenec s konodonti.

Po BUSERJU v: TURNŠEK & BUSER, 1989.

Slovenian Basin

Carnian corals and coral (coral-sponge) buildups were also found in the Slovenian Basin, namely in the Bača Valley and in the surroundings of Cerklje. They occur as smaller or larger circular-shaped and lenticular bodies within the Pseudozilian (i.e. Pseudogailtal) Formation sensu ČAR et al. (1981) or within the Amphiclinia beds sensu BUSER (in TURNŠEK et al., 1982). These bodies are 10 to 150 m thick and are laterally traceable in narrow belts extending from Novaki and the Blegoš mountain through Leskovica, Zakriž, Jesenica, Zakojca and Hudajžna to Perbla near Tolmin. Corals found at Celje, Tihoboj, and Dole near Litija are thought to be of late Ladinian to Cordevolian age. Similar faunal assemblages but a different paleogeographic situation

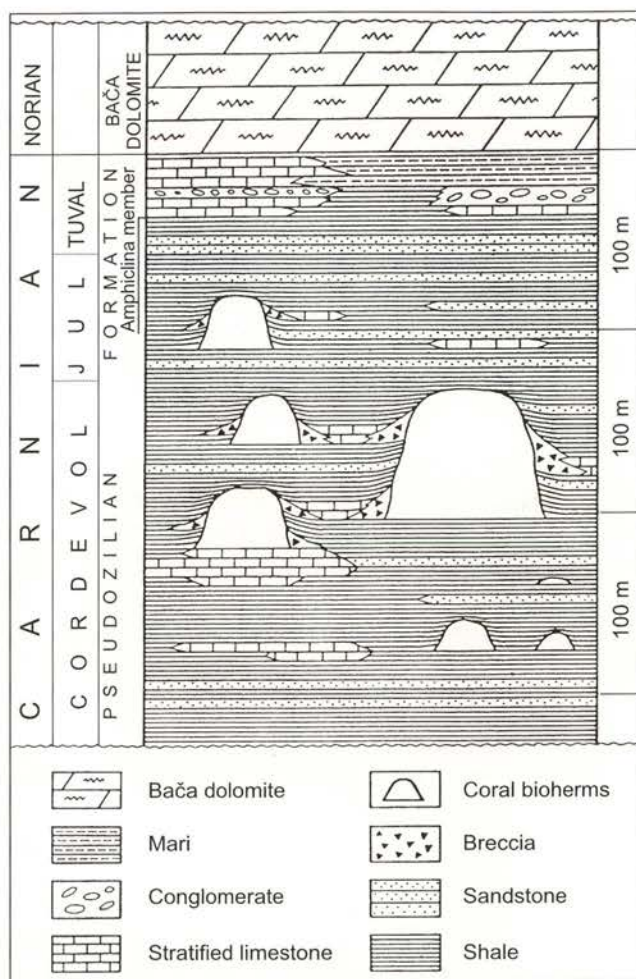


Fig. 7: Stratigraphical column showing the regional time-stratigraphic framework and the intervals of biohermal development at Jesenica and its surroundings.

From: ČAR et al., 1981.

Used with permission of SEPM (Society for Sedimentary Geology formerly known as Society of Economic Paleontologists and Mineralogists).

Sl. 7: Stratigrafski stolpec z regionalno stratigrafsko zaporednostjo in intervali biohermalnih razvojev v Jesenici in okolici.

po: ČAR et al., 1981. Z dovoljenjem SEPM.

characterize coral localities in surroundings of Mežica. Systematic research of corals was carried out at

- Jesenica,
- Hudajužna and Zakriž, and
- Perbla.

a – Coral buildups at Jesenica are interpreted as quiet-water bioherms within the Pseudozilian Formation, and assigned to middle Cordevolian to latest Julian (Fig. 7). Faunal composition reveals a predominance of sponges over corals in the lower part of all these buildups. Coral genera are: *Margarosmia*, *Margarophyllia*, *Myriophyllum* and *Volzeia* (ČAR et al., 1981).

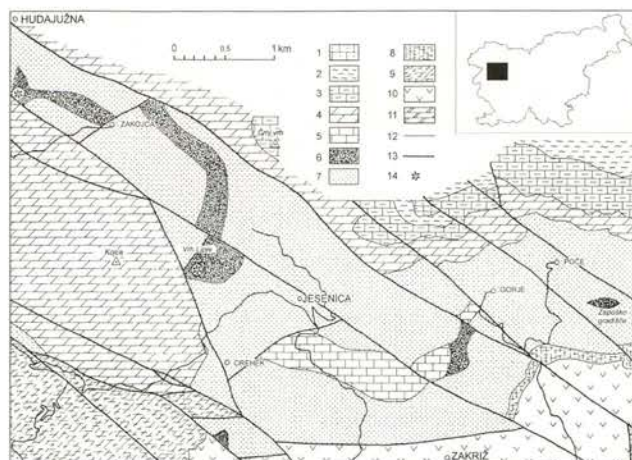


Fig. 8: Geological map of the area between Hudajužna and Zakriž

1. Light gray thin-bedded limestone of the Biancone type; Upper Malm-Berriasian.
2. Shale in alternation with chert; Dogger and Lower Malm.
3. Bedded limestone; Lias.
4. Bedded Bača dolomite with chert; Norian-Rhaetian.
5. Bedded micritic limestone; upper part of the Amphiclina beds, Carnian (Tuvalian).
6. Reef limestone in the Amphiclina beds; Carnian (Julian).
7. Alternation of shale and sandstone; Amphiclina beds; Carnian (middle and upper Julian-lower Tuvalian).
8. Drnovo massive limestone; Carnian (Cordevolian).
9. Massive dolomite; Carnian (Cordevolian).
10. Alternation of shale, graywacke and tuff, with keratophyre and diabase extrusions; Ladinian (Langobardian).
11. Bedded dolomite; Anisian.
12. Stratigraphical boundary.
13. Fault.
14. Localities of detailed paleontological and sedimentological investigations.

(After BUSER in: TURNŠEK et al., 1982).

(After BUSER in: TURNŠEK et al., 1982).

Sl. 8: Geološka karta ozemlja med Hudajužno in Zakrižem

1. Svetlo sivi ploščasti apnenec tipa biancone; zgornji malm - berriasij.
 2. Skrilavec v menjavi z rožencem; dogger - spodnji malm.
 3. Plastnati apnenec; lias.
 4. Plastnati baški dolomit z roženci; norij-retij.
 5. Plastnati mikritni apnenec - zgornji del amfiklinskih plasti; karnij (tuval).
 6. Grebenski apnenec v amfiklinskih plasteh; karnij (jul).
 7. Menjavanje skrilavega glinovca in peščenjaka - amfiklinske plasti; karnij (zgornji jul - spodnji tuval).
 8. Drnovski masivni apnenec; karnij (cordevol).
 9. Masivni dolomit; karnij (cordevol).
 10. Menjavanje skrilavega glinovca, drobe in tufa s preboji keratofirja in diabaza; ladinij (langobard).
 11. Plastnati dolomit; anizij.
 12. Stratigrafska meja.
 13. Prelom.
 14. Mesta detajlnih paleontoloških in sedimentoloških raziskav.
- Po BUSERJU v: TURNŠEK et al., 1982.

b – Buildups at Hudajužna and Zakriž (Figs. 8, 9) are interstratified in the Amphyclina beds. Their late Cordevolian to Julian age is determined on the basis of the stratigraphic position, as the overlying deposits contain Tuvalian conodonts (BUSER & KRIVIC, 1979; TURNŠEK et al., 1982). Twenty-two species of sponges have been described (SENOWBARY-DARYAN, 1981). In the

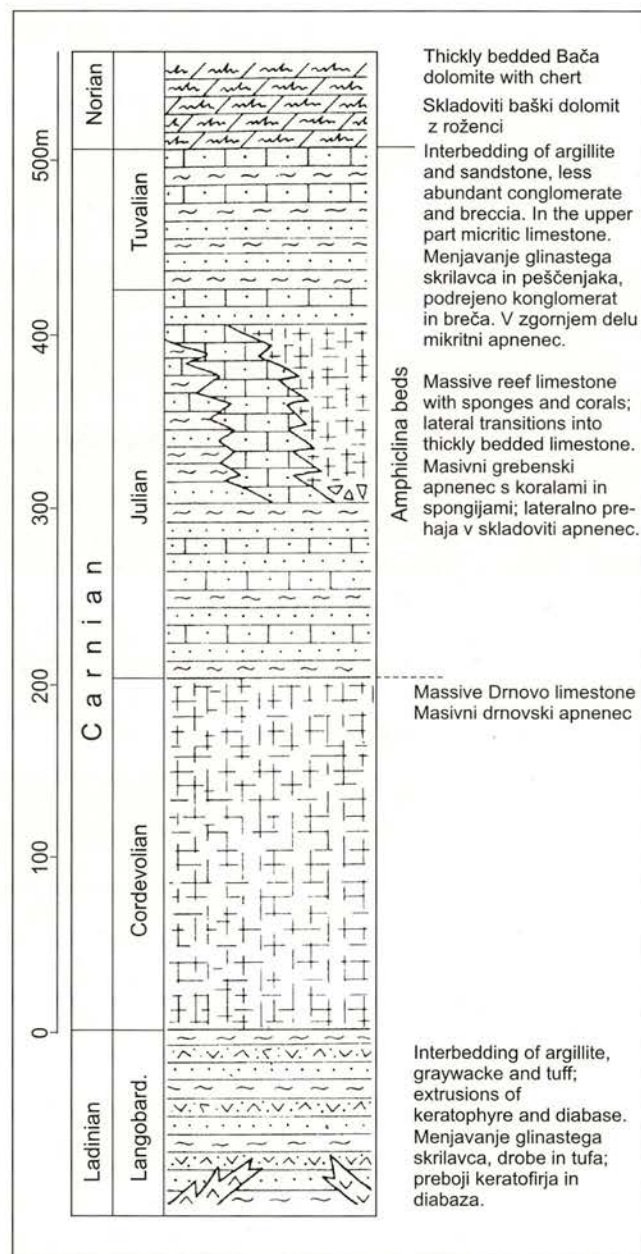


Fig. 9: Stratigraphical column of the Amphiclina beds with reef mounds at Hudajužna and Zakriž.

After BUSER in: TURNŠEK et al., 1982.

Sl. 9: Stratigrafski stolpec amfiklinskih plasti z grebenškimi kopami (reef mounds) v Hudajužni in Zakrižu.

Po BUSERJU v: TURNŠEK et al., 1982.

upper part corals prevail. Solitary corals are represented by *Margarophyllia* and *Omphalophyllia*, ramose corals by *Margarosmia*, *Volzeia* and *Protoheterastraea*. The only massive colony is *Andrazella*. Solenoporacean algae, foraminifers and microorganisms are associated and also contribute to the reef mass. The fossil content is typical of the Cordevolian and Julian but does not allow a more detailed age assignment.

Based on sedimentological studies, these buildups are interpreted as deep-water reef-mounds (bafflestone-boundstone bioherms) with steep slopes. Each mound is composed of a core, breccia, and micrite intercalations. Their growth began when the first skeletal organisms colonized a suitable substratum in a deeper marine environment. The overgrowing organisms acted as trappers and stabilizers of the carbonate mud. Micrite is a product of in-situ micritisation of sponge skeletons. The different size of reef mounds is a consequence of the different stage when their growth was interrupted by terrigenous input (OGORELEC, In: TURNŠEK et al., 1982, 1984; compare also REITNER et al., 1995).

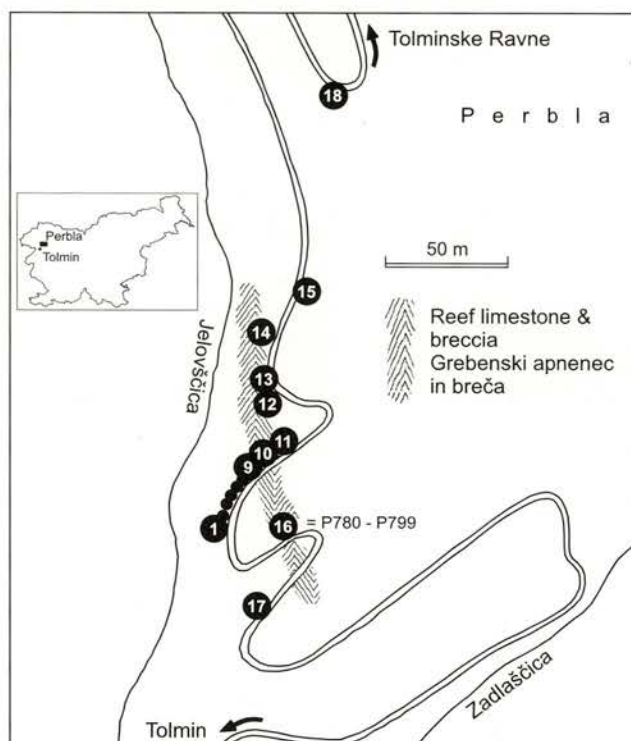


Fig 10: Position of reef limestone and breccia in the Carnian succession at Perbla (numbers of samples in the section are the same as in the column in Fig. 11).

After: TURNŠEK et al., 1987.

Sl. 10: Položaj grebenškega apnenca in breče v karnijskih plasteh pri Perbli (številke vzorcev v profilu so iste kot v stratigrafskem stolpcu na sl.11).

Po: TURNŠEK et al., 1987.

c – Reef limestone at Perbla lies in the middle part of an Upper Carnian carbonate-clastic succession (Fig. 10). The bedrock consists of biomicrite, biocalcarenite and calcirudite that accumulated in a relatively deep-water environment. This rock unit is overlain by an alternation of shale, breccia and limestone with chert. The entire succession is lithologically similar to the upper part of the *Amphiclina* Beds (i.e. upper member of the Pseudozilian Formation) and contains Tuvalian conodonts; these rocks are conformably overlain by the Bača Dolomite of Norian age (Fig. 11) (FLÜGEL & RAMOVŠ, 1970; BUSER & KRIVIC, 1979). The reef community is also somewhat different from that of Hudajužna: Cordevolian-Tuvalian *Astreomorpha*, *Margarophyllia*, *Margarosmia*, and *Volzeia* are associated with Late Carnian and Early Norian *Pamiroseris*, *Retiophyllia*, *Atrochaetetes*, *Pamirochaetetes* and other genera (TURNŠEK et al., 1987).

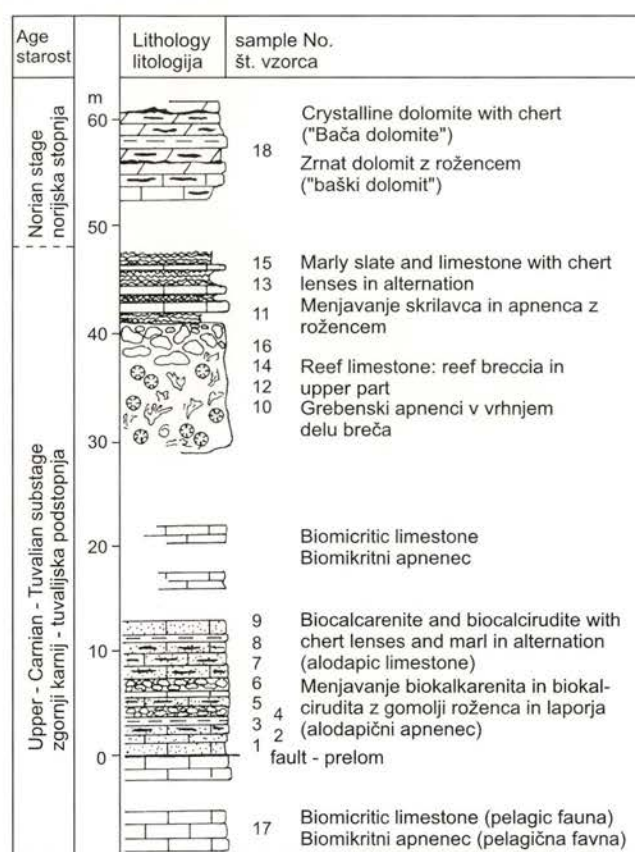


Fig. 11: Schematic lithological column of the studied Carnian beds at Perbla (numbers of samples are the same as in the section shown in Fig. 10).

After: TURNŠEK et al., 1987.

Sl. 11: Shematski litološki stolpec raziskanih karnijskih plasti pri Perbli (številke vzorcev so iste kot v profilu na sl. 10).

Po: TURNŠEK et al., 1987.

A sponge-coral reef limestone was also found eastwards, near the castle of Celje, where it occurs within the Pseudozilian Formation. It is capped by a tuffaceous layer containing *Daonella lomelli* and therefore assigned to the Late Ladinian (BUSER et al., 1982; JURKOVŠEK, 1984). Corals of the same age or somewhat younger (Ladinian-Cordevolian) occur, in addition, at Dole near Litija. The following coral genera were found: *Margarophyllia*, *Margarosmia*, *Myriophyllum*, *Omphalophyllia* and *Volzeia*. Sedimentologically, these outcrops have not been studied in detail.

The stratigraphic correlation of reefs which formed in the Slovenian Basin and are now exposed between Celje and Perbla reveals that the reefs become progressively younger westwards. They range from the Late Ladinian in the east to the Tuvalian in the west. We suppose that the reefs may have followed a marine transgression from east to west or that the opening of the basin progressed in this direction (see Fig. 19).

Similar deeper-water reef-mounds were described from the Dolomites (FOIS & GAETANI, 1980; NEUWEILER & REITNER, 1995; WENDT & FÜRSICH, 1979), a few are known from the Northern Calcareous Alps (FLÜGEL, 1982). At Tagernsee reef-mounds continue into the Rhaetian and even into the Liassic (EHSES & LEINFELDER, 1988). Ladinian mud-mounds with reefal caps are known from Spain (CALVET & TUCKER, 1995).

Some recent deeper-water coral reefs are known, as for example in the Red Sea (FRICKE & HOTTINGER, 1983) and in Bermuda (FRICKE & MEISCHNER, 1985) but their nature is not satisfactorily elucidated.

NORIAN-RHAETIAN

Norian-Rhaetian corals and coral reefs in Slovenia are restricted to the Julian Carbonate Platform. They occur in the

- northern Julian Alps,
- southern Julian Alps, and
- Begunjsčica in the Karavanke range.

a – The northern Julian Alps comprise two stratigraphically different reef complexes. The oldest, early Norian reef occurs on the Planja and Razor mountains. This reef complex is up to 150 m thick. Coral genera are *Cyclophyllia*, *Pokljukosmia*, *Protoheterastraea*, and *Rhopalodendron*, three of them are also known from the Tuvalian of Perbla and the Pokljuka Plateau. The rock is the Dachstein Limestone that is well bedded in its lower part and characterized by reefs in the upper part. The Dachstein Limestone directly overlies the uppermost thin-bedded limestone of Hallstatt facies,

i. e. the upper Tuvanian *Anatropites* level. The reef limestone is thus assigned to the Early Norian. In addition to corals, this age is confirmed by halobiid bivalves which were found in lenticular intercalations and in bedded limestone which occurs laterally (*Halobia* ex gr. *lenticularis* determined by JURKOVŠEK, in: RAMOVŠ & TURNŠEK, 1991) (Figs. 12, 13).

Coral reefs from the localities Tominškova pot, Rušnata Mlinarica and Kot (Fig. 14) are of approximately the same age. These coral reefs overlie upper Carnian thin-bedded micritic limestone with conodonts and are 250 to 300 m thick. The most abundant corals are the solitary forms *Cuifia*, *Procycolites*, *Craspedophyllia*, *Distichophyllia*, and branching *Retiophyllia* and *Tropidendron*. Stromatoporoids and sponges co-occur (TURNŠEK & RAMOVŠ, 1987). The reef limestone is overlain by upper Norian to Rhaetian bedded Dachstein Limestone.

The second complex is more widely extended and spans the entire Norian-Rhaetian period. It is exposed on the Dovški Križ, Šplevta and Kopica mountains (Fig. 15), and is up to 1000 m thick. The beginning of reef development is synchronous with that of the previously described reef complex but here the reef growth continued until the end of the Triassic. The most abundant corals are the branching forms *Gillastraea*, *Retiophyllia*,

Elysastraea, and *Parathecospilia*, and massive *Astraeomorpha* and *Toechastraea*. Other reef-building organisms are represented by stromatoporoids and sponges, associated with foraminifers and algae (TURNŠEK & RAMOVŠ, 1987).

b – In the southern Julian Alps, coral reefs were found near Bohinj, on the Kobla mountain and on Rdeči Rob (TURNŠEK & BUSER, 1991) (Fig. 16).

In the surroundings of Bohinj they reach the largest lateral extension and form a continuous belt which is 5 km long and some hundred meters wide. Corals were collected at the localities Babna gora, Boltarje, Drenova gora, Gradišče, and Bitnje (Fig. 17). These reefs are comprised within the Dachstein Limestone of grey to light grey colour. The rock is classified as biolithite, as reef

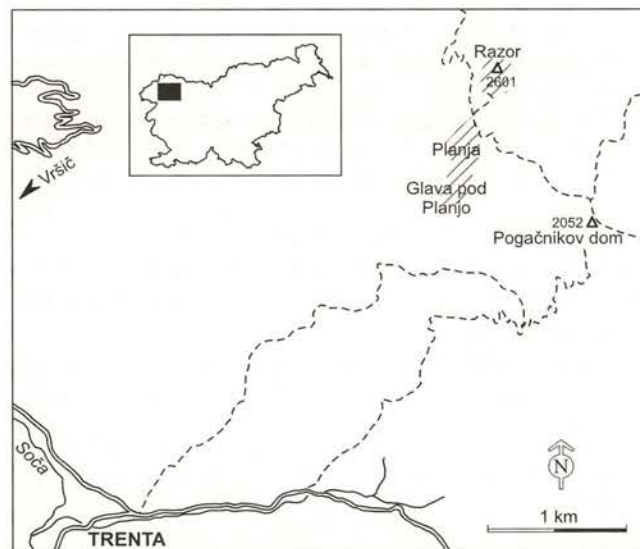


Fig. 12: Situation sketch map of the studied Lower Norian limestone on the mountains Razor and Planja.

After: RAMOVŠ & TURNŠEK 1991.

Sl. 12: Položajna skica raziskanega spodnjeno-rijskega grebenskega apnenca na Razorju in Planji.

Po: RAMOVŠ & TURNŠEK 1991.

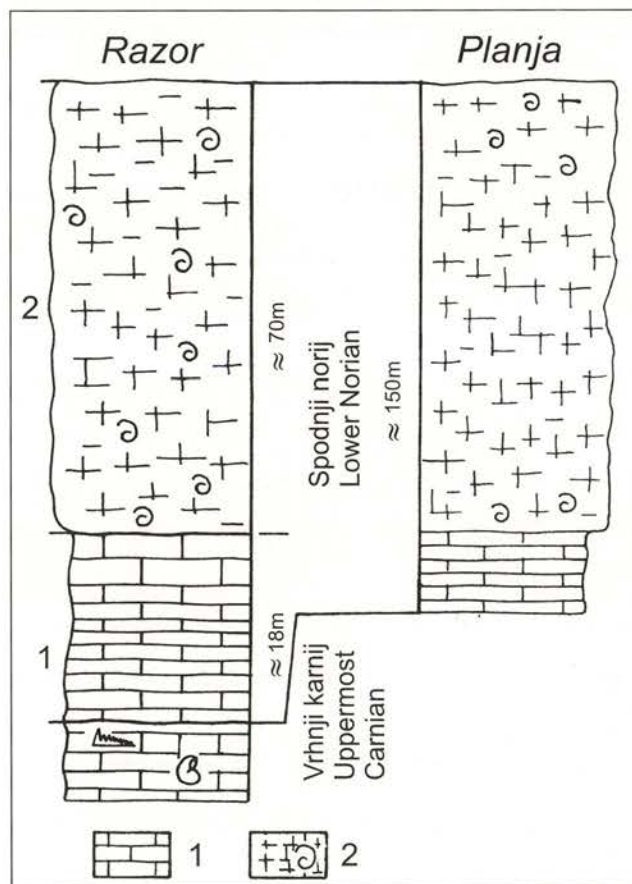


Fig. 13: Stratigraphical column of the Lower Norian Dachstein limestone on the mountains Razor and Planja.

1. Bedded limestone directly overlying the uppermost Tuvanian.
2. Reef limestone.

After: RAMOVŠ & TURNŠEK, 1991.

Sl. 13: Stratigrafska lestvica dachsteinskega spodnjeno-rijskega apnenca na Razorju in Planji.

1. Skladnati apnenec, leži direktno na vrhnjem tuvalu.

2. Grebenški apnenec.

Po: RAMOVŠ & TURNŠEK, 1991.

organisms account for more than half of the total rock volume. The reef limestone is 250 to 300 m thick and is overlain by crinoidal limestone of the Hierlatz facies. The stratigraphic position indicates that the reef limestone was deposited in the Rhaetian and maybe also in the late Norian. The fossil assemblage is diverse: the solitary corals *Distichophyllia* and *Stylophyllum* as well as branching *Alpinoseris* and *Retiophyllia* are common whereas massive forms are absent. Stromatoporoids and sponges, among them the stratigraphically important late Norian-Rhaetian sponge *Cheilosporites tirolensis*, are also present; subordinate reef dwellers are foraminifers and microproblematica.

Remnants of reef buildups on Rdeči Rob in the Krn mountain are only a few tens of meters large. The lithology and stratigraphic position are the same as at Bohinj but the coral assemblage is significantly different.

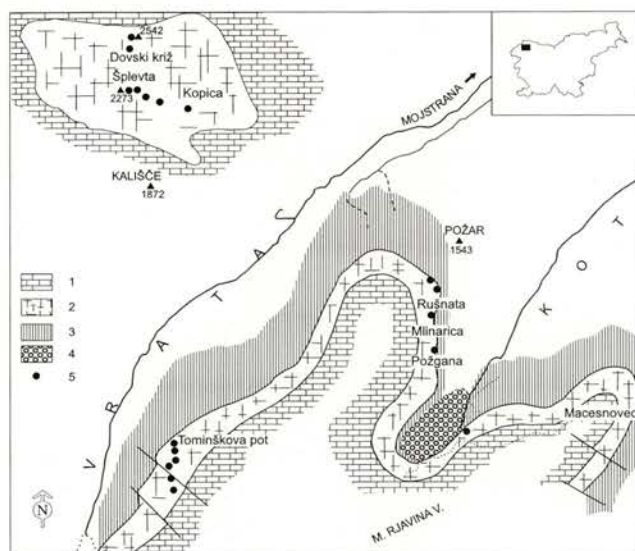


Fig. 14: Distribution of the Norian-Rhaetian reef limestones in the northern Julian Alps.

1. Bedded Dachstein limestone.
2. Reef Dachstein limestone (compare with stratigraphical column in Fig. 15).
3. Upper Carnian and lowermost Norian thin-bedded micritic limestone.
4. Pleistocene and Holocene.
5. Localities of Norian and Rhaetian reef fossils.

After RAMOVŠ in: TURNŠEK & RAMOVŠ, 1987.

Sl. 14: Razširjenost norijsko-retijskih grebenskih apnencev v severnih Julijskih Alpah.

1. Skladnati dachsteinski apnenec.
2. Grebenški dachsteinski apnenec (primerjaj s stratigrafskim stolpcem na sl. 15).
3. Zgornjekarnijski in najnižji norijski ploščasti mikritni apnenec.
4. Pleistocen in holocen.
5. Nahajališča norijskih in retijskih grebenskih fosilov.

Po RAMOVŠU v: TURNŠEK & RAMOVŠ, 1987.

The massive forms *Astraeomorpha*, *Crassistella*, *Gablonzeria*, and *Cuifastraea* prevail, the branching forms *Cyclophyllia*, *Parathecospilia*, and *Retiophyllia* are less abundant, solitary corals are missing. The stratigraphic position of reef limestone on the Kobla mountain is similar. Only one solitary coral of *Distichophyllia* was identified.

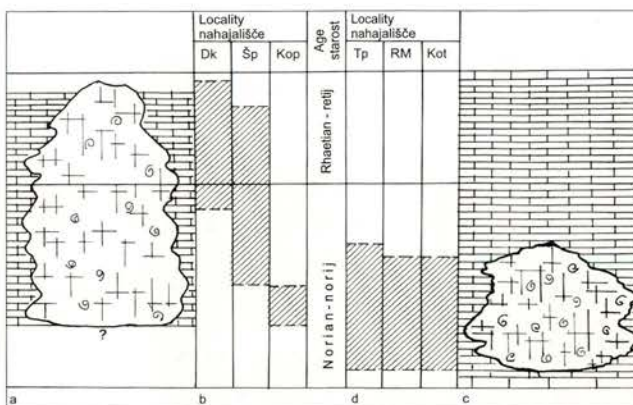


Fig. 15: Schematic cross-section of the Norian-Rhaetian reef buildups and the stratigraphical position of reefbuilding fossils from the northern Julian Alps:

- a. Position of the reef complex Dovški križ - Šplevta - Kopice. The reef reaches to the uppermost Rhaetian. Laterally bedded Dachstein limestone occurs.
- b. Norian-Rhaetian stratigraphical position of reef building fossils from the same localities: Dk = Dovški križ, Šp = Šplevta, Kop = Kopice. On the basis of the fossils the reef complex was stratigraphically subdivided.
- c. Position of the reef complex Tominškova pot - Rušnata Mlinarica - Kot. Reef limestone is covered with a thick stack of bedded Dachstein limestone.
- d. Norian stratigraphical position of reef building fossils from the same localities: Tp = Tominškova pot, RM = Rušnata Mlinarica, Kot = Kot. The age of the fossils fits the field position of the beds.

After RAMOVŠ in: TURNŠEK & RAMOVŠ, 1987.

Sl. 15: Shematski prikaz norijsko-retijskih grebenskih tvorbov in stratigrafski položaj grebenotvornih fosilov v severnih Julijskih Alpah:

- a. Položaj grebenskega kompleksa Dovški križ - Šplevta - Kopice. Greben sega do vrha retija, lateralno so skladnati dachsteinski apneneci.
- b. Norijsko-retijski stratigrafski položaj grebenotvornih fosilov iz istih nahajališč: Dk = Dovški križ, Šp = Šplevta, Kop = Kopice. S pomočjo fosilov je grebenški kompleks podrobneje razčlenjen.
- c. Položaj grebenskega kompleksa Tominškova pot - Rušnata Mlinarica - Kot. Grebenški apnenec je prekrit z debelo skladovnico skladnatega dachsteinskega apnenca.
- d. Norijski stratigrafski položaj grebenotvornih fosilov iz istih nahajališč: Tp = Tominškova pot, RM = Rušnata Mlinarica, Kot = Kot. Starost fosilov se ujema s položajem na terenu.

Po RAMOVŠU v: TURNŠEK & RAMOVŠ, 1987.

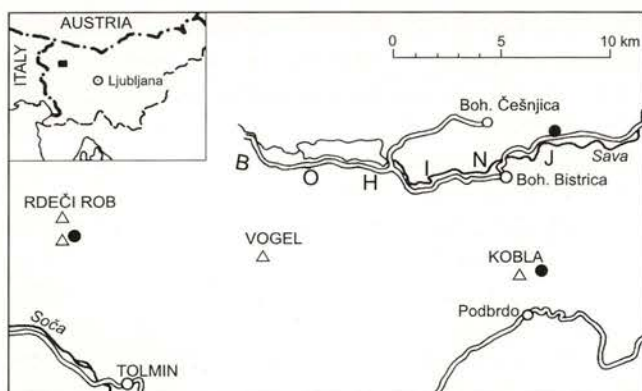


Fig. 16: Location sketch map of the studied upper Norian-Rhaetian coral localities in the southern Julian Alps (Bohinj, Rdeči rob, Kobla).

After BUSER in: TURNŠEK & BUSER, 1991.

Sl. 16: Položajna skica raziskanih zgornje norijsko-retijskih koralnih nahajališč v južnih Julijskih Alpah (Bohinj, Rdeči rob, Kobla).

Po BUSERJU v: TURNŠEK & BUSER, 1991.

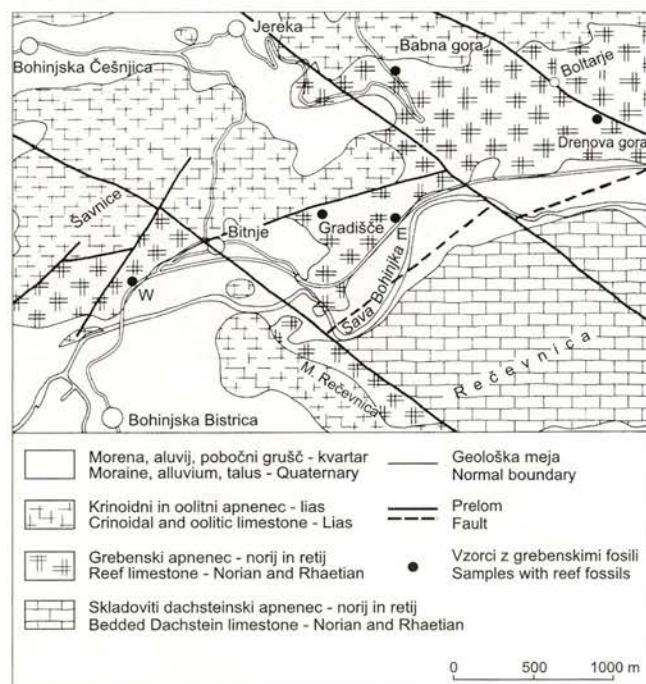


Fig. 17: Detailed geological map with the position of the upper Norian-Rhaetian reef limestone and reef fossil localities in the Bohinj area.

After BUSER in: TURNŠEK & BUSER, 1991.

Sl. 17: Detajlna geološka karta s položajem zgornjenorijsko-retijskega grebenskega apnenca in grebenskih fosilov na področju Bohinja.

Po BUSERJU v: TURNŠEK & BUSER, 1991.

c – Reef limestone on the Begunjščica mountain contains species of the following genera: *Astraeomorpha*, *Cuifia*, *Cyclophyllia*, *Distichophyllia*, *Palaeastraea*, and *Retiophyllia* but this reef has not been entirely studied yet (BUSER et al., 1982; FLÜGEL & RAMOVŠ, 1961).

Distribution of Triassic species from Slovenian localities in Europe: Dolomites and Lombardy in Italy (VOLZ, 1896; MONTANARO GALLITELLI et al., 1973; STOPPANI, 1862-65); Carnian Alps (DULLO & LEIN, 1982); Bavarian Alps (WÖHRMANN, 1889); Northern Calcareous Alps in Austria (FRECH, 1890; SCHÄFER & SENOWBARI-DARYAN, 1978; SCHÄFER, 1979; SENOWBARI-DARYAN, 1980; DULLO, 1980); Western Carpathians (KOLOSVÁRY 1966b; 1967b; RONEWICZ, 1974); Bakony, Bükk and Mecsek in Hungary (KOLOSVÁRY, 1966a); Brasov in Romania (KÜHN, 1935); Taurus in Turkey (CUİF, 1976); Hydra in Greece (TURNŠEK & SENOWBARI-DARYAN, 1994). Outside Europe these corals species are known from the following regions: Oman (BERNECKER, 1996); Iran (KRISTANN-TOLLMANN et al., 1980); Pamir (MELNIKOVA, 1975; 1983); China (DENG & ZHANG, 1985; LIAO & XIA, 1993); Japan (OKUDA & YAMAGIWA, 1978); Timor (VINASSA DE REGNY, 1915); and almost entire western part of Northern and Southern America (STANLEY, 1979, 1986, 1993; STANLEY & WHALEN, 1989; STANLEY et al., 1994; MONTANARO GALLITELLI et al., 1979) (Fig. 18). A list of all Triassic corals of the Tethys was compiled by RIEDEL (1991).

EVOLUTION OF THE TRIASSIC REEFS

During most of the Anisian the entire territory of Slovenia was characterized by a uniform carbonate platform. The Idrija Tectonic Phase (PLACER & ČAR, 1977), which started at the end of the Anisian and was amplified in the Ladinian, was manifested by faulting with considerable vertical movements, and by strong volcanic activity. The Ladinian was the most tectonically active Triassic stage in this area.

The central part of Slovenia subsided; an intra-platform deeper trough, the Slovenian Basin, divided the former platform into the Julian Carbonate Platform in the north and the Dinaric Carbonate Platform in the south (BUSER et al., 1982; TURNŠEK et al., 1984; BUSER, 1989, 1996). Subsequent changes in paleogeography were responsible for enhanced water circulation and therefore better ventilation, changes in water chemistry, temperature, availability of nutrients, and sea level. All these factors stimulated colonization and growth of reef organisms (see FAGERSTROM, 1987, 1988; KAUFFMAN & FAGERSTROM, 1993) and resulted in the mass appearance of coral and sponge-coral reefs in the Carnian. Polyps

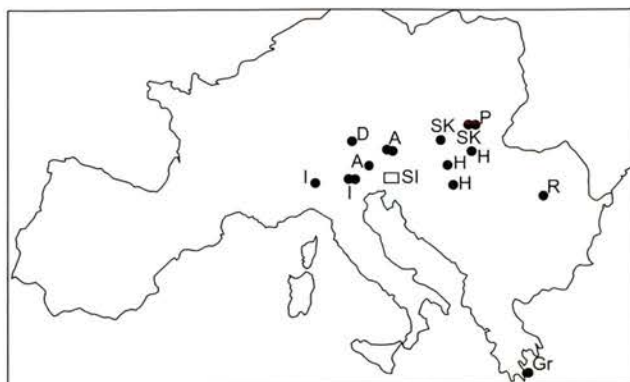


Fig. 18: Distribution of the Triassic coral species from Slovenia in other localities in Europe.

I = Italia, A = Austria, D = Germany, Sk, Pl = Slovakia and Poland, H = Hungary, R = Romania, Gr = Greece.

Sl. 18: Razširjenost triasnih koral iz Slovenije v drugih nahajališčih v Evropi.

I = Italija, A = Avstrija, D = Nemčija, Sk, Pl = Slovaška in Poljska, H = Madžarska, R = Romunija, Gr = Grčija.

began to colonize the margins of the newly established platforms. Because of favourable living conditions they began to secrete calcareous skeletons. They formed colonies and built reefs. The first symbiont-bearing corals probably evolved at that time (STANLEY, 1988; VERON, 1995, 1996; HALLOCK, 1996).

On the Julian Carbonate Platform reefs flourished through the whole Late Triassic period from the beginning of the Carnian to the end of the Rhaetian. Some of them were successful for a longer, others for a shorter time. The duration of reef development at the localities studied is shown in Fig. 19. During the whole Late Triassic corals were dominant reef-building organisms; sponges, stromatoporoids and microproblematica occur as accessory components and binders. A part of the Julian Carbonate Platform was drowned by the end of the Triassic as evidenced by pelagic Hierlatz facies overlying the reef limestone at Bohinj (BUSER in TURNŠEK & BUSER, 1991). The platform drowning was probably related to

		Slovenian Basin Slovenski bazen				?	Julian Carbonate Platform Julijska karbonatna platforma								
		Celje Dole	Jesenica Novaki Leskovica Blegoš	Hudajuzna Zakriž Zakojca	Perbla	Mežica	Črna gora Debela peč Frčkov vrh Krnica Mojstrana Radovna Vitranč Sred. gora Mežakla Rjivice	Kamniške Alpe, Kamniško sedlo, Menina planina	Pokljuka Šport Hotel Lemovec Stenjski pašnik	Begunjsčica Jelovica	Planja Razor	Tominško- va pot, Rušnata mlinarica, Kot	Dovski križ, Splevta Kopice	Bohinj Kobla Rdeči rob	
Rhaetian retij															
Norian norij															
Carnian / karnij	Tuvalian tuval														
	Julian jul														
	Cordevolian cordevol														
Ladinian ladinj															
		*Buser et al. 1982; Turnšek et al. 1984;	Čar et al. 1981; *Buser et al. 1982;	Turnšek et al. 1982	Turnšek et al. 1987	*Buser et al. 1982; *Turnšek et al. 1984	Ramovš & Turnšek 1984	*Turnšek et al 1984; Ramovš & Sribar 1993	Turnšek & Buser 1989	*Buser et al. 1982	Ramovš & Turnšek 1991	Turnšek & Ramovš 1987	Turnšek & Ramovš 1987	Turnšek & Buser 1992	

Fig 19: Stratigraphical correlation of the Triassic coral localities in different paleogeographical units in Slovenia.

- In literature marked with asterisk only preliminary determinations of corals were made, localities have not been studied in detail.
- Coral reef communities in the Tuvalian of Perbla and Pokljuka are very similar to those in the Lower Norian of Planja and Razor. In both the Carnian and the Norian faunistic elements are mixed.

Sl. 19: Stratigrafska primerjava triasnih koralnih nahajališč v različnih paleogeografskih enotah v Sloveniji.

- Literatura označena z zvezdico vsebuje le preliminarne determinacije koral, nahajališča niso v celoti raziskana.
- Koralna grebenska združba v tuvalu Perble in Pokljuke je zelo podobna spodnjenorijski v Planji in Razorju. V obeh se mešajo karnijski in norijski fosilni elementi.

rapid subsidence and not to a gradual sea-level rise because the facies change is distinct and abrupt. Facies and faunal changes were, in addition, a consequence of global paleoenvironmental changes near the Triassic/Jurassic boundary. A mass extinction of reef organisms is known from this time (review in STANLEY, 1993) and is also confirmed by the synchronous disappearance of Triassic reefs in the Northern Calcareous Alps (FLÜGEL, 1981 1982). FLÜGEL (1994) suggests that Triassic reefs became extinct due to climatic and sea-level changes.

The development of Triassic reefs in the Slovenian Basin was somewhat different. Coral reef-mounds, probably without zooxanthellate forms, developed in relatively deeper-water environments since the late Ladinian but were successful only until the end of the Carnian. In an initial stage sponges inhabited slight elevations on the sea floor. In the next stage corals began to grow on stabilized sponge-mounds. Reef development was, to a great degree, controlled by sea-level fluctuations. Maximum productivity of reefs was presumably attained during the early highstand (cf. LEINFELDER, 1993; KRAUTER et al. in LEINFELDER et al., 1994), when allochthonous clastic sedimentation was significantly reduced. These favourable conditions persisted to the end of the Carnian when the input of terrigenous material and change of water chemistry must have been important enough to kill the reefs. Younger, Norian and Rhaetian, deposits of the Slovenian Basin are a thick unit of bedded dolomite with chert (the Bača Dolomite). The environmental conditions must have been completely different from those in the Carnian, and seem to have prevented further reef-mound growth.

In summary, paleogeographic changes induced by tectonic activity enabled the initiation of reef development in the latest Ladinian and Carnian. The extinction of reefs was caused by increased clastic influx in the Slovenian Basin at the end of the Carnian and by drowning of the Julian Carbonate Platform in the latest Triassic or earliest Liassic. It was further related to global environmental changes which caused the demise of most Tethyan reefs near the Triassic/Jurassic boundary.

The question why world-wide no corals of Early Triassic and early Middle Triassic age have been recorded still remains open. The most plausible explanation is that because of unfavourable conditions only soft corals existed locally but are not preserved in fossil material. Otherwise, their great diversity at the beginning of reef growth in the Carnian could be difficult to understand. It is in accordance with the statement of OLIVER (1996) »that many groups of zoantharian corals originated through the development of various anemone groups at several different times«.

JURASSIC

LATERAL DISTRIBUTION AND STRATIGRAPHY

Jurassic corals were restricted to the Dinaric Carbonate Platform. The northern and northeastern parts of the platform were characterized by barrier reefs composed of corals, stromatoporoids and other fossils, whereas in the interior of the platform patch reefs developed.

The entire Jurassic reef complex in Slovenia is exceptionally large and faunistically very rich. It is comparable to the richest coral reefs in the world. This reef complex is now exposed in a 15 to 20 km wide belt which extends from the Soča Valley through central Slovenia to Metlika in Bela Krajina, and continues further south-east. In Slovenia it is approximately 200 km long. The thickness of the reef is estimated to be approximately 200 m (BUSER, 1965, 1978).

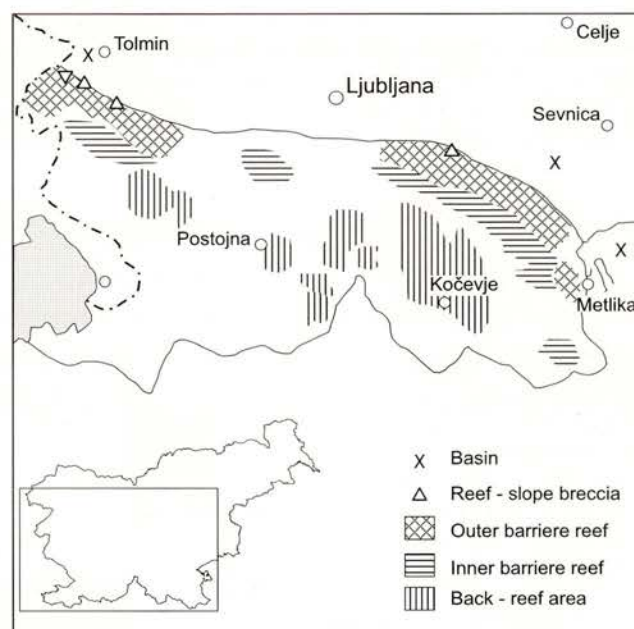


Fig 20: Index map showing the location and extent of the Upper Jurassic reef complex exposed in Slovenia. It is divided into several paleoecologic units: outer barrier reef, inner barrier reef, back reef, slope, and basin.

After: TURNŠEK et al. 1981.

Used with permission of SEPM (Society for Sedimentary Geology formerly known as Society of Economic Paleontologists and Mineralogists).

Sl. 20: Položaj in razširjenost zgornjejurskega koralnega grebenskega kompleksa v Sloveniji. Razdeljen je na več paleoekoloških enot: zunanji barierni greben, notranji barierni greben, zagreben, pobočje in bazen.

Po: TURNŠEK et al., 1981, z dovoljenjem SEPM.

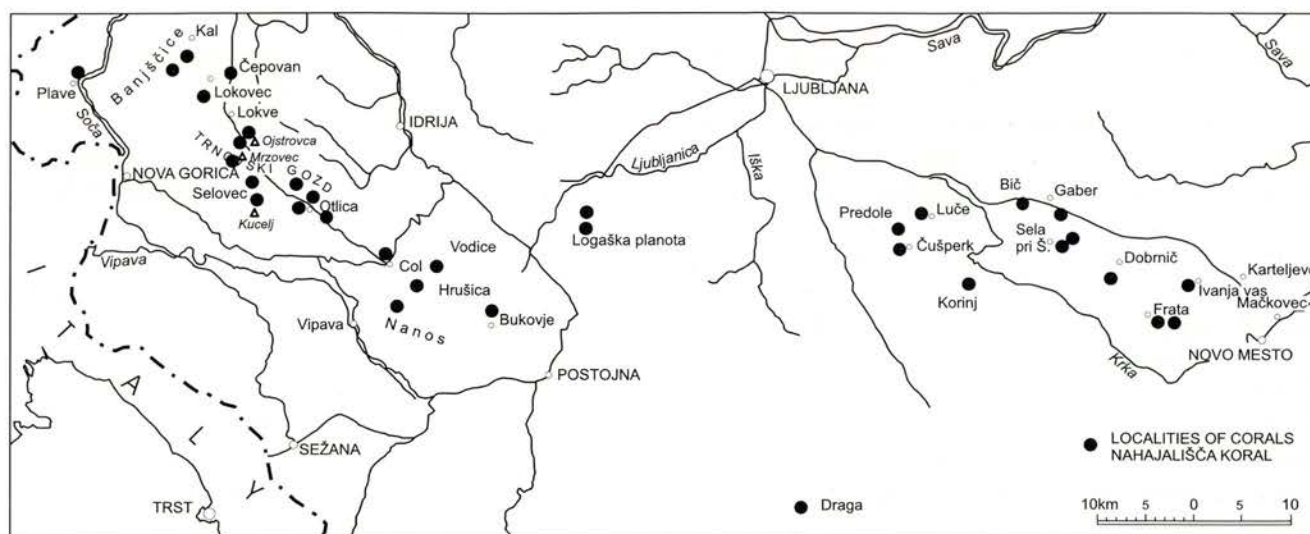


Fig. 21: Localities of the Upper Jurassic corals in Slovenia.

- Outer barrier reef (localities from west to east): Plave, Kal nad Kanalom, Čepovanski dol (including Čepovan and Lokovec), Ojstrovca and Mrzovec on Trnovski gozd, Bič, Gaber, Sela, Ivanja vas, Karteljevo, Mačkovec.

- Inner barrier reef (localities from west to east): Selovec, Otlica (with surroundings), Logaška planota, Čušperk, Predole, Luče, Dobrnič, Frata (including Brezova reber and Mali vrh).

- Back reef area (localities from west to east): Col, Vodice, Nanos, Hrušica, Bukovje, Korinj, Draga.

Modified and completed after: TURNŠEK, 1972.

Sl. 21: Nahajališča zgornjejurskih koral v Sloveniji.

- K zunanjemu bariernemu grebenu pripadajo nahajališča (od zahoda proti vzhodu): Plave, Kal nad Kanalom, Čepovanski dol (vključuje Čepovan in Lokovec), Ojstrovca in Mrzovec na Trnovskem gozdu, Bič, Gaber, Sela, Ivanja vas, Karteljevo, Mačkovec.

- K notranjemu bariernemu grebenu pripadajo nahajališča (od zahoda proti vzhodu): Selovec, Otlica (z okolico), Logaška planota, Čušperk, Predole, Luče, Dobrnič, Frata (vključno Brezova reber in Mali vrh).

- K zagrebenski področju sodijo nahajališča (od zahoda proti vzhodu): Col, Vodice, Nanos, Hrušica, Bukovje, Korinj, Draga.

Prirejeno in dopolnjeno po TURNŠEK, 1972.

The reef-building community consists mainly of corals and stromatoporoids. These stromatoporoids were described as hydrozoans (GERMOVŠEK, 1954; TURNŠEK, 1966) and later partly attributed to sponges (see WOOD, 1986; WOOD & REITNER, 1986). Fossil communities, especially stromatoporoids, allowed the recognition of three different regional biofacies belts across the reef complex which correspond to:

- outer reef,
- inner reef, and
- back-reef environments (Fig. 20).

a – The outer reef was situated on the margin of the Dinaric Carbonate Platform. This facies belt is now

approximately 5 to 10 km wide. It comprises the localities Kal on the Banjška planota, Plave in the Soča Valley, Čepovanski dol, Mrzovec and Ojstrovca on the Trnovski gozd Plateau, and Bič, Gaber, Sela, Karteljevo, Ivanja vas and Mačkovec in Dolenjska. It continues to Metlika in Bela Krajina where only stromatoporoids were found.

A great variety of corals occur in the outer belt. Corals are mainly massive. The most abundant genera are *Amphiastraea*, *Comoseris*, *Clausastraea*, *Complexastraea*, *Fungiastraea*, *Microphyllia*, *Microsolena*, *Myriophyllia*, *Pseudocoenia*, *Solenocoenia*. Branching forms of the genera *Calamophylliopsis*, *Donacosmilia*, *Apo-cladophyllia*, *Dermosmilia*, *Placophyllia*, and *Stylosmilia* are also common. The solitary corals *Epistreptophyllum*, *Axosmilia*, and *Montlivaltia* are rare. Stromatoporoids are very abundant and represented by the genera *Astro-stylopsis*, *Actinostromina*, *Coenostella*, *Cylicopsis*, *Tubuliella*, *Ellipsactinia*, and *Sphaeractinia*.

b – The inner reef runs parallel to the outer reef and is approximately 5 to 10 km wide. This belt includes the localities Selovec, Otlica, Logaška planota, Čušperk, Predole, Luče, Dobrnič, and Frata with surroundings. The reef is composed of the massive corals *Actinaraea*, *Comoseris*, *Heliocoenia*, *Meandrophyllia*, *Microsolena*, *Pseudocoenia*, *Stylina*, *Synastraea*, *Thamnasteria*, the branching corals *Allocoenia*, *Calamophylliopsis*, *Ceratothecia*, *Dermosmilia*, *Diplaraea*, *Goniocora*, *Proaplophyllia*, *Thecosmilia*, *Stylosmilia*, and the solitary coral *Montlivaltia*. Among stromatoporoids *Disparistromaria*, *Hudsonella*, *Parastromatopora*, and *Reticulina* are abundant.

c – The back-reef area was a lagoon where reefs developed in the form of small patch reefs. This facies is exposed at Col, Vodice, Javornik, Nanos, Hrušica, Korinj, and Draga (Kočevje region). The coral assemblage is composed of the

massive forms *Comoseris*, *Isastraea*, *Meandraraea*, *Meandrophyllia*, *Microphyllia*, *Ovalastraea*, *Pseudocoenia*, *Pseudocoeniopsis*, *Thamnasteria*, the branching forms *Calamophylliopsis*, *Diplaraea*, *Goniocora*, and only one solitary form *Epistreptophyllum*. Stromatoporoids are also abundant; *Cladocoropsis* is characteristic of this area. Coral localities are shown in Fig. 21.

The stromatoporoids of the three facies belts are clearly different. The outer belt is characterized by actinostromariids, the inner belt by parastromatoporids, and patch reefs by *Cladocoropsis* (TURNŠEK, 1966, 1969, 1972; TURNŠEK et al., 1981). It is interesting that stromatoporoids of outer, inner, and back-reef areas differ in their microstructure. Orthogonal microstructure is typical of stromatoporoids of the outer belt and clynogonal microstructure of representatives of the inner and back-reef belts (microstructure types are classified after HUDSON, 1959, 1960 and TURNŠEK, 1966).

Corals are not so well differentiated with respect to the above-mentioned belts, which implies that they were less sensitive to environmental conditions. Only 25-30 % of coral species are restricted to one belt or the other; most species are thus ubiquitous. It could, nevertheless, be established that massive compact forms of coral colonies prevail in the outer belt whereas branching colonies are more abundant inshore. An outstanding exception to the rule are representatives of the entire suborder Amphistraeina, which occur almost exclusively in the outer belt (Fig. 22).

The outer facies belt is composed predominantly of biolithite with cavities which are filled with breccias and calcarenite. Cement is mainly sparite, suggesting a high to very high water energy. Intervals of pelmicrite and biomicrite occur only locally. Biolithite also prevails in the inner reef but sorting in calcarenites is generally better. Here the water energy varied from moderate to high. In the back-reef area, characterized by a low-energy depositional environment, the reef facies occurs only in the form of patch reefs. The bulk of the sediment is dark micritic, at places bituminous or marly limestone with foraminifers and dasycladacean algae. Patch reefs are small, measuring only up to a few tens of meters. Individual buildups were short-living patch reefs which were subsequently covered by lagoonal sediment (OGORELEC in: TURNŠEK et al., 1981; see also PREMUR & PLENIČAR, 1981).

The Jurassic reefs are assigned to the Upper Oxfordian and Kimmeridgian. The age of all reef belts is determined by the fossil content and confirmed by the stratigraphic position. The reef lies directly upon the Oxfordian limestone with chert and is overlain by limestone with Tithonian alga *Chypeina jurassica* (BUSER,

1965; TURNŠEK, 1966, 1969, 1972; TURNŠEK et al., 1981; STROHMENGER & DOZET, 1991). The outermost parts of the reef at places lie on Middle or Lower Jurassic limestone because the platform margin deposits were displaced to the basin before the onset of the reef.

The English usage of the Kimmeridgian followed by the Portlandian was employed in previous Slovenian literature, because this stratigraphic division was accepted by the Colloque de Jurassique 1961 (TURNŠEK, 1966). For the Alpine realm this colloquium, however, permitted the usage of the Tithonian as equivalent for the English Late Kimmeridgian and Portlandian. The latter classification became more frequently applied afterwards, therefore it is used in this book (for different usages of the Kimmeridgian see also GEYER, 1954; MAYNC, 1960; LUTERBACHER in: Leinfelder et al., 1994).

The Jurassic coral fauna from Slovenian localities is correlative with that of numerous world-wide distributed localities, as for example in France (BAUVAIS, 1964), Spain (GEYER, 1965; FEZER, 1988; ERRENST 1990-1991), Portugal (GEYER, 1955b; ROSENDAHL, 1985; LEINFELDER, 1992), Italy (CARLONE, 1989), Czech Republic (GEYER, 1955a; ELIÁŠOVÁ 1973, 1975, 1976b, 1981), Poland and Romania (RONIEWICZ, 1966, 1976), Germany (GEYER, 1954; LAUXMANN, 1991), Croatia (TURNŠEK, 1975), Crimea and Caucasus Region (KRASNOV, 1964; BABAEV, 1973; PAPOJAN, 1977; BENDUKIDZE, 1982), Switzerland (KOB, 1880-89), England (NEGUS & BEAUVAIS, 1979), Yugoslavia (KRKOVIĆ, 1965; TURNŠEK, 1968; TURNŠEK & MIHAJLOVIĆ, 1973) and outside Europe in India (GREGORY, 1900); Uzbekistan (HUSANOV, 1987), China (LIAO & XIA, 1985); Argentina (MORSCH, 1996), if I mention only the most extensive investigations. The coral fauna was in most cases found in the lower Malm, only in Czech Republic and partly in the Caucasus region in the Tithonian.

EVOLUTION OF THE JURASSIC REEFS

The Late Jurassic Epoch was a time of the most widespread reefs in the Tethys. Regional paleoenvironmental conditions such as sea-water temperature, chemistry, aeration, wide shallow-marine areas and other influences favoured reef growth. Global conditions were related to the breakup of Pangea and to the establishment of new platforms which, at their margins, during favourable sea-level stands provided a suitable environment for reef-building organisms (MOORE et al., 1992; VALDES & SELWOOD, 1992; HALLAM, 1993; FLÜGEL, 1994; LEINFELDER, 1994). The onset of reefs on the Dinaric

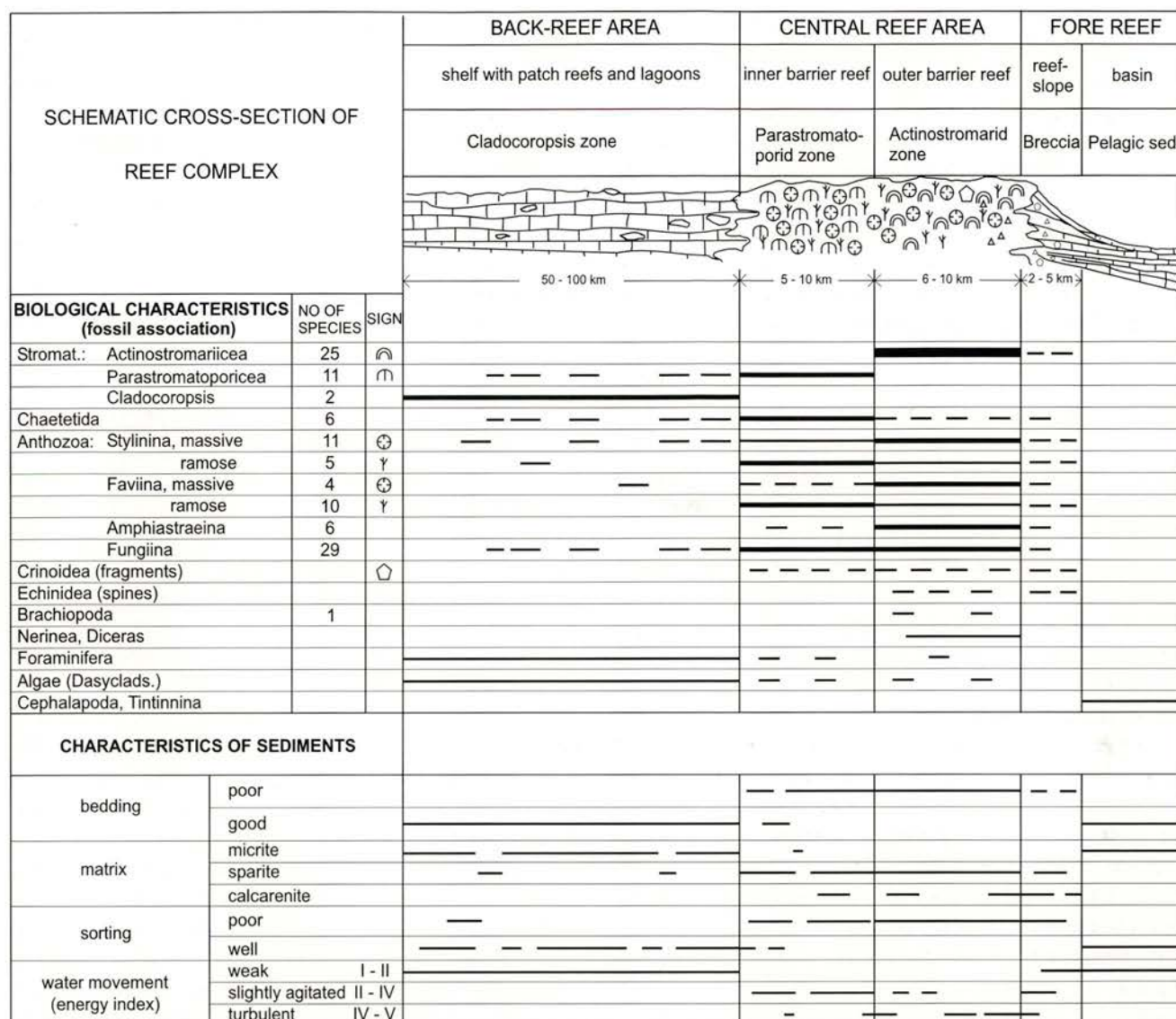


Fig. 22: Schematic cross-section of the Upper Jurassic barrier-reef complex in Slovenia, showing its facies zonation, faunal associations, and characteristic sediments.

After: TURNŠEK et al., 1981.

Used with permission of SEPM (Society for Sedimentary Geology) formerly known as Society of Economic Paleontologists and Mineralogists).

Sl. 22: Shematski presek zgornjejurskega bariernega grebenskega kompleksa v Sloveniji: zonacija faciesov, favnističnih združb, značilnih sedimentov.

Po: TURNŠEK et al., 1981, z dovoljenjem SEPM.

Carbonate Platform is thus regarded primarily as a consequence of global phenomena.

Oxfordian bedded micritic cherty limestone with abundant sponge spicules occurs below the reef limestone. This facies indicates deteriorated conditions for carbonate production probably due to more eutrophic

sea-water and also due to a deeper depositional environment. This siliceous episode may correspond to the mid-Oxfordian flooding event which was recognized on a global scale (HALLAM, 1988) and coincides with a positive pelagic carbon-isotope excursion (JENKYN, 1996; BARTOLINI et al., 1996). In the late Oxfordian a drop of relative sea-level occurred, as suggested by the reef complex, which is believed to have grown in shallow sea. The reef community remained almost unchanged until the end of the Kimmeridgian. In addition, the reef shows a more or less continuous aggradational growth during late Oxfordian and Kimmeridgian time. These observations suggest that an optimum sea level for reef growth persisted through this time interval. A long-term eustatic sea level rise has been postulated for this period (HALLAM, 1988). Considering the thickness of the reef complex which is about 200 m, we can conclude that the

eustatic sea-level rise was probably accompanied by a slow-rate subsidence of the Dinaric Carbonate Platform.

At the end of the Kimmeridgian a large part of the Dinaric Carbonate Platform became subaerially exposed, as evidenced by bauxite deposits lying on the top of reef limestone on the Logaška planota, Nanos and elsewhere (BUSER, 1965; DOZET et al., 1993). Bauxite deposits are indicators of tectonically induced exposure (D'ARGENIO & MINDSZENTY, 1995). In the Tithonian reef organisms were replaced by the dasycladacean alga *Clypeina jurassica*, which occupied the entire platform (RADOIČIĆ, 1966; TURNŠEK, 1969; TURNŠEK et al., 1981).

The Jurassic reef on the Dinaric Platform was initiated and developed after a relative sea-level fall and flourished due to a long term sea-level balance. The demise of the reef was caused by uplift and subaerial exposure of the Dinaric Carbonate Platform. In addition to constant water depth, other conditions such as water temperature, transparency, nutrient supply and water chemistry stimulated reef growth. Several recent studies of reefs focus on these ecological parameters and emphasize their importance for reef growth (WERNER et al., 1994; LEINFELDER, 1992; GEISTER, 1986; DRAGASTAN et al., 1994; ELIÁŠ & ELIÁŠOVÁ, 1995; INSALACO, 1996a; PITTET & DUPRAZ, 1995 and others). A complete review of various factors controlling reef growth is given by KAUFFMAN & FAGERSTROM (1993) and NOSE (1995). Bathymetry resulting from the breakup of Pangea is considered one of the most important requirements for reef development (NOSE, SCHMID & WERNER in: LEINFELDER et al., 1994).

Vertical zonation of reef communities is another important characteristic generally observed in Jurassic reefs. The basal reef facies is almost everywhere dominated by siliceous sponges whereas corals prevail in the upper levels (FLÜGEL & STEIGERT 1981; LEINFELDER, 1993b; LEINFELDER & KEUPP 1995; REITNER et al., 1995 and others). This community succession is especially well-known from the northern Tethyan margin, which was characterized by steep slopes. Jurassic sponge reefs along the northern Tethyan shelf are believed to have grown at depths from 70 to 90 m (WERNER et al., 1994).

Jurassic reefs of the Dinaric Carbonate Platform have steep slopes but do not contain siliceous sponges. This sponge phase is probably "hidden" in the underlying limestone with chert in which siliceous sponge spicules are abundant. The contact between cherty limestone and overlying reef limestone is not gradual but very clear and abrupt. Zonation of fossil communities was not observed in this reef. Fossil assemblages are almost the same from the base to the top of the reef. At places corals dominate over stromatoporoids or vice versa but these local

ecosystems now occur laterally in lenticular limestone bodies and do not correspond to particular stratigraphic levels. Microsolenid corals as initial deeper-water dwellers (INSALACO, 1996b) have not been found. This reef limestone can be classified as "hard limestone facies" in which, also according to WERNER et al. (1994), an analysis of coral and sponge diversity is difficult.

CRETACEOUS

LOWER CRETACEOUS

Lower Cretaceous coral reefs in Slovenia are relatively rare and occur, like the Jurassic reefs, only on the Dinaric Carbonate Platform. They are dated as Valanginian, Barremian-Aptian, and Albian (Fig. 23).

Valanginian corals were found west of Lokve on the Trnovski gozd Plateau. A 50 cm thick limestone bed contains isolated coral specimens of the Jurassic genera *Microphyllia* and *Ironella*. The age assignment is based on aberrant tintinids which occur in underlying and overlying strata (TURNŠEK & BUSER, 1974).

A richer and larger complex of Early Cretaceous corals is Osojnica on the Banjška planota (Fig. 24). The reef limestone is 300 m thick and crops out in an area of approximately 6 km². Massive corals *Cyatophora*, *Stylina*, *Eugyra*, *Felixigyra*, *Eohydriophora*, *Latusastraea*, *Phyllocoenia*, *Placophyllia*, *Microsolena*, *Ovalastraea*, *Dermosmilia*, and *Pseudopolytrema* were identified. The associated fauna consists of stromatoporoids, chaetetids, abundant orbitolinids, rudist fragments, nerineas, and echinoid spines. The rock is reef limestone composed of biolithite and subordinate micrite matrix. Intercalations of oolitic limestone and reef breccia occur locally. The age of the reef is Barremian-Aptian. In the upper part the reef passes laterally into dark grey micritic limestone with the Aptian dasycladacean alga *Salpingoporella dinarica* and other organisms. The fossil content and stratigraphic position of this reef are typical of the Urgonian facies. A great part of this reef must have been later eroded and redeposited, as evidenced by abundant clasts of Early Cretaceous reef organisms in the Senonian breccia north of Osojnica, i.e. on the northern slope of the Dinaric Carbonate Platform (TURNŠEK & BUSER, 1974; KOCH et al., 1989). It thus seems very probable that the original reef at the time of deposition had greater dimensions and maybe also a longer stratigraphic range than now observed. HÖFLING (1997) ascribed this buildup to the "massive-knollige Bioherme".

The second locality of Lower Cretaceous coral

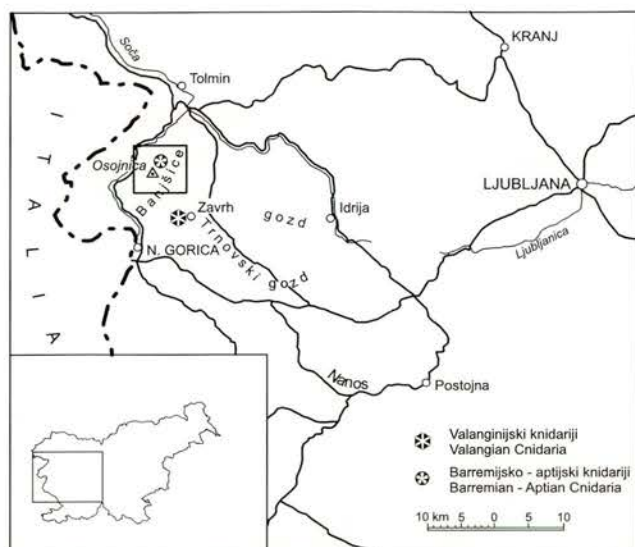


Fig. 23: A map showing position of the Lower Cretaceous coral localities in Zavrhu on the Trnovski gozd and Osojnica on the Banjška planota.

After: TURNŠEK & BUSER, 1974.

Sl. 23 (10a)

Pregledna karta ozemlja s spodnjekrednimi nahajališči koral v Zavrhu na Trnovskem gozdu in Osojnici na Banjški planoti.

Po: TURNŠEK & BUSER, 1974.

reefs in Slovenia is Slovenski vrh near Kočevje (Figs. 25, 26). At this locality the coral reef facies has a longer stratigraphic range spanning from the Barremian to the end of the Albian. Barremian-Aptian corals belong to the same genera and species as those at Osojnica, whereas in the upper part of the reef new species of *Procladocora* and *Strotogyra* occur. These species are described herein for the first time and assigned to the Albian on the basis of associated rudists and foraminifers, especially *Ichthyosarcolites monocarinatus* and *Orbitolina texana* (TURNŠEK et al., 1992). This reef was located in the interior of the Dinaric Carbonate Platform and is of smaller dimensions. From the surroundings of Kočevje, URŠIČ (1933) mentioned five coral species from the *Orbitolina* limestone. Unfortunately I could not verify his determinations because his collection is not conserved. DOZET & ŠRIBAR (1991) mentioned lower Aptian coral patch reefs east of Željne.

Outside Slovenia, the same Early Cretaceous coral species are known from several countries: Spain (ANGELIS D'OSSAT 1905b; BARON-SZABO, 1993; BARON-SZABO & FERNANDEZ-MENDIOLA, 1997; REIG, 1994), France (FROMENTEL, 1857; ALLOITEAU, 1957; MASSE, 1976), Switzerland (KOBY 1896-98), Capri in Italy (ANGELIS D'OSSAT, 1905a), Lábatlan and Mecsek in Hungary (KOLOSVÁRY, 1954; CSÁSZÁR, 1996), Allgäu in southern

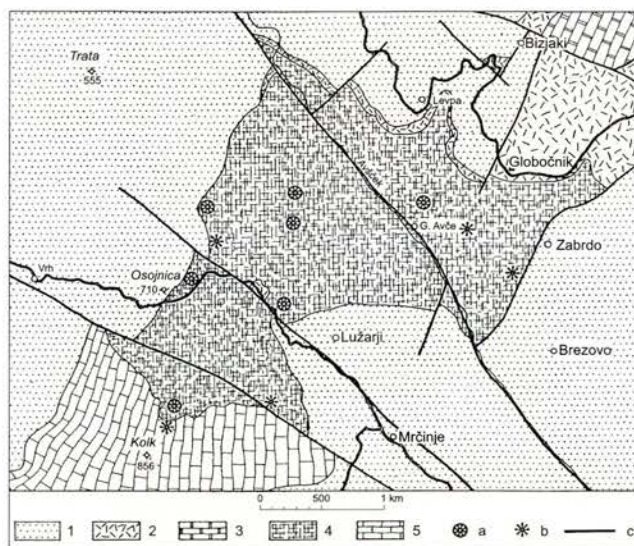


Fig. 24: Geological map of the surroundings of Osojnica on the Banjška planota, showing Lower Cretaceous coral localities (position of Osojnica see in Fig. 23).

1. Flysch; Upper Senonian-Paleocene.

2. Cretaceous breccia; Senonian.

3. Micritic bedded limestone; Turonian.

4. Reef limestone; Barremian-Aptian.

5. Bedded micritic limestone; Barremian-Aptian.

a. Localities of corals and other reef fossils.

b. Localities of orbitolinids.

c. Fault.

(After BUSER in: TURNŠEK & BUSER, 1974).

Sl. 24: Geološka karta okolice Osojnice na Banjški planoti z nahajališči spodnjekrednih koral (položaj Osojnice glej na Sl. 23).

1. Fliš; zgornji senon do paleocen.

2. Kredna apnenčeva breča; senon.

3. Mikritni skladnati apnenec; turonij.

4. Grebenski apnenec; barremij-aptij.

5. Skladnati mikritni apnenec; barremij-aptij.

a. Nahajališča koral in drugih grebenskih fosilov.

b. Nahajališča orbitolinid.

c. prelom.

Po BUSERJU v: TURNŠEK & BUSER, 1974.

Germany (BARON-SZABO, 1997), Polish Tatra Mountains (MORYCOWA, 1964); Romanian Carpathians (MORYCOWA, 1971), eastern Serbia (MARKOVIĆ, 1951; KOCHANSKY-DEVIDÉ, 1951; JANKIČEVIĆ, 1978; TURNŠEK & MIHAJLOVIĆ, 1981), Bulgaria (ZLATARSKI, 1968), Greece (BARON-SZABO & STEUBER, 1996; LÖSER & RAEDER, 1995; ABDEL-GAWAD & GAMEIL, 1995), Crimea (SOLOMKO, 1887), Georgia (SIHARULIDZE, 1979, 1985); Azerbaijan (KUZMICHEVA & ALIEV, 1988), Eastern Carpathians (KUZMICHEVA, 1980), Turkmenistan (KUZMICHEVA, 1987; BUGROVA, 1990); China (LIAO & XIA, 1985), Japan (EGUCHI, 1936), eastern Africa (DIETRICH, 1927), Chile (FRITZSCHE, 1924; PRINZ,

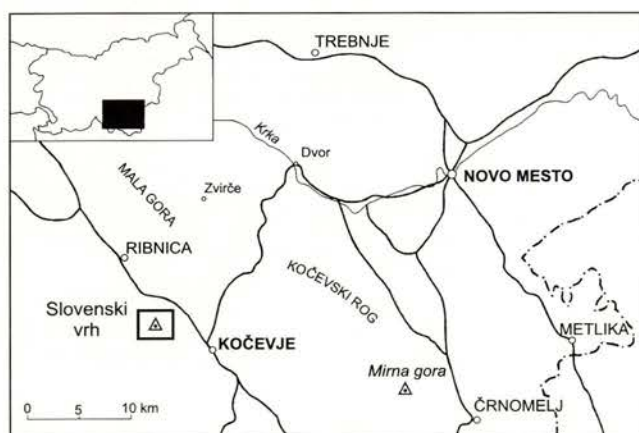


Fig. 25: Map showing the position of the Lower Cretaceous coral locality on Slovenski vrh near Kočevje.

After: TURNŠEK et al., 1992.

Sl. 25: Karta s spodnjekrednim koralnim nahajališčem na Slovenskem vrhu pri Kočevju.

Po: TURNŠEK et al., 1992.

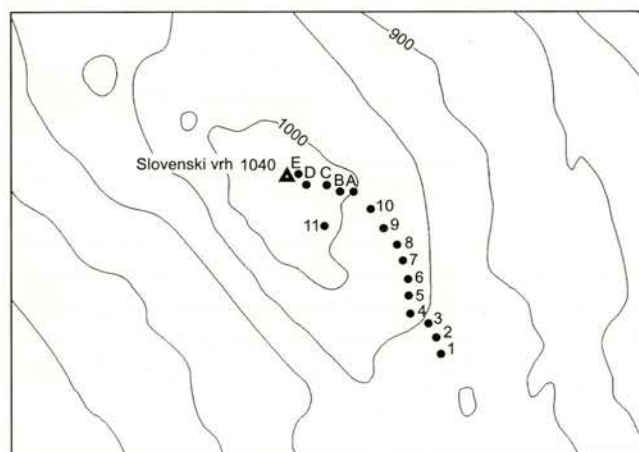


Fig. 26: Researched Lower Cretaceous section on Slovenski vrh near Kočevje. The numbers and letters show the localities of corals, orbitolins and rudists.

1-3: Barremian limestone.

4-10: Lower Aptian Orbitolina limestone.

A-C: White reef limestone with corals, orbitolins and rudists; lower Aptian.

11: Upper Aptian-lower Albian Orbitolina limestone.

D: White reef limestone with coral-rudist association; upper Aptian.

E: White reef limestone with coral-rudist association; Albian.

After: TURNŠEK et al., 1992.

Sl. 26: Presek raziskanega spodnjekrednega profila na Slovenskem vrhu pri Kočevju. Številke in črke kažejo nahajališča koral, orbitolin in rudistov.

1-3: Barremijski apnenec.

4-10: Spodnjeaptijski orbitolinski apnenec.

A-C: Bel grebenski apnenec s koralami, orbitolinami in rudisti; spodnji aptij.

11: Zgornjeaptijsko-albijski orbitolinski apnenec.

D: Bel grebenski apnenec s koralno-rudistno združbo; zgornji aptij.

E: Bel grebenski apnenec s koralno-rudistno združbo; albij.

Po: TURNŠEK et al., 1992.

1981) and elsewhere. SIMO et al. (1993) presented the most complete geographic distribution of Early Cretaceous reefs; LÖSER (1996) compiled an overview of all coral species and their stratigraphic ranges.

UPPER CRETACEOUS

Late Cretaceous corals occur abundantly at Stranice near Slovenske Konjice. Isolated specimens are known from Lipica in the Karst area. Reworked Late Cretaceous corals were found in Senonian breccia on the Banjška planota. The age of all these localities is Santonian-Campanian. With respect to the paleogeographic position they are attributed to three different units: a) Austro-Alpine shoal, b) Dinaric Carbonate Platform, c) slope of the Dinaric Carbonate Platform.

a – At Stranice (Fig. 27) Gosau-type corals occur. Dominant forms are the solitary corals *Placosmilia*, *Aulosmilia*, *Dasmiopsis*, *Rennensismilia*, *Conicosmitrochus*, *Acrosmilia*, and *Cunolites*. Massive herma-

typic corals *Actinastraea*, *Enallocoenia*, *Columactinastraea*, *Hydnophora*, *Neocoeniopsis*, *Dimorphastraea*, and *Actinacis* are less abundant. Branching corals of the genus *Procladocora* are rare. The corals occur in marl or marly limestone which is included as one or several beds in the lower part of rudist limestone. Lateral transitions to rudist limestone are also observed. The Santonian-Campanian age is determined with corals and rudists (PLENIČAR, 1971, 1994; TURNŠEK, 1978, 1994). The coral assemblage is almost identical with that described from the Gosau facies in the Northern Calcareous Alps (REUSS, 1854; FELIX, 1903; OPPENHEIM, 1930; BEAUVAIS, 1982; HÖFLING, 1985, 1989). This locality is thus believed to have belonged to the Austro-Alpine Terrain (sensu STAMPFLI & MARCHANT, 1997).

b – At Lipica in the Karst area corals have been found very recently. Isolated specimens of *Hydnophora* are associated with rare stromatoporoids; rudists and foraminifers are more abundant. This fauna occurs in micritic limestone of the Lipica Formation and is assigned to the Santonian and Campanian. Paleogeographically, this locality was situated in the interior of the Dinaric

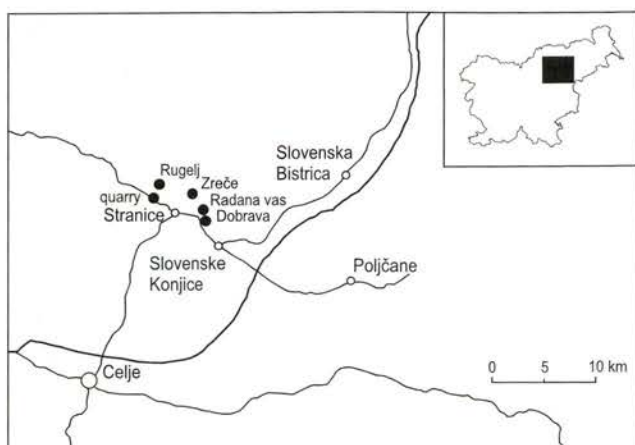


Fig. 27: Location map showing the Upper Cretaceous coral localities in the surroundings of Stranice.

Modified and completed after: TURNŠEK, 1978, 1994.

Sl. 27: Položajna karta zgornjekrednih koralnih nahajališč v okolici Stranic.

Prirejeno in dopolnjeno po: TURNŠEK, 1978, 1994.

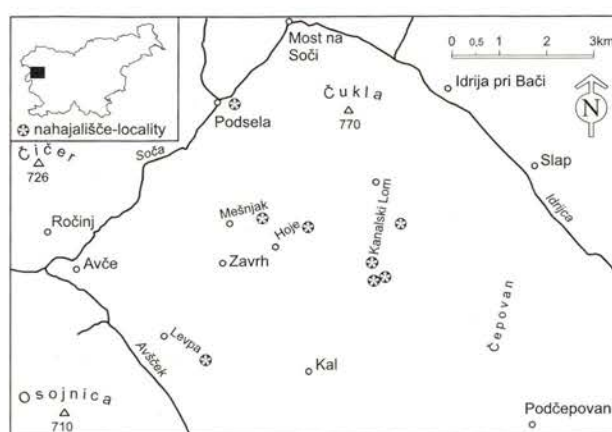


Fig. 28: Situation map of the Banjška planota, showing the localities of corals in Senonian breccia.

After Buser in: TURNŠEK & BUSER, 1976.

Sl. 28: Pregledna karta ozemlja na Banjški planoti z nahajališči koral v senonijski breči.

Po Buserju v: TURNŠEK & BUSER, 1976.

Carbonate Platform, reef organisms formed patch reefs and biostromes (JURKOVŠEK et al., 1996; BUSER, 1996).

c – Reworked corals were found in Senonian breccia on the Banjška planota north of Osojnica at the localities Levpa, Podšela, Mešnjak, and Hoje (Fig. 28). Limestone blocks of variable sizes contain abundant rudists, corals, stromatoporoids, and chaetetids. The matrix is composed of limestone debris or marl. Marl interbeds are locally present. The breccia passes laterally into thin-bedded calciturbidites with chert (the Volče Limestone). Abundant Coniacian to Late Campanian globotruncanas in the Volče Limestone indirectly determine the age of the breccia. Reworked rudists in the breccia indicate the same age. Globotruncanas and nannoplankton species were also identified in the marl interlayers. On the basis of all these biostratigraphic data Buser (TURNŠEK & BUSER, 1976) concluded that the sedimentation of the breccia started in the early Coniacian. Ancient reef buildups with corals were eroded from the margin of the Dinaric Carbonate Platform and transported downslope. Some short-living coral and rudist buildups also developed on local elevations during the Senonian and became incorporated in penecontemporaneous breccias. The background sediment is preserved as marl interlayers. The Senonian breccia with marl interlayers represents basal flysch deposits (BUSER, 1989). Progradation and retrogradation of the carbonate platform was confirmed at Maiella in Italy (VECSEI, 1991; MUTTI et al., 1996).

Coral fauna in the breccia consists of Jurassic, Early Cretaceous, and Late Cretaceous species. The

Jurassic genera are *Mitrodendron*, *Amphiaulastraea*, and *Chomatoseris*; the Early Cretaceous genera are *Cyathophora*, *Eugyra*, *Eohydriophora*, *Diplogyra* and others. Typical Late Cretaceous corals are *Heterocoenia*, *Procladocora*, *Meandroria*, *Pseudofavia*, and *Thamnosseris*. It is interesting to mention the presence of *Pseudo-*

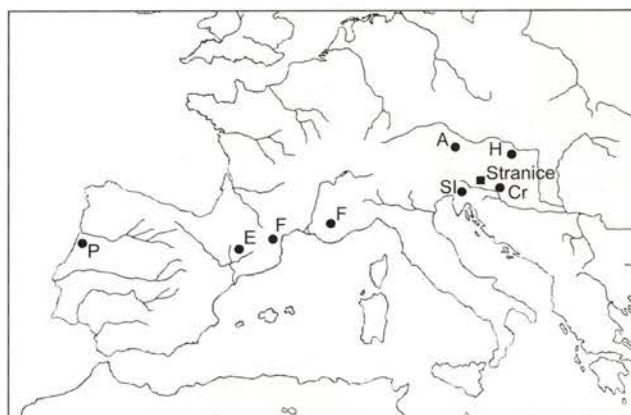


Fig. 29: Distribution of the Upper Cretaceous coral species from Slovenia in other localities in Europe: P = Portugal; E = Spain; I = Italy (Abruzzi); F = France (Provence and Corbieres); A = Austria (Gosau); D = Germany (Allgäu); H = Hungary (Sümege); R = Romania; Cr = Croatia (Medvednica); Sr = Serbia; Bol = Bulgaria; Gr = Greece.

Sl. 29: Razširjenost zgornjekrednih koralnih vrst iz Slovenije v drugih nahajališčih v Evropi; P = Portugalska; E = Španija; I = Italija (Abruzzi); F = Francija (Provansa in Corbieres); A = Avstrija (Gosau); D = Nemčija (Allgäu); H = Madžarska (Sümege); R = Romunija; Cr = Hrvaška (Medvednica); Sr = Srbija; Bol = Bolgarija; Gr = Grčija.

pistophyllum quinqueseptatum, which was later reported from the Albian (REITNER, 1987). We can thus assume that corals also grew on the margins of the Dinaric Carbonate Platform during the Albian, although no Albian reef buildups are now preserved in situ. The breccia indicates intensive erosion and destruction of the carbonate-platform edge.

Distribution of our Late Cretaceous corals outside Slovenia: Portugal (FELIX, 1903b; BEAUVAIS et al, 1975); Spain (BATALLER 1937; VIDAL, 1980; REIG, 1997), Italy (PREVER, 1909), southern France (ALLOITEAU, 1952, 1954, 1957; FROMENTEL, 1889; BEAUVAIS & BEAUVAIS, 1974), southern Germany (BARON-SZABO, 1997), Austria (REUSS, 1854; FELIX, 1903; OPPENHEIM, 1930; BEAUVAIS, 1982; HÖFLING, 1985; SANDERS & BARON-SZABO, 1997), Hungary

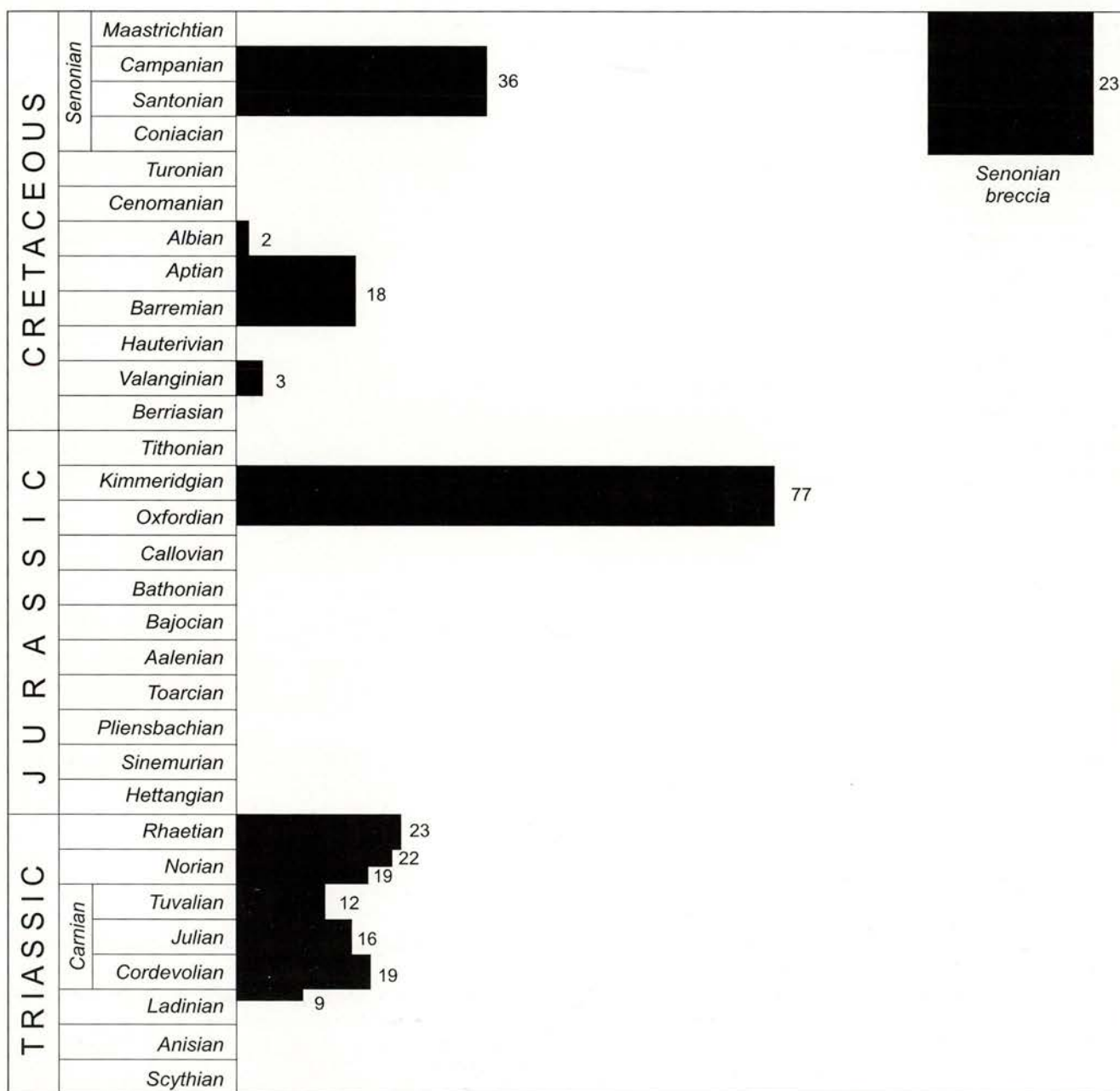


Fig. 30: Diagram showing number of coral species in Slovenia through the Mesozoic.

The number of species in diagram exceeds the total number species described because some species appear in several stages.

Sl. 30: Diagram števila koralnih vrst v mezozoiku Slovenije.

Število vrst v diagramu presega število opisanih vrst, ker se nekatere vrste pojavljajo v več stopnjah.

(KOLOSVÁRY, 1954; GECZI, 1954), Romania (SURARU, 1957, 1961), Bulgaria (TCHECHMEDJIEVA, 1971, 1981), Croatia (TURNŠEK & POLŠAK, 1978), Serbia (MILOVANOVIĆ, 1939; PAŠIĆ, 1951, 1953), Greece (HACKEMESSER, 1936; ABDEL-GAWAD & GAMEIL, 1995) and elsewhere (Fig. 29).

EVOLUTION OF THE CRETACEOUS REEFS

Carbonate platforms attained a large areal extent in the northern and southern Tethyan margin during the Cretaceous. Global conditions such as climate, oceanic circulation and sea-level also favoured the initiation and growth of reefs (COATES, 1973; HÖFLING, 1985; BUGROVA,

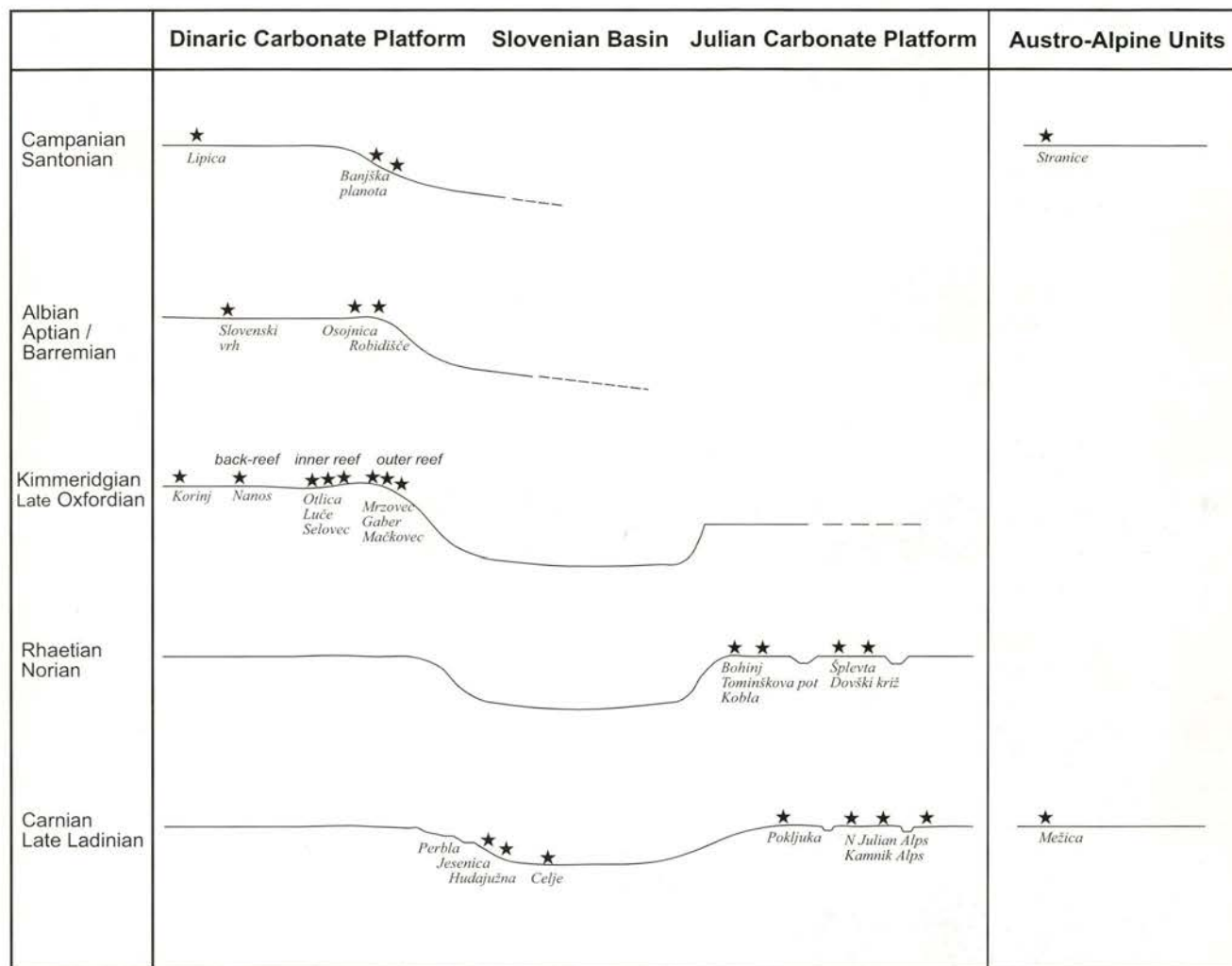


Fig. 31: The paleogeographical and stratigraphical situation of the Mesozoic coral reefs in Slovenia.

- The Dinaric Carbonate Platform was active throughout the Mesozoic, with extensive periodical growth of reefs in the Jurassic and Cretaceous.
- In the Slovenian Basin reef-mounds appeared in the latest Ladinian and in the Carnian.
- The Julian Carbonate Platform existed until the end of the Triassic with coral reefs in the entire Carnian and the Norian-Rhaetian.
- Localities around Mežica and Stranice are situated north of the Periadriatic Line and belong to Austro-Alpine realm.

Sl. 31: Paleogeografski in stratigrafski položaj mezozojskih koralnih grebenov v Sloveniji.

- Dinarska karbonatna platforma je obstajala skozi ves mezozoik, z občasno rastjo grebenov v juri in kredi.
- V Slovenskem bazenu so se koralni grebeni pojavljali v obliki kop (mounds) ob koncu ladinija in v karniju.
- Julijska karbonatna platforma je obstajala do konca triasa, koralni grebeni so uspevali skozi ves karnij ter norij in retij.
- Nahajališča okoli Mežice in Stranice leže severno od periadriatskega lineamenta in pripadajo Avsto-alpinskemu prostoru.

1990; LÖSER, 1994; SCOTT, 1994; SIMO et al., 1993; MASSE, 1975; BARON-SZABO, 1994).

The Dinaric Carbonate Platform, which existed from the Late Triassic, was still active during the Early Cretaceous. Reefs developed on the northern platform margin, as evidenced by small remnants preserved at Osojnica. In the interior of the platform isolated patch reefs were formed (locality Kočevje). The relatively long time-span of all these buildups from middle Barremian to middle Albian makes the explanation of the causes for reef initiation and demise difficult. We must, in addition, consider that because of the remarkable platform dismantling during the Late Cretaceous, it has not been possible to establish the exact extent of the Lower Cretaceous reefs. Nevertheless, everywhere in the world the number of coral species was significantly reduced in the Albian.

In the Late Cretaceous scattered small coral patches existed on the Dinaric Carbonate Platform which, at that time, had much smaller dimensions than before. Only individual specimens which did not constitute a typical reef were found at Lipica.

Coral buildups found at Stranice occupied larger areas. Solitary corals inhabited a shallow lagoon. On the

edges of shoals massive corals grew and built reefs which were partly resedimented, as generally observed in the Gosau facies (HÖFLING, 1985; TURNŠEK & POLŠAK, 1978; POLŠAK, 1979; SANDERS & BARON-SZABO, 1997). PLENIČAR (1993, 1994) described this biolithite complex and defined it as "Styrian Gosau development", based on correlation with similar complexes in Austria, Hungary, and Croatia. The Stranice locality is now exposed north of the Periadriatic line. Paleogeographically, this reef complex belonged to the Austro-Alpine Terrain (for a paleogeographic map see STAMPFLI & MARCHANT, 1997).

The Cretaceous coral-reef initiation and growth were enabled by the previously mentioned favourable conditions on the shelves; their demise was related to local factors and to global environmental changes which caused the Cretaceous-Tertiary mass extinction (ROSEN & TURNŠEK, 1989).

For an overview of all the Tethyan reef buildups see also FLÜGEL & FLÜGEL-KÄHLER (1992).

The number of coral species in Slovenia through Mesozoic is given in Fig. 30. Localities of all Mesozoic corals in Slovenia are shown on the map in inner cover and their paleogeographic position is presented in Fig. 31.

SYSTEMATICS OF CORALS

Suborders, the highest systematic categories within the Mesozoic order Scleractinia, are based on various criteria: microstructure, arrangement and ornamentation of septa, position of wall, manner of multiplication, etc. Therefore the systematics seems to be discrepant and inconsistent.

All the suborders proposed and used since 1940 are the following: Astrocoeniina, Faviina, Dendrophyllina, Caryophyllina (introduced by VAUGHAN & WELLS, 1943), Archaeocoeniina, Stylinina, Astraeoina, Meandriina, Amphistraeina, Eupsammina (introduced by ALLOITEAU, 1952), Carolastraeina, Pachythealina (introduced by ELIÁŠOVÁ, 1976), Rhipidogyria (by RONIEWICZ, 1976), Heterocoeniina (by BEAUVAIS, 1977), Archaeofungiina, Distichophyllina, Stylophyllina (by BEAUVAIS, 1981), Cuifastraeina, Protoheterastraeina (by MELNIKOVA, 1984), Microsolenina (by MORYCOWA & RONIEWICZ, 1995b). There were attempts to introduce even some new orders (MONTANARO-GALLITELLI, 1975; KRASNOV, 1970; MELNIKOVA, 1984). Some of these systematic units have so far not been accepted (see TURNŠEK & LÖSER, 1993).

In recent years the tendency has been to base the suborders on only a single criterium, i.e. microstructure (RONIEWICZ & MORYCOWA, 1993; MORYCOWA & RONIEWICZ, 1995a, b; partly also KOŁODZIEJ, 1995). Within the different microstructure types MORYCOWA & RONIEWICZ (1995b) excluded the new suborder Microsoleniina (which in great part rests on the superfamily Pennulaceae Gill, 1967) from Fungiina. On the other hand, because of its similar microstructure KOŁODZIEJ (1993) suggested allocating the suborder Heterocoeniina to the Amphistraeina.

In order to complete the systematics of Scleractinia, several authors studied and characterized the importance of different skeletal elements: MORI et al. (1977) studied the ontogeny of eutheca, BUDD-FOSTER (1984) stated the relation of structural elements in some plocoid corals, LATHUILLIÈRE (1988, 1996a,b) researched the development of *Isastraea* and *Montlivaltia* in several environments, MORSCH (1994) studied the relation of colony forms in *Confusastraea* and *Complexastraea*, WELLS (1986)

compiled all scleractinian genera, BERTLING (1995b) attempted to classify all the coral structural elements, LÖSER (1996b) compiled a database of structural elements to distinguish the position of several coral systematic categories.

Cathodoluminescence microscopy has become an important tool for analysis of microstructural characteristics. It allows better recognition of aragonitic and diagenetically changed calcitic microstructures (RITTEL & STANLEY, 1993), as well as the comparison of Mesozoic corals with recent ones (ZŁATARSKI, 1982), the comparison of scleractinians with rugosans (ILYINA, 1983; SORAUF, 1993, 1996), and the study of coral evolution (OLIVER, 1996; VERON, 1995, 1996).

Another classification of recent and fossil corals is indicated by the analyses of the molecular 16S ribosomal DNA sequence in some scleractinians, which were made by ROMANO & PALUMBI (1996).

Some smaller corrections of systematics (which are also specified in the presentation of species in this work) can be summarized as follows:

BEAUVAIS (1981) attempted to complete the whole system of Scleractinia, RONIEWICZ (1976, 1989) systematized Jurassic and Norian-Rhaetian corals from Poland and Romania, CUIF (1977) made a revision of some Triassic corals, ERRENT (1990-1991) critically reviewed the systematics of some Upper Jurassic corals from Spain, MELNIKOVA (1983) systematized Triassic corals from the Pamir, ELIÁŠOVÁ (1976a, 1978, 1991) introduced some new higher taxa and redescribed the genus *Glenarea*, MASSE & MORYCOWA (1994) revised the genus *Hydnophora*, VIDAL (1980) systematized the genus *Phyllocoenia*, SIHARULIDZE (1979) redescribed the genus *Columellogyra*, BEAUVAIS (1982) made an up-to-date system of the Upper Cretaceous Gosau corals, LAUXMANN (1991) revised some Jurassic corals from Germany, MORYCOWA (1995) moved the genus *Eugyra* from Stylinina into Faviina, BERNECKER (1996) systematized some Triassic corals from Oman, BARON-SZABO & STEUBER (1996) systematized some Cretaceous corals from Greece, MORSCH (1996) revised some Bajocian

corals from Argentina, BARON SZABO (1997) systematized Cretaceous corals of southern Germany.

In spite of efforts to unify scleractinian systematics there are differences in the opinion of several authors, and so far we do not have unique and complete system. Even the newest systematics of high scleractinian taxa proposed by VERON (1995) and RONIEWICZ (1996) differ a little.

Therefore in this work I use the system from my previous works complemented with some of the later revisions mentioned above. Coral microstructure in Slovene localities is too poorly preserved to allow me to estimate these revisions and make an non-independent system of scleractinians.

Taking these statements into account, I arrange the Mesozoic corals from Slovenia into the following systematics of suborders, families and genera (in alphabetic order):

Subordo: Amphistraeina Alloiteau 1952
 Familia: Amphistraeidae Ogilvie 1897
 Genus: *Amphistraea* Étallon 1859
 Familia: Donacosmilidae Krasnov 1970
 Genus: *Donacosmia* Fromentel 1861
 Familia: Mitrodendronidae Alloiteau 1952
 Genus: *Mitrodendron* Quenstedt 1880
 Genus: *Amphiaulastraea* Geyer 1955
 Familia: Opisthophyllidae Geyer 1955
 Genus: *Pseudopisthophyllum* Geyer 1955
 Familia: Heterocoeniidae Oppenheim 1930 (?)
 Genus: *Heterocoenia* Edwards & Haime 1849
 Genus: *Latusastraea* d'Orbigny 1850

Subordo: Archaeocoeniina Alloiteau 1952
 Familia: Actinastraeidae Alloiteau 1952
 Genus: *Actinastraea* d'Orbigny 1849
 Genus: *Allocoenia* Étallon 1858
 Genus: *Chondrocoenia* Roniewicz 1989
 Genus: *Columactinastraea* Alloiteau 1952
 Genus: *Enallocoenia* d'Orbigny 1849
 Familia: Acroporidae Verrill 1902
 Genus: *Etallonasteria* Roniewicz 1987
 Genus: *Koilocoenia* Duncan 1884 (?)
 Genus: *Crassistella* Roniewicz 1989 (?)

Subordo: Archaeofungiina Beauvais 1981 (?)
 Familia: Astraeomorphidae Frech 1890
 Genus: *Astraeomorpha* Reuss 1854
 Familia: Conophyllidae Alloiteau 1952
 Genus: *Omphalophyllia* Laube 1865
 Genus: *Rhopalodendron* Turnšek 1989
 Familia: Cuifastraeidae Melnikova 1983

Genus: *Cuifastraea* Melnikova 1983
 Genus: *Gillastraea* Melnikova 1983
 Familia: Gumbelastreaeidae Cuif 1977
 Genus: *Gumbelastrea* Cuif 1976
 Genus: *Stuoresia* Cuif 1976
 Familia: Procyclolitidae Vaughan & Wells 1943
 Genus: *Andrazella* Cuif 1976
 Genus: *Alpinoseris* Roniewicz 1989
 Genus: *Araiophyllum* Cuif 1975
 Genus: *Craspedophyllia* Volz 1896
 Genus: *Myriophyllum* Cuif 1975
 Genus: *Procyclolites* Frech 1890
 Familia: Tropiastreidae Cuif 1977
 Genus: *Thamnotropis* Cuif 1975
 Genus: *Tropidendron* Cuif 1975

Subordo: Caryophylliina Vaughan & Wells 1943
 Familia: Parasmiliidae Alloiteau 1952
 Genus: *Conicosmilitrochus* Turnšek 1978

Subordo: Distichophylliina Beauvais 1981
 Familia: Margarophylliidae Cuif 1977
 Genus: *Margarophyllia* Volz 1896
 Genus: *Margarosmia* Volz 1896
 Familia: Distichophylliidae Cuif 1977 (?)
 Genus: *Distichophyllia* Cuif 1974
 Genus: *Palaeastraea* Kühn 1936
 Genus: *Parathecospilia* Roniewicz 1974
 Genus: *Retiophyllia* Cuif 1966
 Genus: *Toechastraea* Volz 1896
 Familia: Coryphylliidae Beauvais 1981
 Genus: *Coryphyllia* Cuif 1974
 Genus: *Cuifia* Melnikova 1975
 Genus: *Pokljukospilia* Turnšek 1989

Subordo: Faviina Vaughan & Wells 1943
 Familia: Axosmiliidae Geyer 1955
 Genus: *Axospilia* Edwards & Haime 1848
 Genus: *Peplosmia* Milne Edwards & Haime 1848
 Familia: Heliastreaeidae Alloiteau 1952
 Genus: *Procladocora* Alloiteau 1952
 Familia: Isastraeidae Alloiteau 1952
 Genus: *Isastraea* Milne-Edwards & Haime 1851
 Familia: Faviidae Gregory 1900
 Genus: *Eohydnophora* Eguchi 1936
 Genus: *Eugyra* Fromentel 1857
 Genus: *Felixigra* Prever 1909
 Genus: *Hydnophora* Fischer 1807
 Genus: *Myriophyllia* d'Orbigny 1849
 Genus: *Columellogyra* Turnšek 1976 (?)
 Familia: Montlivaltiidae Dietrich 1926
 Genus: *Ceratothecia* Turnšek 1972

Genus: *Clausastraea* d'Orbigny 1850
 Genus: *Complexastraea* d'Orbigny 1849
 Genus: *Diplogyra* Eguchi 1936
 Genus: *Elyastraea* Laube 1864
 Genus: *Latiphyllia* Fromentel 1861
 Genus: *Montlivaltia* Lamouroux 1821
 Genus: *Thecosmilia* Milne-Edwards & Haime 1848
 Familia: Placosmiliidae Alloiteau 1952
 Genus: *Placophyllia* d'Orbigny 1848
 Genus: *Placosmilia* Milne Edwards & Haime 1848

Subordo: Fungiina Verrill 1865
 Familia: Acrosmiliidae Alloiteau 1952
 Genus: *Acrosmilia* d'Orbigny 1849
 Genus: *Stephanosmilia* Fromentel 1862
 Familia: Actinacididae Vaughan & Wells 1943
 Genus: *Actinacis* d'Orbigny 1849
 Genus: *Actinaraea* d'Orbigny
 Familia: Andemantastraeidae Alloiteau 1952
 Genus: *Andemantastraea* Alloiteau 1952
 Familia: Dermosmiliidae Koby 1889 (?)
 Genus: *Calamophylliopsis* Alloiteau 1952
 Genus: *Dermosmilia* Koby 1884
 Genus: *Epistreptophyllum* Milaschewitsch 1876
 Familia: Haplaraeidae Vaughan & Wells 1943
 Genus: *Diplaraea* Becker & Milaschewitsch 1876
 Genus: *Meandrophyllia* d'Orbigny 1849
 Genus: *Pseudofavia* Oppenheim 1930
 Familia: Pachyphyllidae Beauvais 1982
 Genus: *Neocaeniopsis* Alloiteau 1957
 Familia: Siderastraeidae Vaughan & Wells 1943
 Genus: *Siderastraea* Blainville 1830
 Familia: Thamnasteriidae Vaughan & Wells 1943
 Genus: *Thamnasteria* Lesauvage 1823
 Familia: Pamiroseridae Melnikova 1984
 Genus: *Pamiroseria* Melnikova 1971

Subordo: Meandriina Alloiteau 1952 (?)
 Familia: Smilotrochiidae Alloiteau 1952
 Genus: *Plesiosmilia* Milaschewitsch 1876
 Familia: Dendrogyridae Alloiteau 1952
 Genus: *Meandroria* Alloiteau 1952
 Genus: *Orbignygyra* Alloiteau 1952
 Genus: *Strotogyra* Wells 1937
 Familia: Meandriidae Alloiteau 1952
 Genus: *Aulosmilia* Alloiteau 1952
 Genus: *Dasmiopsis* Oppenheim 1930
 Genus: *Rennensismilia* Alloiteau 1952
 Familia: Smilotrochiidae Alloiteau 1952
 Genus: *Phyllocoenia* Milne Edwards & Haime 1848

Subordo: Microsolenina Morycowa & Roniewicz 1995

Familia: Cunnolitidae Alloiteau 1952
 Genus: *Cunnolites* Barrère 1746
 Familia: Latomeandridae Alloiteau 1952
 Genus: *Dimorphastraea* d'Orbigny 1849
 Genus: *Fungiastraea* Alloiteau 1952
 Genus: *Microphyllia* d'Orbigny 1849
 Genus: *Mixastraea* Roniewicz 1976
 Genus: *Latomeandra* Milne Edwards & Haime 1849
 Genus: *Ovalastraea* d'Orbigny 1849
 Genus: *Thamnoseris* Étallon 1864
 Familia: Microsolenidae Koby
 Genus: *Chomatoseria* Thomas 1935
 Genus: *Collignonastraea* Alloiteau 1958
 Genus: *Comoseris* d'Orbigny 1849
 Genus: *Meandraraea* Étallon 1859
 Genus: *Microsolena* Lamouroux 1821
 Genus: *Polyphylloseris* Fromentel 1857
 Familia: Synastraeidae Alloiteau 1952
 Genus: *Synastraea* Edwards & Haime 1848

Subordo: Pachythecaliina Eliášová 1976
 Familia: Cyclophylliidae Roniewicz 1989
 Genus: *Cyclophyllia* Roniewicz 1989
 Familia: Gablonzeriidae Roniewicz 1989
 Genus: *Gablonzeria* Cuif 1976
 Familia: Volzeidae Beauvais 1981
 Genus: *Volzeia* Cuif 1966
 Familia: Protoheterastraeidae Cuif 1977
 Genus: *Protoheterastraea* Well 1937
 Familia: Pachythecalidae Cuif 1975 ?
 Genus: *Cassianastraea* Volz 1896
 Genus: *Pachydendron* Cuif 1975

Subordo: Rhipidogyrina Roniewicz 1976
 Familia: Rhipidogyridae Koby 1904
 Genus: *Acanthogyra* Ogilvie 1897
 Genus: *Ironella* Starostina & Krasnov 1970
 Genus: *Pruvostastraea* Alloiteau 1957

Subordo: Stylinina Alloiteau 1952
 Familia: Cladophylliidae Morycowa & Roniewicz 1990
 Genus: *Apocladophyllia* Morycowa & Roniewicz 1990
 Genus: *Cladophyllia* Edwards & Haime 1851
 Familia: Cyathophoridae Vaughan & Wells 1943
 Genus: *Cyathophora* Michelin 1843
 Genus: *Pseudocoenia* d'Orbigny 1850
 Genus: *Pseudocoeniopsis* Roniewicz 1976
 Familia: Euhellidae Vaughan & Wells 1943
 Genus: *Enallhelia* Milne Edwards & Haime 1848
 Familia: Stylinidae d'Orbigny 1851
 Genus: *Goniocora* Milne-Edwards & Haime 1851
 Genus: *Heliocoenia* Étallon 1859

Genus: *Proaplophyllia* Roniewicz 1976
 Genus: *Solenocoenia* Roniewicz & Gill 1976
 Genus: *Stylina* Lamarck 1816
 Genus: *Stylosmia* Milne Edwards & Haime 1848

Subordo: Stylophyllina Beauvais 1981

Familia: Stylophyllidae Frech 1890E

Genus: *Stylophyllum* Reuss 1854

Genus: *Stylophylloopsis* Frech 1890

Octocorallia

Genus: *Pseudopolytremacis* Morycowa 1971

Stratigraphical distribution of the suborders

	Carnian	Norian/Rhaetian	Upper Jurassic	Lower Cretaceous	Upper Cretaceous
<i>Pachythecaliina</i>	•	•			
<i>Distichophylliina</i>	•	•			
<i>Archaeofungiina</i>	•	•			
<i>Stylophyllina</i>		•			
<i>Archaeocoeniina</i>		•	•		
<i>Rhipidogyrina</i>			•		
<i>Stylinina</i>			•	•	
<i>Fungiina</i>			•	•	•
<i>Amphiastraeina</i>			•	•	•
<i>Faviina</i>			•	•	•
<i>Microsolenina</i>			•	•	•
<i>Meandriina</i>				•	•
<i>Caryophylliina</i>					•

Possible phylogenetic relationships of the suborders

1	<i>Pachythecaliina</i>	•	•			
	<i>Stylophyllina</i>	•				
	<i>Amphiastraeina</i>		•	•	•	•
2	<i>Archaeocoeniina</i>	•	•	•		
	<i>Stylinina</i>		•	•		
3	<i>Distichophylliina</i>	•	•			
	<i>Rhipidogyrina</i>		•			
	<i>Faviina</i>		•	•	•	•
	<i>Meandriina</i>			•	•	•
	<i>Caryophylliina</i>					•
4	<i>Archaeofungiina</i>	•	•			
	<i>Fungiina</i>		•	•	•	•
	<i>Microsolenina</i>		•	•	•	•

DESCRIPTION OF THE CORAL SPECIES

Representation of each species includes:

- Synonymy:
- **Description:** main characteristics of form of growth and colony; form of transverse corallites, peritheca; multiplication; septa in general, cycles, ornamentations; wall; columella; endotheca; microstructure; dimensions (d=diameter of transverse corallite, s=number of septa or density of septa in a certain distance),
- Remarks: if there have been some changes since the species was described from Slovene localities, or some new revisions.
- **Locality:** all localities in Slovenia; and distribution in the world.
- **Age:** stratigraphical position in Slovenia; and in the world.
- **Paleoenvironment:** the paleoecological position of localities in Slovenia correlated with the paleogeographical units.

- Graphics: Distribution and stratigraphy of every species in Slovenia.

Explanation of Plates

Photos of each species are shown mainly in the following enlargements:

- x 1; colony or corallum surface, not in all species.
- x 4, x 8; transverse and longitudinal sections of colonies or solitary corals, the thin sections being enlarged directly onto the photographic paper (negative).
- x 40; microstructure, always in transverse section, if not indicated otherwise.

Each figure is indicated by a letter (A, B, C...) and the definition of the section, number of specimens, and enlargement are given.

Acanthogyra columnaris Ogilvie 1897

- 1897 *Acanthogyra columnaris* Ogilvie. OGILVIE, 131-132, Pl. 16, fig. 2.
 1955a *Acanthogyra columnaris* Ogilvie. GEYER, 197, Pl. 25, fig. 3.
 1972 *Acanthogyra columnaris* Ogilvie. TURNŠEK, 209, 258, Pl. 37, figs. 1-2.
 1973 *Acanthogyra columnaris* Ogilvie. ELIÁŠOVÁ, 274, Pl. 2, fig. 1, Pl. 14, fig. 2.
 1976 *Acanthogyra columnaris* Ogilvie. BEAUVAIS, 17-18, Pl. 1, fig. 3, Pl. 3, fig. 6, Pl. 4, fig. 3.
 1985 *Acanthogyra columnaris* Ogilvie. ROSENDAHL, 70, Pl. 8, fig. 2.
 1991 *Acanthogyra columnaris* Ogilvie. ERRENST, 6, Pl. 13, fig. 5.

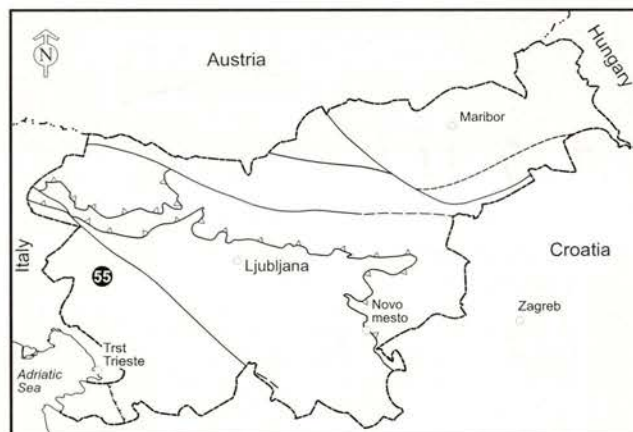
Description: Cerioid colony, polygonal corallites, intratentacular budding. Septa compact, bylateral, in 3-4 irregular cycles. Septoparatheca, lamellar columella, tabulate and vesicular dissepiments, microstructure of thick trabeculae. $d = 4-6 \times 6-8 \text{ mm}$, $c-c = 5-8 \text{ mm}$, $s = 10-12+s$.

Localities: 55 Mrzovec (P-258); Germany, Czech R. (Štramberk), Portugal, Spain.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian-Tithonian.

Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	

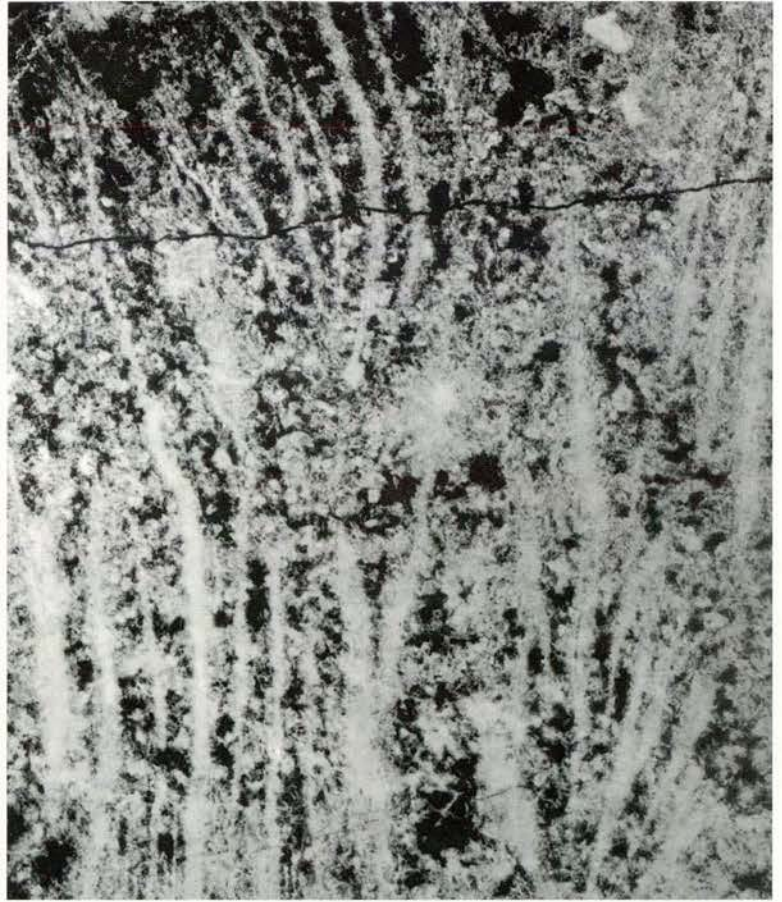


A: transverse section; P-258a, x 4.
 B: longitudinal section; P-258b, x 8.

C: transverse section; P-258c, x 8.
 D: microstructure, thick trabeculae; P-258a, x 40.



A

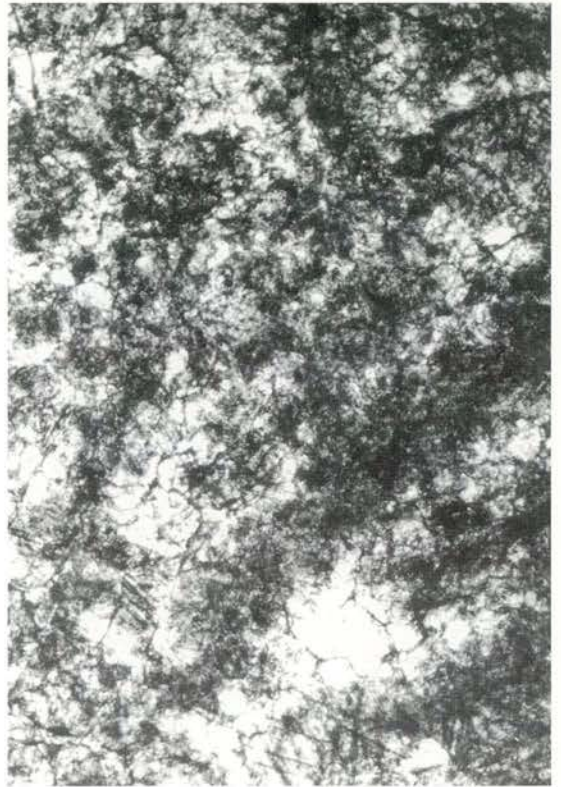


B

C



D



Acanthogyra multiformis Ogilvie 1897

- 1897 *Acanthogyra multiformis* Ogilvie. OGILVIE, 132-133, Pl. 16, fig. 1.
 1955a *Acanthogyra multiformis* Ogilvie. GEYER, 197.
 1972 *Acanthogyra multiformis* Ogilvie. TURNŠEK, 209, 258, Pl. 37, figs. 3-4.
 1973 *Acanthogyra multiformis* Ogilvie 1897. ELIÁŠOVÁ, 273, Pl. 1, fig. 1, Pl. 14, fig. 1, Textfig. 1.
 1976 *Columnogyra multiformis* (Ogilvie) n. g., BEAUVAIS, 18-19, Pl. 4, fig. 4.
 1985 *Acanthogyra multiformis* Ogilvie. ROSENDAHL, 69-70, Pl. 8, fig. 1.
 1991 *Acanthogyra multiformis* Ogilvie. ERRENST, 5-6, Pl. 13, fig. 4a-f.

Description: Cerioid colony, polygonal to oval corallites, budding intratentacular. Septa bilateral in 2-3 irregular cycles, laterally granulated. Septotheca, lamellar columella, tabulate and vesicular dissepiments, microstructure of thick trabeculae. d = 7-8 x 9-10 mm, c-c = 7-10 mm, s = 14-16+s.

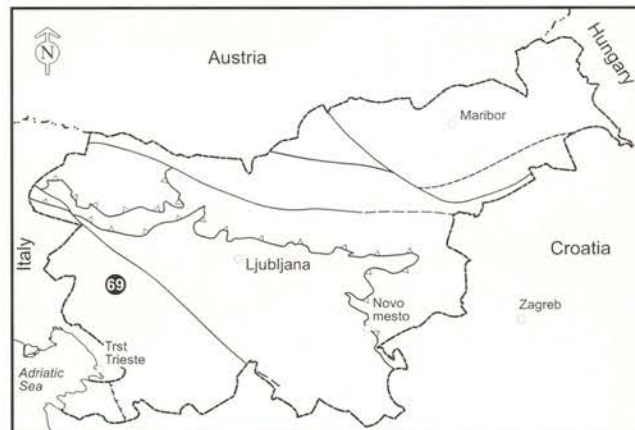
Remarks: *Columnogyra multiformis* (BEAUVAIS, 1976) not accepted later.

Localities: 69 Selovec (P-483); Czech R. (Štramberk), Portugal, Spain.

Age: J: Upper Oxfordian-Kimmeridgian; J: Tithonian.

Paleoenvironment: Central barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
	Lias	Toarcian	
		Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-483a, x 4.
 B: longitudinal section; P-483b, x 4.
 C: detail from B; x 8.

D: detail from A; x 8.
 E: microstructure, thick trabeculae; P-483a, x 40.



A



B



C

D

E



Acrosmilia conica d'Orbigny 1850

- 1850 *Acrosmilia conica* n. D'ORBIGNY, 203.
 1863 *Leptophyllia conica*. FROMENTEL, 302, Pl. 45, fig. 2.
 1914 *Leptophyllia conica* Orbigny. FELIX, 194.
 1978 *Acrosmilia conica* (d'Orbigny). TURNŠEK, 82-83, 113-114, Pl. 16, figs. 1-7.
 1982 *Acrosmilia conica* d'Orbigny. BEAUVAIS, II, 138-140, Pl. 40, figs. 2-3.

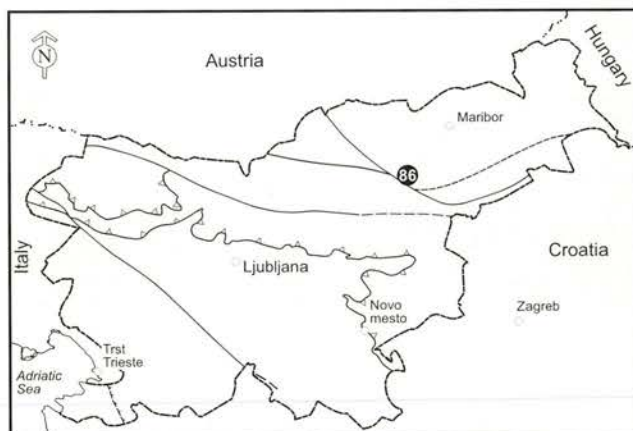
Description: Solitary flabelate corallum, oval calice, wide base. Septa rarely perforated, twisted, in 4-5 cycles. Synapticulotheca, parietal columella, dissepiments and synapticulae present. Microstructure fibrous with midseptal line. h = 20-25 mm, d = 35-40 x 15-20 mm, s = ca 90.

Localities: 86 Stranice-Rugelj (32, 34); France, Austria (Gosau), Greece.

Age: K: Santonian-Campanian; K: ?Cenomanian, Santonian.

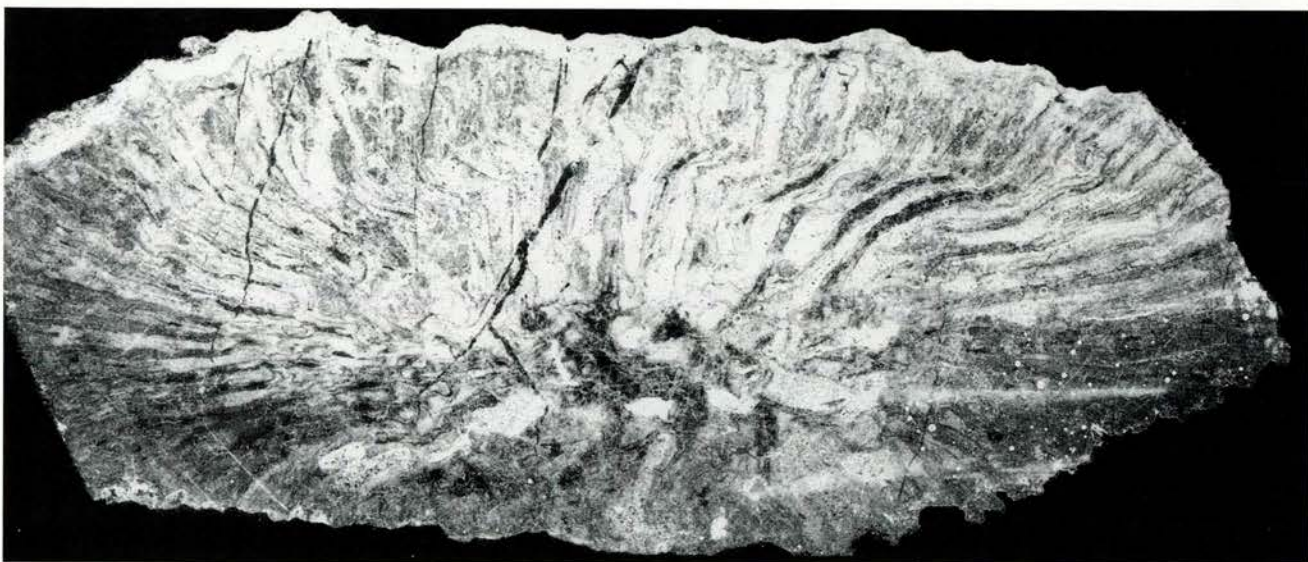
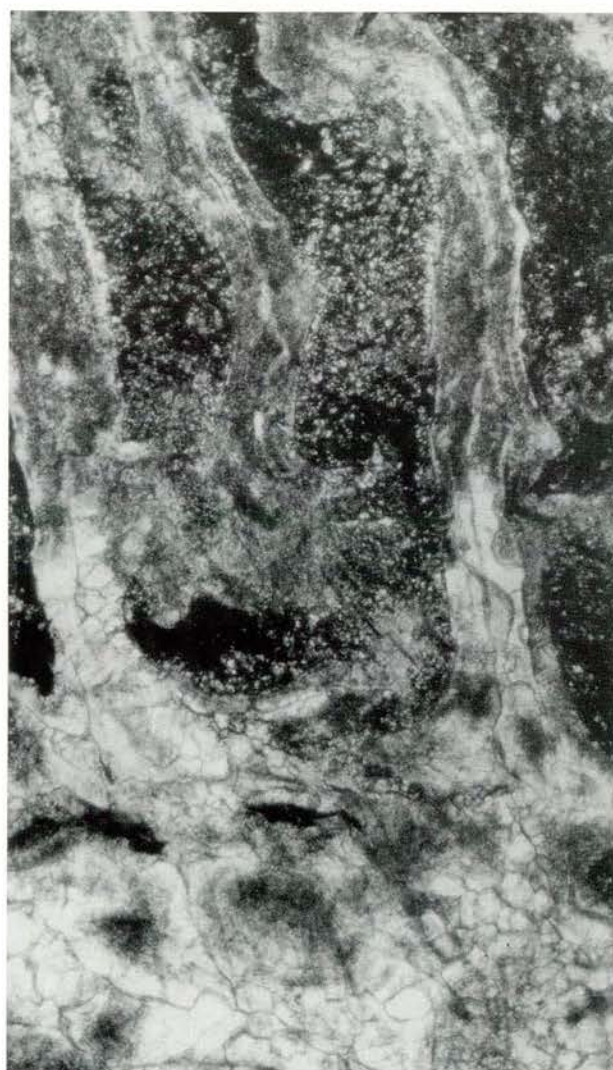
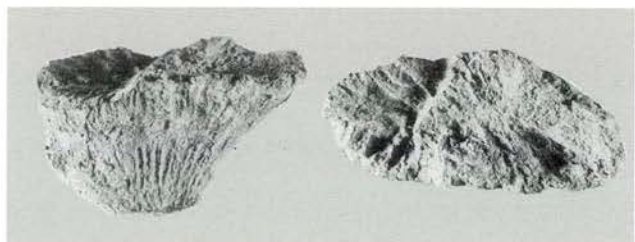
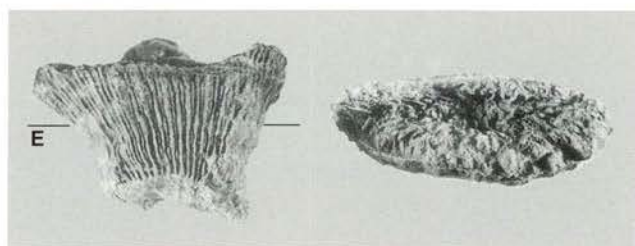
Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
		Turonian		
		Cenomanian		
	Lower	Albian		
		Aptian		
		Barremian		
		Hauterivian		
		Valanginian		
		Berriasian		



- A: surface from side; St-34, x 1.
 B: surface from above; St-34, x 1.
 C: surface from side; St-32, x 1.
 D: surface from above; St-32, x 1.

- E: transverse section; St-34a, x 4.
 F: microstructure, fibres and midseptal line; St-34a, x 40.
 G: fig. E; x 8.



Actinacis martiniana d'Orbigny 1850

- 1850 *Actinacis martiniana*. D'ORBIGNY, II, 209.
 1854 *Actinacis martiniana* d'Orbigny. REUSS, 127, Pl. 24, figs. 12-15.
 1880 *Actinacis martiniana* d'Orbigny. QUENSTEDT, 900, Pl. 178, fig. 29.
 1903 *Actinacis martiniana* d'Orbigny. FELIX, 177-178, Textfig. 3.
 1930 *Actinacis martiniana* d'Orbigny. OPPENHEIM, 14-18, Pl. 1, figs. 4-5.
 1958 *Actinacis martiniana* d'Orbigny, ALLOITEAU, 177-178.
 1968 *Actinacis martiniana* d'Orbigny. TURNŠEK, 362, Pl. 9, fig. 3.
 1978 *Actinacis martiniana* d'Orbigny. TURNŠEK & POLŠAK, 160, 177, Pl. 16, figs. 1-4.
 1982 *Actinacis martiniana* d'Orbigny. BEAUVAIS, II, 267-268, Pl. 48, fig. 2.
 1994 *Actinacis martiniana* d'Orbigny. TURNŠEK, 15, Pl. 10, figs. 4-6.
 1997 *Actinacis martiniana* d'Orbigny. SANDERS & BARON-SZABO, 74, Pl. 21, fig. 6.
 1997 *Actinacis martiniana* d'Orbigny. BARON-SZABO, 79, Pl. 11, figs. 2, 5, 6.

Description: Encrusting colony, round corallites, wide spongy perithecium. Septa porous, laterally ornamented, in 3 cycles. Septo-synapticulotheca, parietal columella, microstructure trabecular. $d = 1.2-2.5$ mm, $cc = 3$ mm, $s = 24$ (55-60/10 mm).

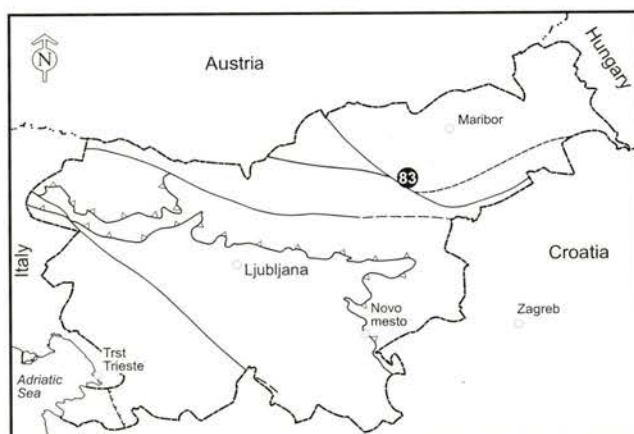
Remarks: ALLOITEAU (1958, 177) distinguished *Actinacis martiniana* of D'ORBIGNY (1850) and that of REUSS (1854) being of different size and wall structure. Our specimens have an intermediate diameter 1.2-2.5 mm, and also the wall is partly perforated and thick and partly "compact" and thin. So I ascribe all specimens to the same species.

Localities: 83 Stranice-quarry 1/2, 1/20, 1/29, 2/6; Austria, Germany, France, Croatia, western Serbia.

Age: K: Santonian-Campanian; K: Santonian-Campanian-Maastrichtian.

Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
		Turonian		
		Cenomanian		
	Lower	Albian		
		Aptian		
		Barremian		
		Hauterivian		
		Valanginian		
		Berriasian		



A: surface from above; St-1/20, x 1.

B: detail from A; x 4.

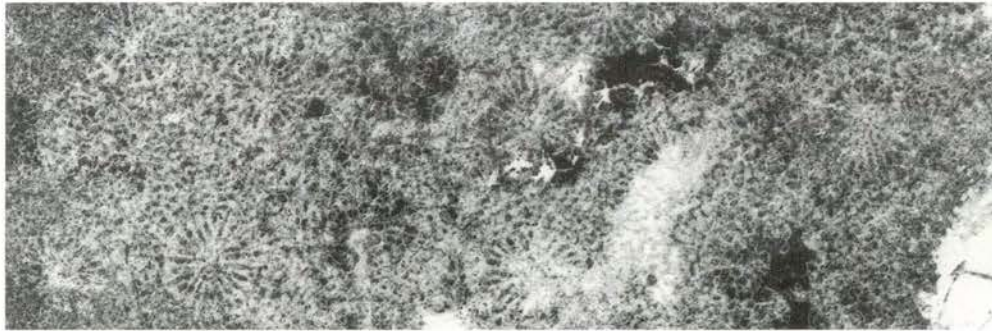
C: transverse section; St-1/20a, x 4.



A



B



C

Actinacis reussi Oppenheim 1930

- 1930 *Actinacis reussi* n. sp. OPPENHEIM, 8-9, Pl. 1, fig. 5, Pl. 10, fig. 2, Pl. 15, fig. 6.
 1982 *Actinacis reussi* Oppenheim. BEAUVAIS, II, 271-273, Pl. 48, figs. 5-6.
 1994 *Actinacis reussi* Oppenheim. TURNŠEK, 14, Pl. 10, figs. 1-3.

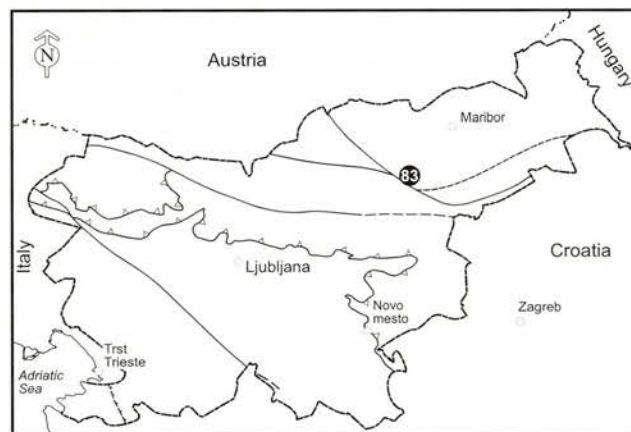
Description: Encrusting plocoid colony, round corallites, large spongy peritheca. Septa porous, laterally granulated, pennulated in ca 3-4 cycles. Synapticulotheca, columella unclear (?parietal, sometimes looks styloform), microstructure trabecular. d = 1.5-2(2.2) mm, cc = 2.5-3(4) mm, s = ca 24 (20-28), density of elements in peritheca = 40-50/10 mm.

Localities: 83 Stranice-quarry 3/1; Austria (Gosau), France (Corbières).

Age: K: Santonian-Campanian; K: Coniacian-Santonian.

Paleoenvironment: Austro-Alpine shoal, Gosau facies.

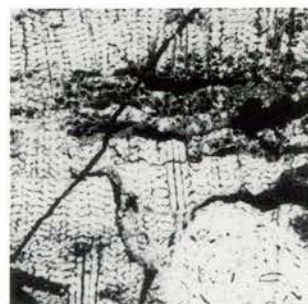
CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
		Turonian		
		Cenomanian		
		Lower	Albian	
	Aptian			
	Barremian			
	Hauterivian			
	Valanginian			
	Berriasian			



- A: transverse section; St-3/1a, x 4.
 B: longitudinal section; St-3/1b, x 4.
 C: detail from A, x 16.

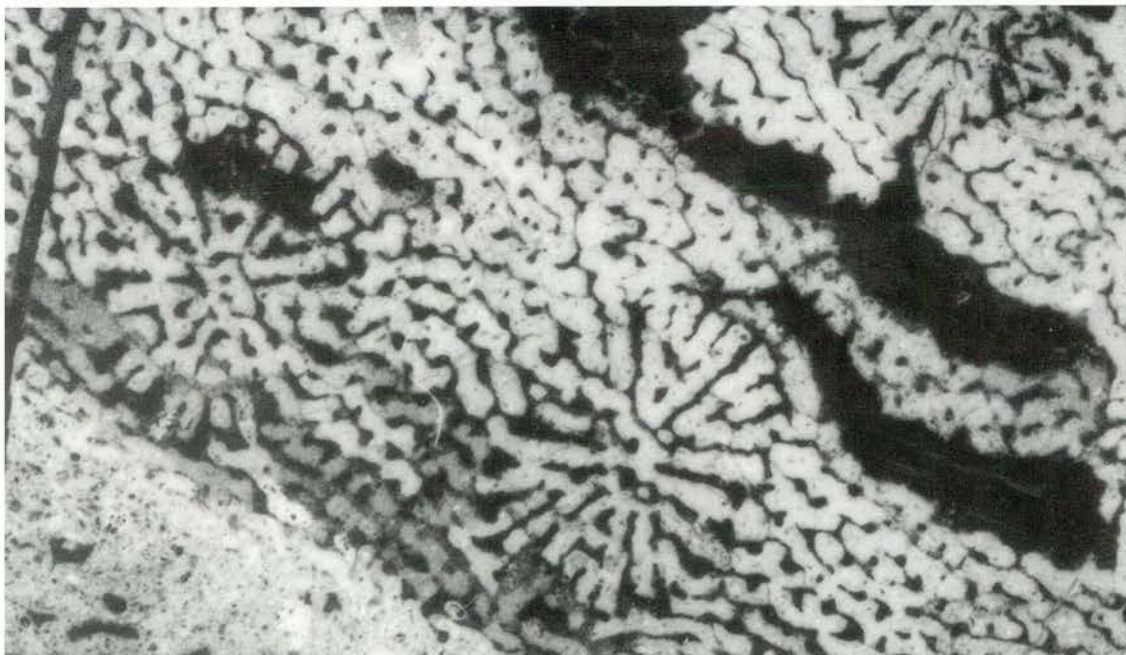


A



B

C



Actinaraea granulata (Münster) 1829

- 1829 *Agaricia granulata*. MÜNSTER, n. v.
 1876 *Actinaraea granulata* Münster. MILASCHWITSCH, 231-232, Pl. 51, fig. 4.
 1954 *Actinaraea granulata* (Münster). GEYER, 171, Pl. 14, fig. 4.
 1966 *Actinaraea granulata* (Münster). RONIEWICZ, 249-250, Pl. 25, figs. 2-3.
 1968 *Actinaraea granulata* (Münster). LAMBELET, 187-191, Textfigs. 98-103.
 1972 *Actinaraea granulata* (Münster). TURNŠEK, 208, 257-258, Pl. 36, figs. 4-5.
 1973 *Actinaraea granulata* (Münster). TURNŠEK & MIHAJLOVIĆ, 104, Pl. 8, fig. 1.
 1976 *Actinaraea granulata* (Münster). RONIEWICZ, 91, Pl. 23, fig. 3.
 1976 *Actinacis remesi* Felix. TURNŠEK & BUSER, 63-64, 83, Pl. 20, figs. 5-6.
 1982 *Actinaraea granulata* (Goldfuss). BENDUKIDZE, 111-112, Pl. 32, fig. 2, Pl. 33, fig. 2.
 1985 *Actinaraea granulata* (Münster). ROSENDAHL, 69, Pl. 7, fig. 6.
 1991 *Actinaraea granulata* (Münster). ERRENST, 11-12, Pl. 15, figs. 3ab.

Description: Encrusting subplocoid colony with irregularly arranged corallites separated by a wide porous peritheca. Calices round, budding extracalical. Septa irregularly perforated, laterally granulated, in 3-4 cycles. Synapticulotheca incomplete, columella spongy, synapticulae frequent, thin tabulate dissepiments. Microstructure trabecular. $d = 1.6-2$ mm, $cc = 4-6$ mm, $c = 30-38$ (8/2mm).

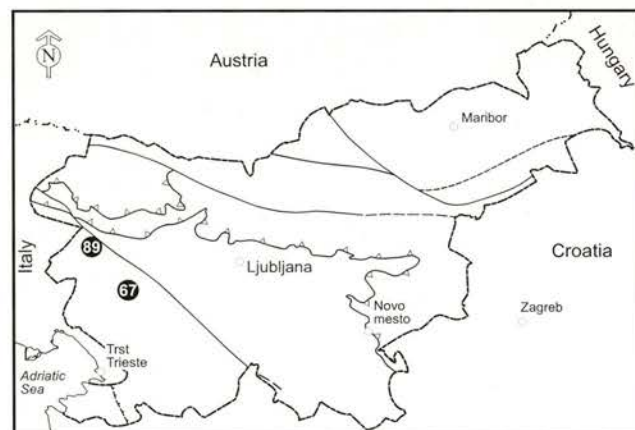
Localities: **67** Otlica (P-424), **89** Kanalski Lom (P-546); Poland, Germany, Serbia, Crimea, Portugal, Romania, Spain.

Remarks: The specimen from Kanalski Lom was wrongly determined as *Actinacis remesi*. It is a Jurassic specimen *Actinaraea granulata* reworked in breccia.

Age: J: Upper Oxfordian-Kimmeridgian; Senonian breccia; J: Oxfordian-Kimmeridgian-Tithonian.

Paleoenvironment: Inner (sheltered) barrier reef on the Dinaric Carbonate Platform. Reef limestone.

CRETACEOUS	Upper	Senonian	JURASSIC
		Turonian	
		Cenomanian	
	Lower	Albian	
		Aptian	
		Barremian	
		Hauterivian	
		Valanginian	
		Berriasian	
	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	

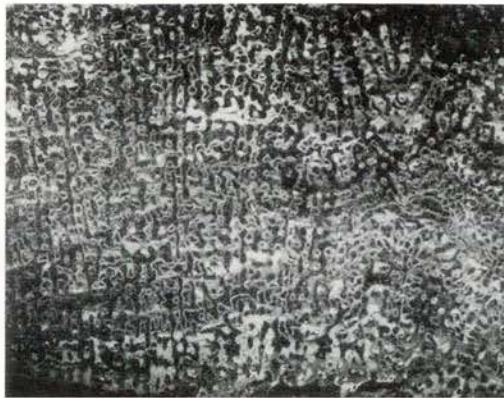


A: transverse section; P-546a, x 4.
 B: longitudinal section; P-546b, x 4.
 C: detail from B, x 8.

D: the same as A, x 8.
 E: microstructure, polycentric trabeculae; P-546a, x 40.



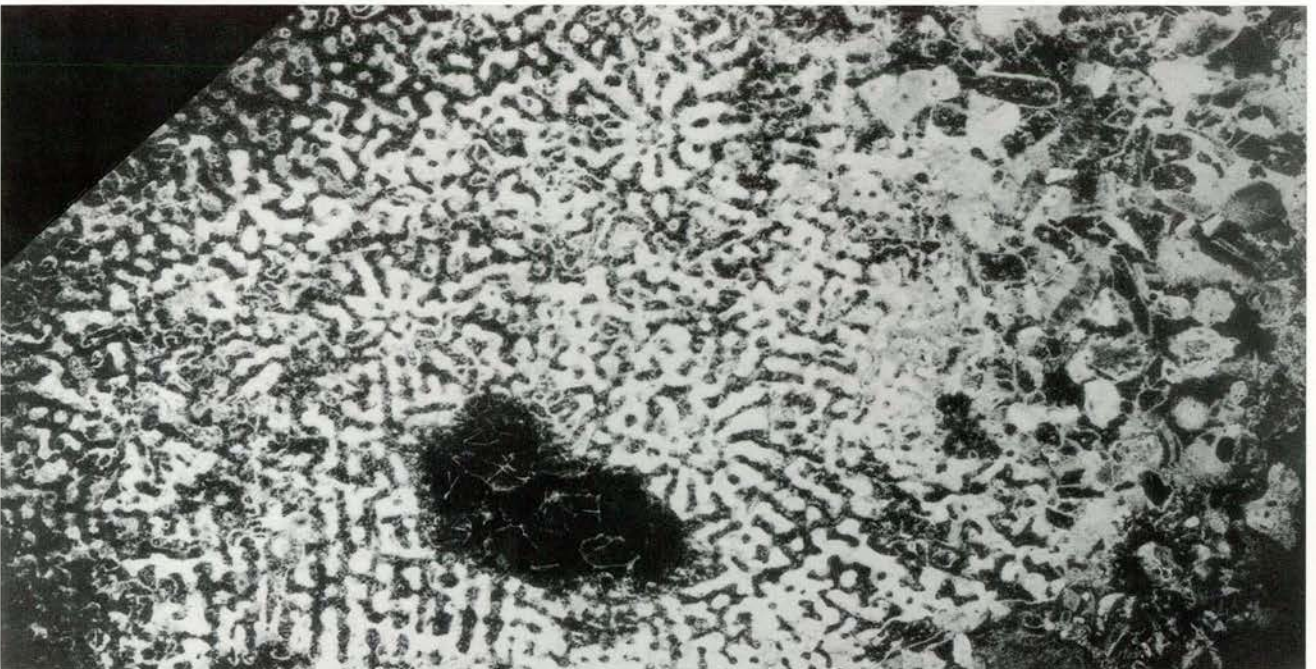
A



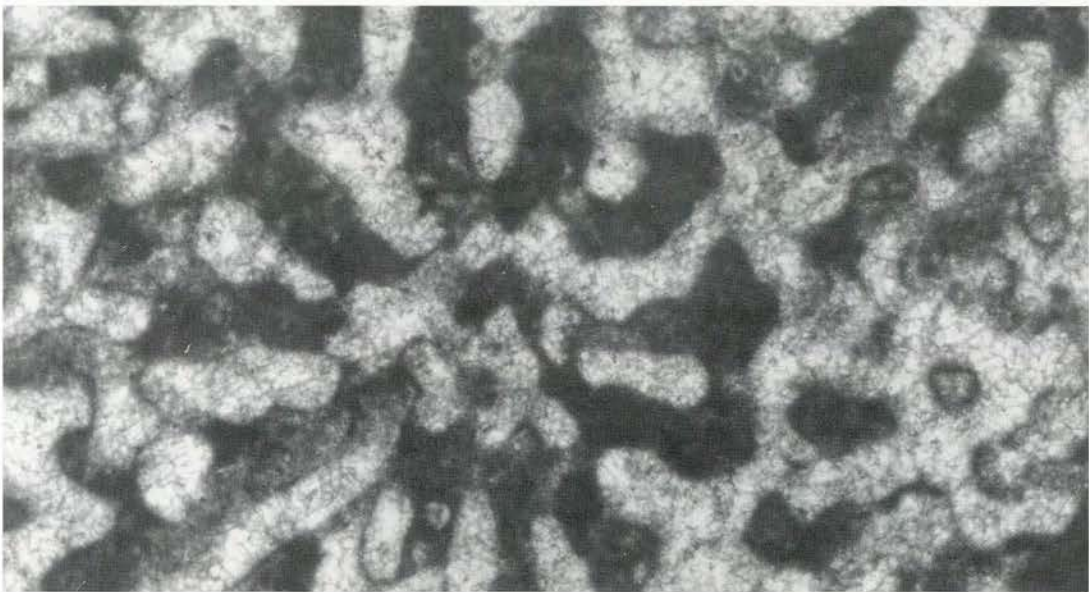
B



C



D



E

Actinaraea tenuis Morycowa 1971

- 1971 *Actinaraea tenuis* n.sp. MORYCOWA, 128-130, Pl. 35, fig. 1.
 1980 *Actinaraea tenuis* Morycowa. KUSMICHEVA, 106-107, Pl. 39, figs. 4ab.
 1981 *Actinaraea tenuis* Morycowa. TURNŠEK & MIHAJLOVIČ, 37-38, Pl.45, figs. 1-4.
 1984 *Actinaraea* aff. *tenuis* Morycowa. SCOTT, 344, Pl. 2, figs. 12-13.
 1985 *Actinaraea tenuis* Morycowa. SIHARULIDZE, 61-62, Pl. 28, figs. 1ab.
 1988 *Actinaraea tenuis* Morycowa. KUSMICHEVA & ALIEV, 175-176, Pl. 8, figs. 2ab.
 1992 *Actinaraea tenuis* Morycowa. TURNŠEK et al., 217-218, Pl. 5, figs. 7-8.
 1997 *Actinaraea tenuis* Morycowa. BARON-SZABO, 79, Pl. 12, figs. 1-2.

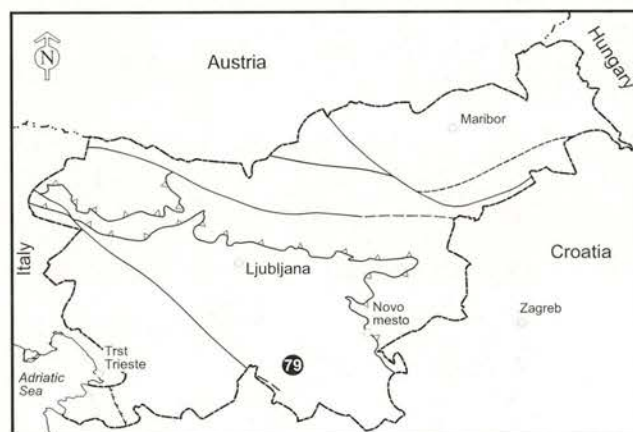
Description: Bulbous or encrusting plocoid colony, slightly identified corallites, spongy peritheca. Septa porous in 2-3 cycles, laterally pennulated. Synapticulo-septotheca, many synapticulae, thin dissepiments, spongy columella, microstructure trabecular. $d = ca\ 2.5-4\ mm$, $s = 12+s3\ (7-8/2\ mm)$.

Localities: 79 Slovenski vrh near Kočevje (C/4); Germany, Romania, East Carpathians, East Serbia, Azerbaidjan, Georgia, Texas.

Age: K: Aptian; K: Berriasian-Aptian.

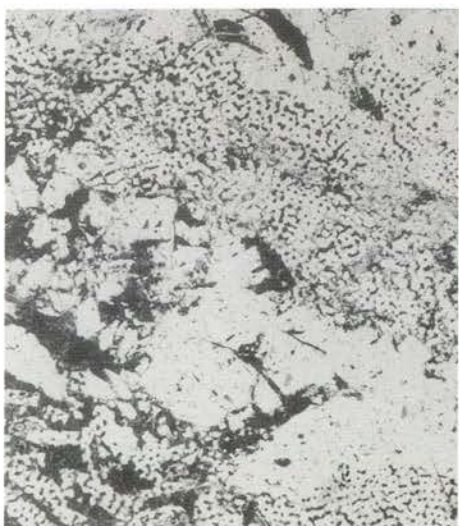
Paleoenvironment: Patch reef in the back reef area of the Dinaric Carbonate Platform.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
		Turonian		
	Cenomanian			
	Lower	Albian		
		Aptian		
		Barremian		
		Hauterivian		
		Valanginian		
		Berriasian		



A: oblique and transverse section; Sv-C/4a, x 4
 B: oblique and longitudinal section; Sv-C/4b, x 4.

C: oblique and longitudinal section; Sv-C/4b, x 8.
 D: microstructure, ?polycentric trabeculae; Sv-C/4a, x40.



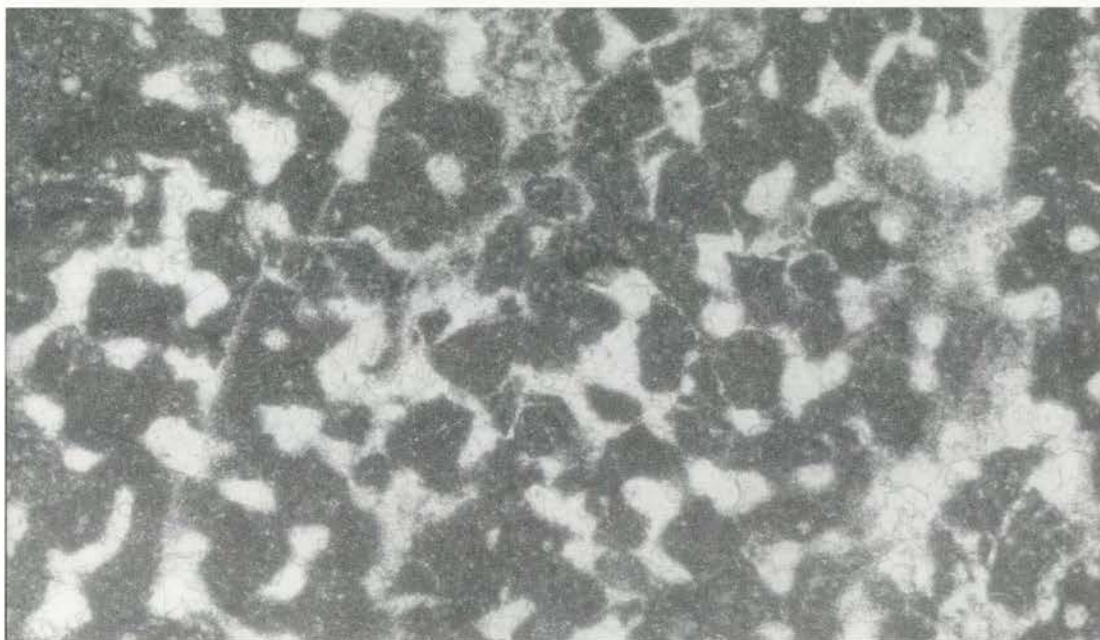
A



B



C



D

Actinastraea octolamellosa (Michelin) 1846

- 1846 *Astrea octolamellosa*. MICHELIN, n.v.
 1954 *Actinastraea octolamellosa* (Michelin). ALLOI-TEAU, 49, Pl. 3, fig. 6, Pl. 8, fig. 1.
 1978 *Actinastraea octolamellosa* (Michelin). TURNŠEK & POLŠAK, 146, Pl. 2, figs. 1-3.
 1982 *Actinastraea octolamellosa* (Michelin). BEAUVAIS, I, 15.
 1994 *Actinastraea octolamellosa* (Michelin). TURNŠEK, 8-9, Pl. 1, figs. 1-4.

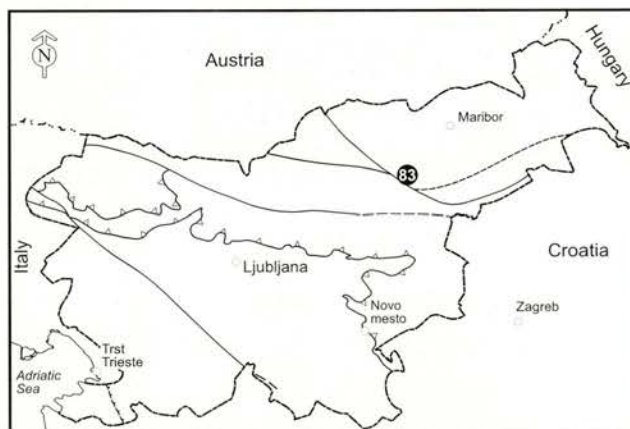
Description: Cerioid bulbous colony, intratentacular budding, polygonal corallites. Septa compact, octomeral, in 2-3 cycles, distally thickened, laterally granulated, axially auriculated. Septotheca, vesicular dissepiments, styliform columella, microstructure of large trabeculae. $d = 1.5-2.1$ mm, $s = 16+s3$.

Localities: 83 Stranice-quarry (1/11, 1/24); Austria, France, Croatia.

Age: K: Santonian-Campanian; K: Santonian.

Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
		Lower	Turonian	
	Cenomanian			
	Albian			
	Aptian			
	Barremian			
	Hauterivian			
	Valanginian			
	Berriasian			



A: surface from above; St-1/24, x 1.
 B: transverse section; St-1/24a, x 4.

C: longitudinal section; St-1/24b, x 4.
 D: detail from B, x 8.

A

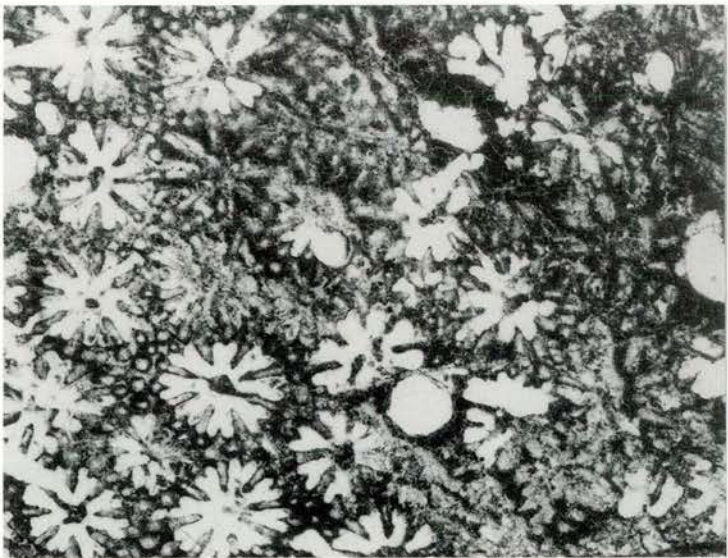


C



B

D



Actinastraea ramosa (Michelin) 1847

- 1847 *Astrea ramosa*. MICHELIN, n.v.
 1854 *Astrocoenia ramosa* (Michelin). REUSS, 96, Pl. 8, fig. 10, Pl. 14, fig. 14.
 1898 *Astrocoenia ramosa* (Michelin). FELIX, 249-251, Pl. 11, fig. 2.
 1903 *Astrocoenia ramosa* (Michelin). FELIX, 56-57.
 1936 *Astrocoenia ramosa* (Michelin). HACKEMESSER, 69.
 1939 *Astrocoenia ramosa*. MILOVANOVIĆ, 114.
 1954 *Astrocoenia ramosa* (Michelin). KOLOSVÁRY, 110-111, Pl. 12, figs. 15-16, Pl. 13, figs. 1-4.
 1954 *Actinastraea ramosa* (Michelin). ALLOITEAU, 53-55, Pl. 4, fig. 3, Pl. 8, fig. 3.
 1878 *Actinastraea ramosa* (Michelin). TURNŠEK & POLŠAK, 145-146, Pl. 1, figs. 1-3.
 1982 *Actinastraea ramosa* (Michelin). BEAUVAIS, I, 16.
 1994 *Actinastraea ramosa* (Michelin). TURNŠEK, 9, Pl. 1, figs. 5-6.

Description: Cerioid colony of branching shape, corallites polygonal. Septa compact, octomeral, in 2 cycles, laterally granulated. Septotheca, vesicular dissepiments, styliiform columella. Microstructure not preserved. d = 1-1.2 mm, s = 16.

Localities: 83 Stranice-quarry (1/8); Austria, Spain, France, Hungaria, Croatia, Serbia, Greece.

Age: K: Santonian-Campanian; K: Santonian-Campanian.

Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A surface from above; St-1/8, x 2.

B detail from A; x 8.



A



B

Actinastraea regularis Turnšek 1972

1972 *Actinastraea regularis* n. sp. TURNŠEK, 160, Tab. 1, sl. 1-2, Tab. 2, sl. 1-2.

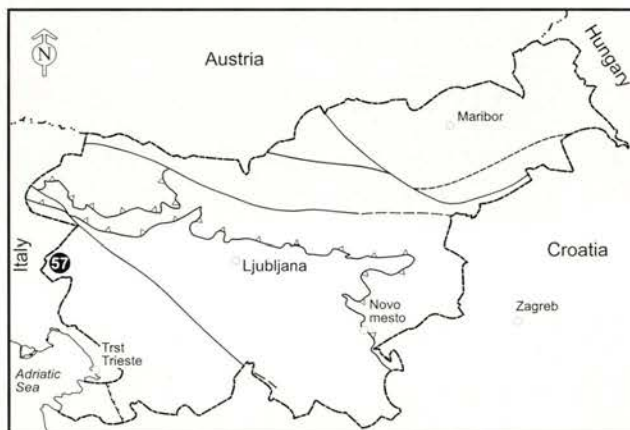
Description: Cerioid colony, polygнал corallites, intercalicinal budding. Nonconfluent septa of octomeral system in two cycles, laterally rarely granulated. Septotheca, thick styliform to lamellar columella, rare dossepiments, microstructure poorly preserved, it shows some kind of trabecular centres. d = 1 mm, c-c = 1-1.2 mm, s = 16.

Localities: 57 Plave (P-649)

Age: J: Upper Oxfordian-Kimmeridgian.

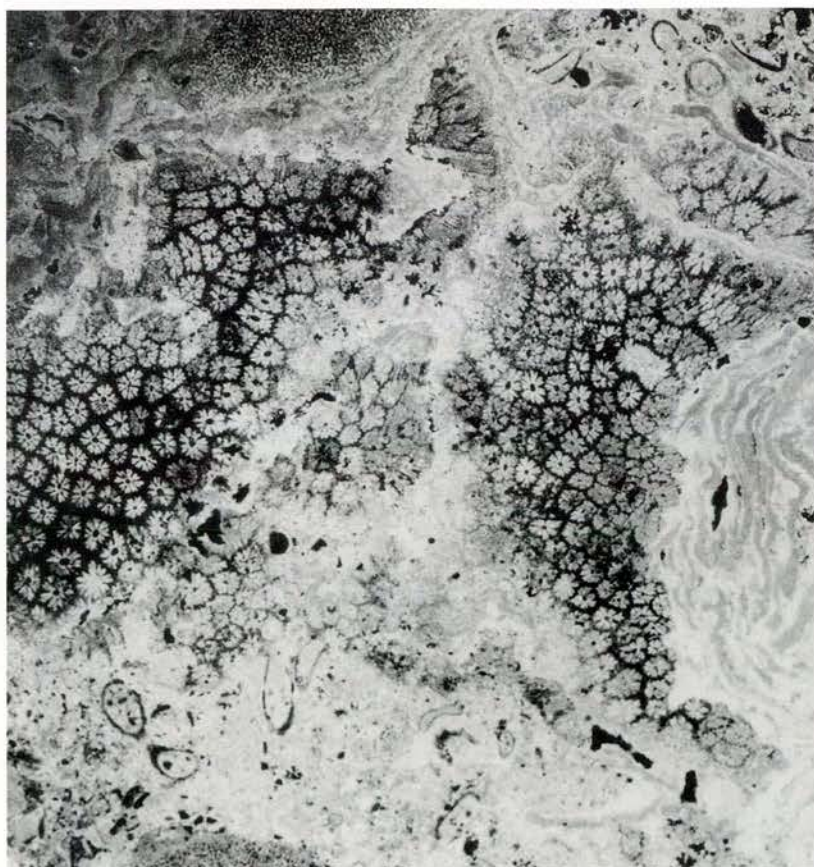
Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
	Lias	Toarcian	
		Pliensbachian	
		Sinemurian	
		Hettangian	

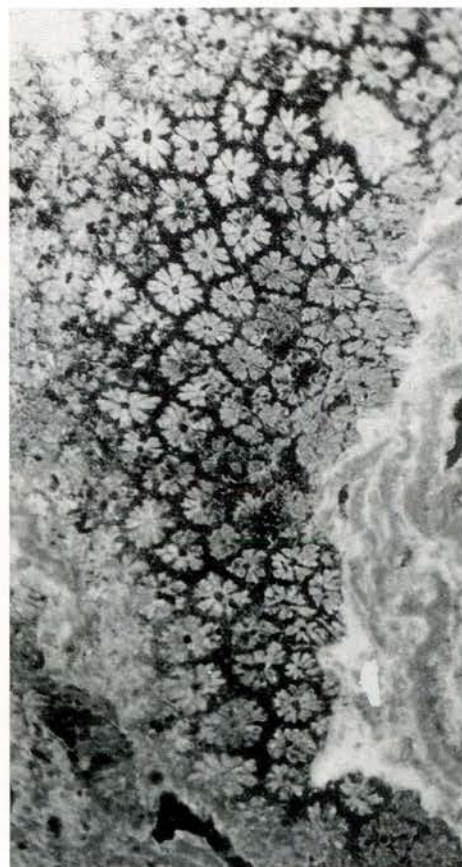


A: transverse section; P-649a, x 4.
B: detail from A, x 8.

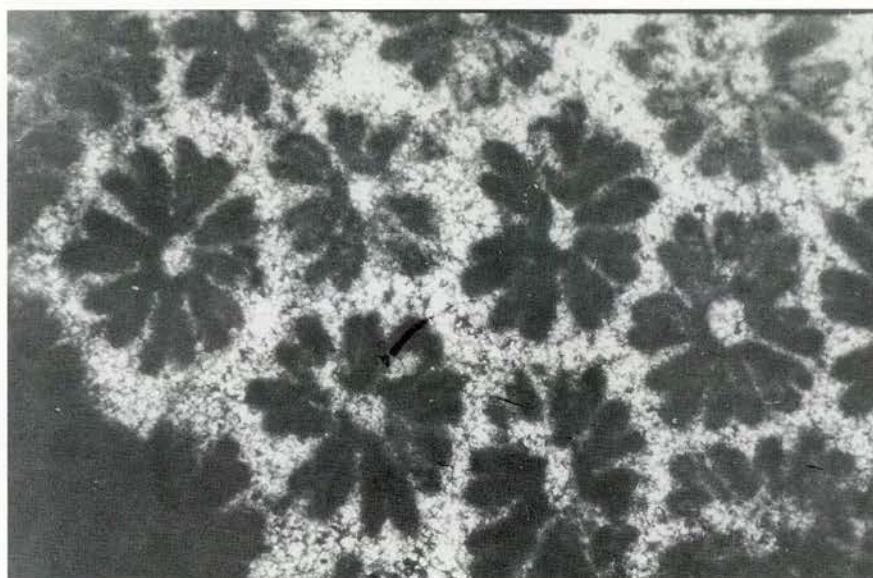
C: microstructure, middle-sized trabeculae; P-649a, x 40.
D: microstructure in longitudinal section; P-649b, x 40.



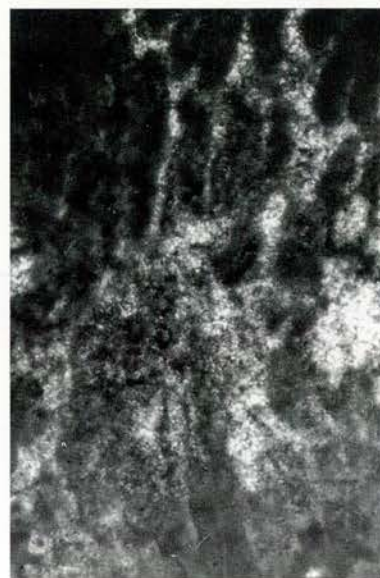
A



B



C



D

Allocoenia trochiformis Étallon 1864

- 1864 *Allocoenia trochiformis*. THURMANN & ÉTALLON, n. v.
 1885 *Stephanocoenia trochiformis* Michelin. Koby, 301, Pl. 85, figs. 1-3.
 1964 *Allocoenia trochiformis* Étallon. Beauvais, 110, Textfig. 26.
 1976 *Allocoenia trochiformis* Étallon. Roniewicz, 36, Pl. 1, fig. 6.
 1990 *Allocoenia trochiformis* Étallon. Errenst, 161-163, Textfig. 19, Pl. 1, fig. 3.
 1991 *Allocoenia trochiformis* Étallon. El-Asa-Ad, 272-274, Pl. 1, figs. 1ab.
 1993 *Allocoenia trochiformis* Étallon. Dozet & Turnšek, 68, Pl. 1, fig. 1.
 1994 *Allocoenia trochiformis* Étallon. Liao & Xia, 91, Pl. 12, figs. 1-7.

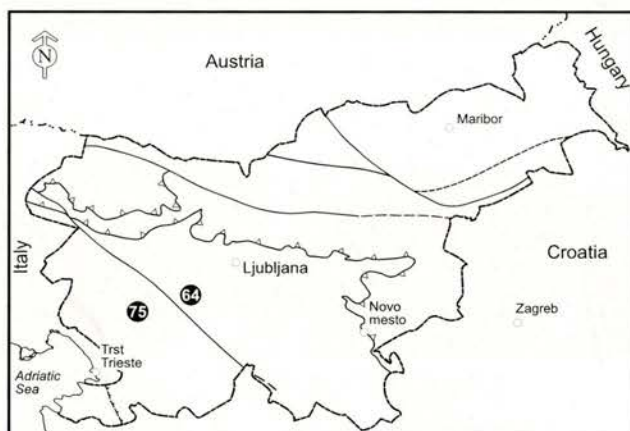
Description: Plocoid to cerioid colony, narrow peritheca. Septa in irregular hexameral system in 2-3 cycles, laterally granulated, axial pali joint because of recrystallization. Septotheca, styliform columella, tabulate dissepiments. $d = 1.3-1.8$ mm, $s = 12+s3$.

Localities: 64 Logaška planota (P-918, P-919), 75 Nanos (P-920, P-921); France, Switzerland, Romania, Spain, Saudi Arabia, China (Xizang).

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian.

Paleoenvironment: Inner barrier reef and patch reef in the back reef area of the Dinaric Carbonate Platform.

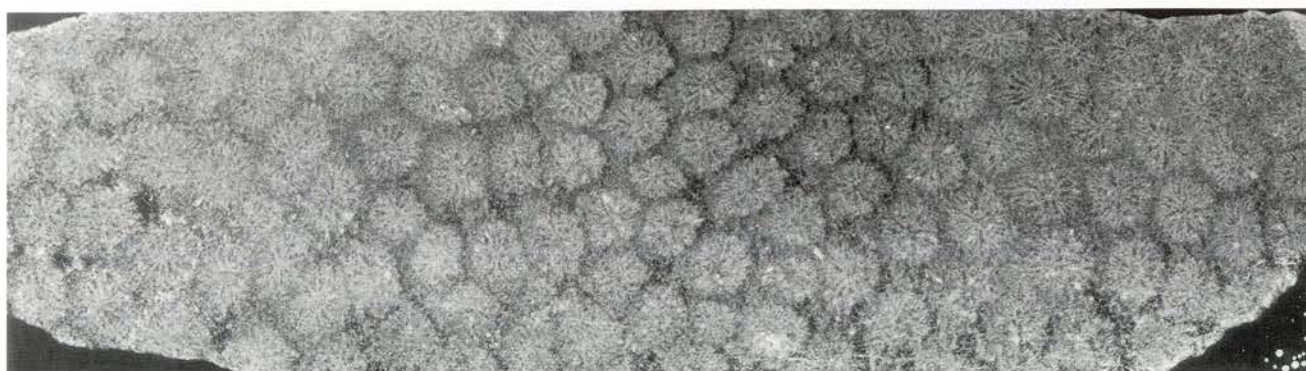
JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



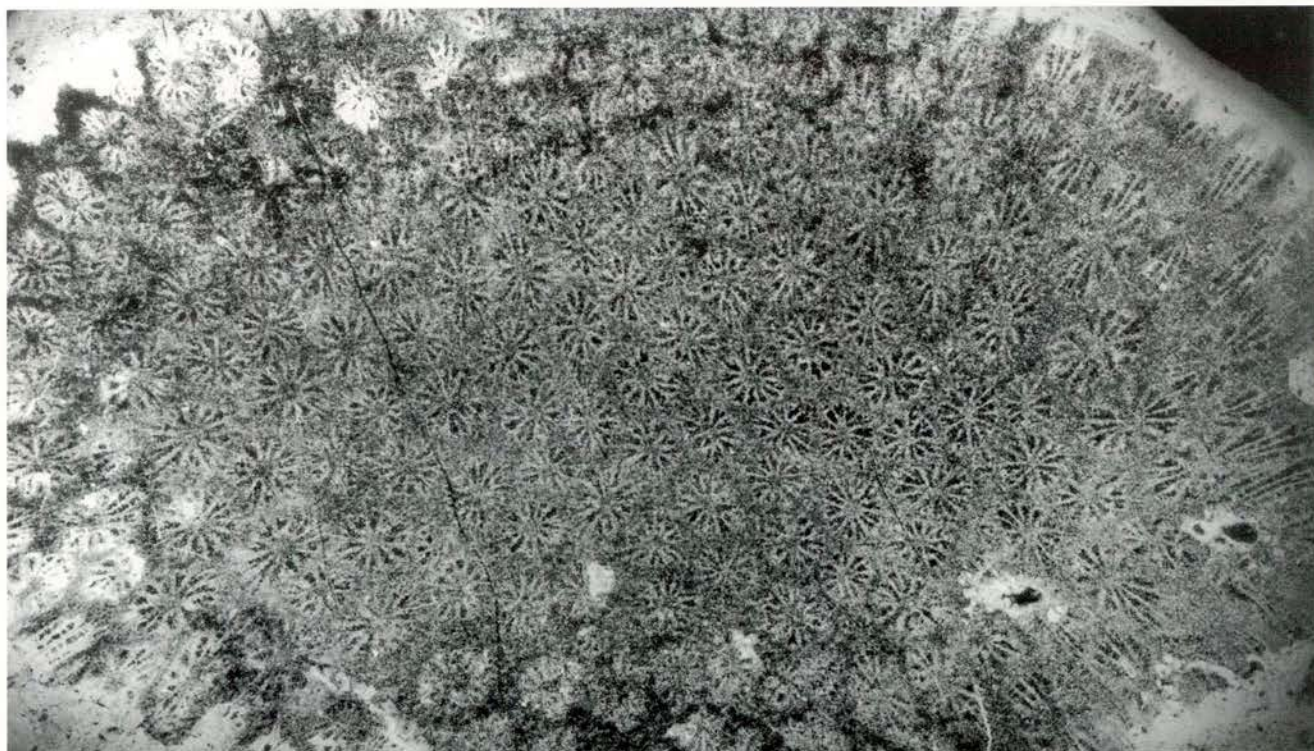
A: transverse section; P-921a, x 4.

B: transverse section; P-918a, x 4.

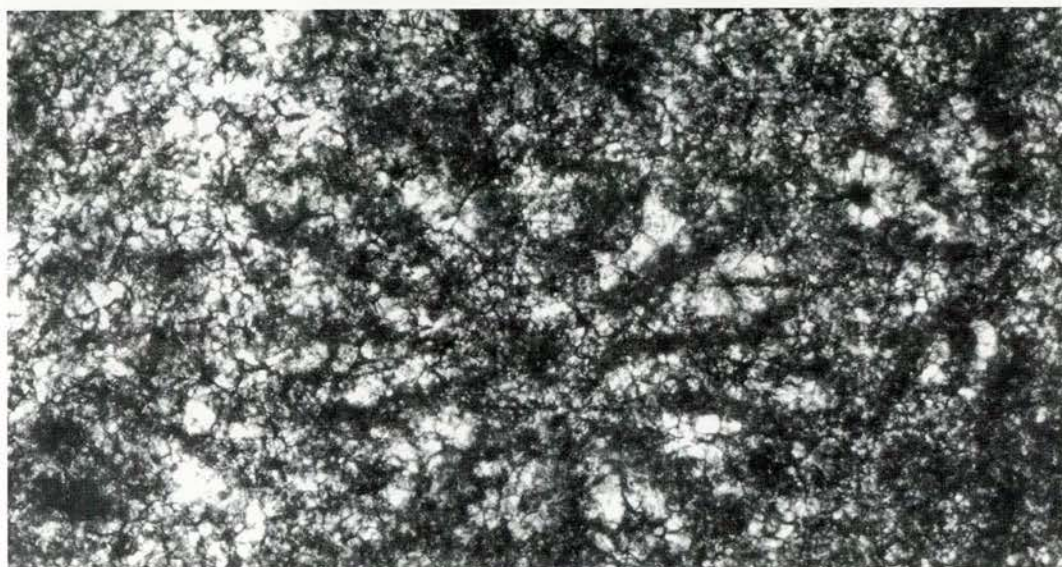
C: microstructure, ?thick trabeculae; P-918, x 40



A



B



C

Alpinoseris dendroidea Roniewicz 1989

- 1989 *Alpinoseris dendroidea* n. sp. RONIEWICZ, 91-92, Pl. 27, fig. 1.
 1991 *Alpinoseris dendroidea* Roniewicz. TURNŠEK & BUSER, 231, Pl. 6, figs. 1-2.

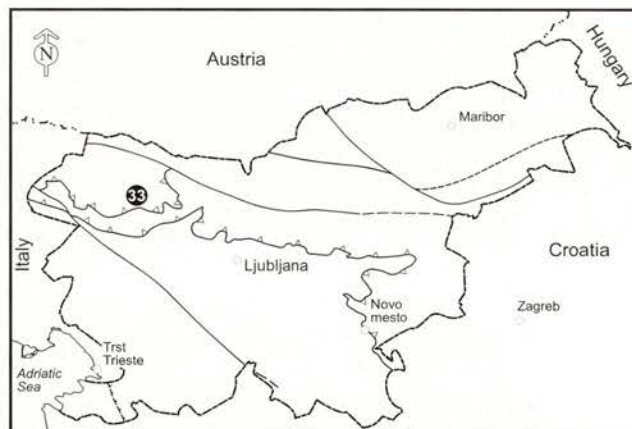
Description: Given by RONIEWICZ (1989). Branched coral with leaf-like corallites, monocentric with irregular budding. Septa very thin in 5 cycles, arranged excentrically, strong lateral pennulae. Epitheca, vesicular dissepiments, no columella. Microstructure poorly preserved. d = 8-12 mm, s = ca 100.

Localities: 33 Bohinj-Bitnje (P-872); Austria (Alps).

Age: T: Upper Norian-Rhaetian; T: Rhaetian.

Paleoenvironment: Reef body at the southern edge of the Julian Carbonate Platform. Reef limestone.

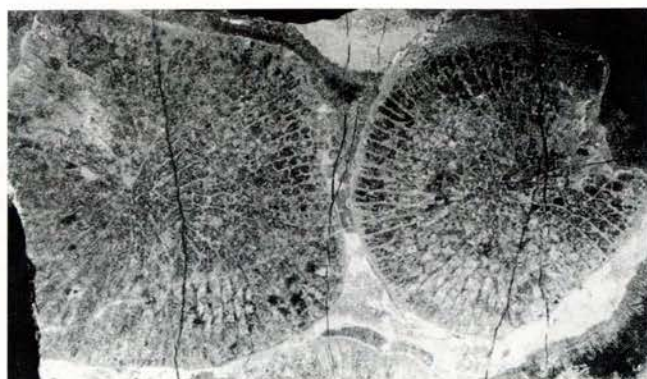
TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	



A: transverse section; P-872a, x 4.
 B: detail from A, x 8.

C: transverse section; P-872b, x 4.
 D: microstructure, ?minitraculae, midseptal line; P-872a, x 40.

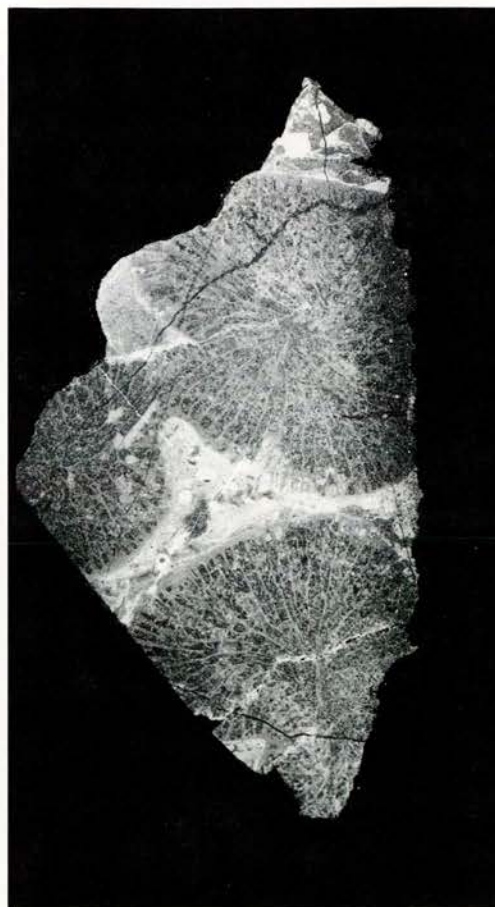
A



B



C



D



Amphiastraea aethiopica Dietrich 1926

- 1926 *Amphiastraea aethiopica* n. sp. DIETRICH, 62-63, Pl. 8, fig. 1.
 1936 *Amphiastraea aethiopica* Dietrich. HACKEMESSER, 9.
 1961 *Amphiastraea aethiopica* Dietrich. BENDUKIDZE, 6-7, Pl. 5, fig. 8.
 1976 *Amphiastraea aethiopica* Dietrich. TURNŠEK & BUSER, 51-52, 76, Pl. 5, figs. 4-6.
 1996 *Amphiastraea aethiopica* Dietrich. BARON-SZABO & STEUBER, 21, Pl. 11, fig. 3.

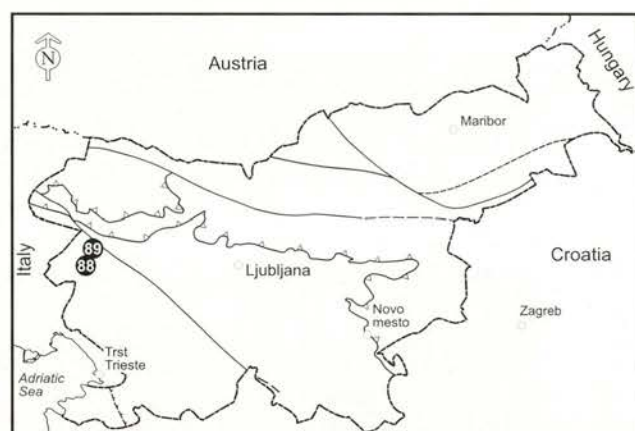
Description: Massive cerioid colony with polygonal corallites. Budding with “Taschenknospung” along dissepiments (?and septa). Septa bilaterally arranged, main septum larger, laterally smooth or rarely granulated. Septotheca, no columella, tabulate and vesicular dissepiments. Microstructure very poorly preserved. $d = 2.5-4$ mm, $cc = 3-6$ mm, $s = 16+s3$.

Localities: 89 Kanalski Lom (P-571), 88 Hoje (P-687); Ethiopia, Greece, Crimea

Age: K: Senonian breccia; K: Urgonian-Cenomanian.

Paleoenvironment: Outer slope of the Dinaric Carbonate Platform. Reef limestone resedimented in breccia.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	

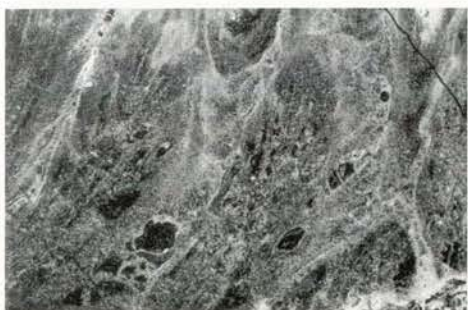


A: transverse section; P-571a, x 4.
 B: longitudinal section; P-571b, x 4.

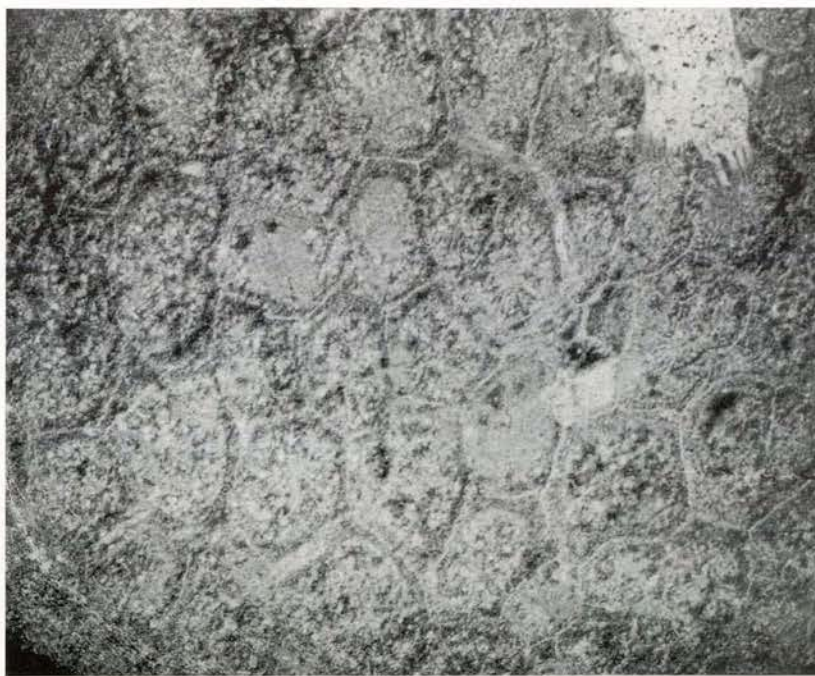
C: transverse section; P-687a, x 4.
 D: detail from A, x 8.
 E: microstructure, ?fibres, midseptal line; P-571a, x 40.



A



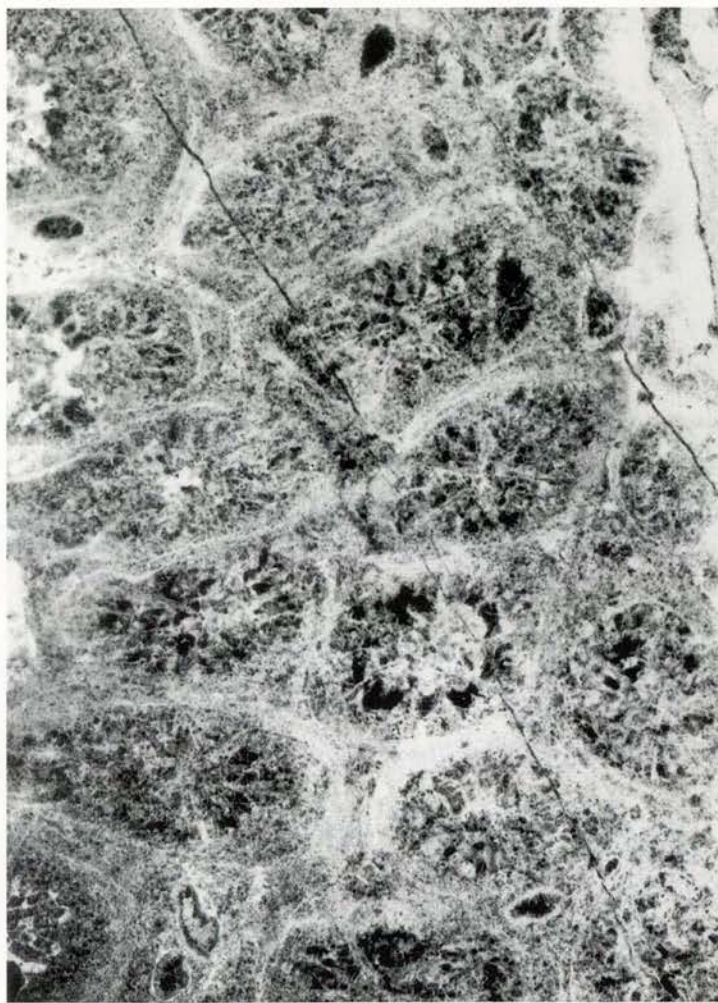
B



C

E

D



Amphiastraea basaltiformis Étallon 1859

- 1859 *Amphiastraea basaltiformis*. ÉTALLON, n. v.
 1888 *Amphiastraea basaltiformis* Étallon. Koby, 433-434, Pl. 115, figs. 1-2.
 1955a *Amphiastrea basaltiformis* Étallon. GEYER 187-188, Pl. 24, figs. 6-7.
 1964 *Amphiastraea basaltiformis* Koby. BEAUVAIS, 200-201, Pl. 22, fig. 1.
 1964 *Amphiastraea basaltiformis* Koby. MORYCOWA, 500-502, Pl. 22, figs. 1a-c.
 1972 *Amphiastraea basaltiformis* Étallon. TURNŠEK, 186, 242-243. Pl. 24, figs. 3-4.
 1975 *Amphiastraea basaltiformis* Koby. ELIÁŠOVÁ, 6, Pl. 1, fig. 1.
 1985 *Amphiastraea basaltiformis* Étallon. ROSENDAHL, 54, Pl. 5, fig. 9.

Description: Massive cerioid colony, corallites prismatic, budding intracalicular, with "Taschenknospung". Septa bilateral, irregular in two cycles, main septum, laterally smooth or rare granulated. Septotheca, tabulate and vesicular dissepiments, no columella. Microstructure very poorly preserved. d = 4-7 mm, s = 16-20 (16-17/ 5 mm).

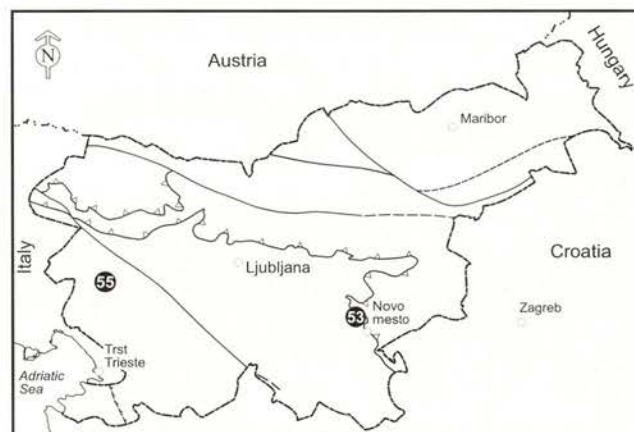
Remarks: *Amphiastraea gracilis* Koby 1888, which was attributed to *A. basaltiformis* by some authors, ELIÁŠOVÁ (1975) separated again.

Localities: 53 Karteljevo (P-277), 55 Mrzovec (P-259); France, Switzerland, Czech R. (Štramberk), Poland, Portugal.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian-Tithonian.

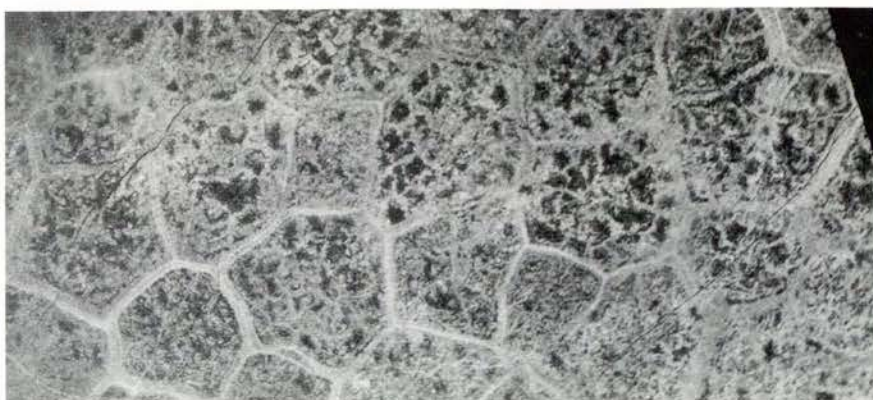
Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



- A: transverse section; P-277a, x 4.
 B: longitudinal section; P-277b, x 4.
 C: transverse section; P-259a, x 4.

- D: detail from A, x 8.
 E: microstructure, poorly preserved ;P-277a, x 40.



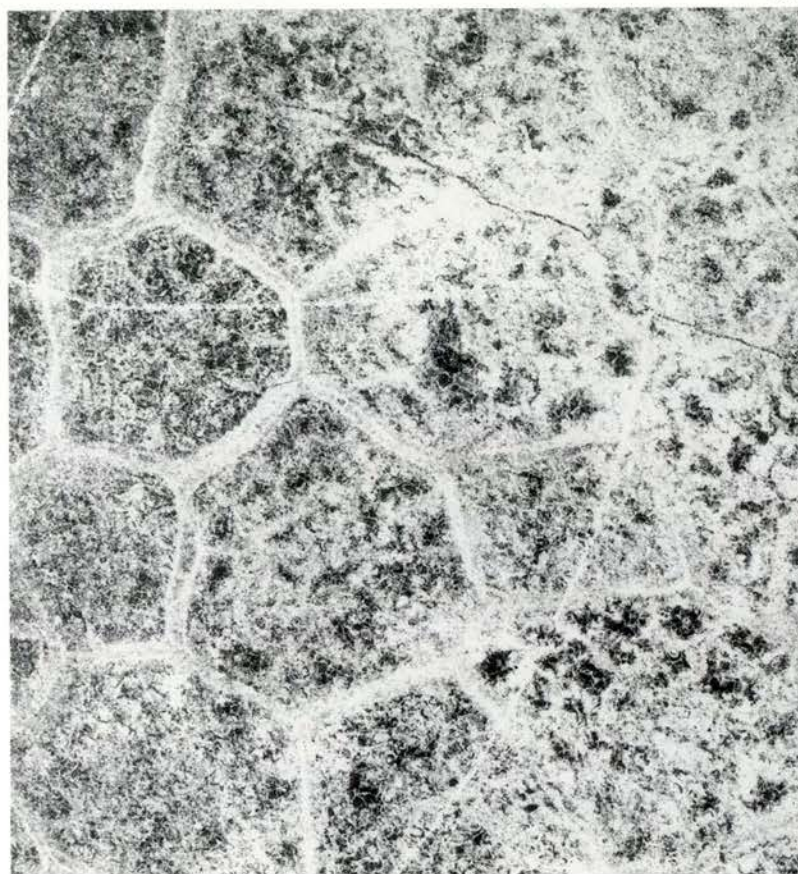
A



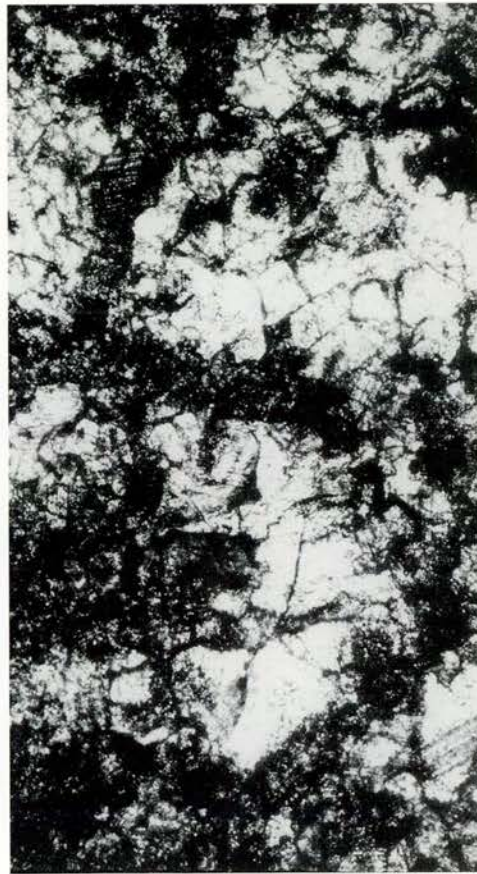
B



C



D



E

Amphiastraea piriformis Gregory 1900

- 1900 *Amphiastraea piriformis* nov. GREGORY, 71-72, Pl. 14, fig. 14, Pl. 15, figs. 1-2.
 1904 *Connectastrea piriformis* (Gregory). Koby, 68, Pl. 29, fig. 5.
 1955b *Amphiastraea piriformis* Gregory. GEYER, 326. Synonymy.
 1966 *Connectastrea piriformis* (Gregory). BEAUVAIS, 20-21, Pl. 2, fig. 2.
 1972 *Amphiastraea piriformis* Gregory. TURNŠEK, 187, 243, Pl. 25, figs. 1-2.
 1985 *Amphiastraea piriformis* Gregory. ROSENDAHL, 54-55.
 1990 *Amphiastraea piriformis* Gregory. ERRENT, 163, Pl. 1, fig. 4.

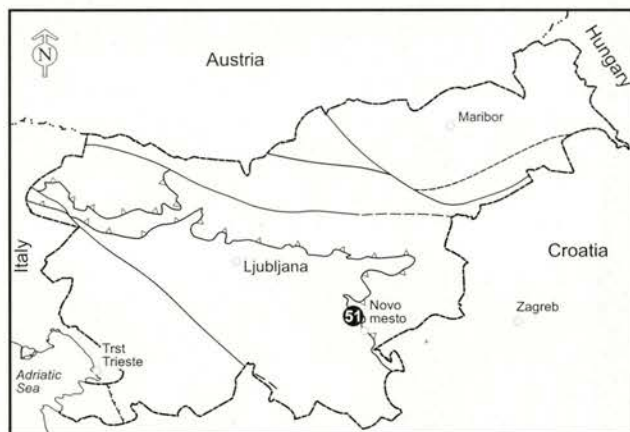
Description: Cerioid colony, squeezed polygonal corallites, budding intracalicular by "Taschenknospung". Septa bilateral, irregular, laterally smooth, main septum. Septotheca looks thick like epitheca, tabulate dissepiments, no columella, microstructure not preserved. d = 2-6 mm, s = ca 24.

Localities: 51 Ivanja vas (P-309, P-317); India, Switzerland, Portugal, Czech R. (Štramberk), Spain.

Age: J: Upper Oxfordian-Kimmeridgian; J: Callovian-Oxfordian-Kimmeridgian.

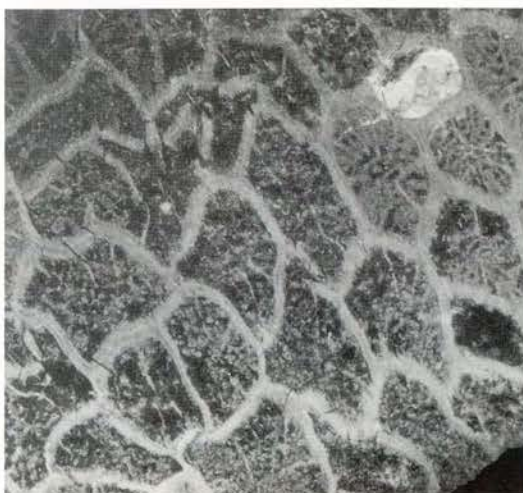
Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-309a, x 4.
 B: longitudinal section; P-309b, x 4.
 C: transverse and longitudinal section, P-317a, x 4.

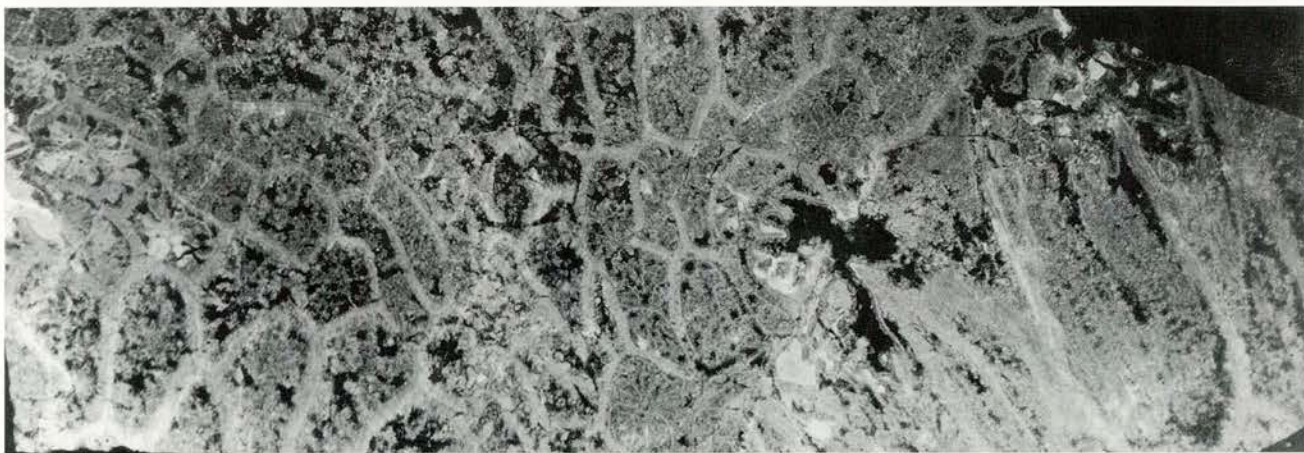
D: detail from A, x 8.
 E: microstructure, recrystallized; P-309a, x 40.



A



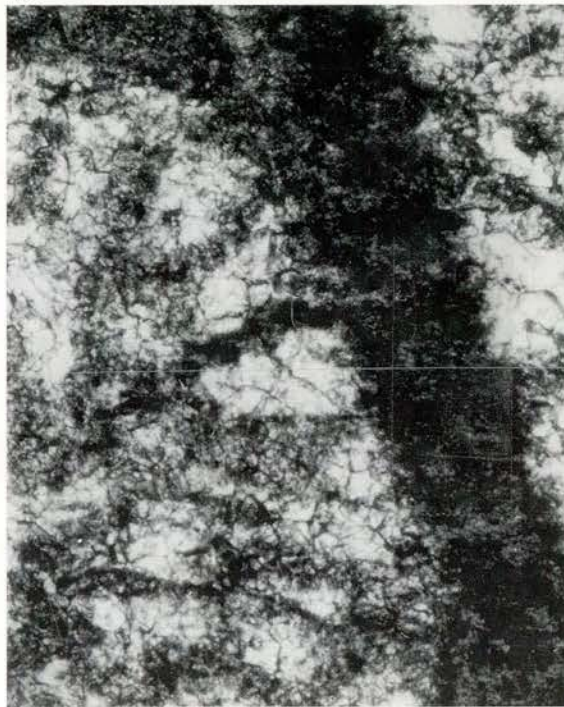
B



C



D



E

Amphiaulastraea conferta (Ogilvie) 1897

- 1897 *Aulastraea conferta* Ogilvie. OGILVIE, 110, Pl. 13, figs. 1a-b.
 1955a *Amphiaulastraea conferta* (Ogilvie). GEYER, 118, Pl. 26, fig. 9;
 1975 *Amphiaulastraea conferta* (Ogilvie). ELIÁŠOVÁ, 10-11, Pl. 3, fig. 3, Pl. 4, figs. 1-2, Textfig. 4;
 1976 *Amphiaulastraea conferta* (Ogilvie). TURNŠEK & BUSER, 52-53, 76-77, Pl. 6, figs. 3-4.
 1996 *Amphiaulastraea conferta* (Ogilvie). BARON-SZABO & STEUBER, 20, Pl. 12, figs. 1,2,6.

Description: Cerioid colony with mitrodendronid corallites, in periphery surrounded by large vesicular dissepimental rim, budding "Taschenknospung". Septa bilateral, laterally smooth, or thin granulae, main septum well developed. Epithecate septotheca, large vesicular (lonsdaleoid or tabulate) dissepiments, no columella, microstructure trabecular. $d = 4-8 \times 2-4 \text{ mm}$, $s = 12+s$.

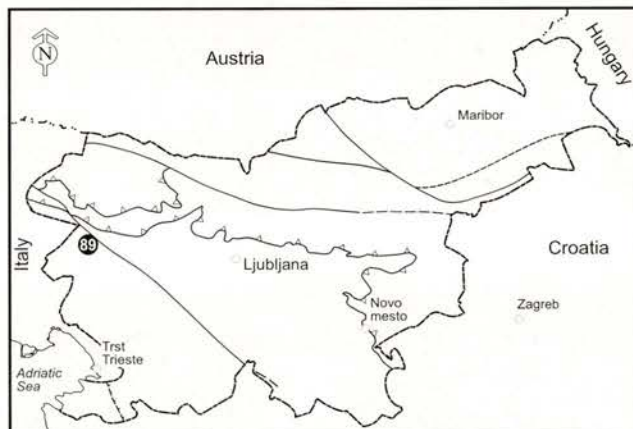
Localities: 89 Kanalski Lom (P-618); Czech R. (Štramberk), Greece.

Age: J: reworked in Senonian breccia; J: Tithonian, K: Aptian.

Remarks: The age of our specimen is not sure.

Paleoenvironment: Outer slope of the Dinaric Carbonate Platform. Reef limestone resedimented in breccia.

CRETACEOUS	Upper	Senonian	Maastrichtian
			Campanian
			Santonian
			Coniacian
			Turonian
	Lower		Cenomanian
			Albian
			Aptian
			Barremian
			Hauterivian
			Valanginian
			Berriasian

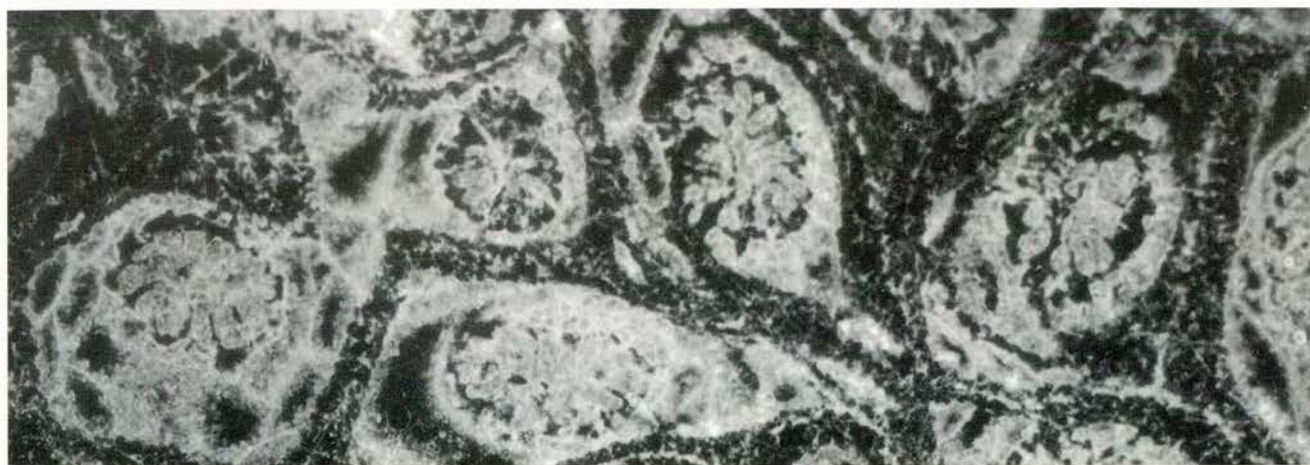


A: transverse section; P-618a, x 4.
 B: longitudinal section; P-618b, x4.

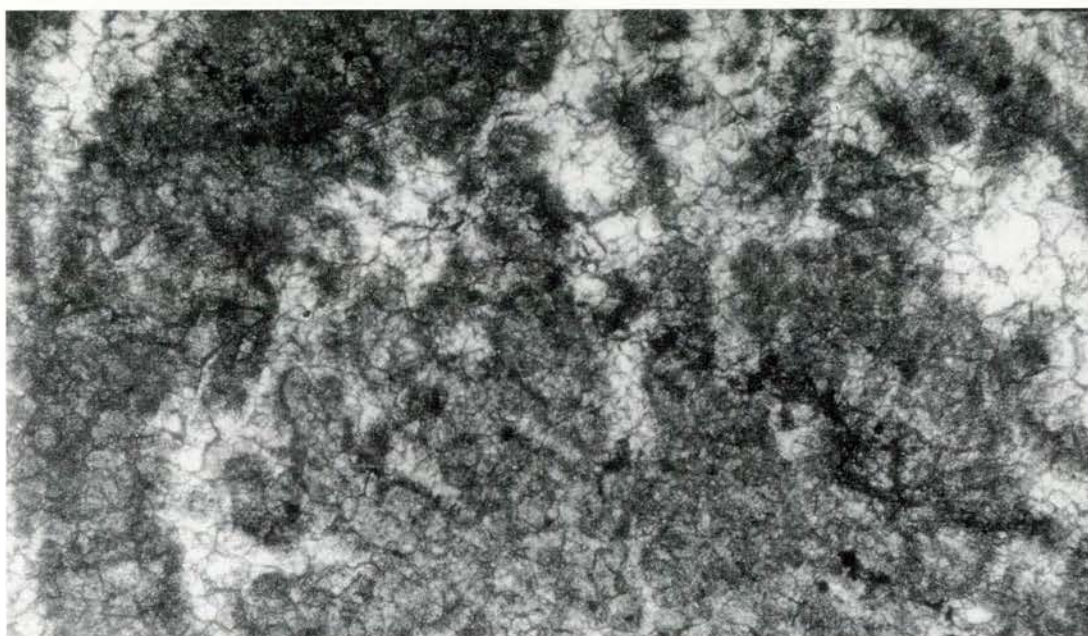
C: detail from A, x 8.
 D: microstructure, ?thick trabeculae, P-618a, x 40.

A
C

B



D



Andemantastraea dreyfussi Beauvais 1964

1964 *Andemantastraea dreyfussi* nov. sp. BEAUVAIS, 210-211, Pl. 24, Fig. 1.

Description: Massive large subthamnasterid to subplocoid colony, round to polygonal corallites, budding extracalicular. Septa subconfluent, laterally strongly granulated, axially perforated, in 4-5 cycles. Incomplete synapticulotheca, parietal columella, common synapticalae, vesicular and large dissepiments. $d = 4-11$ mm, $s = ca (30) 48-90$, depends whether measured on surface or in thin sections.

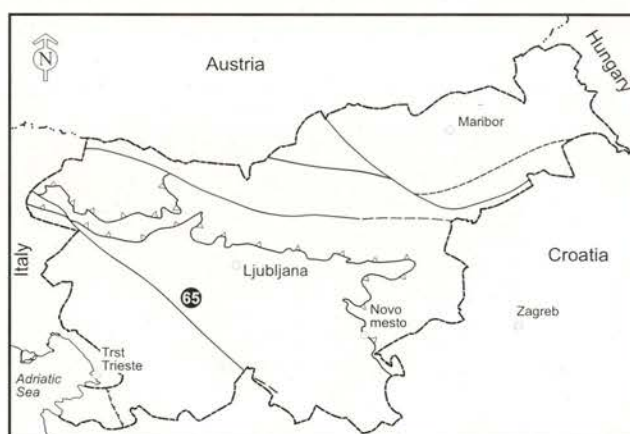
Remarks: ALLOITEAU (1952) and BEAUVAIS (1964) mentioned the perfectly compact septa. It is contradictory to the "parietal columella and synapticular wall, and its systematic attribution to Fungiina. The septa are in fact subcompact or partly perforated, and our specimen fits this characteristic.

Localities: 65 Logaška planota (P-937); France.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian.

Paleoenvironment: Inner barrier reef on the Dinaric Carbonate Platform.

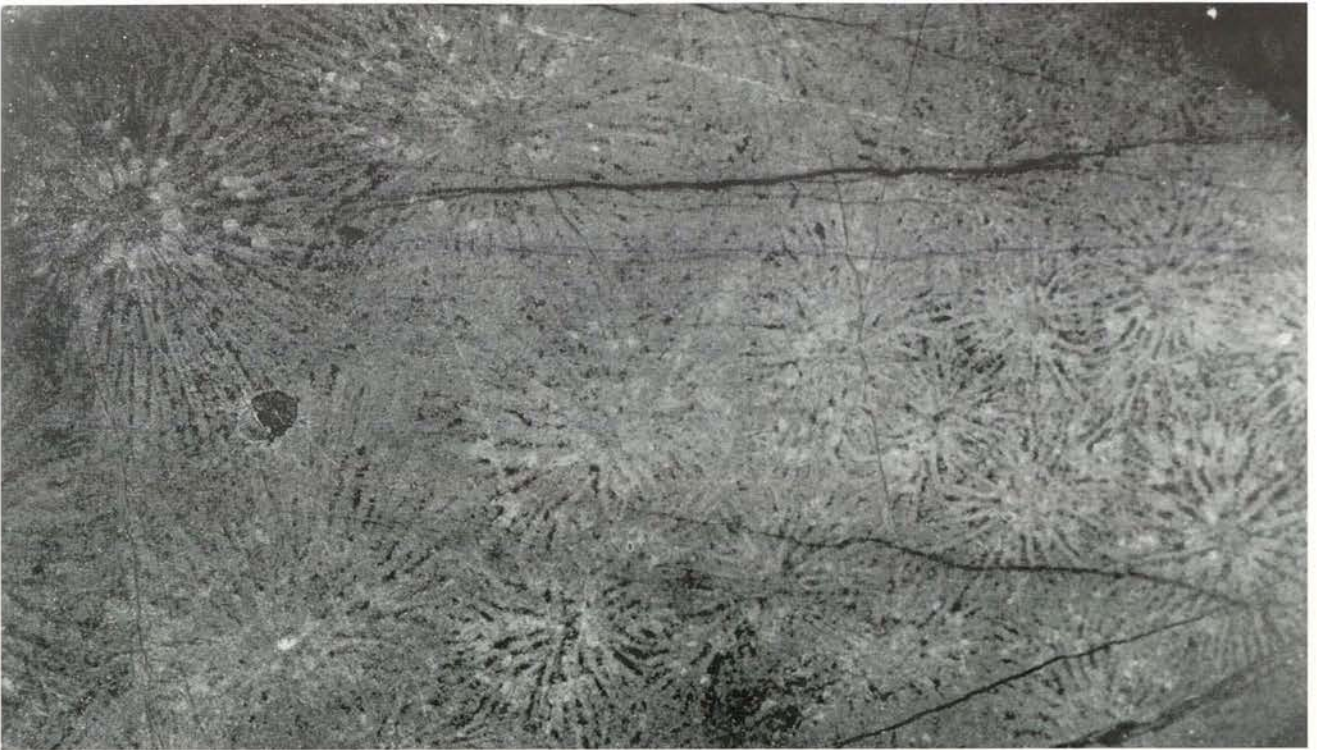
JURASSIC	Malm	<i>Tithonian</i>	
		<i>Kimmeridgian</i>	
		<i>Oxfordian</i>	
	Dogger	<i>Callovian</i>	
		<i>Bathonian</i>	
		<i>Bajocian</i>	
		<i>Aalenian</i>	
		<i>Toarcian</i>	
	Lias	<i>Pliensbachian</i>	
		<i>Sinemurian</i>	
		<i>Hettangian</i>	



A: transverse section; P-937a, x 4.

B: longitudinal section; P-937b, x 4.

C: microstructure, not preserved; P-937b, x 40.



A
B



C

Andrazella labyrinthica (Klipstein) 1843

- 1843 *Meandrina labyrinthica*. KLIPSTEIN, n. v.
 1896 *Isastraea labyrinthica* Klipstein. VOLZ, 52, Pl. 4, fig. 16.
 1967 *Isastraea* cf. *labyrinthica* Klipstein. LEONARDI, 299.
 1976 *Isastraea labyrinthica* (Klipstein). CUIF, 100-103, Textfigs. 9-10.
 1976 *Andrazella* n. g. (type *Meandrina labyrinthica* Klipstein). CUIF, 108-109.
 1982 *Andrazella labyrinthica* (Klipstein). TURNŠEK et al. 71, Pl. 4, figs. 1-3.

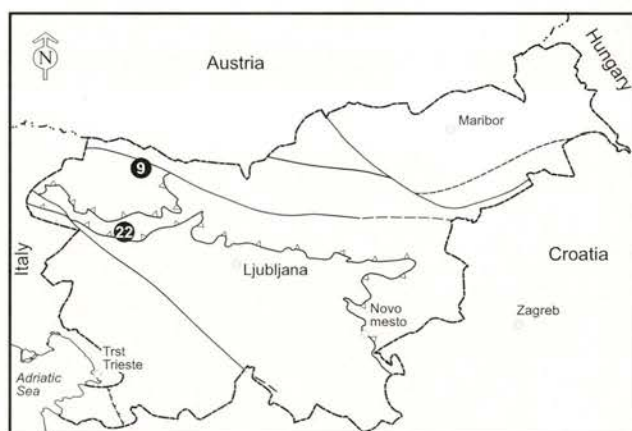
Description: Meandroid colony, prolonged and monocentric corallites in meandroid series, budding intracalicular. Septa compact, laterally granulated. Septotheca, columella feeble developed or absent, vesicular dissepiments, microstructure trabecular. d of series = 3-4 mm, s at wall = 4-6/2 m.

Localities: 22 Hudajužna (P-751), 9 Mežakla-Kisovec (6/6); Italy (Dolomites).

Age: T: Carnian; T: Carnian (Cassian beds).

Paleoenvironment: Reef mound within the clastic beds in the Slovenian Basin and reef on the Julian Carbonate Platform.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	



A: transverse section; P-751a, x 4.

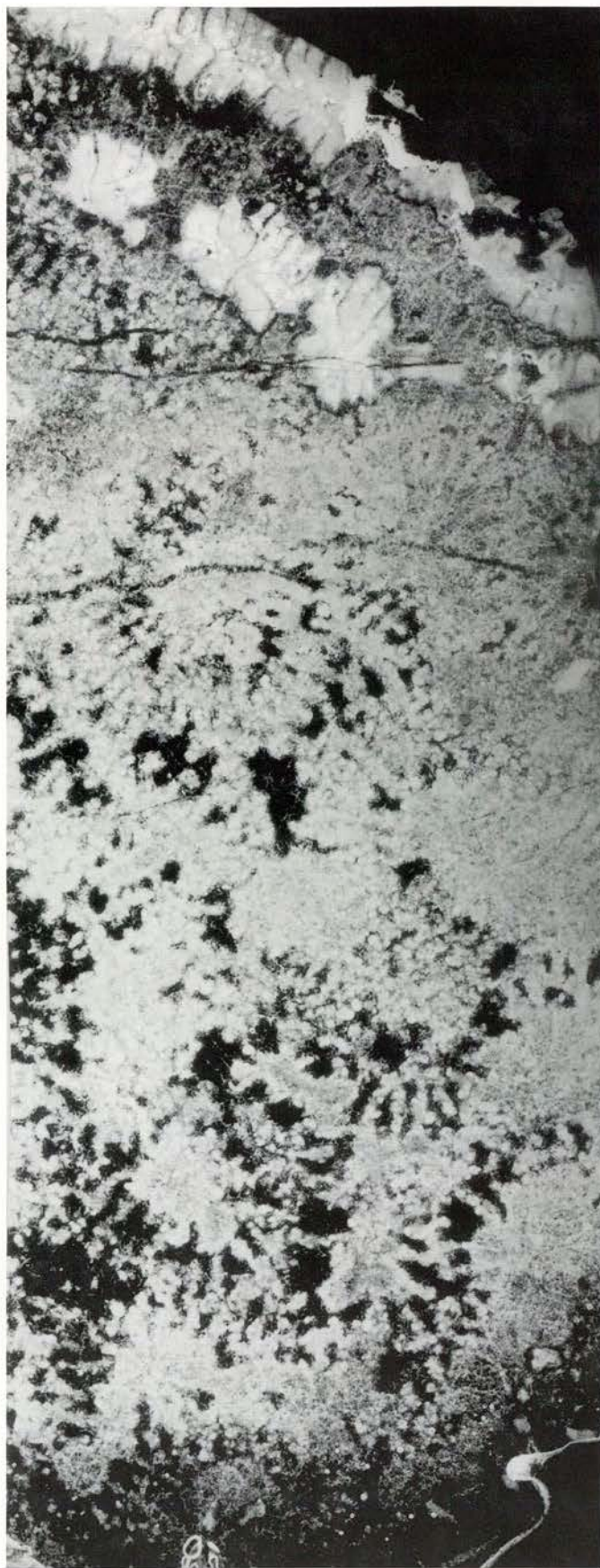
B: detail from A, x 8.

C: microstructure, ?minitrabeculae; P-751a, x 40.



A
C

B



Apocladophyllia koniakensis (Ogilvie) 1897

- 1897 *Stylosmilia Koniakensis* Ogilvie. OGILVIE, 118-119, Pl. 15, fig. 3.
 1939 *Stylosmilia chaputi* Alloiteau. ALLOITEAU, 6-8, Pl. 1, fig. 1-3.
 1955 *Schizosmilia koniakensis* (Ogilvie). GEYER, 191.
 1964 *Stylosmilia chaputi* Alloiteau. MORYCOWA, 494-495, Pl. 21, fig. 2;
 1972 *Stylosmilia chaputi* Alloiteau. TURNŠEK, 17, Pl. 10, fig. 3;
 1974 *Schizosmilia koniakensis* (Ogilvie). MORYCOWA, 472, Pl. 8, fig. 1, Pl. 12, fig. 1, Textfig. 8;
 1985 *Stylosmilia* cf. *chaputi* Alloiteau. LIAO & XIA, 132-133, Pl. 2, fig. 3.
 1990 *Apocladophyllia koniakensis* (Ogilvie). MORYCOWA & RONEWICZ, 181-184, Pl. 22, figs. 1a-d, Textfig. 8.
 1996 *Apocladophyllia chaputi* (Alloiteau). BARON-SZABO & STEUBER, 7, Pl. 1, fig. 7.

Description: Phaceloid colony, densely crowded subcircular to subpolygonal corallites, large apophyses, budding extracalicular. Septa radial or bilateral, in 2-3 cycles, the S1 adjoining with columella or with opposite septum, axial auriculae, lateral sharp granulae. Septotheca of variable thickness, essential trabecular columella, subhorizontal dissepiments. $d = 0.8-1.7\text{mm}$, $c-c = 1.5-4\text{mm}$, $s = 12+s3$.

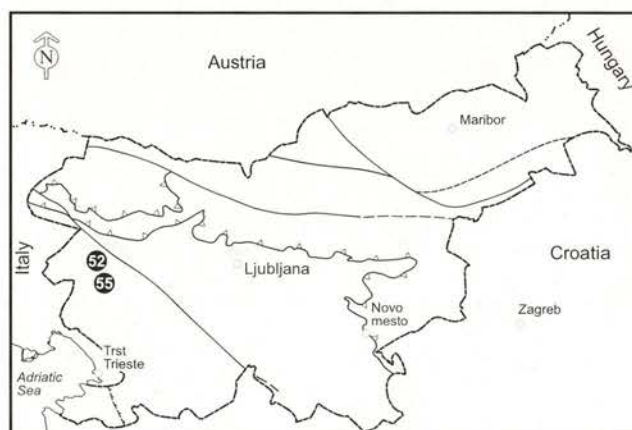
Remarks: Our specimens were previously identified as *Stylosmilia chaputi* Alloiteau (TURNŠEK, 1972), which was revised by MORYCOWA & RONEWICZ (1990) to the *Apocladophyllia koniakensis*, because of the rare apophyses and polygonal corallites.

Localities: 55 Mrzovec (P-454, P-456, P-643, P-1036), 52 Kal nad Kanalom (P-646, P-647, P-648); Czech R. (Štramberk), Poland (Polish Carpathians), Turkey (Taurus), Greece, Tibet.

Age: J: Upper Oxfordian-Kimmeridgian; J: Kimmeridgian-Tithonian, K: Berriasian-Aptian.

Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	

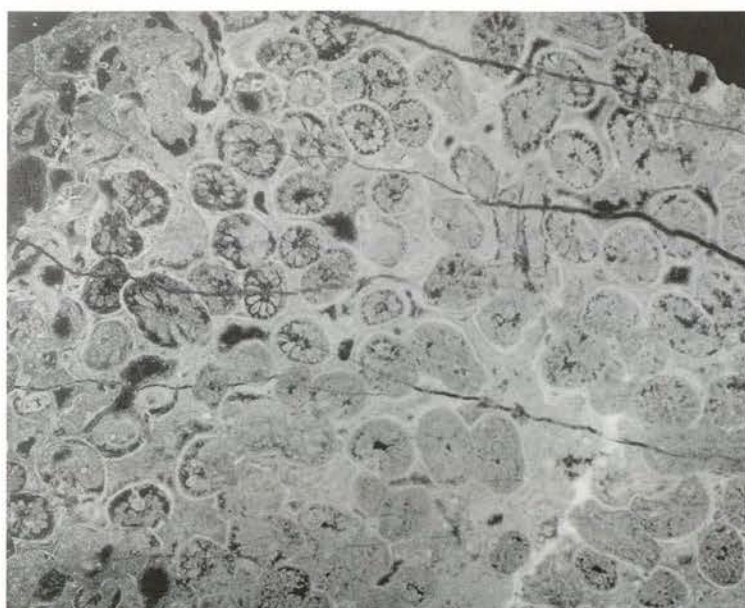


A: transverse section; P-456a, x 4.

B: longitudinal and oblique section; P-456b, x 4.

C: detail from A, x 8.

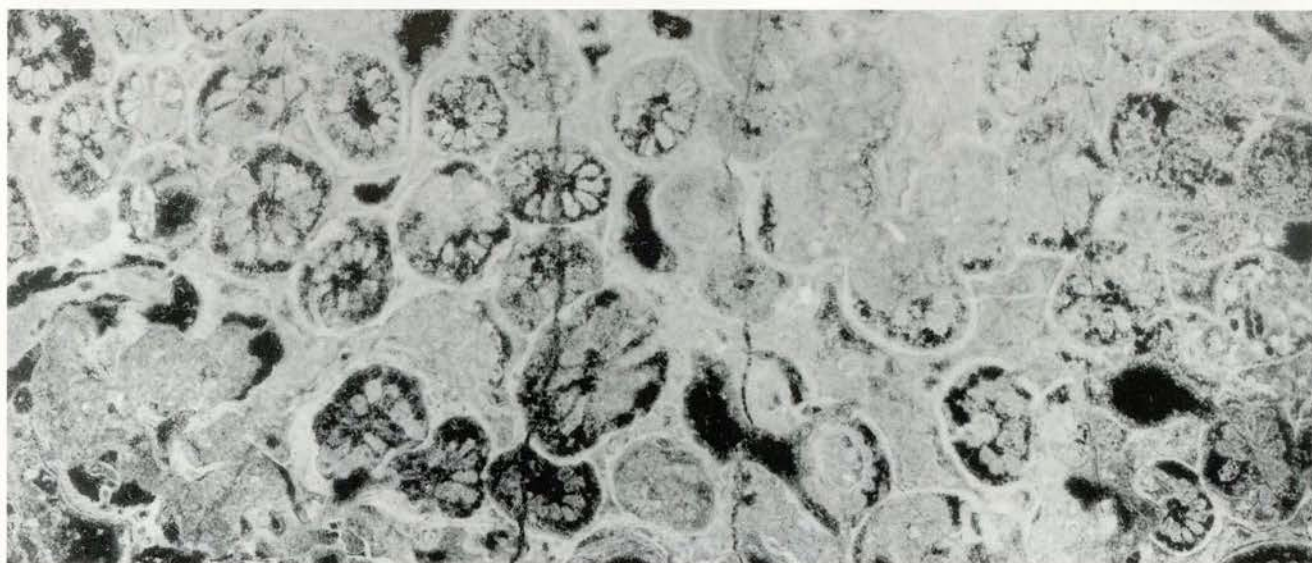
D: microstructure, ?medium-sized trabeculae; P-456a, x 40.



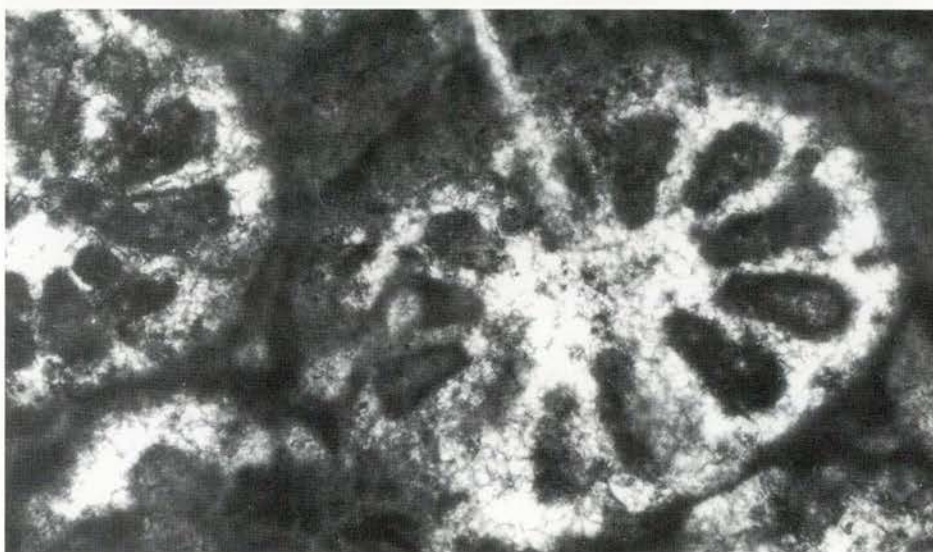
A



B



C



D

Araiophyllum triassicum Cuif 1975

- 1975 *Araiophyllum triassicum* n. sp. CUIF, 110-115, Pl. 16, figs. 1-7.
 1989 *Araiophyllum triassicum* Cuif. TURNŠEK & BUSER, 86, Pl. 7, figs. 1-2.
 1993 *Araiophyllum triassicum* Cuif. CUIF & GAUTRET, 407-408, figs. 1-4.

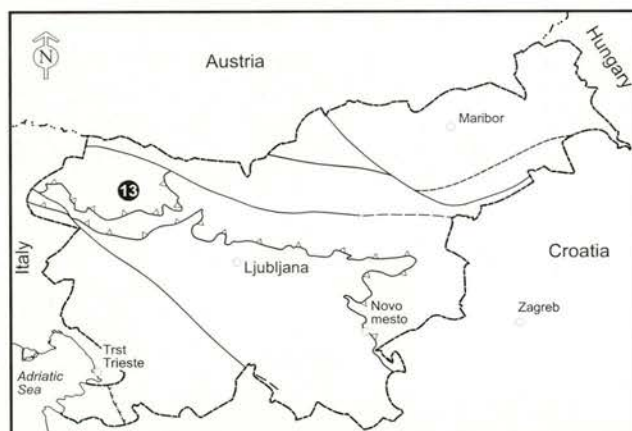
Description: Phaceloid colony, cylindric corallites, extratentacular budding. Septa very winding and porous, numerous lateral pennulae. Wall probably incomplete septotheca, synapticalae present, columella parietal, microstructure trabecular, discontinuity between adjacent trabeculae (CUIF & GAUTRET 1993).

Localities: 13 Pokljuka (P-807, P-815); Turkey (Alakir Cay).

Age: T: Carnian (Cordevolian); T: Carnian.

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Rhaetian		
		Norian		
		Carnian	Tuvalian	
			Julian	
			Cordevolian	
	Middle	Ladinian		
		Anisian		
	Lower	Scythian		

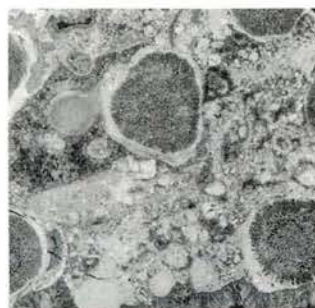


A: surface from above; P-807, x 1.
 B: transverse section; P-807a, x 4.

C: transverse section; P-807a, x 8.
 D: microstructure, ?midseptal line with offsets; P-807a, x 40.



A



B

C



D



Astraeomorpha confusa (Winkler) 1861

- 1861 *Thamnastraea confusa*. WINKLER, n. v.
 1890 *Astraeomorpha confusa* Winkler. FRECH, 67-68, Pl. 19, figs. 2-3.
 1909 *Astraeomorpha confusa* (Winkler). HAAS, 154. pars 1975 *Astraeomorpha crassisepta* Reuss. MELNIKOVA, 116-117.
 1979 *Astraeomorpha confusa* (Winkler). SCHÄFER, 46-47, Pl. 10, fig. 3.
 1979 *Astraeomorpha confusa* (Winkler). STANLEY, 13, 24, Pl. 1, fig. 11.
 1980 *Astraeomorpha confusa* (Winkler). SENOWBARI-DARYAN, 38, Pl. 2, fig. 1.
 1980 *Astraeomorpha confusa confusa* (Winkler). KRISTAN-TOLLMANN et al., 171, Pl. 4, fig. 3.
 1981 *Astraeomorpha confusa* (Winkler). SADATI, 199.
 1986 *Astraeomorpha confusa* (Winkler). MATZNER, 9, Pl. fig. 2.
 1987 *Astraeomorpha confusa* (Winkler). TURNŠEK & RAMOVŠ, 34, Pl. 3, figs. 1-2.
 1989 *Astraeomorpha confusa* (Winkler). RONIEWICZ, 96-98, Pl. 28, figs. 1-2, Pl. 29, figs. 1-3.
 1994 *Astraeomorpha confusa* (Winkler). STANLEY, 84, Pl. 2, figs. 5-6. Synonymy.

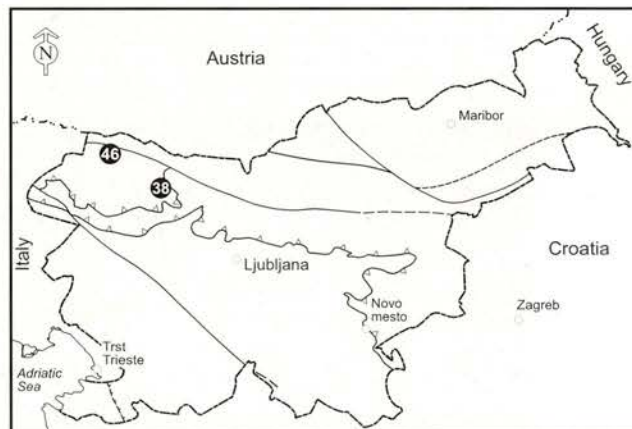
Description: Thamnasterioid colony of ramose shape. Septa confluent, lateral pennulae. No wall, dissepiments rare, synapticalae present, columella styliform, microstructure not preserved. d = 1.5-2 mm, s = ca 12.

Localities: 46 Šplevta (25/85-A4b), 38 Jelovica (P-994); Austria, Pamir, Iran, Nevada, Peru.

Age: T: Upper Norian-Rhaetian; T: Norian-Rhaetian.

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
			Scythian	
	Lower			



A: transverse section; 25/85-A4a, x 4.
 B: transverse radial section; P-994a, x 4.

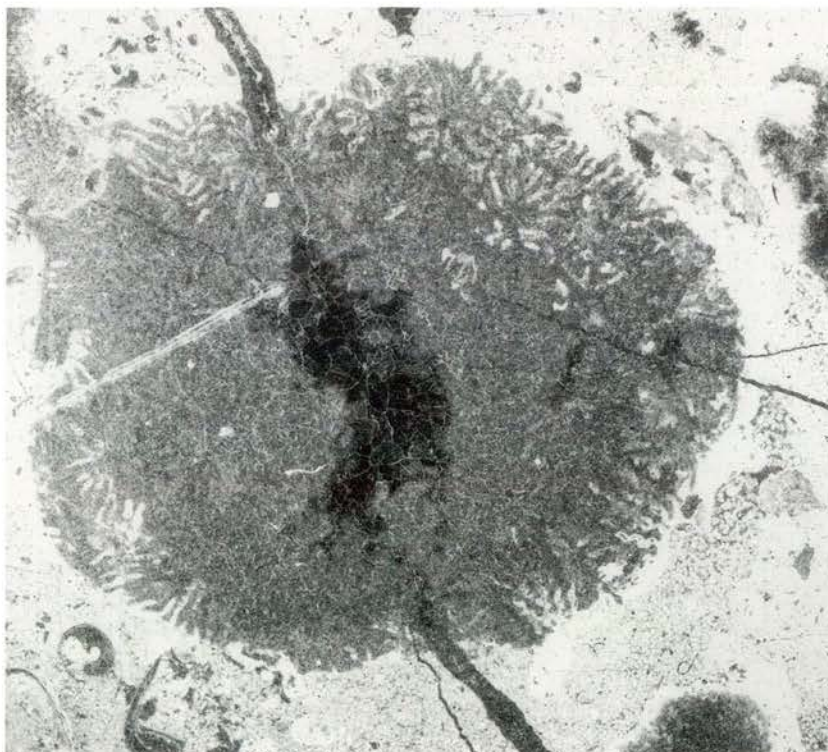
C: the same as A, x 8.
 D: microstructure, ?medium-sized or thick trabeculae; 25/85-A4a, x 40.



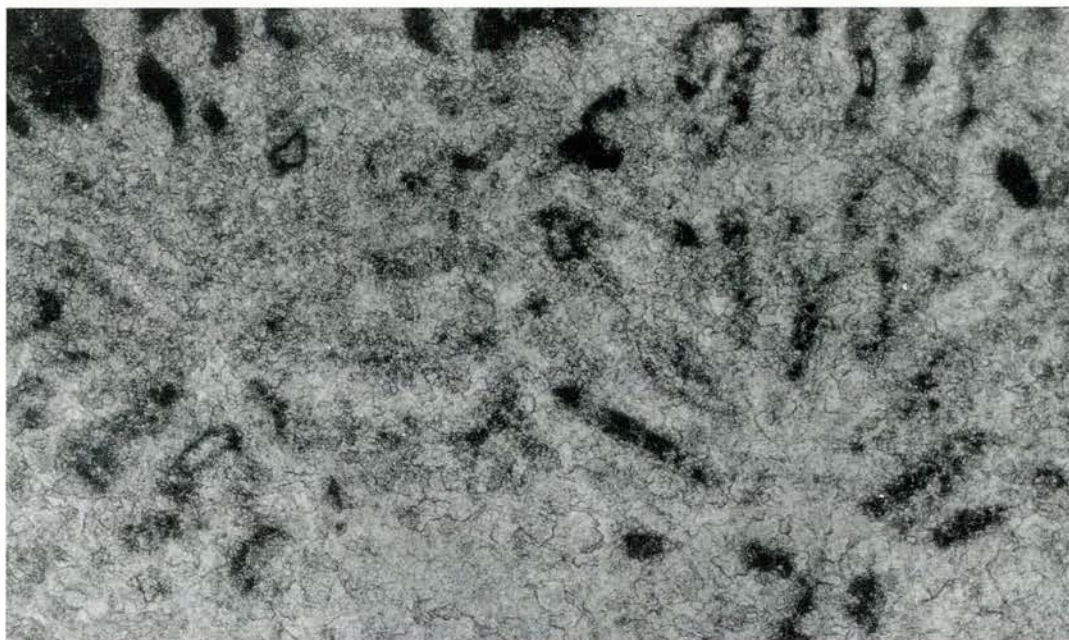
A



B



C



D

Astraeomorpha pratzi Volz 1896

- 1896 *Astraeomorpha Pratzi* nov. spec. VOLZ, 61, Pl. 6, figs. 17-19.
 1987 *Astraeomorpha pratzi* Volz. TURNŠEK et al. 43, Pl. 1, fig. 1.
 1991 *Astraeomorpha* sp. TURNŠEK & BUSER, 231, Pl. 6, fig. 4.

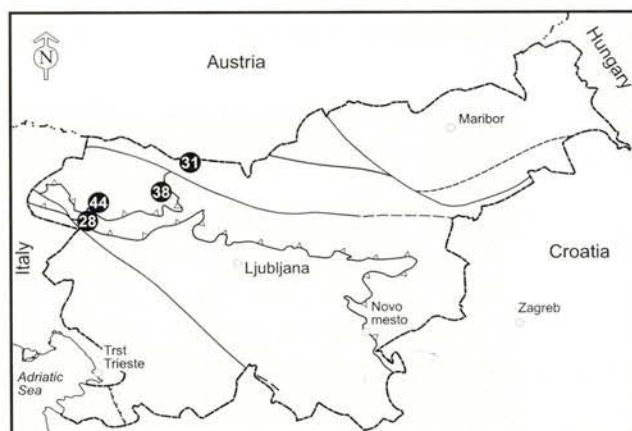
Description: Small massive bulbous colony with thamnasterioid corallites. Septa confluent, porous, laterally pennulated, columella massive, synapticalae present, microstructure trabecular. $d = \text{ca } 1 \text{ mm}$, $cc = 1.5\text{-}2 \text{ mm}$, $s = 12+s$.

Localities: **28** Perbla (P-794), **44** Rdeči rob (P-906), **31** Begunjščica (P-1003, P-1004, P-1005, P-1006), **38** Jelovica (P-995); Italy (Dolomites).

Age: T: Carnian (Tuvanian), Norian-Rhaetian; T: Carnian, Norian.

Paleoenvironment: Reef mound within the clastic beds in the Slovenian Basin and reef on the Julian Carbonate Platform.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvanian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	

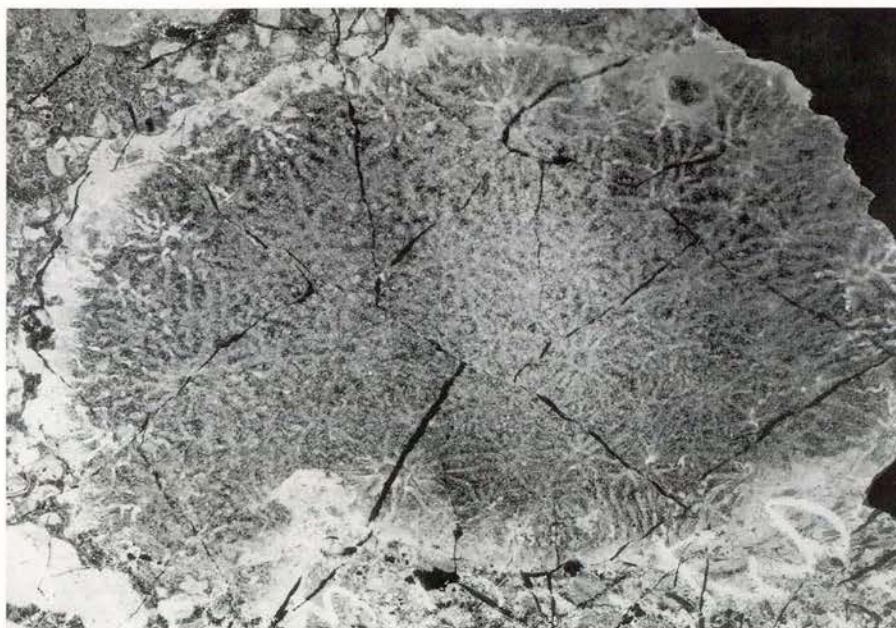
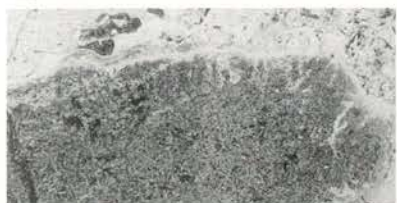


A: transverse radial section; P-794a, x 4.
 B: longitudinal section; P-906b, x 4.
 C: transverse radial section; P-995a, x 4.

D: transverse section; P-1004, x 8.
 E: longitudinal section; P-1005b, x 8.
 F: microstructure, ?medium-sized or thick trabeculae; P-794a, x 40.

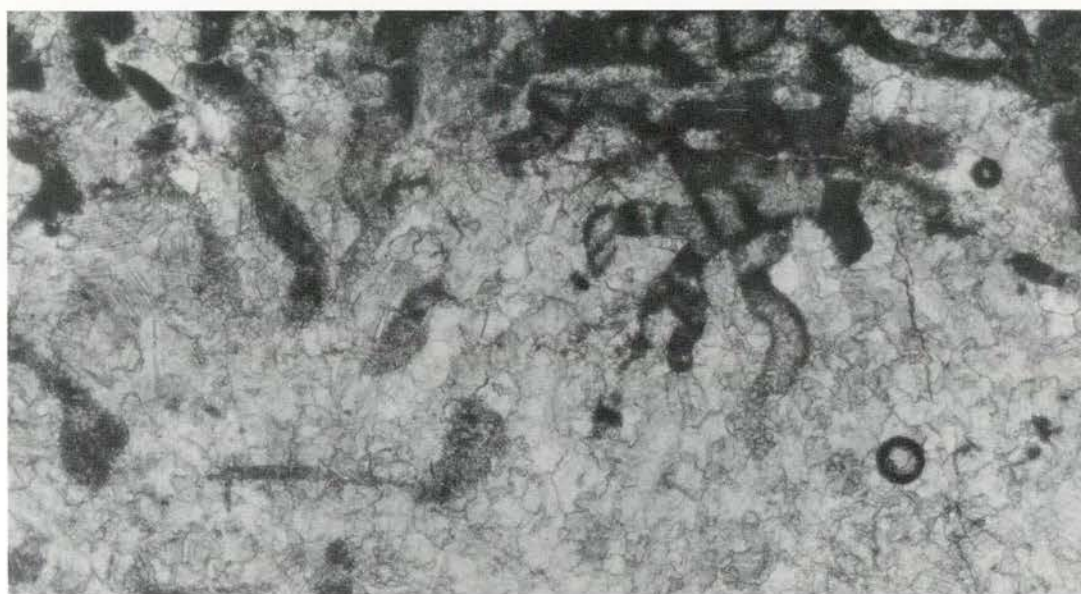
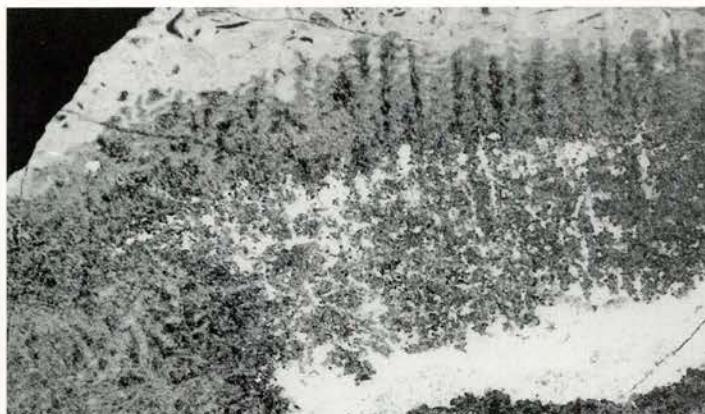
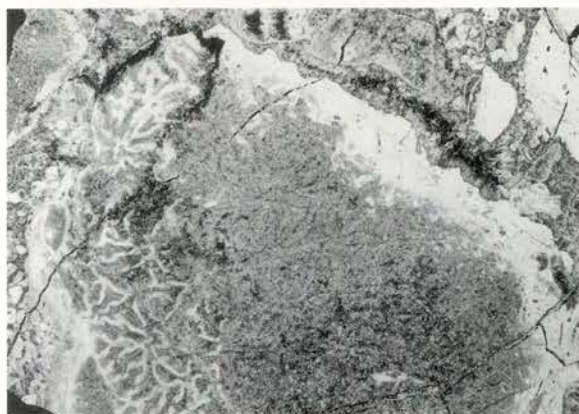


A
B



C

D E



F

Aulosmilia aspera (Sowerby) 1831

- 1831 *Turbinolia aspera* n. SOWERBY, n. v.
 1974 *Aulosmilia aspera* Sowerby. BEAUVAIS & BEAUVAIS, 485.
 1978 *Aulosmilia aspera* (Sowerby). TURNŠEK, 72, 104-105, Pl. 3, figs. 1-4.
 1982 *Aulosmilia aspera* (Sowerby). BEAUVAIS, I, 218-220, Pl. 18, fig. 6, Pl. 19, fig. 2.

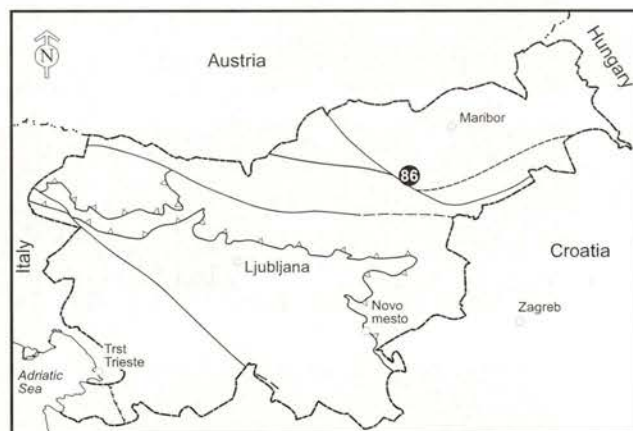
Description: Solitary flabelate corallum, base pointed and bent in longer axis direction. Calice oval. Septa compact, laterally granulated. Costate septotheca, columella lamellar, peripheral dissepiments. h = 20 mm, d = 20 x 10 mm, s = ca 90.

Localities: 86 Stranice-Rugelj (76); Austria (Gosau), France.

Age: K: Santonian-Campanian; K: Santonian.

Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
	Lower		Cenomanian	
			Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	

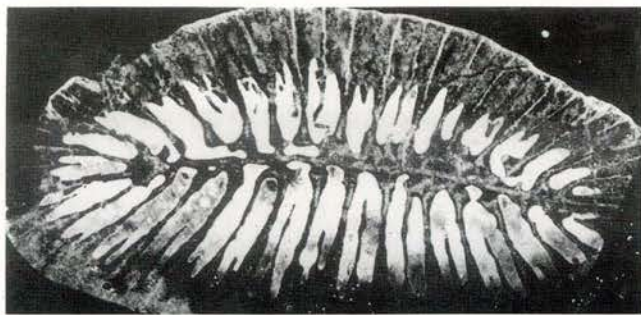


A: surface from side; St-76, x 1.
 B: transverse section; St-76a, x 4.

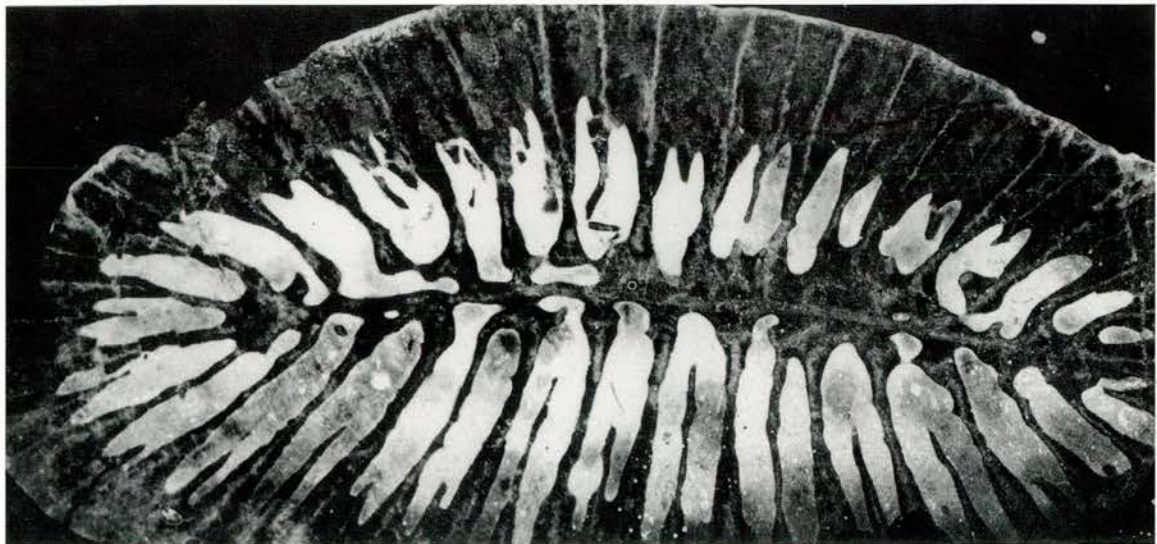
C: the same as B, x 8.
 D: microstructure, ?fibres or minitrabeculae with midseptal line; St-76a, x 40.



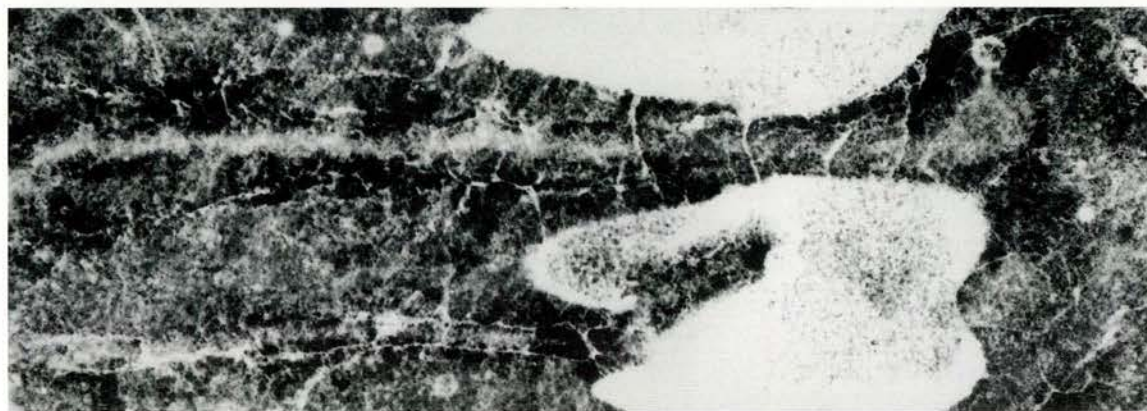
A



B



C



D

Aulosmilia cuneiformis (Milne Edwards & Haime) 1849

- 1849 *Placosmilia cuneiformis* n. MILNE EDWARDS & HAIME, n. v.
 1854 *Placosmilia cuneiformis* M. Edw. & H. REUSS, 83-84, Pl. 2, figs. 5-7.
 1903 *Placosmilia cuneiformis* M. Edw. & H. FELIX, 335-339, Textfigs. 61-63.
 1930 *Placosmilia cuneiformis* M. Edw. & H. OPPENHEIM, 500-509, Pl. 25, figs. 5-11.
 1952 *Placosmilia cuneiformis* M. Edw. & H. ALLOITEAU, Textfig. 60.
 1956 *Aulosmilia cuneiformis* (M. Edw. & H.). WELLS, F414, Textfigs. 313/4a-c.
 1957 »*Placosmilia*« *cuneiformis* (M. Edw. & H.). ALLOITEAU, 100, Figs. 55-56.
 1978 *Aulosmilia cuneiformis* (M. Edw. & H.). TURNŠEK, 71-72, 104, Pl. 1, figs. 1-4, Pl. 2, figs. 1-2.
 1997 *Aulosmilia cuneiformis* (M. Edw. & H.). BARON-SZABO, 74-75, Pl. 9, fig. 6.

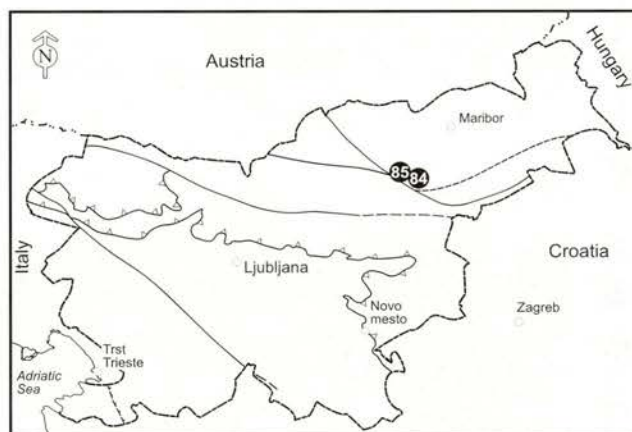
Description: Solitary, flabelate, compressed corallum with pointed base, calice oval. Septa compact with lateral granulae. Costate septotheca, columella lamellar, peripheral dissepiments, microstructure fibro-lamellar. h = 25-40 mm, d = 22-55 x 15-35 mm, s = ca 165.

Localities: **84** Stranice-Dobrava (28, 31, 33), **85** Stranice-Radana vas (79); Austria (Gosau), Germany (Allgäu), France.

Age: K: Santonian-Campanian; K: Coniacian-Santonian.

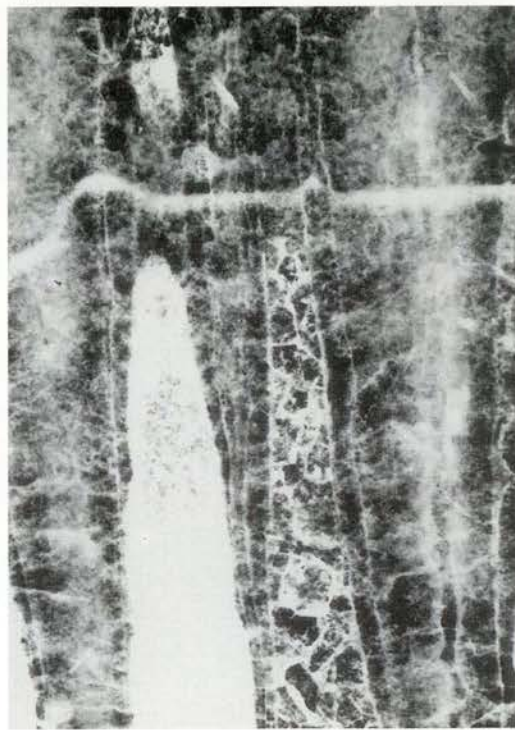
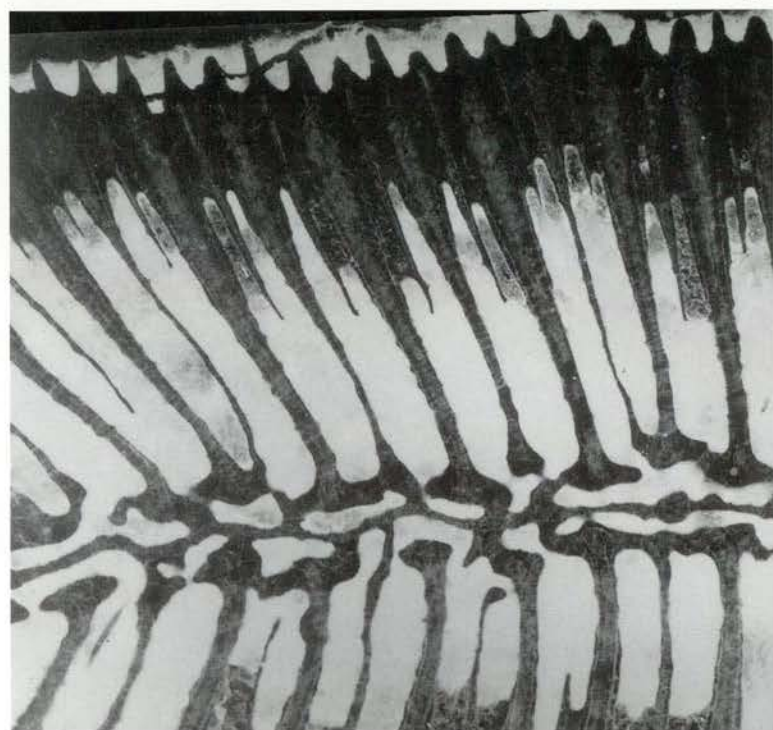
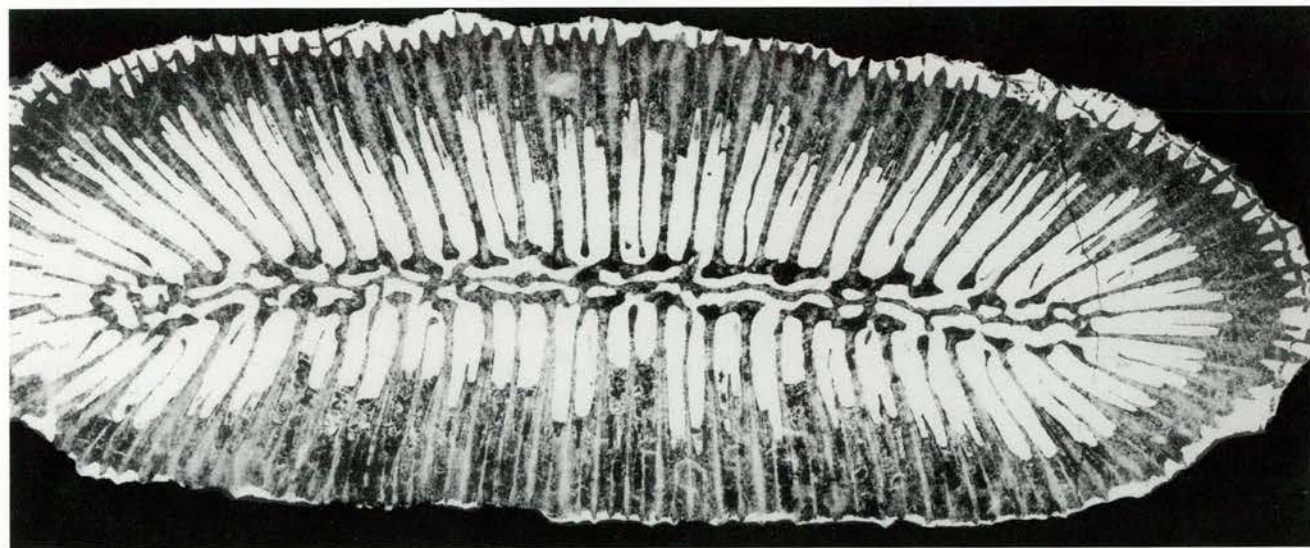
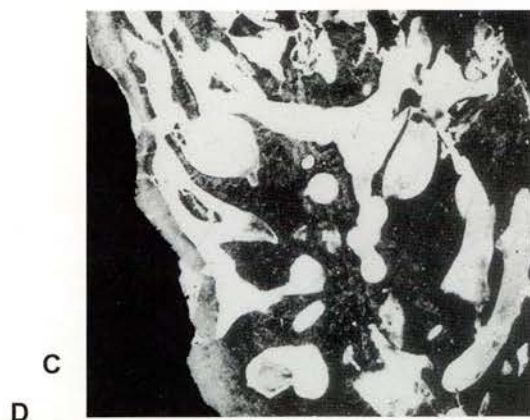
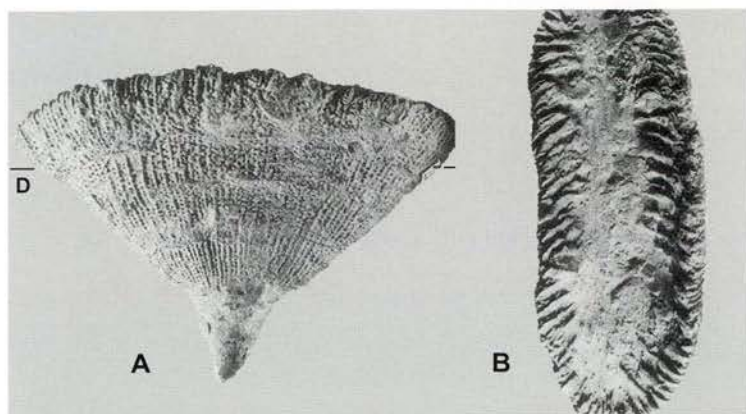
Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



- A: surface from side; St-28, x 1.
 B: surface from above; St-28, x 1.
 C: longitudinal section; St-28b, x 4.
 D: transverse section; St-28a, x 4.

- E: detail from D, x 8.
 F: microstructure; fine fibres (? minitraculae) perpendicular to midseptal line; St-28a, x 40.



Axosmilia marcou (Étallon) 1859

- 1859 *Pleurosmilia marcou*. Étallon, 52.
 1897 *Pleurosmilia marcou* Étallon. OGILVIE, 139, Pl. 13, fig. 12.
 1880 *Pleurosmilia marcou* Étallon. Koby, 38-39, Pl. 4., figs. 5-5a.
 1954 *Axosmilia marcou* (Étallon). GEYER, 195, Pl. 16, fig. 5.
 1955a *Axosmilia marcou* (Étallon). GEYER, 191.
 1972 *Axosmilia marcou* (Étallon). TURNŠEK, 185, Pl. 21, fig. 3.
 1973 *Axosmilia marcou* (Étallon). TURNŠEK & MIHAJLOVIĆ, 100, Pl. 5, fig. 1.
 1982 *Axosmilia* cf. *marcou* (Étallon). BENDUKIDZE, 65-66, Pl. 10, fig. 2.

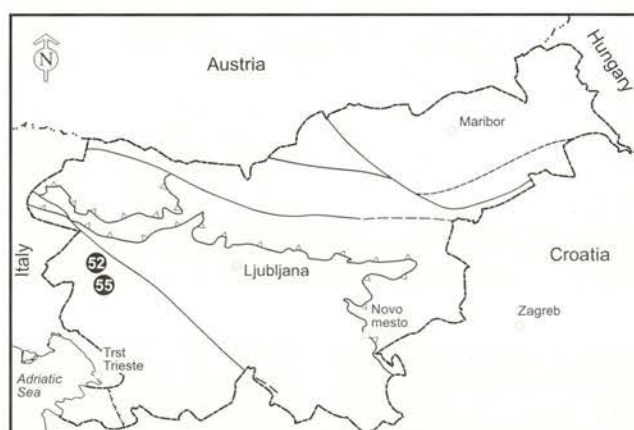
Description: Solitary turbinate corallum, ellipsoid calice. Septa even compact, rare lateral granulae, 4-5 cycles. Paratheca, columella lamellar, thin tabulate and long dissepiments. Microstructure poorly preserved with zigzag inner line. d = 30 mm, s = 50-60 (4-5/5 mm).

Localities: 55 Mrzovec (P-460), 52 Kal nad Kanalom (P-1032); France, Czech R. (Štramberk), Switzerland, Germany, Serbia, Caucasus.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian-Tithonian.

Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



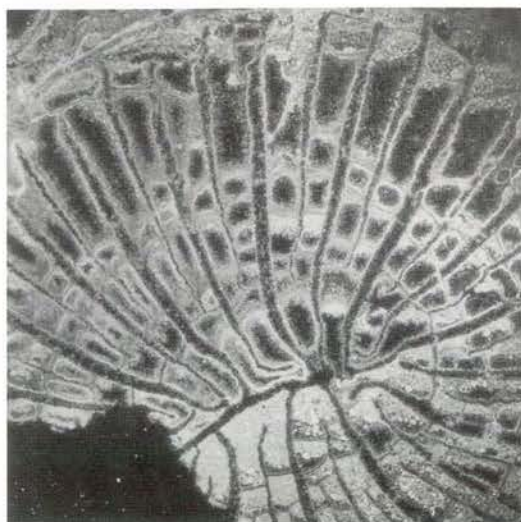
A: transverse section; P-460a, x 4.

B: longitudinal section; P-460b, x 4.

C: transverse section; P-1032a, x 4.

D: detail from A, x 8.

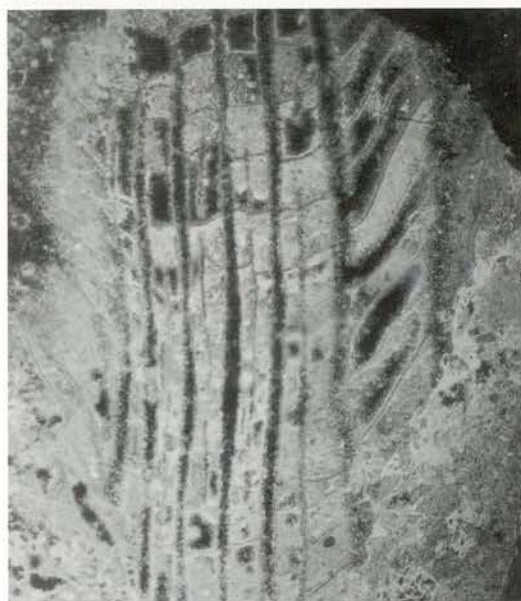
E: microstructure, ?medium-sized trabeculae, zigzag line seen in some septa only; P-460a, x 40.



A



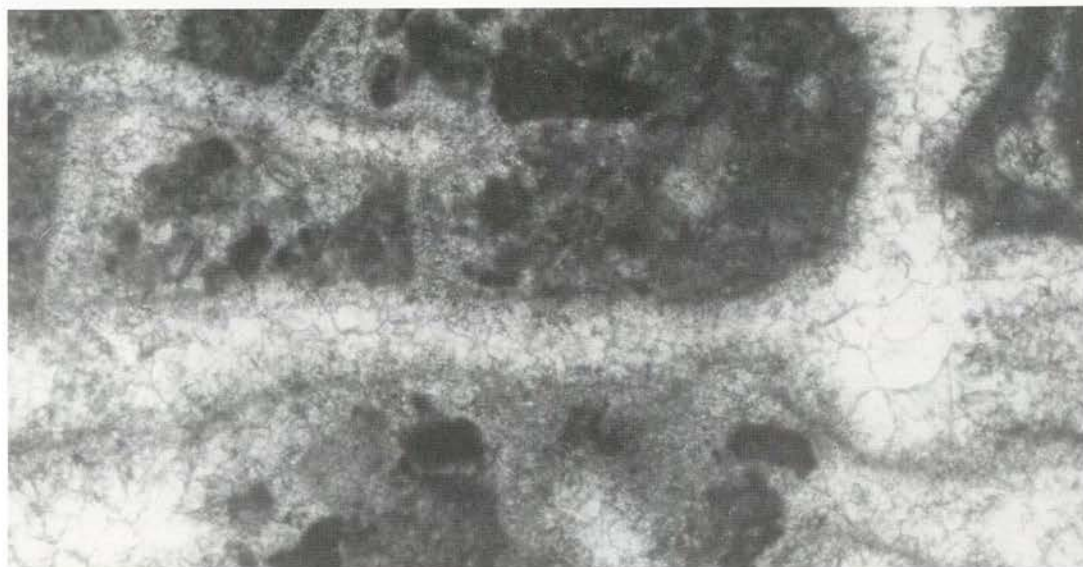
C



B



D



E

Calamophylliopsis cervina (Étallon) 1864

- 1864 *Rhabdophyllia cervina* Étallon. THURMANN & ÉTALLON, 380, Pl. 54, fig. 1.
 1884 *Rhabdophyllia cervina* Étallon. Koby, 191-192, Pl. 56, figs. 3-7.
 1897 *Rhabdophyllia cervina* Étallon. OGILVIE, 215, Pl. 15, fig. 2.
 1955a *Calamophyllia cervina* (Étallon). GEYER, 202.
 1955b *Calamophyllia cervina* (Étallon). GEYER, 331.
 1964 *Rhabdophyllia cervina* Étallon. BEAUVAIS, 163, Pl. 16, fig. 11.
 1966 *Rhabdophylliopsis cervina* (Étallon). RONIEWICZ, 240-241, Pl. 20, fig. 2.
 1969 *Calamophyllia* cf. *cervina* (Étallon). DUSA, 112, Pl. 11, fig. 3.
 1972 *Calamophylliopsis cervina* (Étallon). TURNŠEK, 203, 254, Pl. 34, fig. 3.
 1985 *Calamophylliopsis cervina* (Étallon). ROSENDAHL, 64.

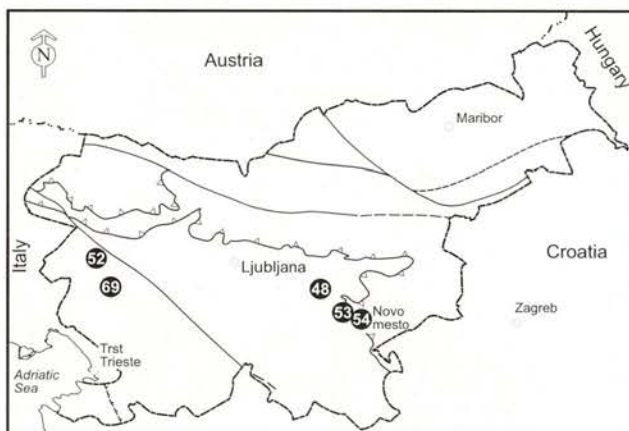
Description: Phaceloid colony with long cylindrical corallites, extracalicular budding. Septa costate, rarely perforated, laterally granulated. Septoparatheca, tabulate and vesicular dissepiments, spongy columella. d = 5-8 mm, s = ca 50 (12-13/5 mm).

Localities: 48 Bič (P-324, P-329, P-331), 54 Mačkovec (P-274), 53 Karteljevo (P-275), 69 Selovec (P-968), 52 Kal nad Kanalom (P-644); Switzerland, France, Czech R. (Štramberk), Portugal, Poland, Romania.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian-Tithonian.

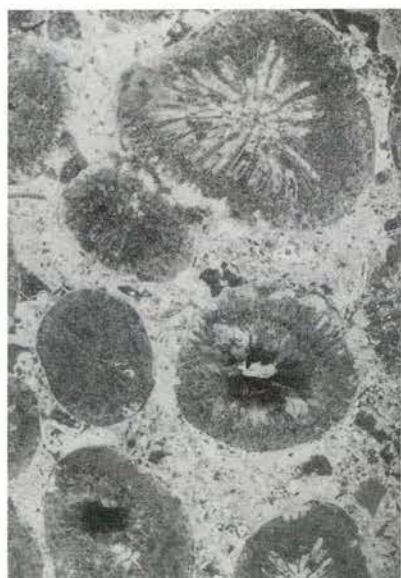
Paleoenvironment: Central and outer barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-274a, x 4.
 B: longitudinal section; P-274b, x 4.

C: detail from A, x 8.
 D: microstructure, ?medium-sized trabeculae; P-274a, x 40.

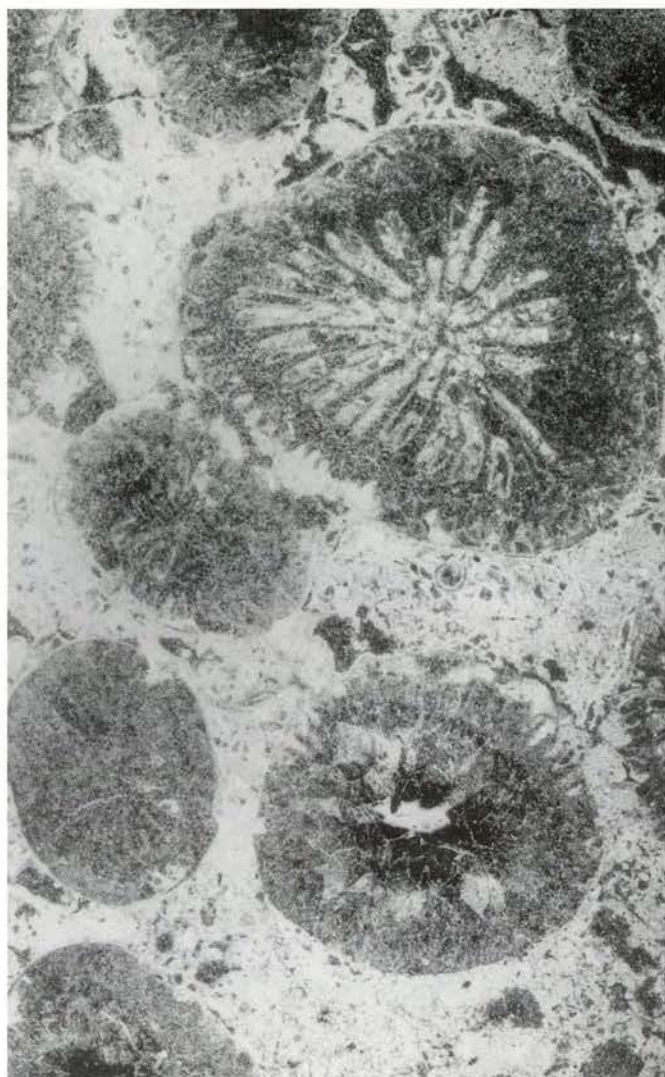


A



B

C



D



Calamophylliopsis flabellum (Michelin) 1843

- 1843 *Lithodendron flabellum*. MICHELIN, n. v.
 1884 *Calamophyllia flabellum* Blainville. Koby, 182-185, Pl. 13, figs. 1-5, Pl. 14, fig. 1.
 1964 *Calamophylliopsis flabellum* (Michelin) var. *compacta* Koby. BEAUVAIS, 242-243, Pl. 32, fig. 6, Pl. 33, fig. 2, Pl. 34, fig. 1.
 1964 *Calamophylliopsis flabellum* (Michelin) var. *nodosa* Koby. BEAUVAIS, 243, Pl. 33, fig. 6.
 1964 *Calamophylliopsis flabellum* (Michelin) var. *granulosa* Koby. BEAUVAIS, 243, Pl. 33, fig. 7.
 1972 *Calamophylliopsis flabellum* (Michelin). TURNŠEK, 202-203, 254, Pl. 34, figs. 1-2.
 1973 *Calamophyllia flabellum*. BABAIEV, 3, Pl. 11, fig. 1.
 1975 *Calamophylliopsis flabellum* (Michelin). TURNŠEK, 15, Pl. 11, figs. 1-5. pars 1976 *Calamophylliopsis compacta* (Koby). RONIEWICZ, 76, Pl. 18, figs. 1-2, Pl. 19, fig. 3.
 1982 *Calamophylliopsis flabellum* (Michelin). BENDUKIDZE, 69 Pl. 19, figs. 1, 3, Pl. 21, figs. 3-4. Synonymy.
 1985 *Calamophylliopsis flabellum* (Michelin). ROSENDAHL, 64, Pl. 7, fig. 1.
 1990 *Calamophylliopsis flabellum* (Michelin). ERRENST, 201-202, Pl. 12, figs. 6a-c.

Description: Phaceloid colony with long parallel irregularly oval corallites, budding intracalicular in two or more directions. Septa thin, rarely porous, costate, laterally granulated. Paratheca, tabulate dissepiments and synapticulae, parietal columella. d = 3-8 mm, s = ca 70 (25/5 mm).

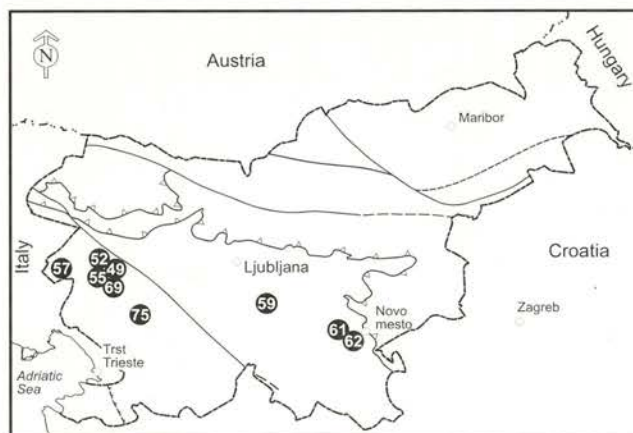
Remarks: RONIEWICZ (1976) ascribed the species *C. flabellum* to *C. compacta*, but ROSENDAHL (1985) and ERRENST (1990) re-ascribed it to *C. flabellum*.

Localities: 59 Čušperk (P-379), 62 Frata-Brezova reber (P-385, P-386, P-387), 61 Frata (P-364, P-367, P-394, P-398), 55 Mrzovec (P-625, P-626), 52 Kal nad Kanalom (P-630), 57 Plave (P-627, P-328, P-629), 49 Čepovanski dol (P-631); 75 Nanos (P-949, P-950), 69 Selovec (P-969); Switzerland, France, Azerbaidjan, Georgia, Croatia, Romania, Crimea, Portugal, Uzbekistan, Spain.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian.

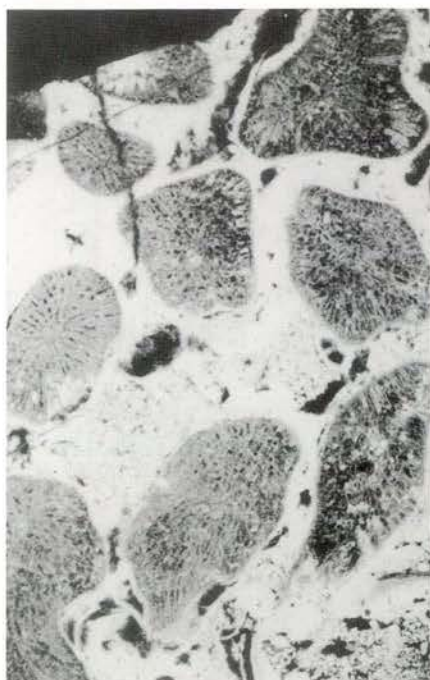
Paleoenvironment: Inner, central and outer barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	

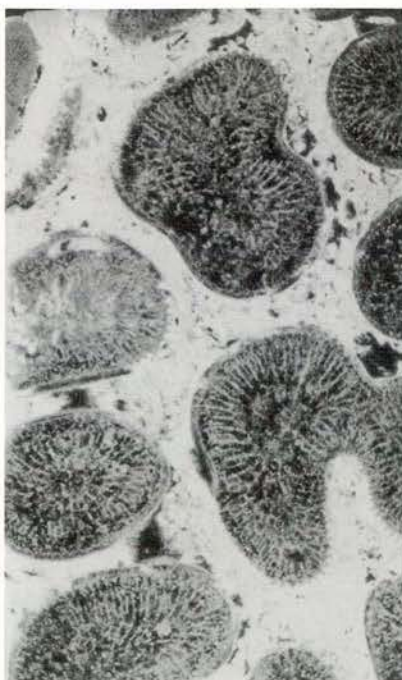


A: transverse section; P-364a, x 4.
 B: transverse section; P-379a, x 4.
 C: longitudinal section: P-379b, x4.

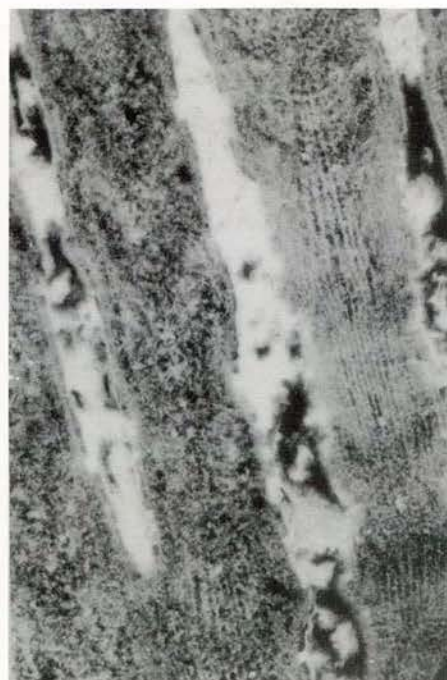
D: detail from A, x 8.
 E: microstructure, ?medium-sized or thick trabeculae, recrystallized; P-379a, x 40.



A



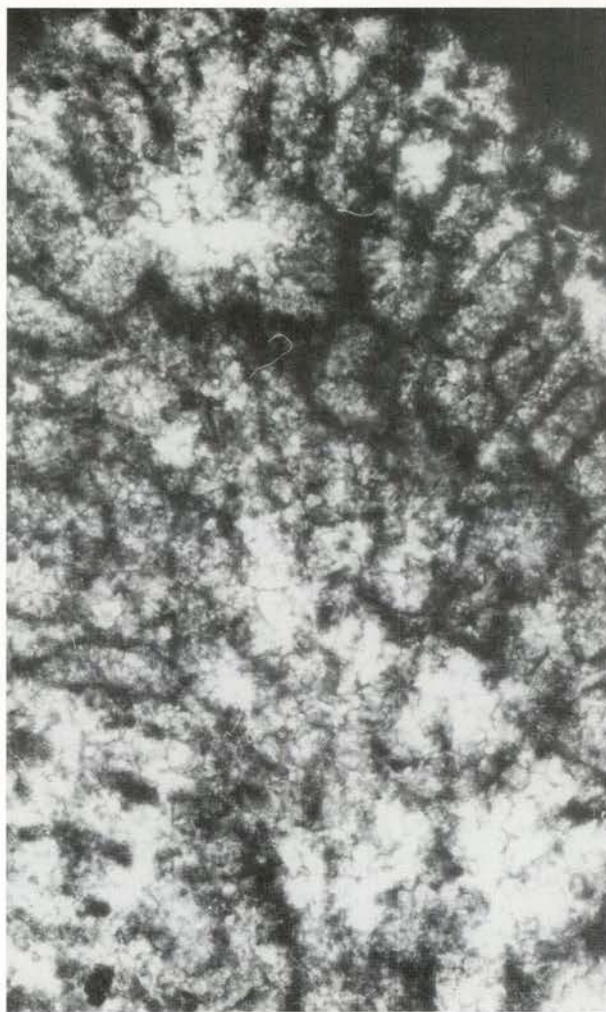
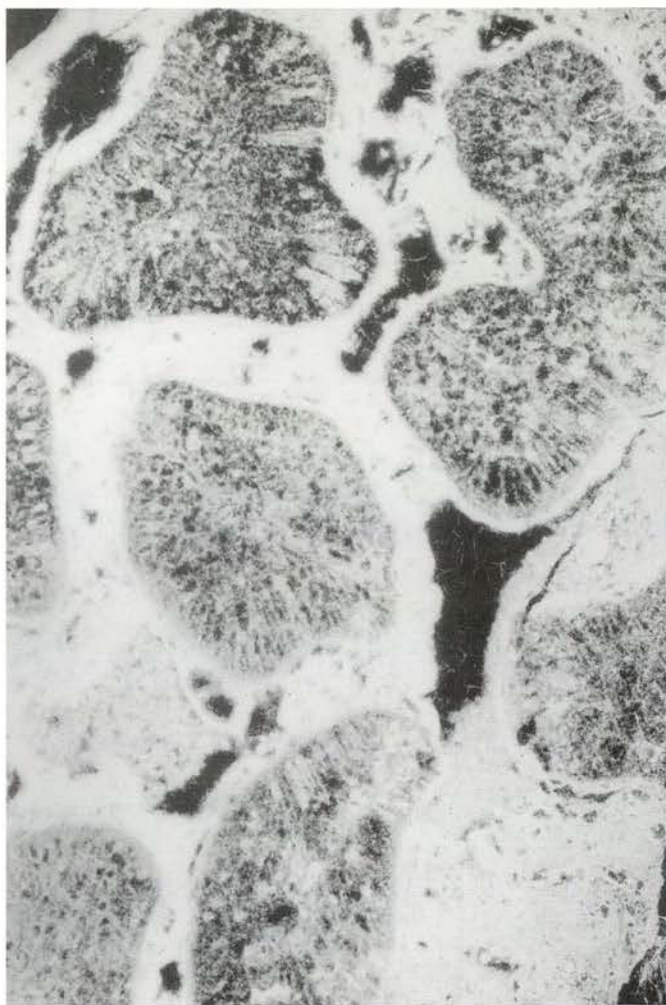
B



C

D

E



Calamophylliopsis fotisalensis (Bendukidze) 1961

- 1961 *Procladocora fotisalensis* sp. nov. BENDUKIDZE, 19-20, Pl. 2, fig. 5.
 1966 *Calamophylliopsis fotisalensis* (Bendukidze). MORYCOWA & LEFELD, 537-538, Pl. 34, fig. 2, Textfig. 5.
 1976 *Calamophylliopsis fotisalensis* (Bendukidze). TURNŠEK & BUSER, 63, 83, Pl. 20, figs. 1-4.
 1992 *Calamophylliopsis fotisalensis* (Bendukidze). TURNŠEK et al., 215, Pl. 5, figs. 3-6.
 1994 *Calamophylliopsis fotisalensis* (Bendukidze). LIAO & XIA, 115, Pl. 22, figs. 4-5.
 1997 *Calamophylliopsis fotisalensis* (Bendukidze). BARON-SZABO & FERNANDEZ-MENDIOLA, 47, Textfigs 6D, F.

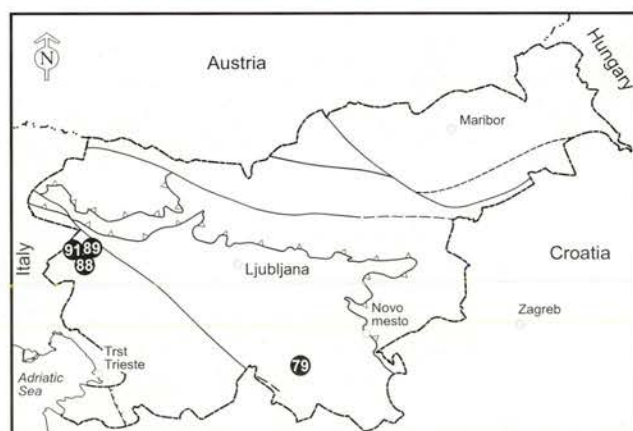
Description: Phaceloid colony, long round corallites. Septa costate, porous with lateral offsets (?pennulae). Septotheca, tabulate dissepiments and synapticulae. Spongy columella. d = 3-6 mm, s = 25-35(45).

Localities: **91** Mešnjak (P-691, P-690), **88** Hoje (P-686), **89** Kanalski Lom (P-683, P-587a,b,e,f, P-596, P-597, P-608), **79** Slovenski vrh (A/1ab, A/ 2ab, A/3ab, B/1a, B/ 3a, B/4a, C/1ab); Poland, Crimea, China (Xizang).

Age: K: Barremian-Lower Aptian and Senonian breccia; K: Barremian-Aptian.

Paleoenvironment: Patch reef in back reef area, and outer slope of the Dinaric Carbonate Platform where the reef limestone is resedimented in Senonian breccia.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
		Turonian		
		Cenomanian		
		Lower	Albian	
	Aptian			
	Barremian			
	Hauterivian			
	Valanginian			
	Berriasian			

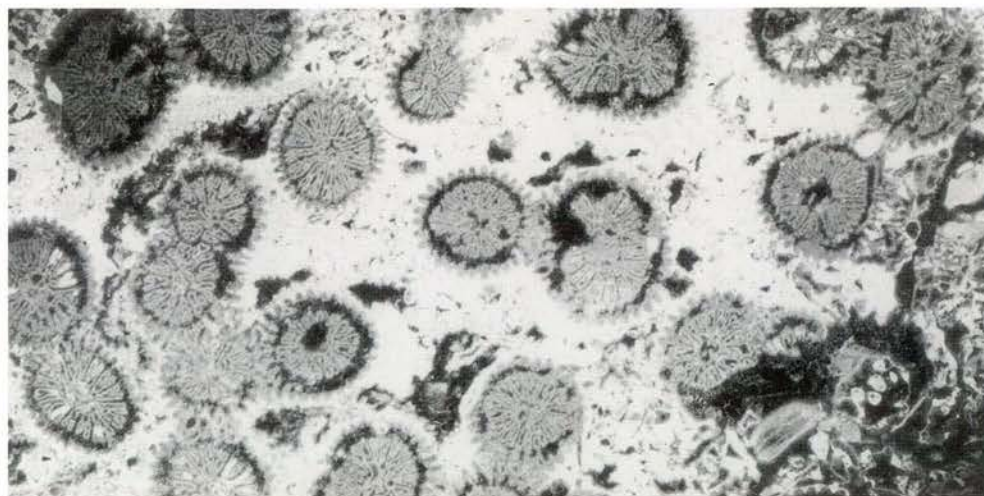


- A: surface from above, Sv-A/1, x 1.
 B: transverse section; Sv-A/1a, x 4.
 C: transverse section; Sv-A/2a, x 4.
 D: longitudinal section; Sv-A/3b, x 4.

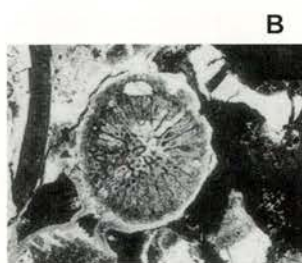
- E: transverse section; P-690a, x 4.
 F: detail from E, x 8.
 G: microstructure, ?medium-sized trabeculae; P-690a, x 40.



A



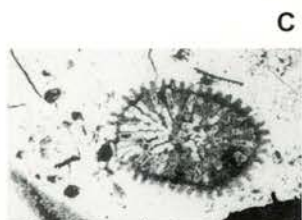
E



B



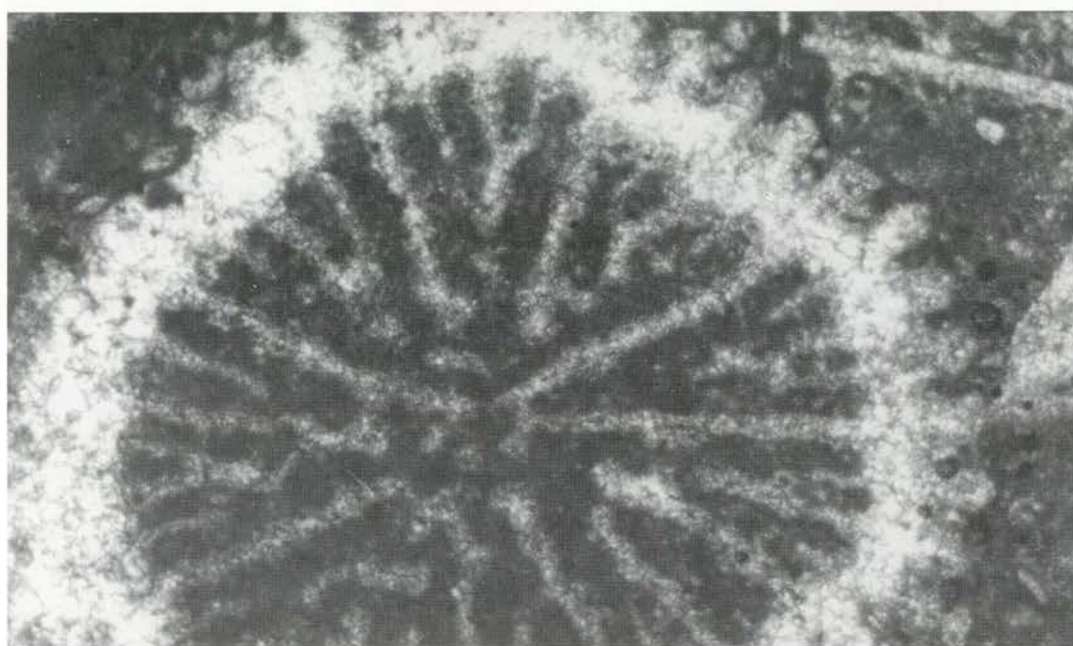
D



C



F



G

Calamophylliopsis moreauana (Michelin) 1843

- 1843 *Lithodendron moreausiacum*. MICHELIN, n. v.
 1990 *Calamophylliopsis moreauana* (Michelin).
 ERRENST, 202, Pl. 12, fig. 8ab. Synonymy.
 1994 *Calamophylliopsis moreauana* (Michelin). LIAO &
 XIA, 116, Pl. 22, figs. 6-9.

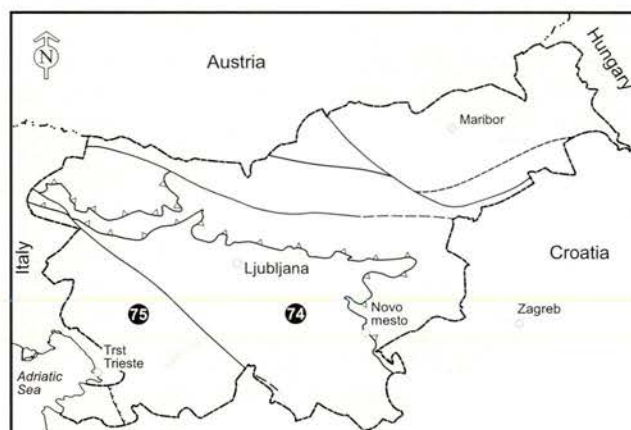
Description: Phaceloid colony with long corallites, round to oval or prolonged in transverse section, budding extracalicular. Septa subcompact, costate, laterally granulated. Septotheca, parietal columella, vesicular dissepiments, microstructure not preserved. d = 3-4 mm, s = 42-45 (7-8/2 mm).

Localities: **75** Nanos (P-947, P-948), **74** Korinj (P-944); Spain, France, Switzerland, Poland, Romania, China (Xizang).

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian.

Paleoenvironment: Patch reef in the back reef area on the Dinaric Carbonate Platform.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
	Lias	Toarcian	
		Pliensbachian	
		Sinemurian	
		Hettangian	

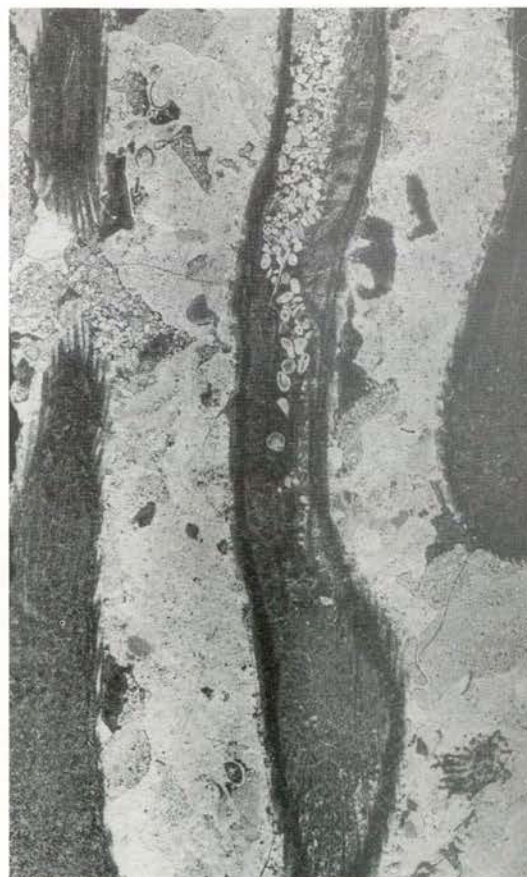


A: transverse section; P-947a, x 4.
 B: transverse section; P-948a, x 8,
 C: longitudinal section; P-948b, x 4.

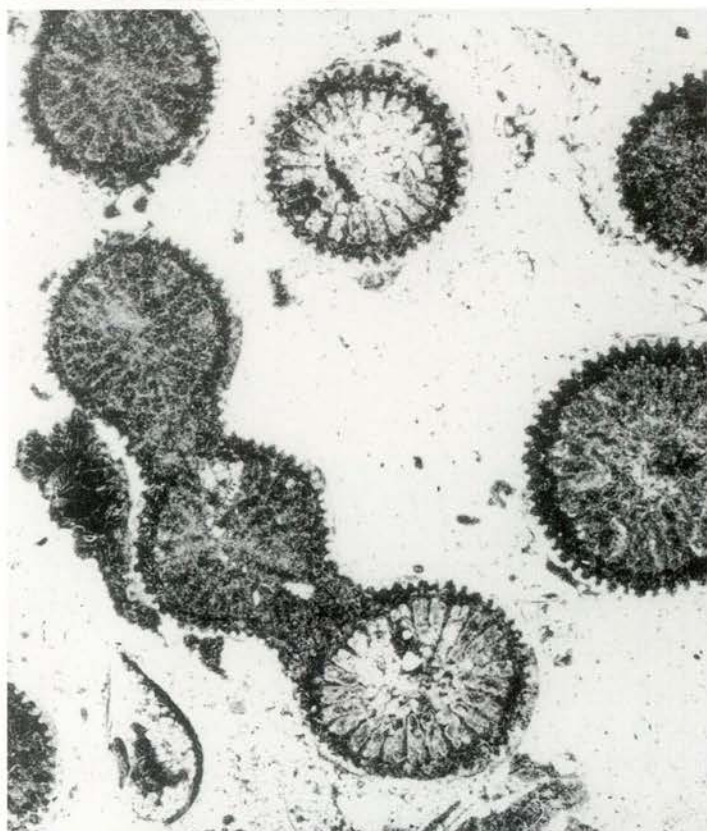
D: detail from C, x 8.
 E: microstructure, recrystallized; P-947a, x 40.



A



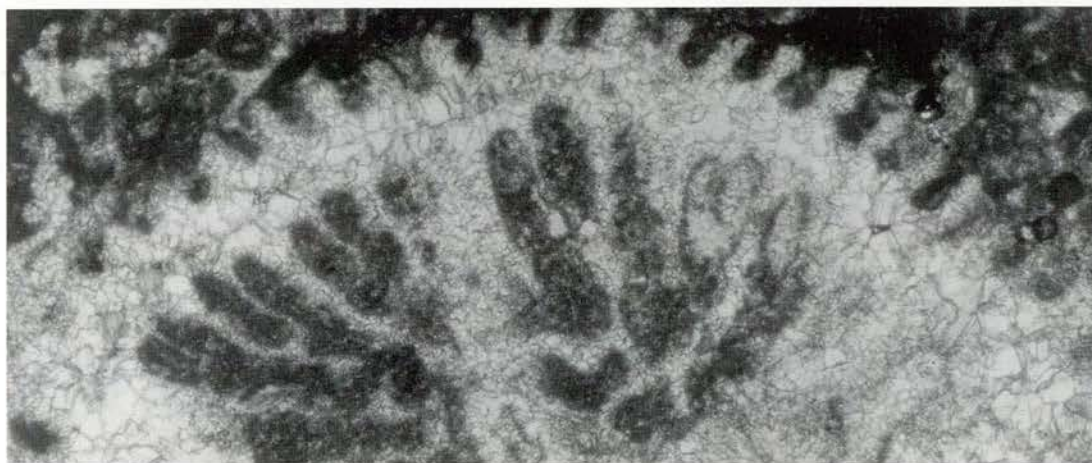
C



B



D



E

Calamophylliopsis stockesi (Milne Edwards & Haime) 1851

- 1851 *Calamophyllia stockesi*. MILNE EDWARDS & HAIME, 89-91, Pl. 16, fig. 1.
 1875 *Calamophyllia stockesi* M. Edw. & H. ACHIARDI, 265.
 1887 *Calamophyllia stockesi* M. Edw. & H. SOLOMKO, 134, Pl. 2, fig. 2.
 1912 *Calamophyllia* cf. *stockesi* M. Edw & H. SPEYER, 222, Pl. 22, fig. 25.
 1966 *Calamophylliopsis stockesi* (M. Edw. & H.). RONIEWICZ, 241-242, Pl. 21, fig. 5, Pl. 23, fig. 3, Textfig. 17.
 1972 *Calamophylliopsis stockesi* (M. Edw. & H.). TURNŠEK, 204, Pl. 34, fig. 4.
 1973 *Calamophylliopsis stockesi* (M. Edw & H.). TURNŠEK & MIHAJLOVIĆ, 101-102, Pl. 7, figs. 1-2.
 1976 *Calamophylliopsis stockesi* (M. Edw. & H.). RONIEWICZ, 76-77, Pl. 18, fig. 5.
 1979 *Calamophylliopsis stockesi* (M. Edw. & H.). NEGUS & BEAUVAIS, 287.
 1985 *Calamophylliopsis stockesi* (M. Edw. & H.). ROSENDAHL, 64, Pl. 7, fig. 2.
 1990 *Calamophylliopsis stockesi* (M. Edw. & H.). ERRENST, 202, Pl. 12, fig. 7.

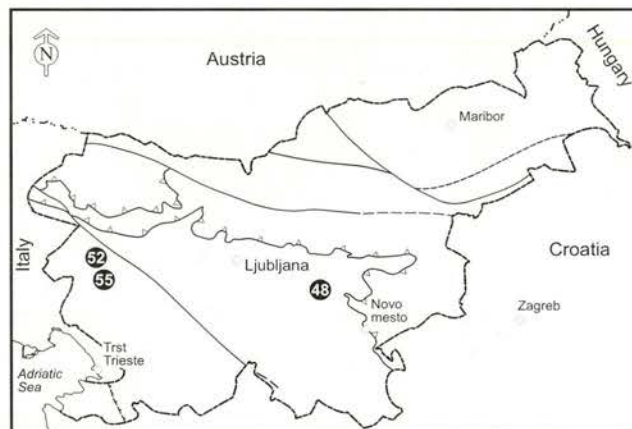
Description: Phaceloid colony with long straight round corallites, budding intercalicinal. Septa rarely perforated, laterally granulated. Septotheca costate, spongy columella, tabulate dissepiments, rare synapticalae. d = 6-8 mm, s = 50-70+costae (20/5 mm).

Localities: 48 Bič (P-325, P-327, P-334), 55 Mrzovec (P-248, P-451), 52 Kal nad Kanalom (P-645); England, Crimea, Italy, Germany, Georgia, Poland, Serbia, Romania, Portugal, Spain.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian-Tithonian.

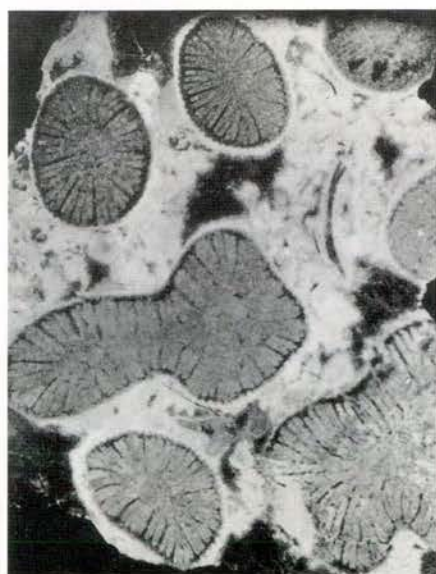
Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-451a, x 4.
 B: longitudinal section; P-451b, x 4.
 C: transverse section; P-327a, x 4.

D: longitudinal section; P-327b, x 4.
 E: microstructure, not preserved; P-451a, x 40.



A



C

B



D



E

Cassianastraea reussi (Laube) 1865

- 1865 *Stylina Reussi* Laube. LAUBE, 261, Pl. 5, fig. 7.
 1896 *Cassianastraea Reussi* (Laube). VOLZ, 96, Pl. 2, figa. 32-36.
 1973 *Cassianastraea reussi* Laube. MONTANARO GALLITELLI et al., Tab. 1.
 1974 *Cassianastraea reussi* (Laube). MONTANARO GALLITELLI, 222-223, Pl. 6, figs. 1-8, Pl. 7, figs. 1-2, Pl. 8, figs. 1-2.
 1976 *Cassianastraea reussi* (Laube). CUIF, 70, Pl. 1, figs. 1-6.
 1979 *Cassianastraea* cf. *C. reussi* (Laube). STANLEY, 18.
 1979 *Cassianastraea reussi* (Laube). MONTANARO GALLITELLI, 73-74, Pl. 14, fig. 1.
 1984 *Cassianastraea reussi* (Laube). RAMOVŠ & TURNŠEK, 174-175, Pl. 3, fig. 1.
 1993 *Cassianastraea reussi* (Laube). ZAMPARELLI, 250, Pl. 1, figs. 1-4, Pl. 3, fig. 4. Synonymy.

Description: Small massive cerioid colony in branching form. Corallites polygonal, budding extracalicular. Septa radial in 1-2 cycles, laterally granulated. Incomplete septotheca. No columella. Microstructure not preserved. d = 0.5-1 mm, s = ca 6-10 mm, colony 3x5x20 mm.

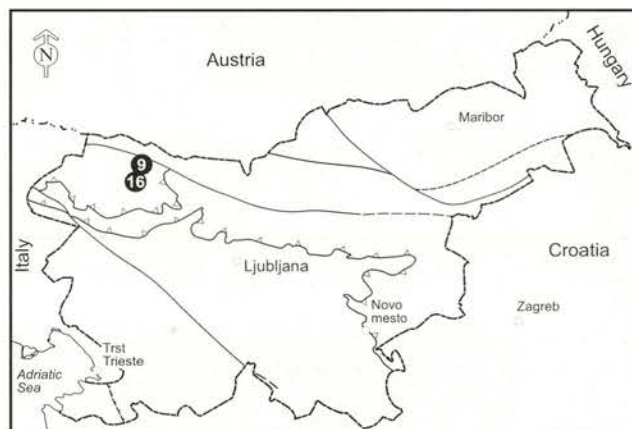
Remarks: MONTANARO GALLITELLI (1979) proposed the genus *Cassianastraea* to belong to the Hydrozoa.

Localities: 9 Mežakla-Kisovec (SJA-6/1), 16 Radovna (SJA-14/3); Italy (Dolomites, Campania), Turkey, Nevada.

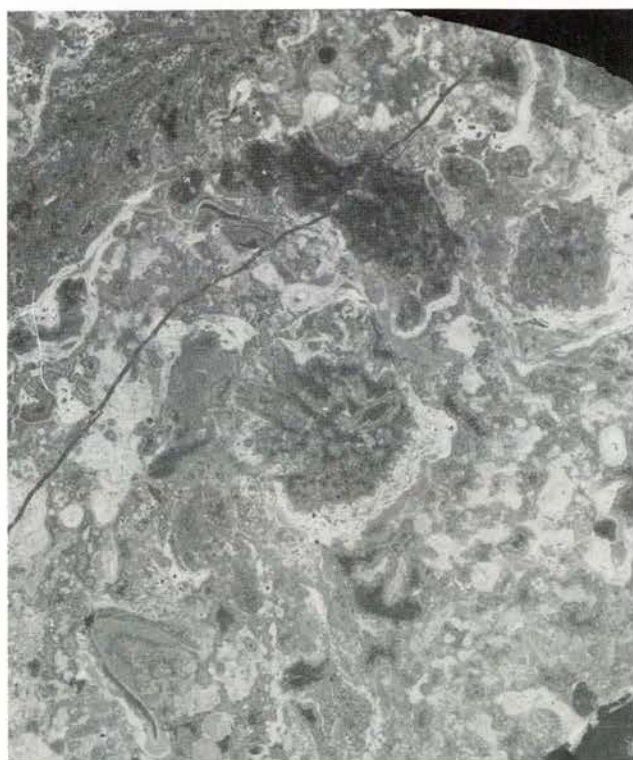
Age: T: Carnian (Cordevolian); T: Ladinian-Carnian, Carnian (Cassian).

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
			Scythian	
	Lower			



A: transverse section; SJA-14/3, x 4.
 B: longitudinal and oblique section; SJA-6/1b, x 4.
 C,D: details from B, x 8



A



B



C



D

Ceratothecia carniolica Turnšek 1972

- 1972 *Ceratothecia carniolica* n. sp., TURNŠEK, 178-179, Pl. 16-17.
 1990 *Ceratothecia carniolia* Turnšek. ERRENT, 187, Pl 8, figs. 5a-c,
 1994 *Ceratothecia carniolica* Turnšek. LIAO & XIA, 172-173, Pl. 51, figs. 4-6.

Description: Phaceloid colony, rarely spaced round corallites, budding extracalicular. Septa compact, short, sparsely spaced, laterally occasionally granulated. Septoparatheca, no columella, tabulate dissepiments which are in the same levels and restricted mainly to the lower part of the corallite. Microstructure is of simple trabeculae, with central line, in places the trabecular thickenings reflect in lateral ornamentations. $d = 7-10$ mm, $s = 12+s$.

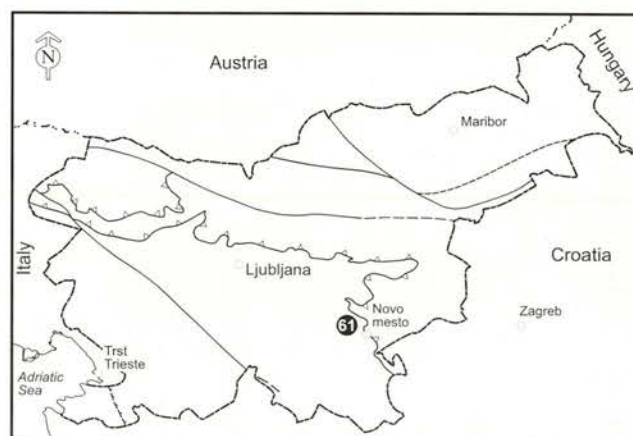
Remarks: Diagnosis emended by ERRENT, 1990.

Localities: 61 Frata (P-352, P-356, P-357); Spain, China (Xizang).

Age: J: Upper Oxfordian-Kimmeridgian; J: Kimmeridgian.

Paleoenvironment: Inner (sheltered) barrier reef on the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



- A,B: transverse section; P-352a, x 4.
 C: oblique section; P-352b, x 4.
 D: transverse section; P-357a, x 4.
 E: detail from D, x 8.
 F: longitudinal section; P-357b, x 4.

- G: the same as A, x 8.
 H: longitudinal section; P-357b, x 8.
 I: microstructure; P-352a, x 40.
 J: microstructure in longitudinal section, minitraculae with midseptal line; P-357b, x40.



A



B

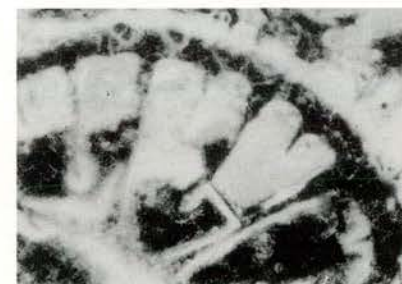


C

D



E



F



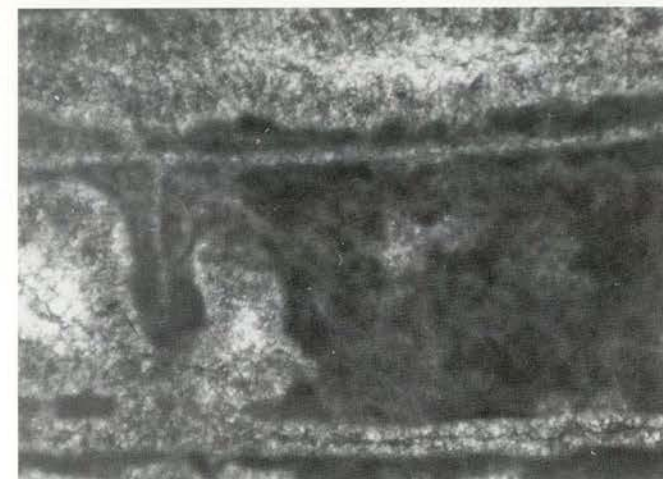
G



I



H



J

Chomatoseris sp.

1976 *Chomatoseris* sp. TURNŠEK & BUSER, 59, 81, Pl. 17, fig. 3.

Description: Solitary corallum, round calice. Septa dense, perforated, in 4-5 cycles, in axial part joint with older cycles (anastomose), lateral meniannae. Numerous synapticalae, synapticulotheca, no columella, but round empty fossula. Microstructure not preserved. d = ca 8 mm, s = 48+s.

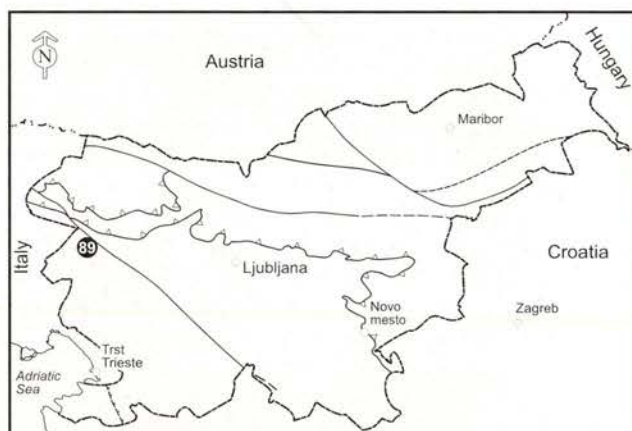
Locality: 89 Kanalski Lom (P-598).

Age: J: Senonian breccia; J: Lias-Dogger.

Paleoenvironment: Outer slope of the Dinaric Carbonate Platform. Reef limestone resedimented in breccia.

Remarks: Genus characterized as nonbuilding (GILL 1971).

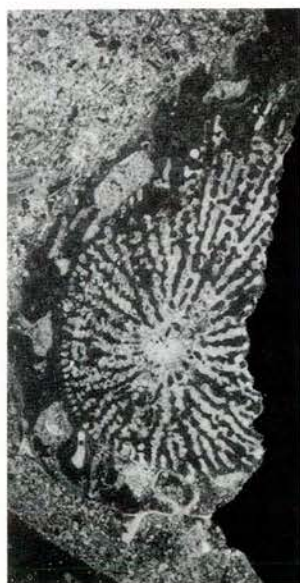
CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



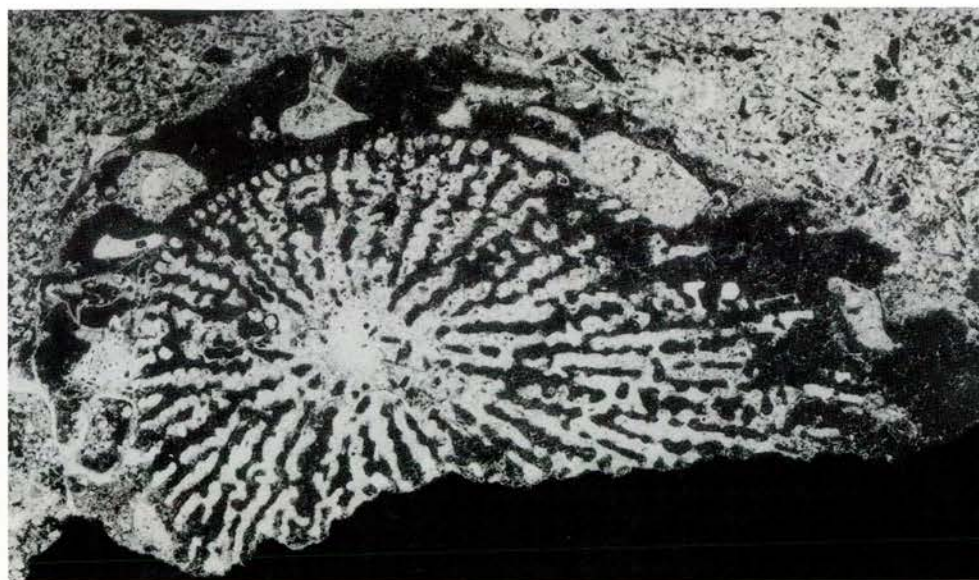
A: transverse section; P-598a, x 4.

B: the same as A, x 8.

C: microstructure, recrystallized; P-598a, x 40.



A



B



C

Chondrocoenia paradoxa (Melnikova) 1968

- 1968 *Cyathocoenia paradoxa* n. sp. MELNIKOVA, 16-17, Pl. 3, figs. 1-2.
 1975 *Cyathocoenia paradoxa* Melnikova. MELNIKOVA, 61-63, Pl. 2, figs. 1-3, Pl. 3, fig. 1, Textfig. 9.
 1989 *Chondrocoenia paradoxa* (Melnikova). RONIEWICZ, 113.
 1991 *Chondrocoenia paradoxa* (Melnikova). TURNŠEK & BUSER, 226, Pl. 2, figs. 1-3.

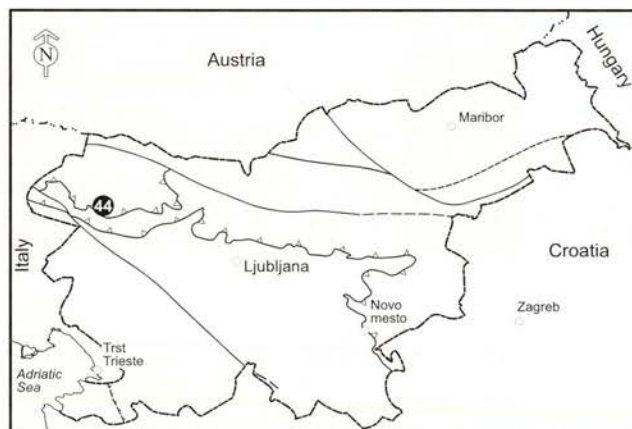
Description: Subplocoid to cerioid colony of lamellate shape, polygonal corallites, budding intracalicular, very narrow peritheca. Septa subcompact in 2-4 cycles. Septoparatheca, tabulate or vesicular dissepiments, microstructure not preserved. $d = 1.3-1.7(2)$ mm, $cc = 1.3-1.8(2)$ mm, $s = 12-24+s4$.

Localities: 44 Rdeči rob (P-909); Pamir.

Age: T: Norian-Rhaetian; T: Norian-Rhaetian.

Paleoenvironment: Reef body at the southern edge of the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Camian	Rhaetian	
			Norian	
			Tuvanian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
			Scythian	
	Lower			



A: transverse section; P-909a, x 4.

B: the same as A, x 8.

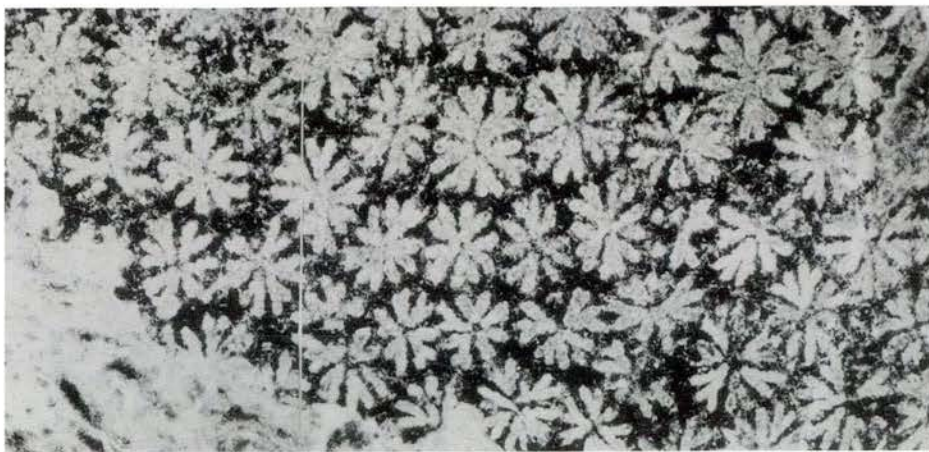
C: longitudinal section; P-909b, x4.

D: the same as C, x 8.

E: microstructure, ?medium-sized trabeculae; P-909a, x 40.



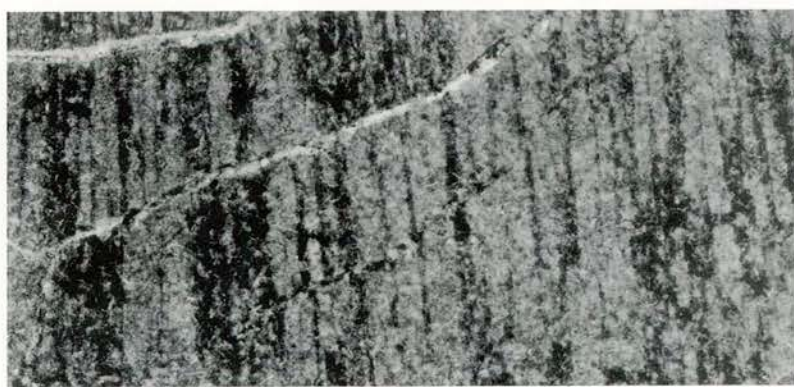
A



B



C



D



E

Cladophyllia rollieri (Koby) 1888

- 1888 *Schizosmilia rollieri* Koby. Koby, 436-437, Pl. 114, fig. 4.
 1972 *Schizosmilia rollieri* Koby. TURNŠEK, 188, 244, Pl. 25, figs. 3-4.
 1976 *Schizosmilia rollieri* Koby. RONEWICZ, 110, pl. 3, figs. 5a-c.
 1982 *Schizosmilia rollieri* Koby. BENDUKIDZE, 81.
 1990 *Schizosmilia rollieri* Koby. ERRENT, 164, Pl. 2, fig. 1.
 1990 *Cladophyllia rollieri* (Koby). MORYCOWA & RONEWICZ, 167-170.
 1991 *Schizosmilia rollieri* Koby. PRINZ, 181, Pl. 3, fig. 10, Pl. 4, fig. 1.
 1994 *Schizosmilia rollieri* Koby. LIAO & XIA, 193, Pl. 61, figs. 1-2.

Description: Phaceloid colony with densely spaced oval corallites, budding by septal division. Septa radial to bilateral, laterally granulated, main septum a little larger. Septotheca thick, tabuloid dissepiments well developed, columella essential, unclear. $d = 2-3 \text{ mm}$, $s = 24+s$.

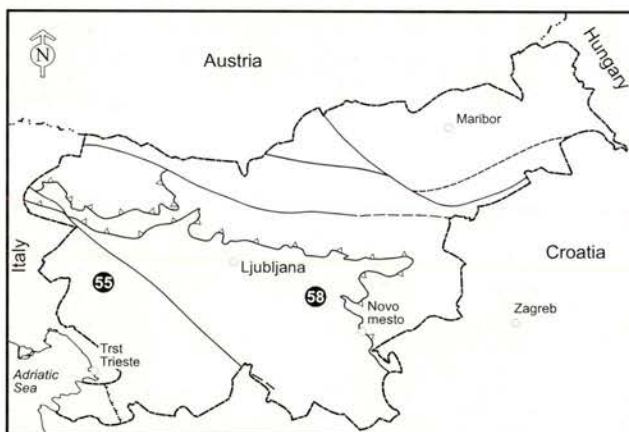
Remarks: The genus *Schizosmilia* was revised and recognized as a synonym of *Cladophyllia* by MORYCOWA & RONEWICZ (1990).

Localities: 58 Sela (P-339), 55 Mrzovec (P-475); Switzerland, Romania, Georgia, Spain, China (Xizang).

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian

Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	

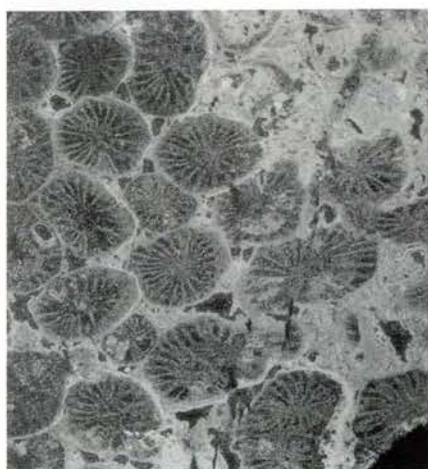


A: transverse section; P-339a, x 4.

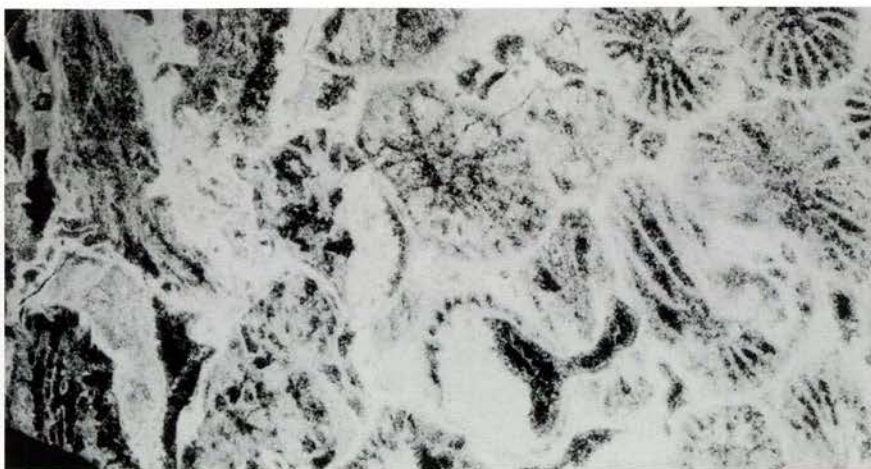
B: oblique and longitudinal section; P-339b, x 4.

C: transverse section; P-339a, x 8.

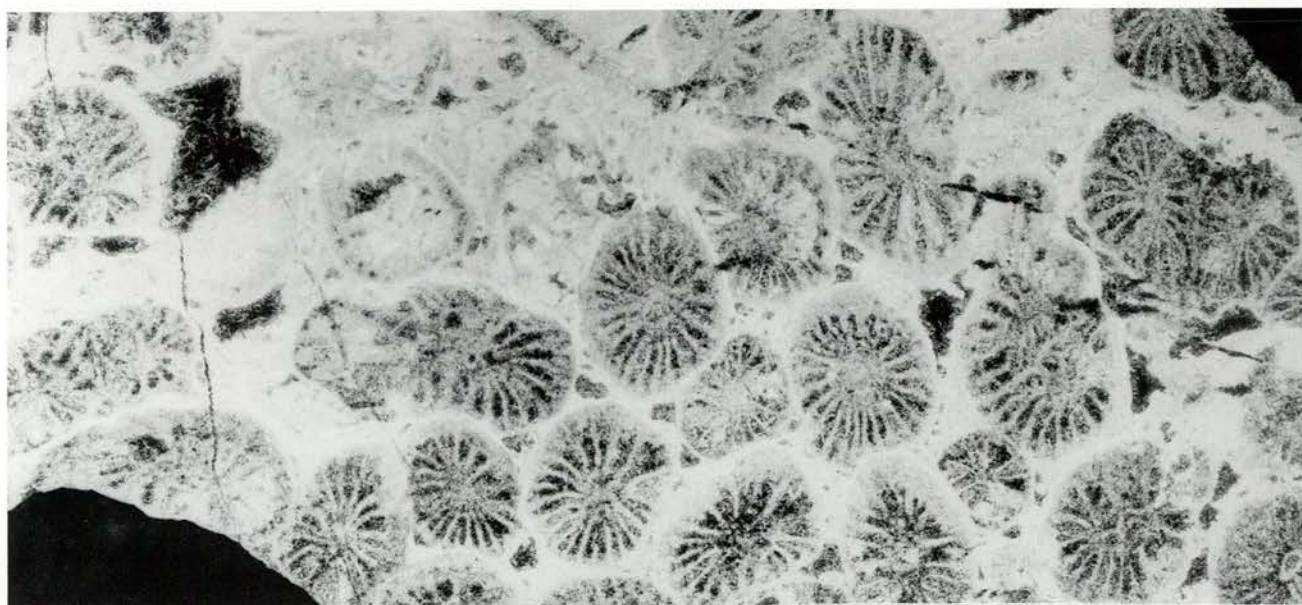
D: microstructure, ?medium-sized trabeculae; P-339a, x 40.



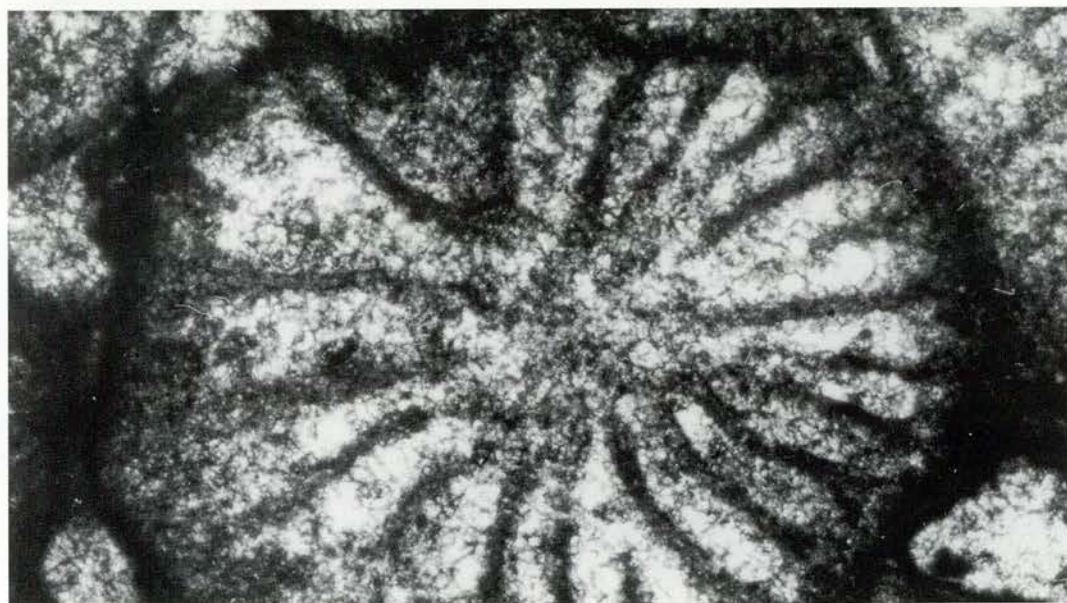
A



B



C



D

Clausastraea bolzei Alloiteau 1960

- 1960 *Clausastraea bolzei* nov. sp. ALLOITEAU, 23-25, Pl. 5, fig. 2, Textfigs. 8-9.
 1960 *Clausastraea saltensis* nov. sp. ALLOITEAU, 25-27, Pl. 2, fig. 2, Textfig. 10.
 1964 *Clausastraea* aff. *saltensis* Alloiteau. MORYCOWA, 66-67, Pl. 15, fig. 1, Pl. 16, fig. 1.
 1066 *Clausastraea* aff. *saltensis* Alloiteau. MORYCOWA & LEFELD, 532-533, Pl. 34, fig. 4.
 1974 *Clausastraea bolzei* Alloiteau. TURNŠEK & BUSER, 97-98, 115, Pl. 7, figs. 1-2.
 1976 *Clausastraea bolzei* Alloiteau. TURNŠEK & BUSER, 53-54, 77, Pl. 10, figs. 1-4.
 1980 *Clausastraea saltensis* Alloiteau. KUSMICHEVA, 97, Pl. 36, figs. 1ab.
 1981 *Clausastraea bolzei* Alloiteau. TURNŠEK & MIHAJLOVIĆ, 2, Pl. 17, figs. 5-6.
 1988 *Clausastraea saltensis* Alloiteau. KUSMICHEVA & ALIEV, 161-162, Pl. 3, figs. 3ab.
 1995 *Clausastraea bolzei* Alloiteau. LÖSER & RAEDER, 46-47.
 1996 *Clausastraea bolzei* Alloiteau. BARON-SZABO & STEUBER, 15, Pl. 7, figs. 1, 3.

Description: Massive colony, thamnasterioid corallites, budding intracalicular. Septa subconfluent, thin, with lateral offsets. No wall, no columella but large axial empty space as in *Thecosmilia*. Numerous tabulate and long dissepiments. Microstructure montlivaltioid. cc = 5-7 mm, s = 16-27(30), diss = 3-5/5 mm (in axial part) and 7-9/5 mm (in peripheral part).

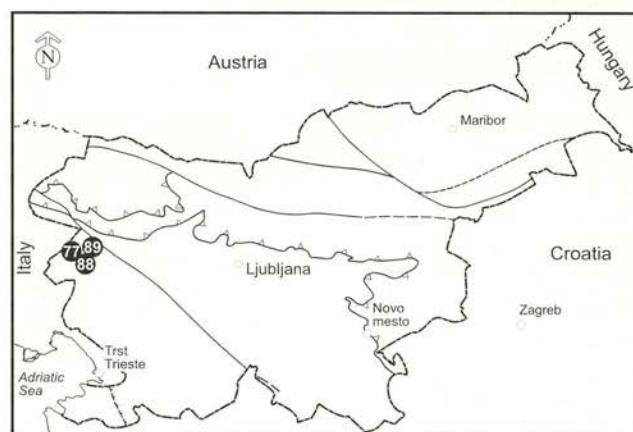
Remarks: I put *C. saltensis* into *C. bolzei* because the density the septa depends on the place in the same corallite. Later on *C. saltensis* has been recognized again by several authors without explanation (see synonymy). *Paraclausastraea* Zlatarski 1968 differs in its concentrically arranged series (ZLATARSKI, 1968).

Localities: 77 Osojnica (P-508, P-659), 89 Kanalski Lom (P-588, P-593), 88 Hoje (P-685); Tunis, France, Poland, East Carpathians, Serbia, Greece, Crimea, Caucasus, Azerbajdzhan,

Age: K: Barremian-Aptian and reworked in Senonian breccia; K: Hauterivian-Barremian-Aptian-Albian.

Paleoenvironment: Flat and outer slope of the Dinaric Carbonate Platform. At last the reef limestone resedimented in breccia.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
	Lower		Cenomanian	
			Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: transverse section; P-588a, x 4.
 B: longitudinal axial section; P-588b, x4.
 C: transverse section; P-593a, x 4.

D: longitudinal peripheral section; P-588c, x 4.
 E: detail from A, x 8.
 F: microstructure, ?montlivaltioid; P-593a, x 40.



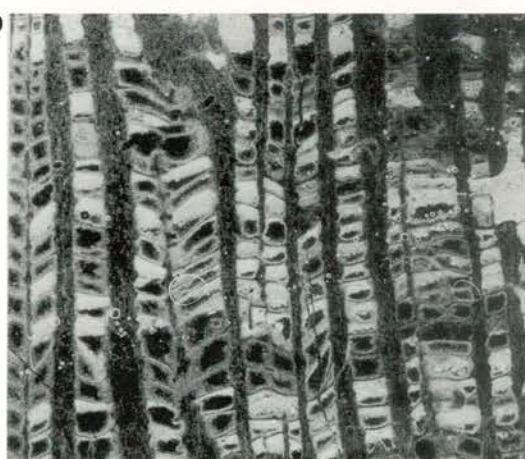
A



B



C



D



E



F

Clausastraea pseudoconfluens Eliášová 1976

- 1852 *Astraea confluens*. QUENSTEDT, 649, Pl. 58, fig. 1.
 1897 *Thamnastraea confluens* (Quenstedt). OGILVIE, 220-222, Pl. 9, fig. 1.
 1955a *Synastraea confluens* (Quenstedt). GEYER, 207, Pl. 24, fig. 2.
 1964 *Clausastraea confluens* (Quenstedt). MORYCOWA, 498-499, Pl. 23, figs. 1-2.
 1972 *Clausastraea confluens* Quenstedt. TURNŠEK, 181, 239.
 1976b *Clausastraea pseudoconfluens* n. sp. ELIÁŠOVÁ, 178-179, Pl. 4, fig. 3, Pl. 9, fig. 2, Textfig. 5.

Description: Massive colony, thamnasterioid irregularly arranged corallites. Septa confluent, compact, in 3 cycles, laterally granulated. No wall, no columella, tabulate and long dissepiments, microstructure montlivaltioid. c-c = 6 mm, s = 15-24(28).

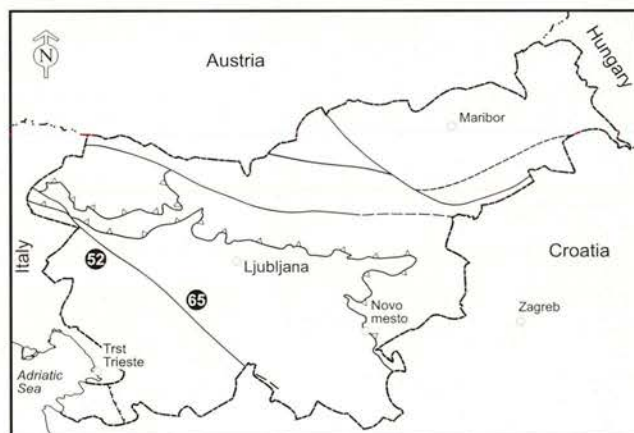
Remarks: Our specimens have 3 cycles of septa and smaller corallites, so they fit the revision of ELIÁŠOVÁ (1976b).

Localities: 52 Kal nad Kanalom (P-650, P-651), 65 Logaška planota (P-938); Germany, Poland, Czech R. (Štramberk).

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian, Tithonian.

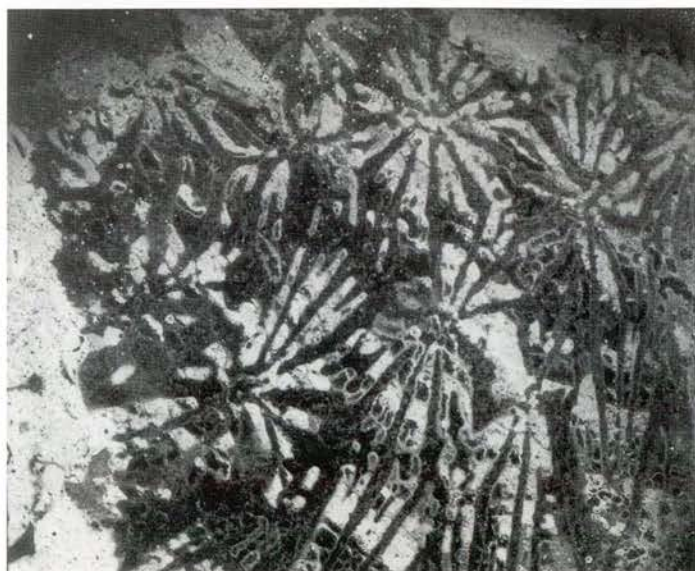
Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-938a, x 4.
 B: longitudinal section; P-938b, x 4.

C: detail from A, x 8.
 D: microstructure; P-938a, x40.



A



B



C



D

Collignonastraea jumarensis (Gregory) 1900

- 1900 *Comoseris jumarensis* nov. GREGORY, 157, Pl. 19, fig. 15.
 1954 *Comoseris jumarensis* Gregory. GEYER, 108, Pl. 13, fig. 5.
 1972 *Comoseris jumarensis* Gregory. TURNŠEK, 193, 247-248, Pl. 29, fig. 4.
 1994 *Collignonastraea jumarensis* (Gregory). LIAO & XIA, 107, Pl. 18, figs. 1-2.

Description: Massive meandroid colony, corallites irregularly arranged in series, which run radially from a large mother corallite, colinae sharp, budding extracalicular intraserial. Septa perforated, pennulated, confluent within the series only. Incomplete synapticulotheca, columella parietal. Microstructure of small trabeculae. d of series = 6 mm, s = ca 30 (12-14/5 mm).

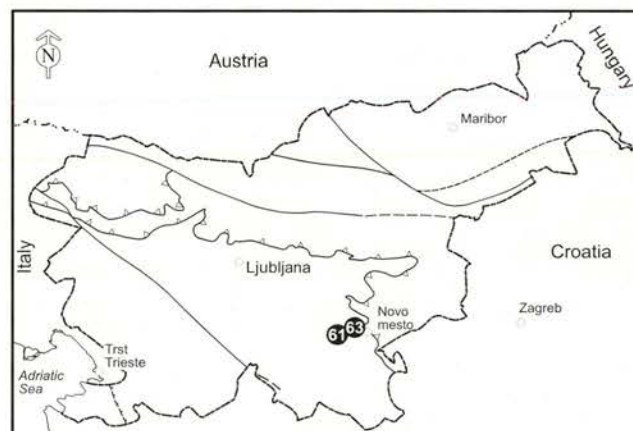
Remarks: Special budding and the radial arrangement of the series running from the large mother corallite justify the revision of this species from *Comoseris* to *Collignonastraea* made by LIAO & XIA (1994).

Localities: 61 Frata (P-352, P-353), 63 Frata-Mali vrh (P-402); India, Germany, China.

Age: J: Upper Oxfordian-Kimmeridgian; J: Bathonian, Kimmeridgian.

Paleoenvironment: Inner (sheltered) barrier reef on the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
	Lias	Toarcian	
		Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse radial section; P-353a, x 4.
 B: longitudinal peripheral section; P-353b, x 4.

C: oblique section; P-402a, x 4.
 D: detail from A, x 8.



A



C



B



D

Columactinastraea pygmaea (Felix) 1903

- 1903 *Astrocoenia pygmaea* n. sp. FELIX, 54, Pl. 3, figs. 4-5.
 1954 *Actinastraea pygmaea* (Felix). ALLOITEAU, 52-53, Pl. 4, fig. 6, Pl. 8, fig.2.
 1975 *Actinastraea pygmaea* (Michelin). BEAUVAIS et al., 44-45, Pl. 4, figs. 1a-b.
 1978 *Columactinastraea pygmaea* (Felix). TURNŠEK & POLŠAK, 147, Pl. 3, figs. 1-4.
 1994 *Columactinastraea pygmaea* (Felix). TURNŠEK, 9, Pl. 2, figs.1-3.

Description: Subcerioid colony of bulbous shape, corallites round to polygonal, sometimes narrow costate peritheca, budding intracalicular. Septa compact, octomeral in 2 cycles, laterally granulated. Septotheca, papillose columella, vesicular dissepiments, micro-structure not preserved. d =1-1.5 mm, s = 16+s3.

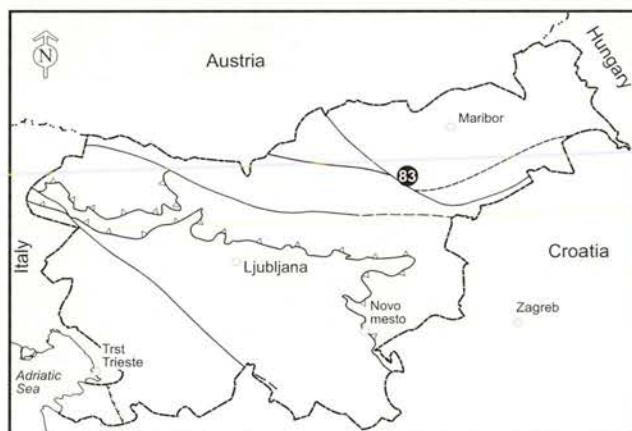
Remarks: This species belongs to *Columactinastraea* because of papillose columella. A comparison of this species with the genus *Actinastraea* was given by TCHECHMEDJEVA (1981).

Localities: 83 Stranice-quarry (1/14, 1/26, 1/27, 2/2, 2/3, 2/4, 2/5, 2/7); Portugal, France, Croatia.

Age: K: Santonian-Campanian; K: Santonian-Campanian.

Paleoenvironment: Austro-Alpine shoal, Gosau facies.

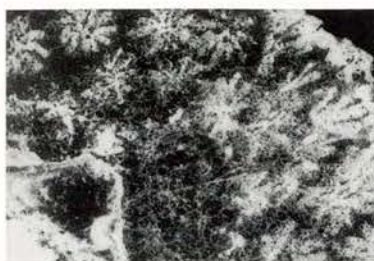
CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



- A: surface from above; St-1/14, x 1.
 B: the same as A, x 4.
 C. transverse section; St-1/14a, x 4.



A



B

C



Columellogyra lomensis Turnšek 1976

- 1976 *Columellogyra lomensis* n. g. n. sp. TURNŠEK & BUSER 1976, 58-59, 80, Pl. 15-16;
1988 *Columnogyra lomensis* (Turnšek). KUSMICHEVA & ALIEV, 165, Pl. 1, figs. 3ab.

Description: Hydnochoroid colony with wide short collinae and corallites with unclear centres in circumoral series. Septa slightly winding, laterally granulated. Short septotheca, unclear columella, many vesicular dissepiments. Length of collinae = 1-2.5 mm, $s = 12-24+s4$ (3-4/1mm).

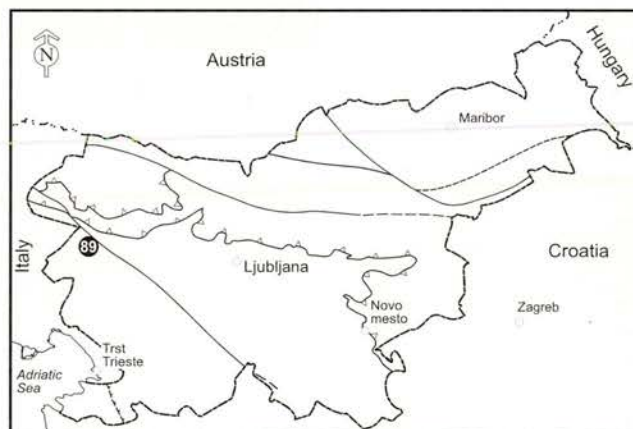
Remarks: Description and diagnosis of the genus emended by SIHARULIDZE (1985).

Localities: 89 Kanalski Lom (P-619 holotype, P-623); Mali Balkan, Caucasus, Azerbajdzhan.

Age: K: Senonian breccia; K: Barremian-Cenomanian.

Paleoenvironment: Outer slope of the Dinaric Carbonate Platform. Reef limestone resedimented in breccia.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	

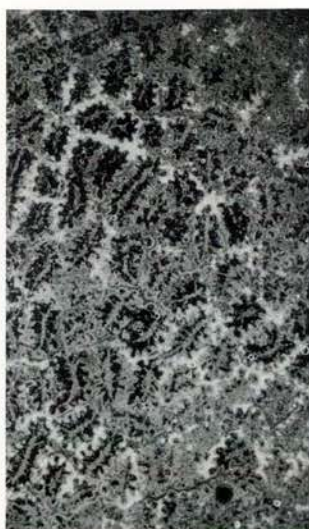


A: transverse section; P-619a, x 4.
B: transverse section; P-623a, x 4.
C: longitudinal section; P-619b, x 4.
D: detail from A, x 8.

E: detail from C, x 8.
F: microstructure, ?thick, divergent trabeculae; P-619a, x 40.



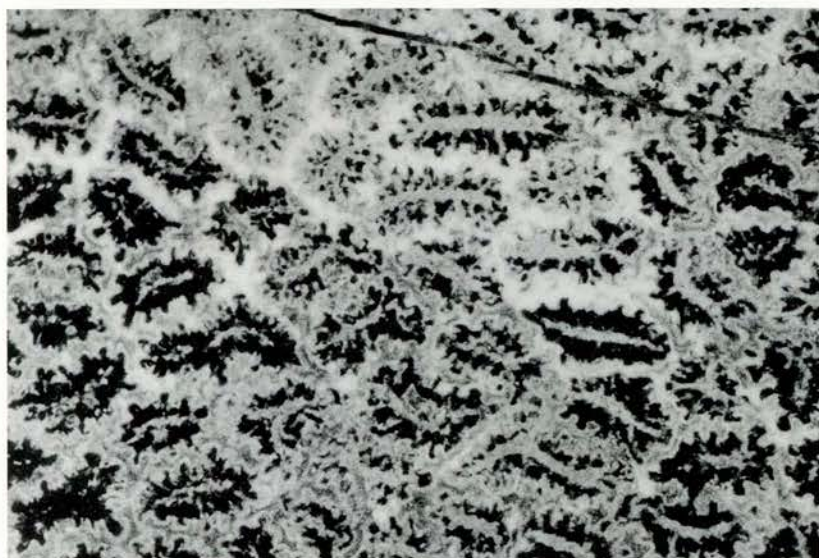
A



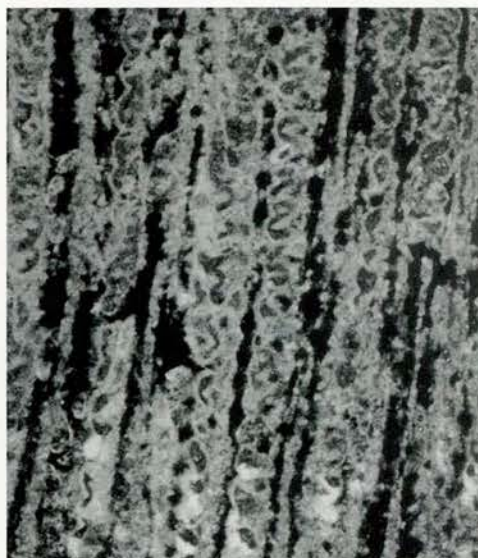
B



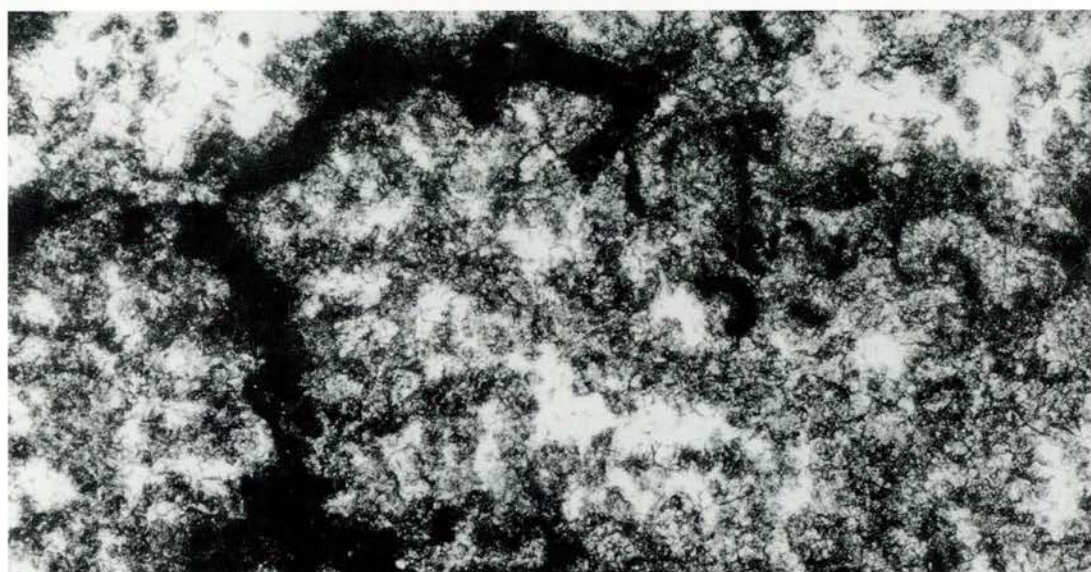
C



D



E



F

Comoseris baltovensis Roniewicz 1966

- 1966 *Comoseris baltovensis* n. sp. RONIEWICZ, 231-232, Pl. 17, fig. 4, Pl. 18, fig. 5.
 1972 *Comoseris baltovensis* Roniewicz. TURNŠEK, 193, 247, Pl. 29, fig. 3.
 1982 *Comoseris baltovensis* Roniewicz. BENDUKIDZE, 107, Tab. 32, fig. 1.
 1991 *Comoseris baltovensis* Roniewicz. ERRENST, 31-32, Pl. 20, fig. 5.
 1993 *Comoseris baltovensis* Roniewicz. DOZET & TURNŠEK, 69, Pl. 2, fig. 2.

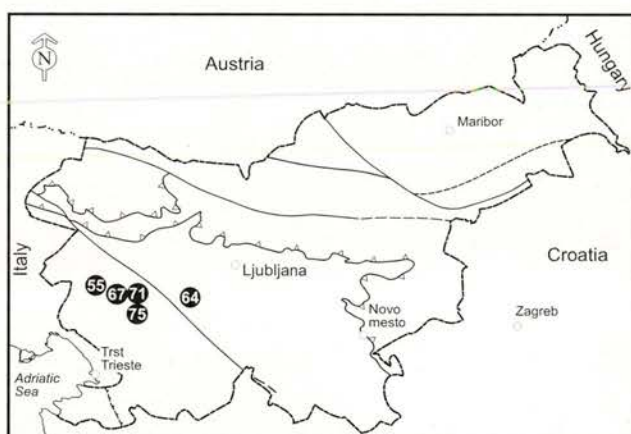
Description: Massive meandroid colony with long straight colinae and large calices inbetween, budding extracalicular within series. Septa perforated, in 2-3 orders of thickness, laterally pennulated. Incomplete synapticulotheca, synapticalae and dissepiments present, columella parietal. d of series = 3-5 mm, c-c in serie = 2.5-3 mm, s = 15-20 (18/5 mm).

Localities: **55** Mrzovec (P-246, P-252, P-253), **67** Otlica (P-262, P-268), **71** Col (P-302), **75** Nanos (P-922, P-923, P-924), **64** Logaška planota (P-925, P-926); Poland, Caucasus, Spain.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian.

Paleoenvironment: Outer and inner (sheltered) barrier reef at the edge of the Dinaric Carbonate Platform and patch reef in the back reef area. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	

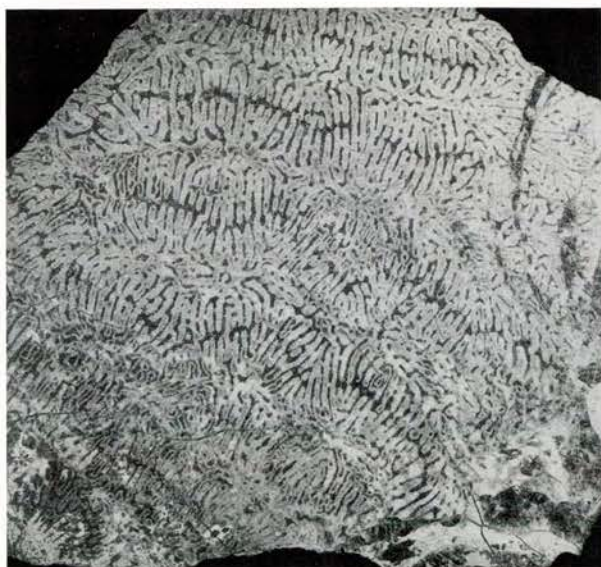


A: transverse section; P-302b, x 4.

B: transverse section; P-302a, x 8.

C: transverse section; P-926a, x 4.

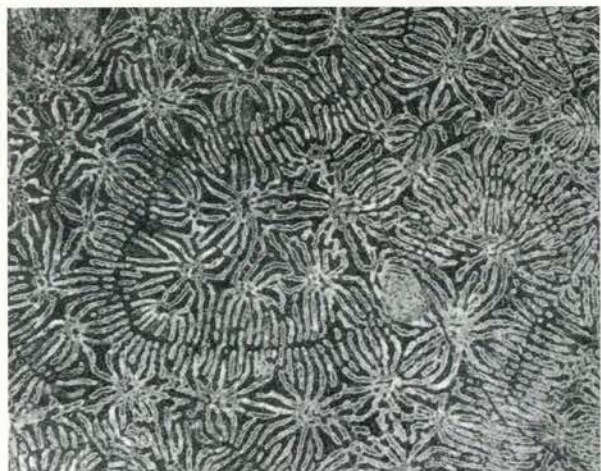
D: microstructure, ?medium-sized trabeculae; P-302a, x 40.



A



B



C



D

Comoseris minima Beauvais 1964

- 1964 *Comoseris minima* nov. sp. BEAUVAIS, 237, Pl. 30, fig. 5, Pl. 31, fig. 1.
 1966 *Comoseris minima* Beauvais. RONIEWICZ, 229-231, Pl. 18, figs. 2-3
 1968 *Comoseris minima* Beauvais. LAMBELET, 185.
 1972 *Comoseris minima* Koby. TURNŠEK, 192-193, 247, Pl. 29, figs. 1-2.
 1976 *Comoseris minima* Beauvais. RONIEWICZ, 107-108, Pl. 34, figs. 4-5.
 1977 *Comoseris minima* Beauvais. RONIEWICZ, 619.
 1977 *Comoseris minima* Beauvais. PAPOJAN, 38, Pl. 1, fig. 3.
 1979 *Comoseris minima* Beauvais. NEGUS & BEAUVAIS, 217.
 1985 *Comoseris minima* Beauvais. ROSENDAHL, 55.
 1987 *Comoseris minima* Beauvais. HUSANOV, 76, Pl. 15, fig. 4.
 1991 *Comoseris minima* Beauvais. ERRENST, 30-31.

Description: Massive colony with meandroid ridges and series of small corallites inbetween. Septa nonconfluent to subconfluent, perforated, laterally pennulated. Incomplete synapticulotheca, spongy columella, numerous synapticalae, rare dissepiments. d of series = 2.5-5 mm, c-c in series = ca. 2 mm, s = 18/5 mm.

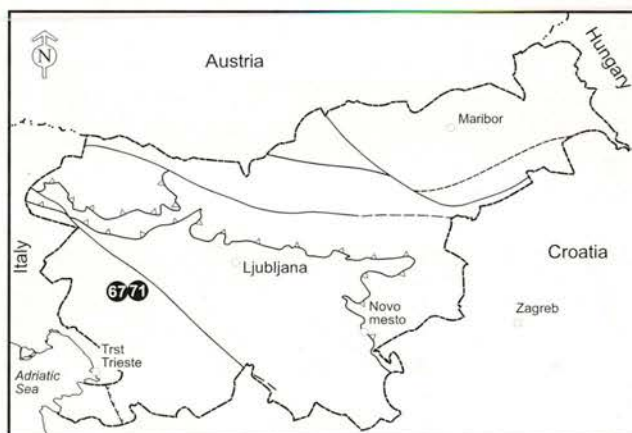
Remarks: RONIEWICZ (1966, 229) ascribed to this species specimens of *C. meandroides* (Koby, 1888, and GEYER, 1955b), which differ from Michelin's original in having denser skeletal elements, so I separate them.

Localities: ⁶⁷ ~~67~~ ⁶⁷ Otica (P-242), ⁷¹ Col (P-287); Poland, Switzerland, France, Portugal, Spain, England, Germany, Romania, Uzbekistan, Armenia.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian.

Paleoenvironment: Inner (sheltered) barrier reef on the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	

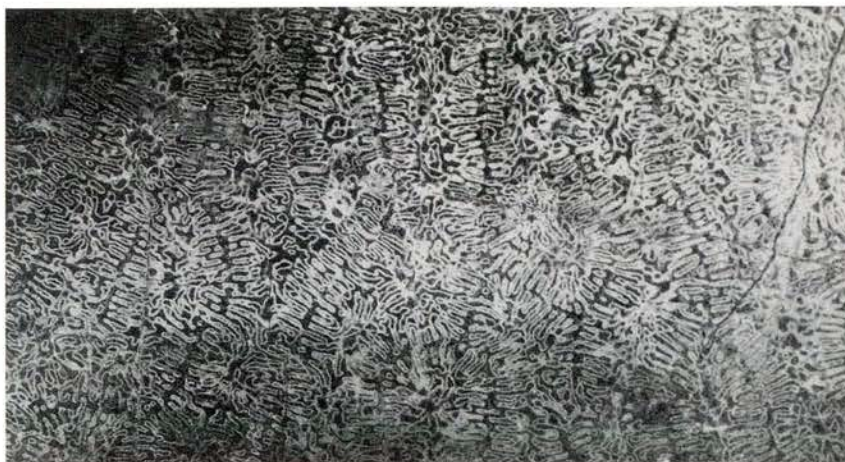


A: transverse section; P-287a, x 4.

B: longitudinal section; P-287b, x 4.

C: transverse section; P-287e, x 8.

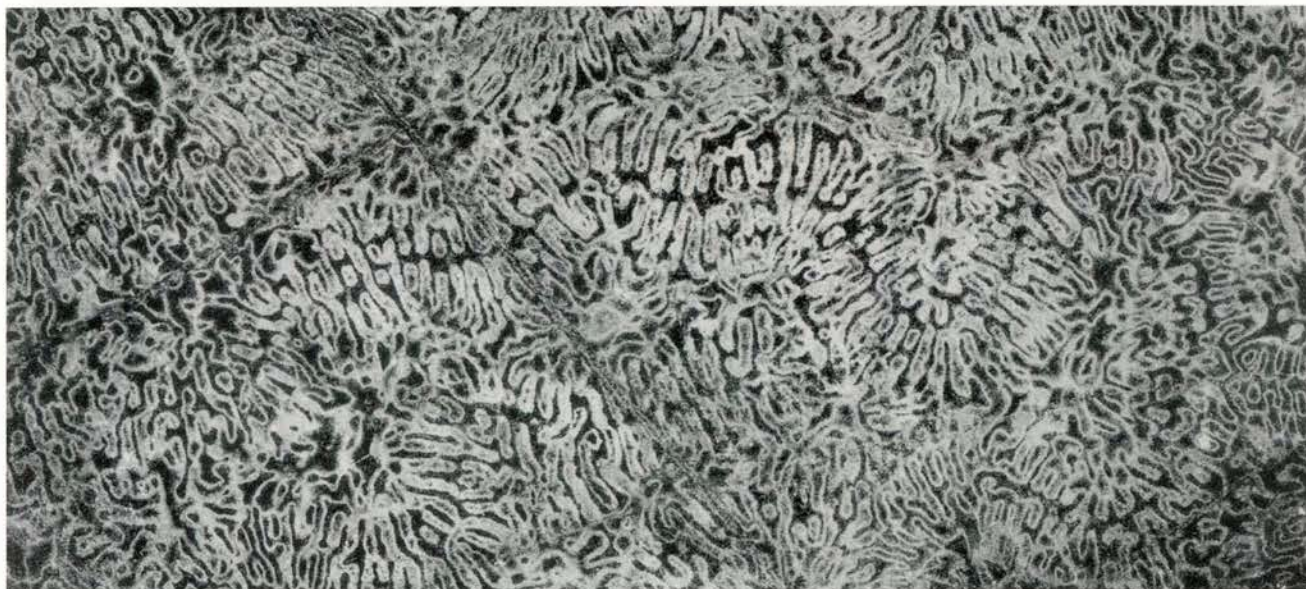
D: microstructure, medium-sized trabeculae; P-287a, x 40.



A



B



C



D

Complexastraea lobata Geyer 1965

- 1965 *Complexastraea lobata* n. sp. GEYER, 237, Pl. 21, figs. 1-2.
 1972 *Complexastraea lobata* Geyer. TURNŠEK, 179, 238, Pl. 18, figs. 1-2.
 1974 *Complexastraeopsis lobata* (Geyer). MORYCOWA, 468-470, Pl. 7, fig. 2, Pl. 10, fig. 2, Textfig. 6.
 1976 *Complexastraeopsis lobata* (Geyer) ELIÁŠOVÁ, 174, Pl. 5, fig. 2.
 1977 *Complexastraeopsis* cf. *lobata* (Geyer). RONIEWICZ, 618.
 1982 *Complexastraea lobata* Geyer. BENDUKIDZE, 55-56, Pl. 14, figs. 1ab, Pl. 15, fig. 1.
 1985 *Complexastraea lobata* Geyer. LIAO & XIA, 151, Pl. 13, figs. 2-3.
 1990 *Complexastraea lobata* Geyer. ERRENST, 191, Pl. 10, figs. 2a-c.
 1994 *Complexastraea lobata* Geyer. LIAO & XIA, 172, Pl. 51, figs. 1-2.

Description: Massive subplocoid-meandroid colony with intratentacular budding. Corallites mono to polycentric. Septa thick, subconfluent, laterally granulated. Incomplete septotheca, no columella, numerous tabulate large dissepiments. Microstructure montlivaltioid. $d = 7-12$ mm, $s = ca\ 30-40$ (13-15/10 mm).

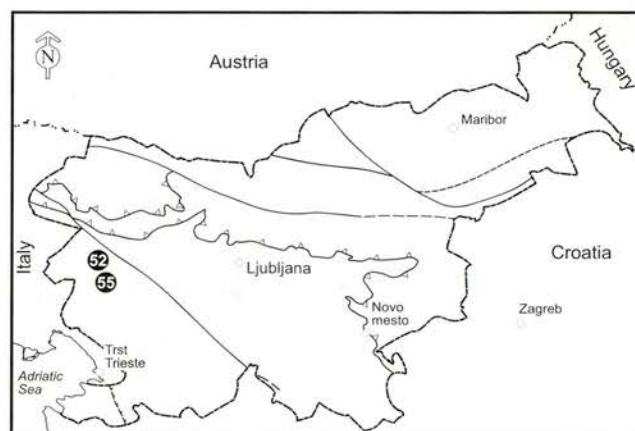
Remarks: MORYCOWA (1974) revised this species to her new genus *Complexastraeopsis* but ERRENST (1990) again to *Complexastraea* which I follow. A redescription and comparison of the genus with *Confusastraea* d'Orbigny was made by MORSCH (1994). The relationship of *Complexastraea* to *Confusastraea* and *Thecosmilia* was given by LATHUILIÈRE (1996).

Localities: 55 Mrzovec (P-643), 52 Kal nad Kanalom (P-641, P-656); Spain, Poland, Czech R., Caucasus, China (Xizang).

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian-Tithonian.

Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-641a, x 4.

B: longitudinal oblique section; P-641b, x 4.

C: detail from A, x 8.

D: microstructure, ?monoaxial ?divergent trabeculae; P-641a, x 40.



A



B



C



D

Complexastraea seriata Turnšek 1972

- 1972 *Complexastraea seriata* n. sp. TURNŠEK, 180, Pl. 19, figs. 1-2, Pl. 20, figs. 1-3.
 1993 *Complexastraea* cf. *seriata* Turnšek. BARON-SZABO, 159, Pl. 3, figs. 2a-c.
 1994 *Complexastraea* cf. *seriata* Turnšek. BARON-SZABO, 445.

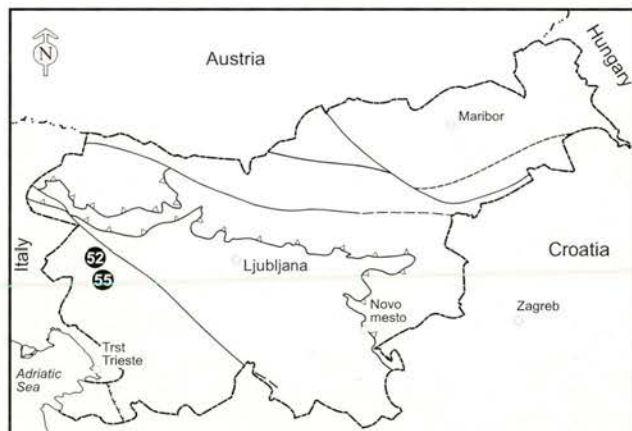
Description: Subplocoid-meandroid colony with mono and polycentric corallites in series. Septa nonconfluent, thin, laterally granulated. Septoparatheca, tabulate and long dissepiments, no columella, microstructure of monoaxial trabeculae with lateral thickenings. $d = 8-20$ mm, $s = 40-55$.

Localities: 55 Mrzovec (P-245, P-257), 52 Kal nad Kanalom (P-656); Spain.

Age: J: Upper Oxfordian-Kimmeridgian; K: Urgonian.

Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-245a, x 4.
 B: longitudinal section; P-245c, x 4.
 C: detail from A, x 8.

D: detail from B, x8.
 E: microstructure, montlivaltioid, midseptal line; P-245a, x 40.
 F: microstructure in longitudinal section; P-245c, x 40.



A



B



C



D



E



F

Conicosmilotrochus dentatus Turnšek 1978

1978 *Conicosmilotrochus dentatus* n. g. n. sp. TURNŠEK, 82, 113, Pl. 15, figs. 1-12.

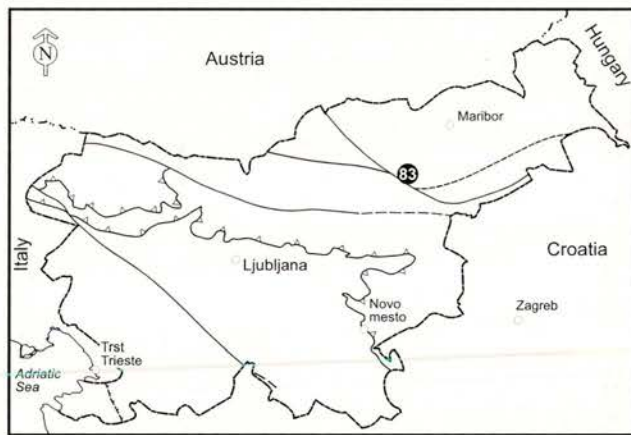
Description: Solitary ceratoid corallum with bent base and oval calice. Septa in 4-5 cycles, strongly granulated. Costate septotheca, no columella, no endotheca. h = 20-22 mm, d = 10-13 x 7-9 mm, s = ca 60.

Locality: 83 Stranice-quarry (55, 60, 61, 72, 73 holotype, 74).

Age: K: Santonian-Campanian.

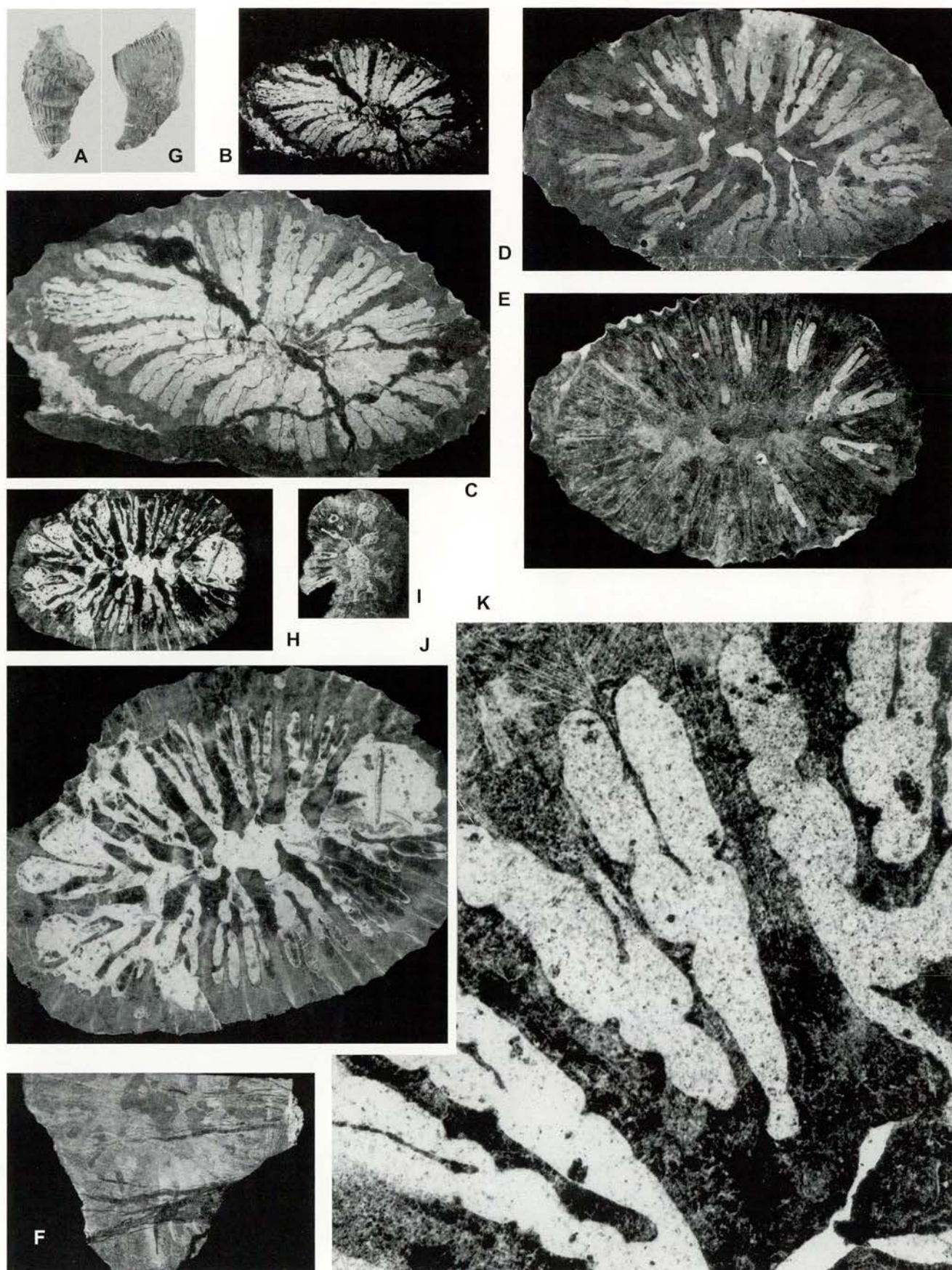
Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
	Lower		Cenomanian	
			Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: surface from side; St-73, x 1.
 B: transverse section from upper part of corallum; St-73a, x 4.
 C: the same as B, x 8.
 D: transverse section from middle part of corallum; St-73b, x 8.
 E: transverse section from lower part of corallum; St-73c, x 8.
 F: longitudinal section from lower part of corallum; St-73d, x 8.

G: corallum surface from side; St-61, x 1.
 H: transverse section from upper part of corallum; S-61a, x 4.
 I: transverse section from lower part of corallum; S-61b, x 4.
 J: the same as H, x 8.
 K: microstructure, ?mini- and ?divergent trabeculae; St-73a, x 40.



Conicosmilotrochus stranicensis Turnšek 1978

1978 *Conicosmilotrochus stranicensis* n. g. n. sp.
TURNŠEK, 80-81, 111-112, Pl. 11, figs. 1-12, Pl.
12, figs. 1-3.

Description: Solitary ceratoid corallum with pointed and bent base. Calice oval. Septa compact, costate, hexameral in 4-5 cycles, laterally granulated. Septotheca costate, no columella, no pali, no endotheca. Microstructure trabecular with dark central line. $h = 14-16$ mm, $d = 8-10$ x $7-8$ mm, $s = 54-70$.

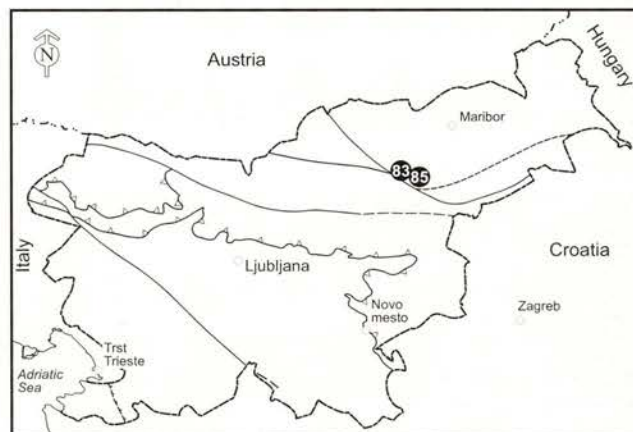
Localities: 83 Stranice-quarry (53, 56-59, 77 holotype), 85 Stranice-Radana vas (W-3, W-5).

Age: K: Santonian-Campanian.

Paleoenvironment: Austro-Alpine shoal, Gosau facies.

Remarks: Genus with other species in Azerbaijan found in the Cenomanian (KUSMICHEVA & ALIEV, 1988).

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
	Lower		Cenomanian	
			Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: surface from side; St-77, x 1.

B: transverse section from upper part of corallum; St-77a, x 4.

C: transverse section from lower part of corallum; St-77b, x 4.

D: surface from side; W-5, x 1.

E: surface from side; St-53, x 1.

F: the same as B, x 8.

G: the same as C, x 8.

H: microstructure, ?mini trabeculae, midseptal line; St-77a, x 40.

I: surface from side; St-58, x 1.

J: transverse section from lower part of corallum; St-58c, x 8.

K: transverse section from upper part of corallum; St-58a, x 8.

L: transverse section from middle part of corallum; St-58b, x 8.



A



B



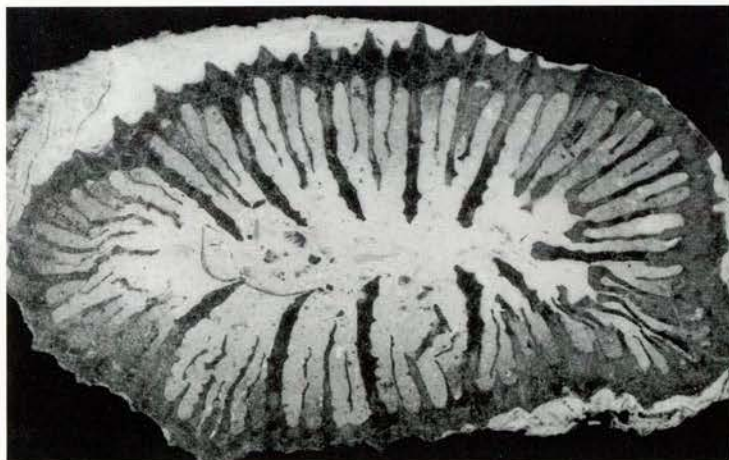
C



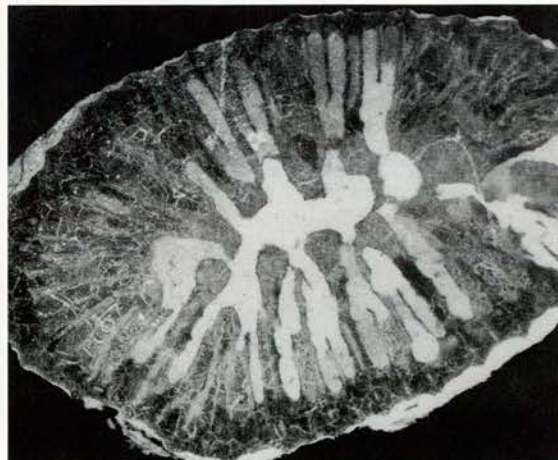
D



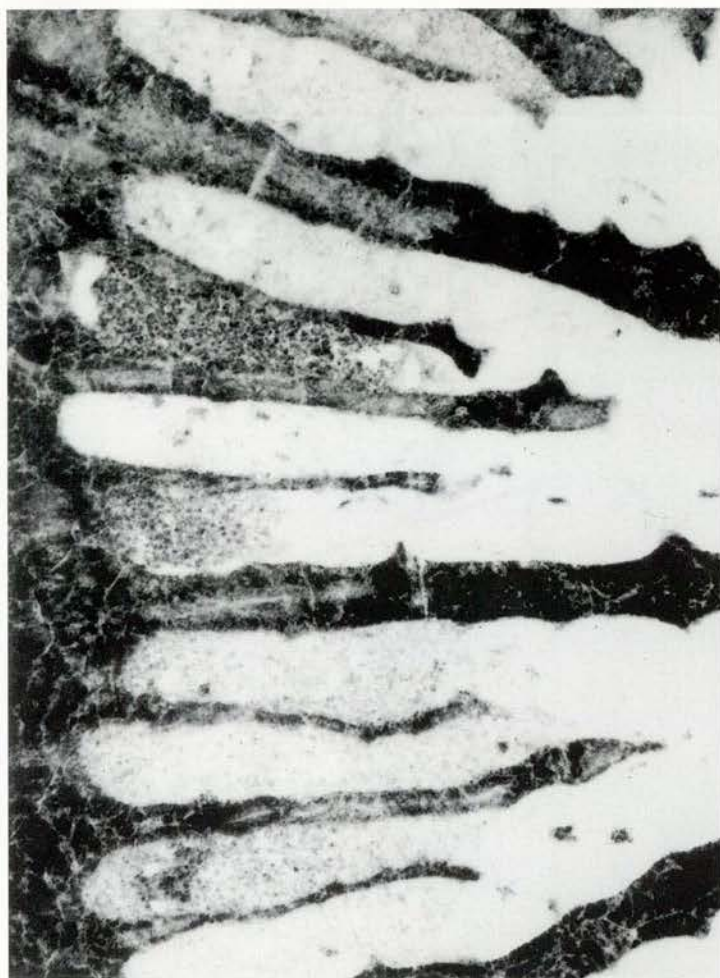
E



F



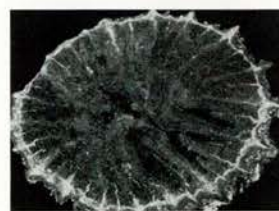
G



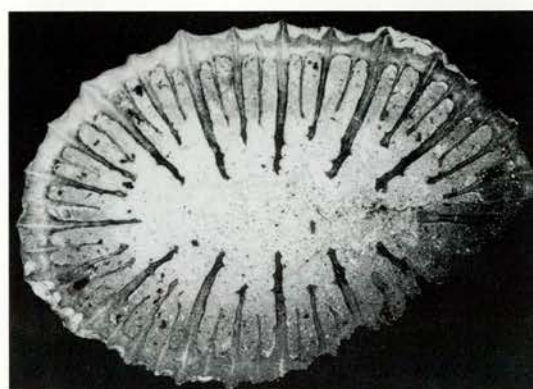
H



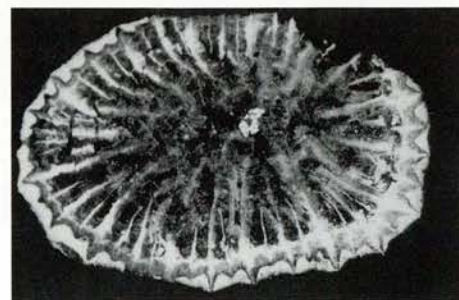
I



J



K



L

Conicosmilotrochus strictus Turnšek 1978

1978 *Conicosmilotrochus strictus* n. g. n. sp. TURNŠEK, 81, 112, Pl. 13, figs. 1-5, Pl. 14, figs. 1-12.

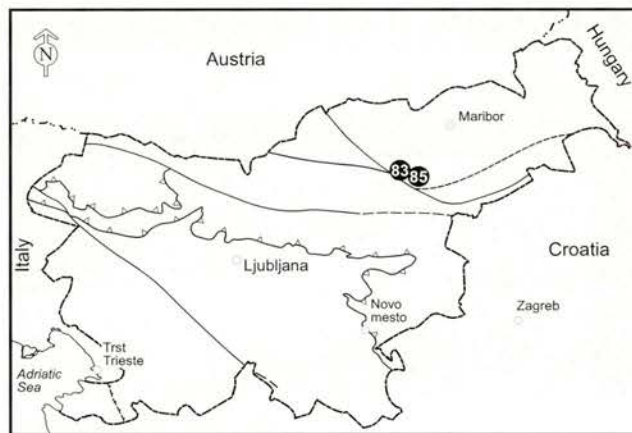
Description: Solitary ceratoid compressed corallum with bent base and very narrow calice. Septa in 4-5 cycles, laterally granulated. Septotheca costate, no columella, no endotheca. h = 14-22 mm, d = 11-13 x 3-5 mm, s = 54-58.

Localities: **83** Stranice-quarry (52, 54, 62-70, 64 holotype), **85** Stranice-Radana vas (W-1, W-2, W-4);

Age: K: Santonian-Campanian.

Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: surface from side; St-64, x 1.

B: transverse section from upper part of corallum; St-64a, x 4.

C: transverse section from middle part of corallum; St-64b, x 4.

D: the same as B, x8.

E: the same as C, x 8.

F: longitudinal section from lower part of corallum; St-64c, x 8.

G: transverse section; St-69a, x 4.

H: the same as G, x 8.

I: transverse section; St-62a, x 8.

J: microstructure, ?minitrabeculae, midseptal line; St-64, x 40.



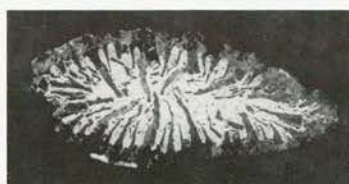
A



B



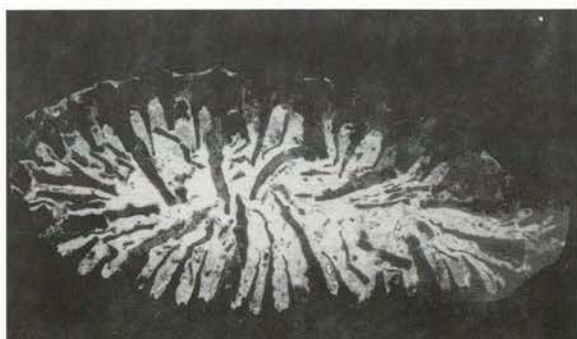
C



G



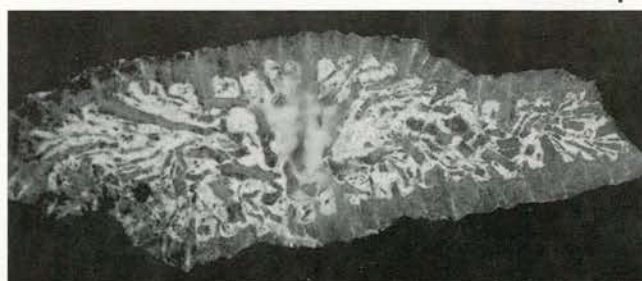
F



H



E



I



D

J



Coryphyllia regularis Cuif 1974

- 1974 *Coryphyllia regularis* n. sp. CUIF, 380-383, figs. 37-38.
 1984 *Coryphyllia regularis* Cuif. RAMOVŠ & TURNŠEK, 175, Pl. 4, fig. 1.
 1989 *Coryphyllia regularis* Cuif. TURNŠEK & BUSER, 84, Pl. 3, fig. 1.
 1994 *Coryphyllia regularis* Cuif. TURNŠEK & SENOW-BARI-DARYAN, 481, Pl. 3, fig. 5.

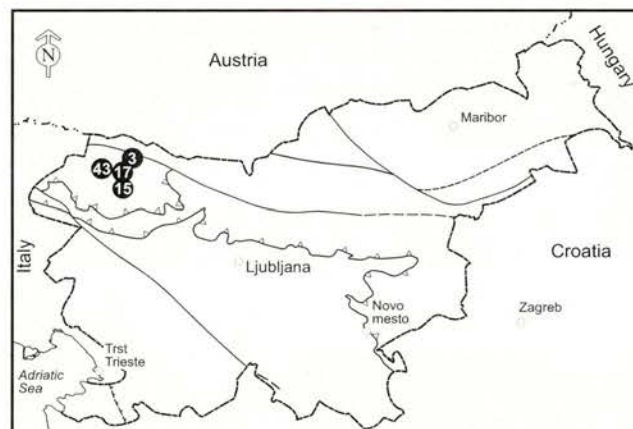
Description: Solitary corallum of cylindrical shape. Septa radial, straight, in almost 6 cycles, first two very thick, laterally smooth. Paratheca and incomplete epitheca, numerous tabulate and long dissepiments, microstructure trabecular with median line. d = 30-35 mm, s = ca 160.

Localities: 17 Srednja gora (SJA-29/3), 3 Frčkov vrh (SJA-15/2), 15 Pokljuka – Srenjski pašnik (P-857, P-862), 43 Razor (623); Turkey, Greece (Hydra).

Age: T: Carnian (Cordevolian-Tuvalian); T: Carnian.

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Rhaetian		
		Norian		
		Carnian	Tuvalian	
			Julian	
			Cordevolian	
	Middle	Ladinian		
		Anisian		
	Lower	Scythian		



A: surface from above; P-862, x 1.

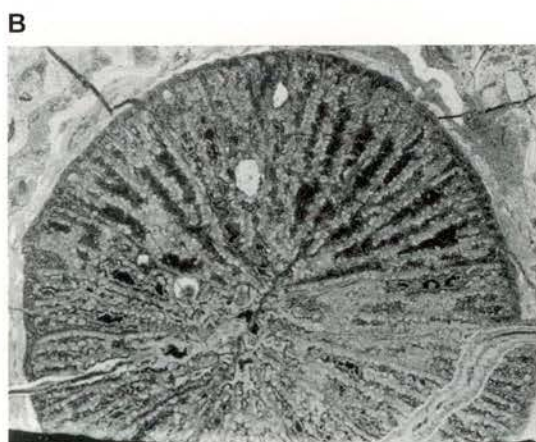
B: transverse section; P-857a, x 4.

C: transverse section; 623/82, x 4.

D: microstructure, mini- to medium-sized trabeculae, midseptal line; P-857a, x40.



A



B



C



D

Craspedophyllia alpina (Loretz) 1875

- 1875 *Axosmilia alpina*. LORETZ, n. v.
 1896 *Craspedophyllia alpina* (Loretz). VOLZ, 64-65, Pl. 17, figs. 23-31.
 1966 *Craspedophyllia alpina* (Loretz). KOLOSVÁRY, 185.
 1973 *Craspedophyllia alpina* (Loretz). MONTANARO GALLITELLI et al., Pl. 31.
 1980 *Craspedophyllia alpina* (Loretz). CUIF, 367.
 1987 *Craspedophyllia* sp. TURNŠEK & RAMOVŠ, 34, Pl. 4, fig. 1.
 1989 *Craspedophyllia alpina* (Loretz). TURNŠEK & BUSER, 86-87, Pl. 7, fig. 3.

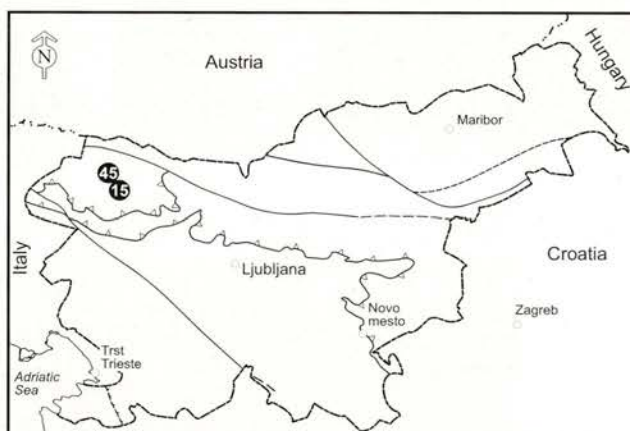
Description: Solitary corallum with round calice. Septa in 4-5 cycles, radially arranged, laterally granulated. Wall incompletely epithecate, numerous tabulate dissepiments, strong round columella. d = 9-13 mm, d of columella = 1-2 mm, s = ca 70.

Localities: 45 Rušnata Mlinarica (15/82-3), 15 Pokljuka – Srenjski pašnik (P-858); Italy (Dolomites).

Age: T: Carnian (Tuvalian), Lower Norian; T: Carnian (Upper Cassian beds).

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	



A: transverse section of corallum; P-858a, x 4.

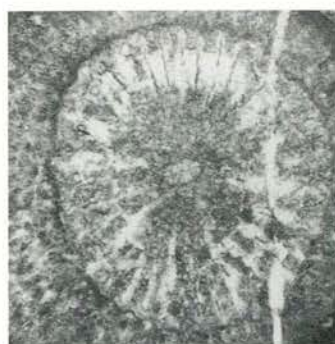
B: transverse section; 15/82-3c (positive), x 4.

C: the same as A, x 8.

D: microstructure, partially preserved midseptal line; P-858a, x40.



A



B



C



D

Crassistella juvavica (Frech) 1890

- 1890 *Stephanocoenia juvavica* nov. sp. FRECH, 38-39, 2 Textfigs.
 pars 1968 *Cyathocoenia schafhäutli* (Winkler). MELNIKOVA, 14-16.
 pars 1975 *Cyathocoenia schafhäutli* (Winkler). MELNIKOVA, 59-61.
 1979 *Actinastraea juvavica* (Frech). SCHÄFER, 47, Pl. 11, fig. 6.
 1979 *Actinastraea juvavica* (Frech). STANLEY, 13, 38, Pl. 1, fig. 7.
 1980 *Actinastraea juvavica* (Frech). SENOWBARI-DARYAN, 42, Pl. 5, fig. 3.
 1987 *Cyathocoenia juvavica* (Frech). TURNŠEK & RAMOVŠ, 35, Pl. 3, figs. 3-4.
 1989 *Crassistella juvavica* (Frech). RONEWICZ, 113-115, Pl. 34, figs. 1-2, Pl. 35, figs. 1-2. Synonymy.
 non 1982 *Actinastraea juvavica* (Frech). WURM, 218, Pl. 34, fig. 6.
 1994 *Crassistella cf. juvavica* (Frech). STANLEY, 86-87, Pl. 4, fig. 1.

Description: Cerioid to subplocoid colony, with polygonal to oval corallites. Septa compact, costate, axial ends join with neighbouring septa forming an inner ring. Septotheca, parietal columella, vesicular endotheca. $d = 1.5-2.5$ mm, $s = ca 20$.

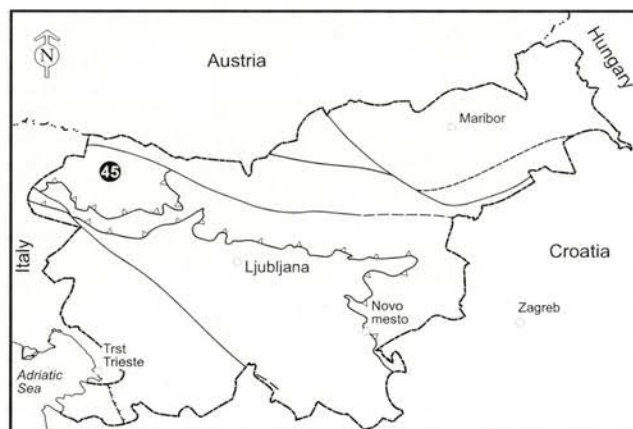
Remarks: A revision of the species was made by RONEWICZ (1989) on the basis of microstructure.

Localities: 45 Rušnata Mlinarica (15/82-4, 16/85-3); Austria, Pamir, Peru, California.

Age: T: Lower Norian; T: Norian-Rhaetian.

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	■
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
			Scythian	
	Lower			

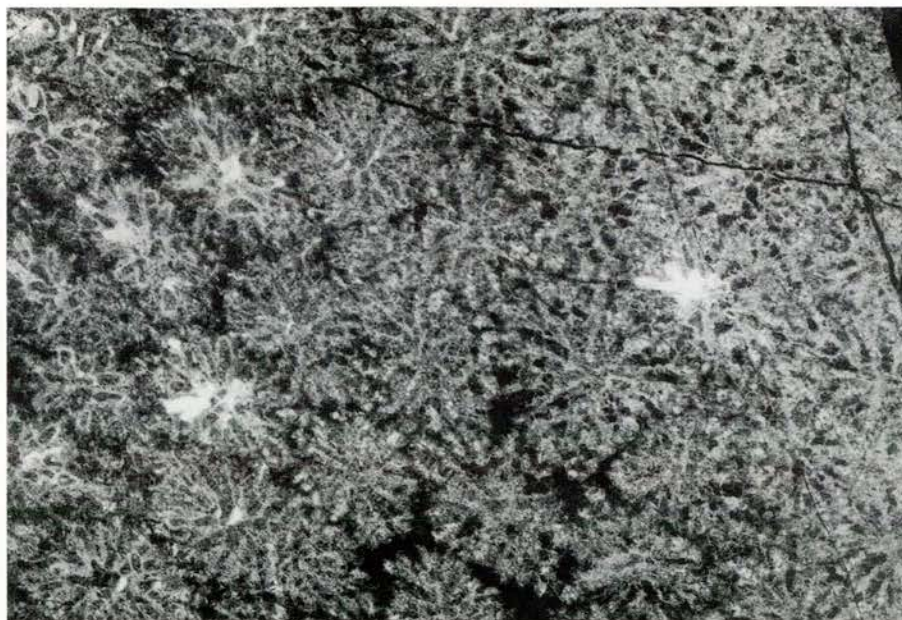


A: transverse section; 15/82-4a, x 4.
 B: transverse section; 15/82-4b, x 8.

C: microstructure, ?medium-sized to thick trabeculae; 15/82-4a, x 40.



A



B



C

Cuifastraea arthaberi (Haas) 1909

- 1909 *Thamnastraea Arthaberi* n. sp. HAAS, 151-152, Pl. 5, fig. 13.
 1989 *Cuifastraea arthaberi* (Haas). RONIEWICZ, 92-93, Pl. 23, fig. 4.
 1991 *Cuifastraea arthaberi* (Haas). TURNSEK & BUSER, 231-232, Pl. 6, fig. 3.

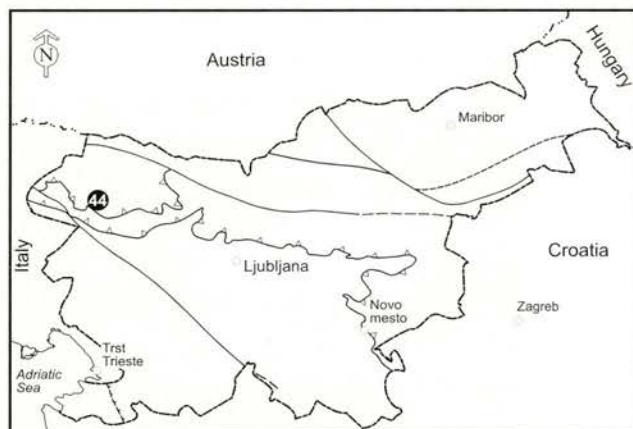
Description: Massive colony in encrusting form, thamnasterioid corallites with small axial fields, budding extracalicular. Septa confluent, in 2-3 cycles of equal thickness. No wall, columella parietal, dissepiments vesicular. Microstructure trabecular. d = 6-12 mm, s = 28.

Localities: 44 Rdeči rob (P-912); Austria (Alps)

Age: T: Norian-Rhaetian; T: Rhaetian.

Paleoenvironment: Reef body at the southern edge of the Julian Carbonate Platform. Reef limestone.

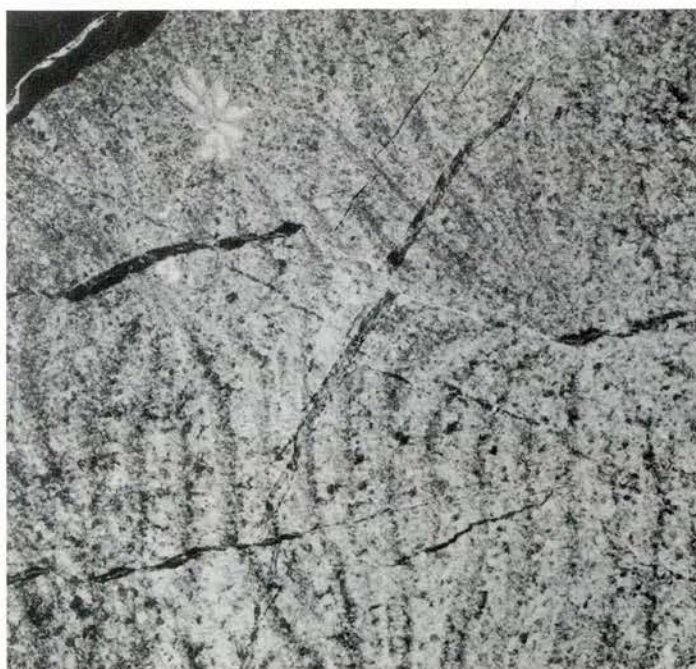
TRIASSIC	Upper	Rhaetian		
		Norian		
		Carnian	Tuvalian	
			Julian	
			Cordevolian	
	Middle	Ladinian		
		Anisian		
	Lower	Scythian		



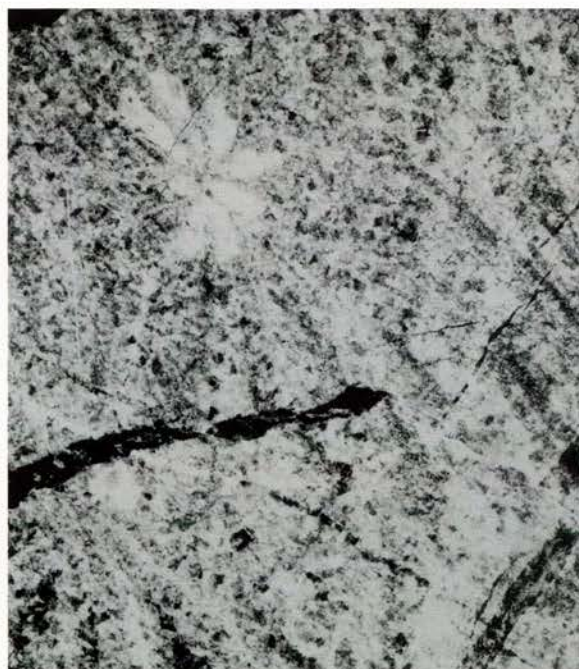
A: transverse section; P-912a, x 4.

B: detail from A, x 8.

C: microstructure, ?thick trabeculae; P-912a, x 40.



A



B



C

Cuifia columnaris Roniewicz 1996

- 1979 *Montlivaltia norica* Frech. SCHAEFER, 44, Pl. 10, fig. 1.
 1987 *Cuifia elliptica* Melnikova. TURNŠEK & RAMOVŠ, 34-35, Pl. 4, figs. 3-4.
 1989 *Coryphyllia elliptica* (Melnikova). RONIEWICZ, 65-66, Pl. 15, figs. 1, 2, 7.
 1994 *Coryphyllia elliptica* (Melnikova). TURNŠEK & SENOWBARI-DARYAN, 481, Pl. 3, fig. 4.
 1996 *Cuifia columnaris* sp. n. RONIEWICZ, 21-24, Pl. 3, figs. 1-3, Pl. 4, figs. 1, 4, 5

Description: Solitary turbinate corallum, calice circular. Septa in 5-6 cycles first two very thick, laterally smooth or rarely granulated. Septotheca segmented, somewhere epitheca, vesicular and lonsdaleoid dissepiments, no columella. Microstructure ?trabecular, poorly preserved. d = (15)20-40 mm, s = 100-200.

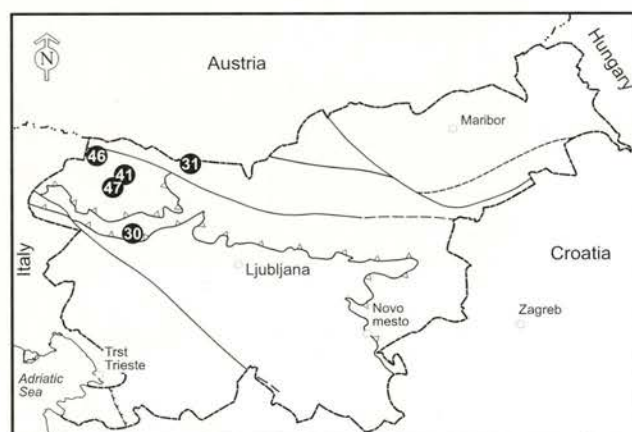
Remarks: RONIEWICZ (1996) revised some specimens ascribed to *Cuifia elliptica* (MELNIKOVA, 1975), placing them in her new species *C. columnaris* because of the shape of the calice and dissepiments. I follow this revision.

Localities: 46 Šplevta (25/85-5, A1), 47 Tominškova pot (33/82-2, 34/82, 5/85, 9/85), 41 Kot (26/85), 30 Zakriž (P-768), 31 Begunjščica (P-974, P-975); Austria, Greece (Hydra).

Age: T: Norian-Rhaetian; T: Norian-Rhaetian.

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	



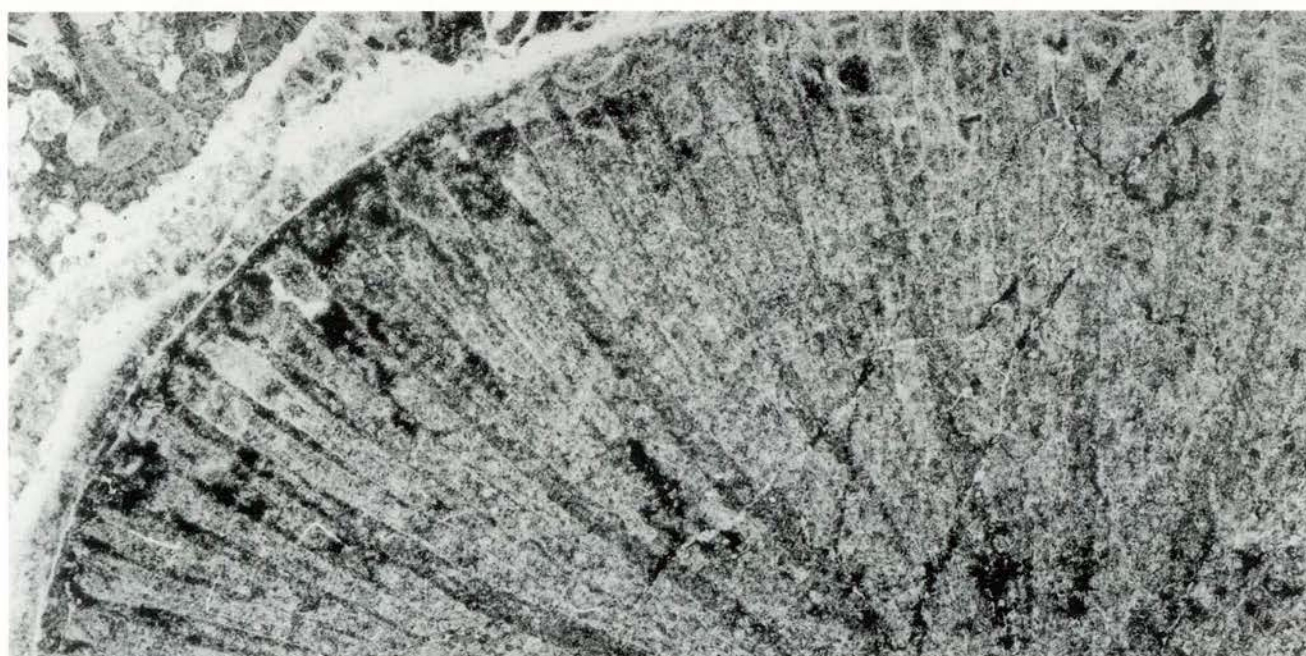
A: transverse section; SJA-5/85, x 4.

B: transverse peripheral section; 25/85-A1a, x 8.

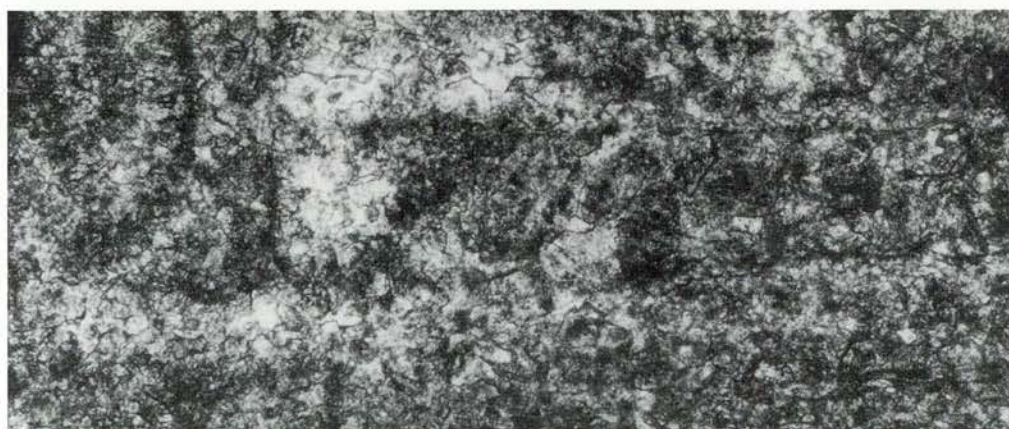
C: microstructure, ?medium-sized trabeculae; 25/85-A1a, x 40.



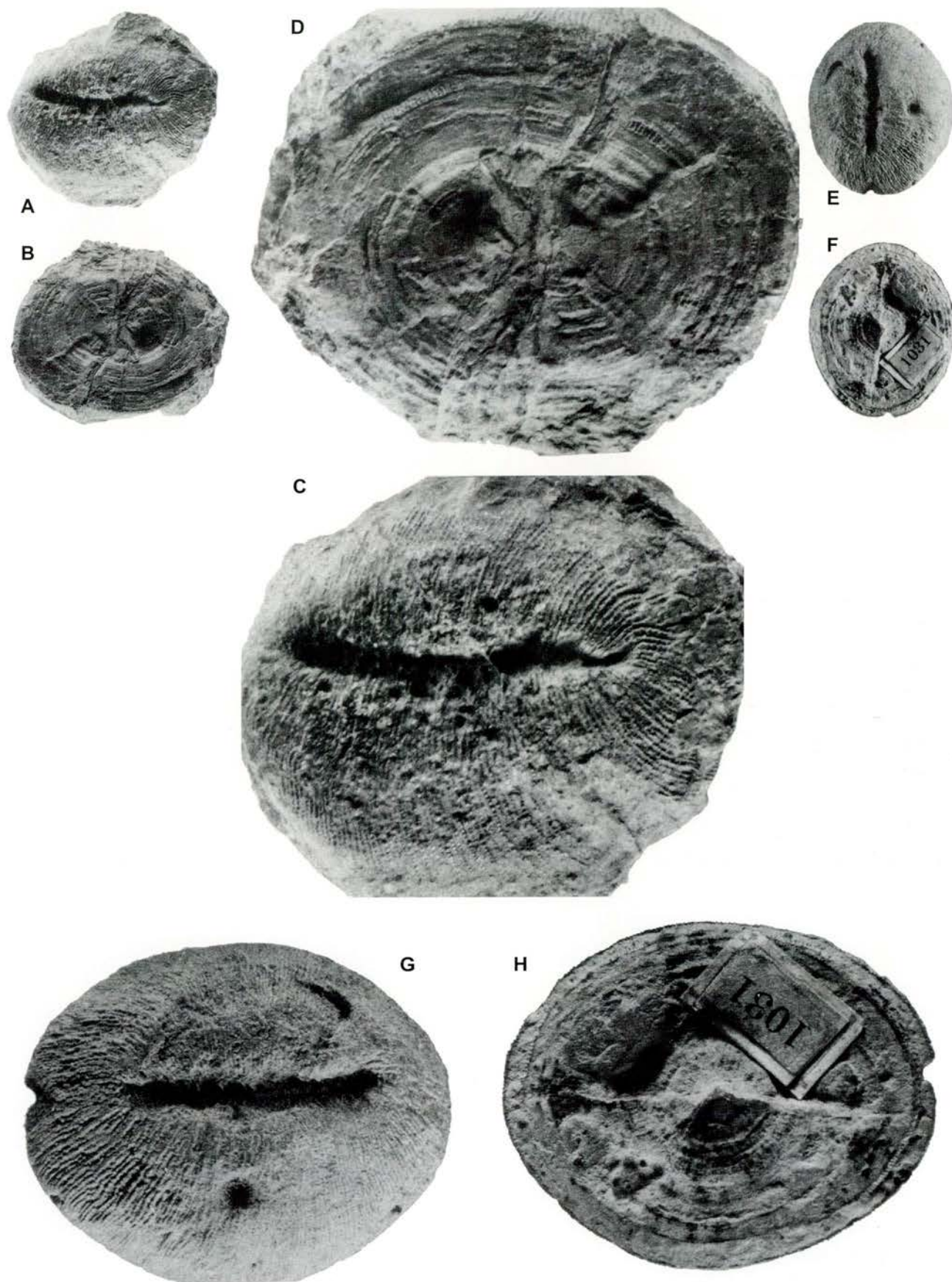
A



B



C



Cunolites (Cunolites) reussi (Fromentel) 1870

- 1870 *Cyclolites Reussi* n. DE FROMENTEL, 338, Pl. 55, figs. 3-3a.
 1930 *Cyclolites Reussi* De Fromentel. OPPENHEIM, 116-118, Pl. 37, figs. 6-6a.
 1954 *Cyclolites reussi* Fromentel. GECZI, 20-21, Pl. 2, fig. 11, Pl. 4, fig. 24, Pl. 10, figs. 1-11, 14-15.
 1964 *Plesiocunolites reussi* Fromentel. BEAUVAIS M., Pl. 16, fig. 5.
 1978 *Cunolites (Cunolites) reussi* (Fromentel). TURNŠEK, 87-88, 117, Pl. 20, figs. 1-6.
 1980 *Cunolites (Cunolites) reussi* (De Fromentel). VIDAL, 74-76, Pl. 8, figs. 7-8.
 1982 *Cunolites reussi* (De Fromentel). BEAUVAIS, II, 184-187, Pl. 46, fig. 6. Synonymy.
 1986 *Cunolites reussi*. TCHECHMEDJIEVA, 63.

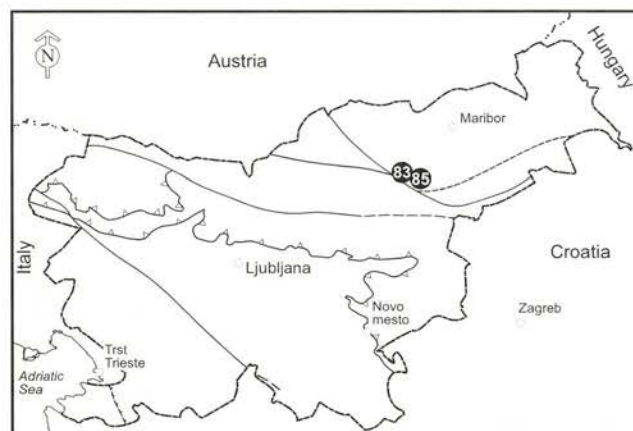
Description: Solitary discoid high corallum with flat base plate, calice oval with long fossula, triangular stem. Septa thin, in 4 cycles, first two compact, younger cycles perforated, laterally pennulated. Epitheca, dissepiments and synapticalae present, no columella. Microstructure trabecular. h = 10-13 mm, d = 31-34 x 25-31 mm, f = 15 mm, s = 20/5 mm.

Localities: 83 Stranice-quarry (1031 A), 85 Stranice-Radana vas (W-6); Austria, Hungary, France, Bulgaria.

Age: K: Santonian-Campanian; K: Santonian-Campanian, Maastrichtian.

Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: surface from above; W-6, x1.
 B: surface from below; W-6, x 1.
 C: the same as A, x 3.
 D: the same as B, x 3.

E: surface from above; 1031A, x 1.
 F: surface from below; 1031A, x 1.
 G: the same as E, x 3.
 H: the same as F, x3.

Cunnolites (Cunnolites) sellata (Quenstedt) 1880

- 1880 *Fungia sellata* n. QUENSTEDT, 867, Pl. 177, fig. 25.
- 1964 *Plesiocunnolites sellatus* (Quenstedt). BEAUVAIS M., 537-538, Pl. 15, figs. 4a-d.
- 1978 *Cunnolites (Cunnolites) sellata* (Quenstedt). TURNŠEK, 88, 117-118, Pl. 20, figs. 7-9.
- 1982 *Cunnolites sellatus* (Quenstedt). BEAUVAIS, II, 168-171.

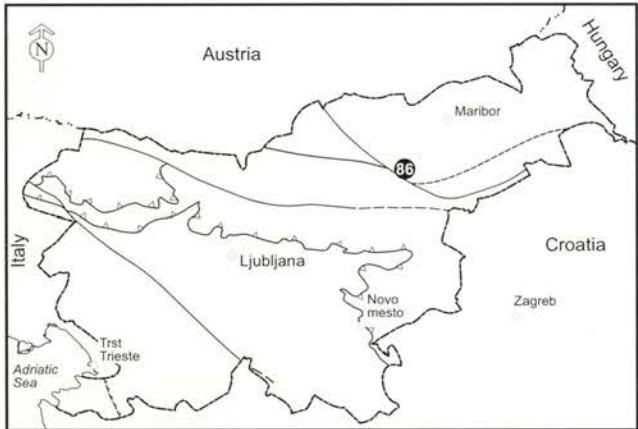
Description: Solitary discoid high corallum, base plate oval with thick epitheca of concentric and radial ribs. Stem convex. Fossula at right angle to the longer axis, excentrical. Septa of first two cycles compact, of younger cycles porous, laterally pennulated, dissepiments, synapticalae abundant, no columella. Microstructure trabecular. h =10 mm, d = 30 x 23 mm, f = 8 mm, s = 15-18/5 mm.

Localities: 86 Stranice-Rugelj (9); Austria

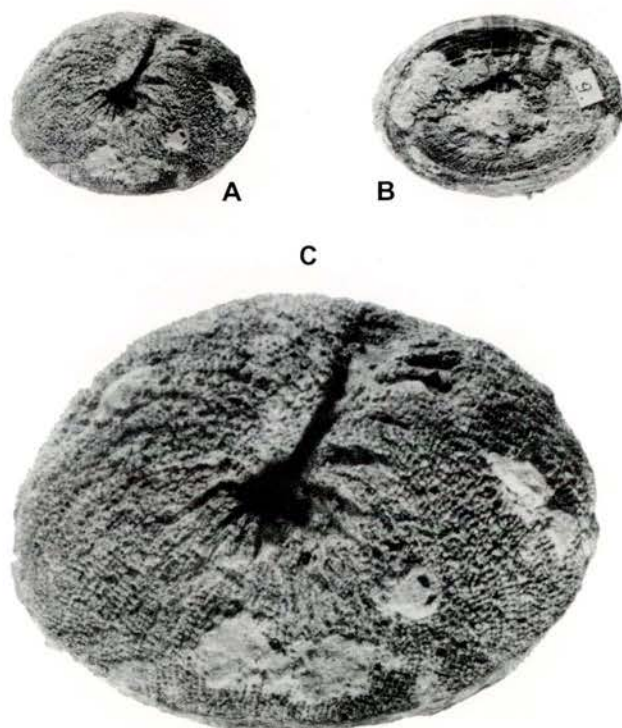
Age: K: Santonian-Campanian; K: Santonian.

Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: surface from above; St-9, x 1.
B: surface from below; St-9, x 1.
C: the same as A, x 3.



Cunolites (Paracunolites) scutellum (Reuss) 1854

- 1854 *Cyclolites scutellum* n. sp. REUSS, 125-126, Pl. 22, figs. 1-3.
 1953 *Cunolites scutellum* REUSS. PAŠIĆ, 102.
 1957 *Cyclolites scutellum* REUSS. SURARU, 292.
 1964 *Paracunolites scutellum* (Reus). BEAUVAIS M., 542.
 1978 *Cunolites (Paracunolites) scutellum* (Reuss). TURNŠEK, 89, 118, Pl. 21, figs. 1-12.
 1980 »*Cyclolites*« *scutellum* REUSS. VIDAL, 69-70, Figs. 15-16.
 1995 *Cunolites (Paracunolites) scutellum* (Reuss). ABDEL-GAVAD, 24, Pl. 7, figs. 3-4.

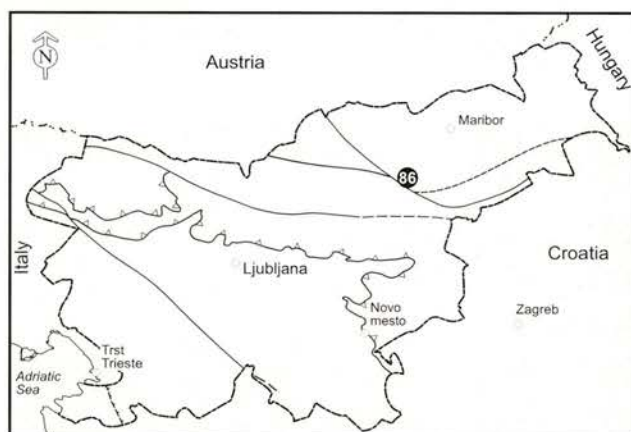
Description: Solitary discoid low corallum, base plate roundish with epitheca, stem in the middle, calice roundish, fossula prolonged, centrally spaced. Septa thin, dense, all of the same thickness, firsts two compact, younger perforated, laterally pennulated, dissepiments and synapticulae present. $h = 4-5$ mm, $d = 23-31 \times 21-29$ mm, $f = 5-8$ mm, $s = 16-18/5$ mm.

Localities: 86 Stranice-Rugelj (1, 2, 4, 17); Austria, Romania, Serbia, France, Greece.

Age: K: Santonian-Campanian; K: Santonian, Campanian-Maastrichtian.

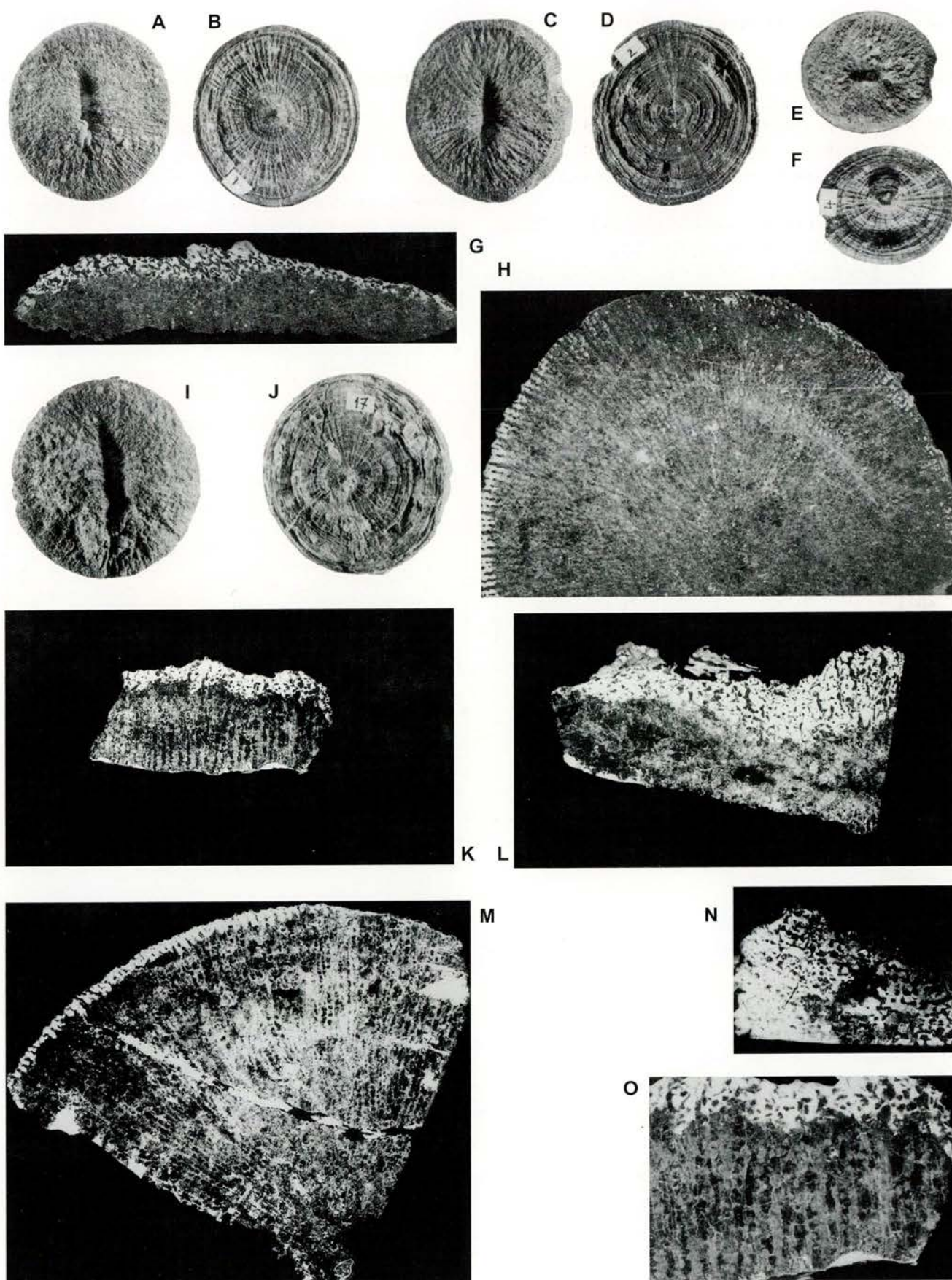
Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
		Turonian	Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



- A: surface from above; St-1, x 1.
 B: surface from below; St-1, x 1.
 C: surface from above; St-2, x 1.
 D: surface from below; St-2, x 1.
 E: surface from above; St-4, x 1.
 F: surface from below; St-4, x 1.
 G: longitudinal section; St-4b, x 4.
 H: transverse section; St-4a, x 4.

- I: surface from above; St-17, x 1.
 J: surface from below; St-17, x 1.
 K: longitudinal peripheral section; St-17b, x 4.
 L: longitudinal axial section; St-17c, x 4.
 M: transverse section of a part of corallum; St-17a, x 4.
 N: longitudinal very axial section; St-17d, x 4.
 O: the same as K, x 8.



Cunolites (Plesiocunolites) cycloides (Felix) 1903

- 1903 *Cyclolites undulata* var. *cycloides* n. var. FELIX, 197, Pl. 17, figs. 3-3a.
 1930 *Cyclolites cycloides* Felix. OPPENHEIM, 108-109, Pl. 12, figs. 4-4a, non Pl. 35. figs. 4-4a.
 1957 *Cyclolites undulatus* var. *cycloides* Felix. SURARU, 292.
 1978 *Cunolites (Plesiocunolites) cycloides* (Felix). TURNŠEK, 94, 122, Pl. 27, figs. 5-7.

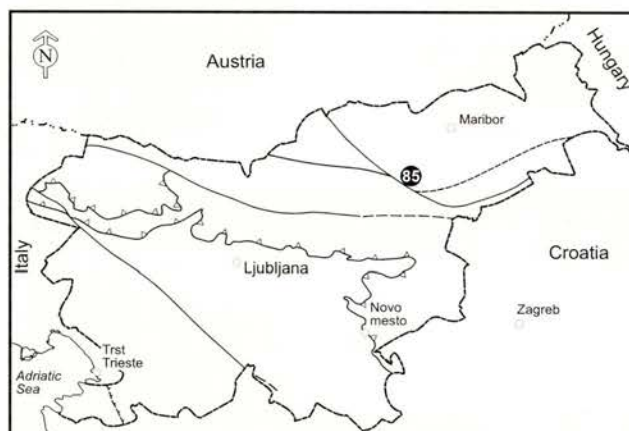
Description: Solitary discoidal low corallum, basal plate roundish, covered with epithecal rings, fossula parallel to long axis, excentric. Septa thick, first two cycles compact, younger porous, laterally pennulated. Synapticalae, vesicular dissepiments present, no columella, microstructure trabecular. h = 15 mm, d = 32 x 28 mm, f = 10 mm, s = 13-16/5 mm.

Localities: 85 Stranice-Radana vas (W-8); Austria, Romania

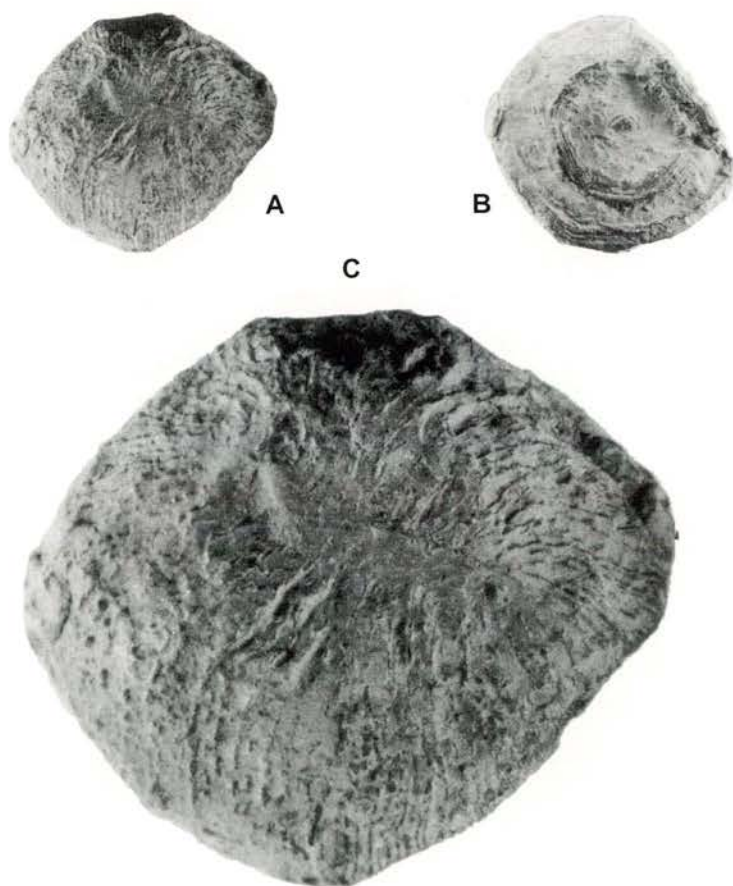
Age: K: Santonian-Campanian; K: Santonian-Campanian.

Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



- A: surface from above; W-8, x 1.
 B: surface from below; W-8, x 1.
 C: the same as A, x 3.



Cunolites (Plesiocunolites) depressa (Reuss) 1854

- 1854 *Cyclolites depressa* n. sp. REUSS, 112-113, Pl. 22, figs. 4-6.
1903 *Cyclolites depressa* REUSS. FELIX, 189-190.
1930 *Cyclolites depressus* REUSS. OPPENHEIM, 89.
1978 *Cunolites (Plesiocunolites)* cf. *depressa* (REUSS). TURNŠEK, 94-95, 122, Pl. 27, figs. 8-10.
1982 *Cunolites depressa* (REUSS). BEAUVAIS, II, 167-168.

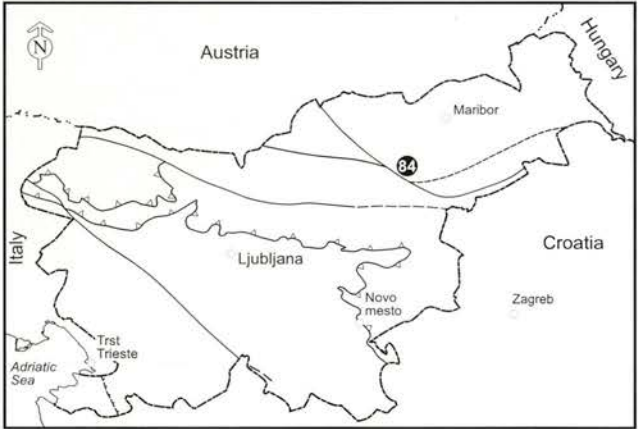
Description: Solitary discoidal low corallum, base plate slightly oval, covered with concentric epithecal rings, fossula long. Septa of first two cycles compact, of younger cycles perforated, with rare lateral pennulae, no columella, synapicalae and vesicular dissepiments present. h = 17 mm, D = 46 x 43 mm, f = 18 mm, s = 13/5 mm.

Localities: 84 Stranice-Dobrava (W-9); Austria (Gosau).

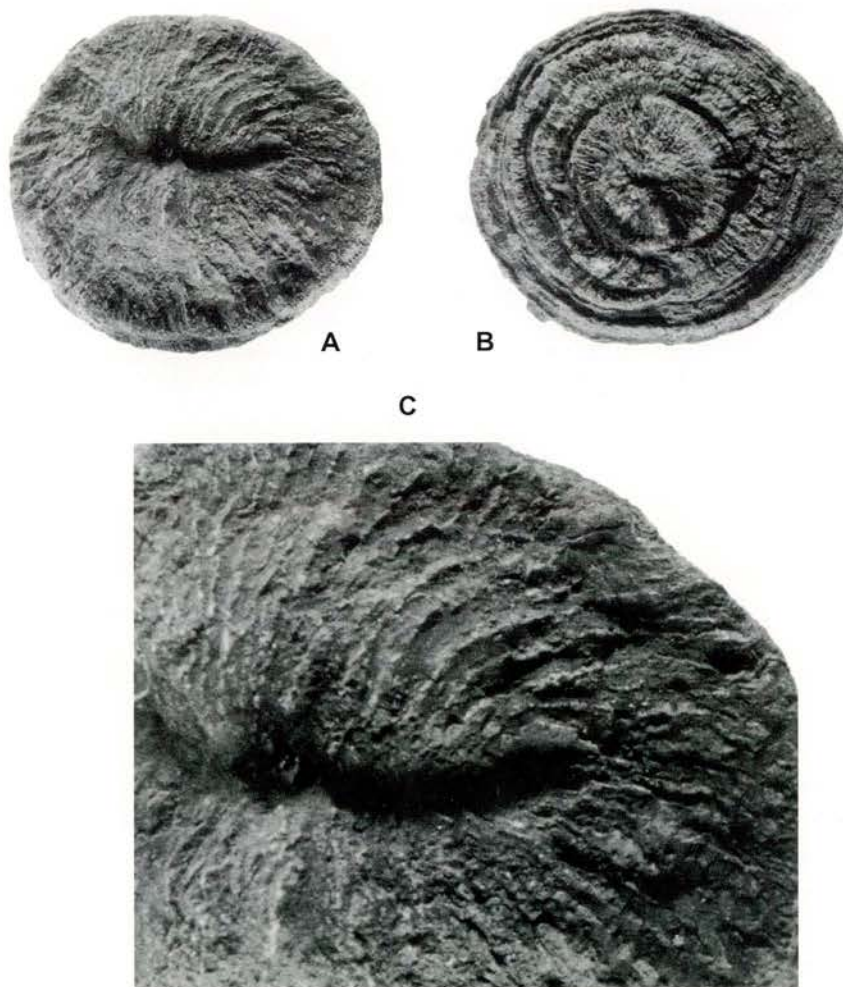
Age: K: Santonian-Campanian; K: Santonian.

Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
		Cenomanian		
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: surface from above; W-9, x 1.
B: surface from below; W-9, x 1.
C: the same as A, x 3.



Cunolites (Plesiocunolites) dispar (Quenstedt) 1880

- 1880 *Fungia dispar* n. sp. QUENSTEDT, 862, Pl. 177, fig. 4.
 1964 *Plesiocunolites dispar* Quenstedt. BEAUVAIS M., 535-536, Pl. 15, figs. 1a-c.
 1978 *Cunolites (Plesiocunolites) dispar* (Quenstedt). TURNSEK, 93, 121, Pl. 27, figs. 1-4.

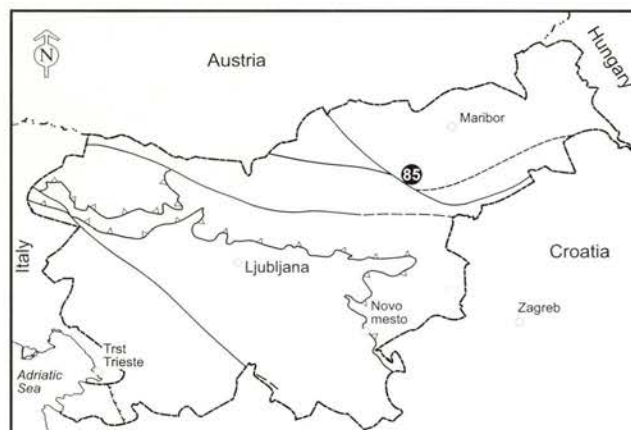
Description: Solitary discoid low and small corallum, roundish basal disc, epithecate rings, fossula short. Septa thin, densely spaced, smooth with rare ornamentations, first cycles compact, younger porous, laterally pennulated. Microstructure trabecular. h = 5 mm, d = 15 x 14 mm, f = 2 mm, s = 21/5 mm.

Localities: 85 Stranice-Radana vas (W-7); Austria, France.

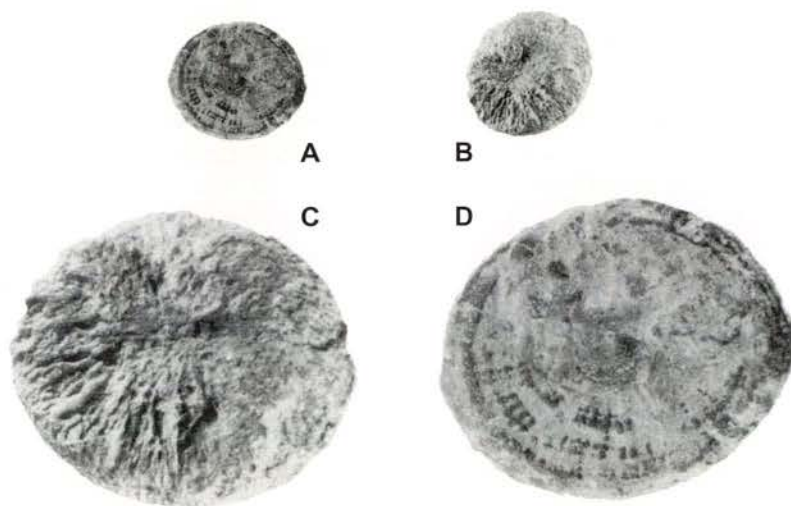
Age: K: Santonian-Campanian; K: Santonian, Campanian.

Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
	Lower		Cenomanian	
			Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



- A: surface from below; W-7, x 1.
 B: surface from above; W-7, x 1.
 C: the same as B, x 3.
 D: the same as A, x 3.



Cunolites (Plesiocunolites) faecata (Stoliczka) 1873

- 1873 *Cyclolites faecata* n. sp. STOLICZKA, 48-49, Pl. 10 fig. 6-9.
 1953 *Cunolites faecata* (Stoliczka). PAŠIĆ, 104, Pl. 6, fig. 4.
 1978 *Cunolites (Plesiocunolites) faecata* (Stoliczka). TURNŠEK, 91-92, 120, Pl. 25, figs. 1-6.

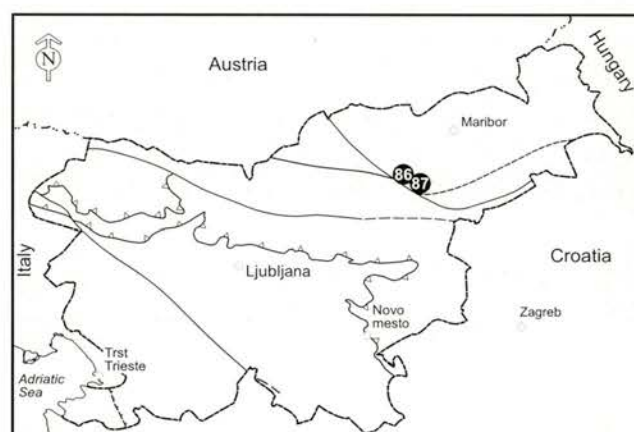
Description: Solitary discoid, low corallum, base plate oval, covered with epithecal concentric rings, fossula wide and elongated. Septa thick, first cycles compact, younger porous, laterally perforated. No columella, vesicular dissepiments and synapticalae present. Microstructure trabecular. h = 7-9 mm, d = 29-33 x 21-29 mm, f = 12-15 mm, s = 12-15/ 5 mm.

Localities: 86 Stranice-Rugelj (7, 10-16), 87 Zreče (Ve-2); India, Serbia.

Age: K: Santonian-Campanian; K: Campanian, Maastichtian.

Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
	Lower		Cenomanian	
			Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: surface from above; St-7, x 1.
 B: surface from below; St-7, x 1.
 C: longitudinal section, St-7b, x 4.
 D: transverse section, ST-7a, x 4.

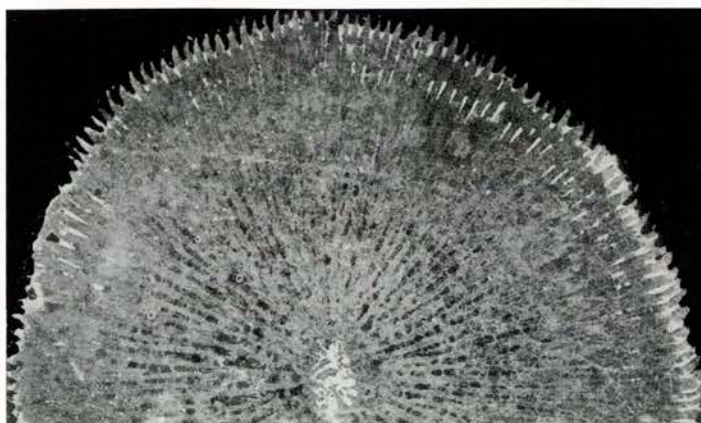
E: surface from below; St-16, x 1.
 F: transverse section; St-16a, x 4.
 G: longitudinal section; St-16b, x 4.
 H: detail from F, x 8.



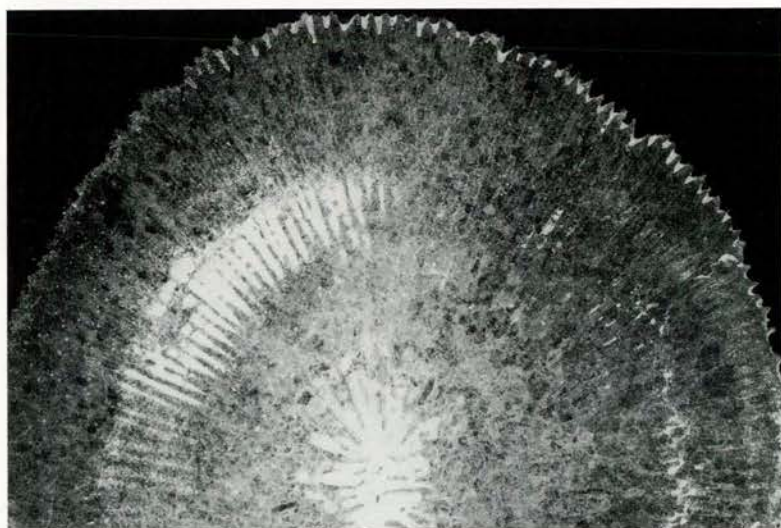
A B



C

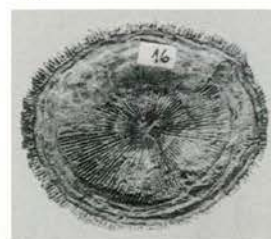


D

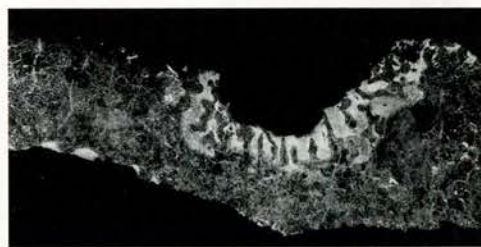


F

E



G



H



Cunolites (Plesiocunolites) gosavicus (Oppenheim) 1930

1930 *Cyclolites gosavicus* n. sp. OPPENHEIM, 134, Pl. 4, figs. 7-7a.

1978 *Cunolites (Plesiocunolites) gosavicus* (Oppenheim). TURNŠEK, 92, 120-121, Pl. 26, figs. 1-4.

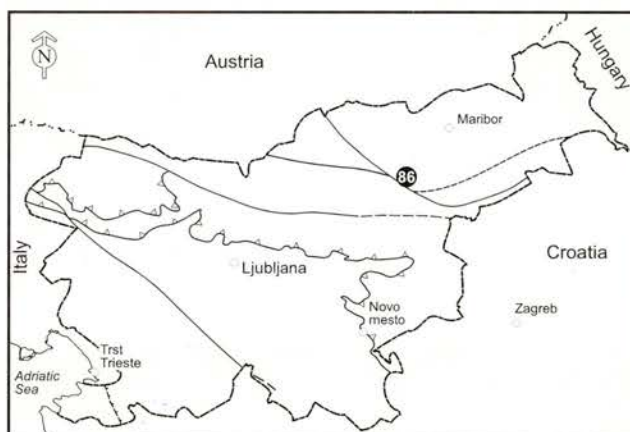
Description: Solitary discoid low corallum, base plate flat, covered with rare epithecate rings. Fossula at right angle to the longer axis. Septa rather thick, first two cycles compact, younger cycles porous, laterally very pennulated, no columella, vesicular dissepiments and synapticalae present. Microstructure trabecular. h = 11 mm, d = 29 x 24 mm, f = 9 mm, s = 20/5 mm.

Remarks: BEAUVAIS (1982, 184) ascribed *C. gosavicus* in the species *C. reussi* Fromentel. *C. gosavicus* has longer fossula, so I recognize it.

Localities: 86 Stranice-Rugelj (8); Austria
Age: K: Santonian-Campanian; K: Senonian.

Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: surface from above; St-8, x 1.
B: surface from below; St-8, x 1.

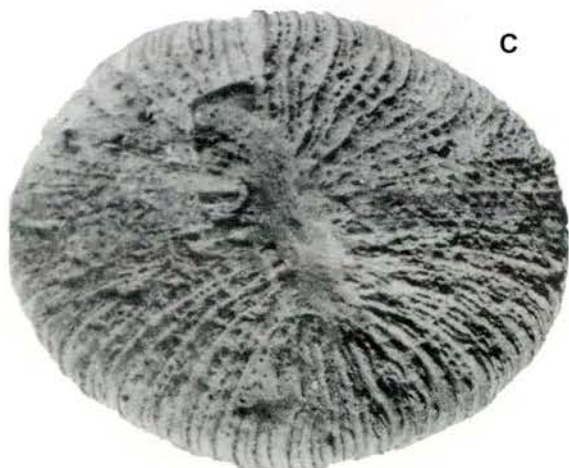
C: the same as A, x 3.
D: the same as B, x 3.



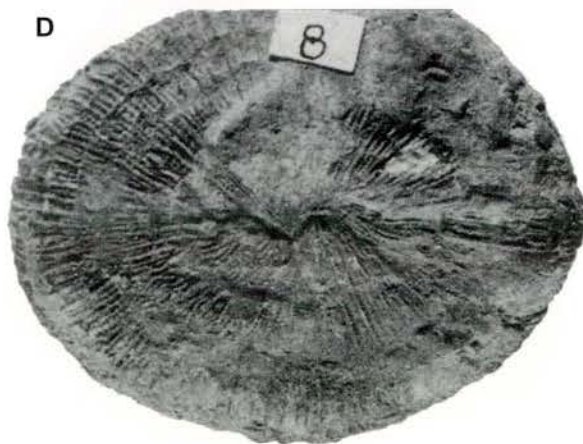
A



B



C



D

Cunolites (Plesiocunolites) orbigny (Fromentel) 1864

- 1864 *Cyclolites d'Orbigny* n. sp. DE FROMENTEL, 333, Pl. 55, fig. 1.
 1954 *Cyclolites orbigny* Fromentel. KOLOSVÁRY, 87, Pl. 7, figs. 1-4.
 1954 *Cyclolites* cfr. *orbigny* Fromentel. GECZI, 13, 99, Pl. 5, figs. 20-22.
 1961 *Cyclolites orbigny* Fromentel. SURARU, 125, Figs. 2-5,
 1978 *Cunolites (Plesiocunolites) orbigny* (Fromentel). TURNŠEK, 90, 119, Pl. 22-23.

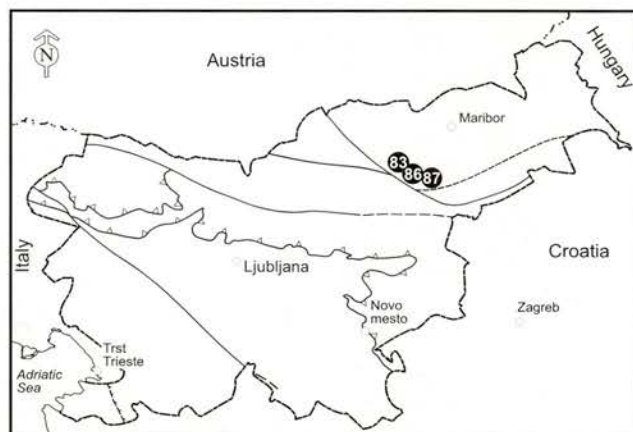
Description: Solitary discoid low corallum, base plate flat and oval, covered with epithecate rings. Calice unequally convex. Fossula long narrow. Septa of first two cycles compact, younger cycles porous, laterally pennulated, no columella, vesicular dissepiments and synapticulae present. h = 7-14 mm, d = 40-45 x 32-38 mm, s = 11-12/5 mm.

Localities: **83** Stranice-quarry, (1031B), **86** Stranice-Rugelj (18-27), **87** Zreče (Ve-1); Austria, France, Hungary, Romania.

Age: K: Santonian-Campanian; K: Santonian-Campanian.

Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
		Turonian	Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: surface from above; St-26, x 1.

B: surface from below; St-26, x 1.

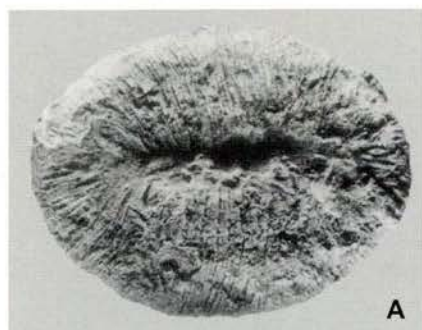
C: surface from above; St-27, x 1.

D: surface from below; St-27, x 1.

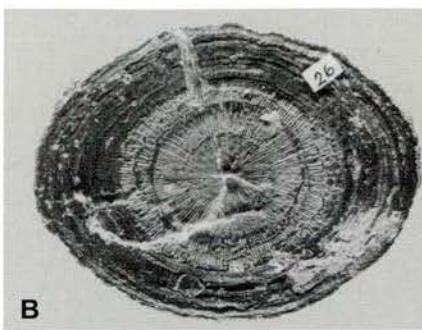
E: microstructure, ?medium-sized trabeculae; St-26a, x 40.

F: transverse section of a half of corallum; St-26a, x 4.

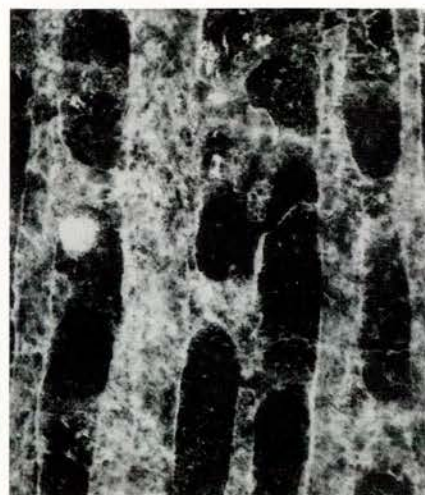
G: longitudinal section; St-26b, x 4.



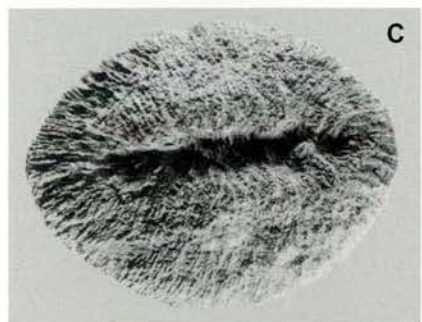
A



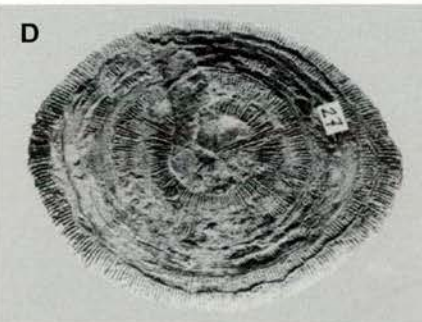
B



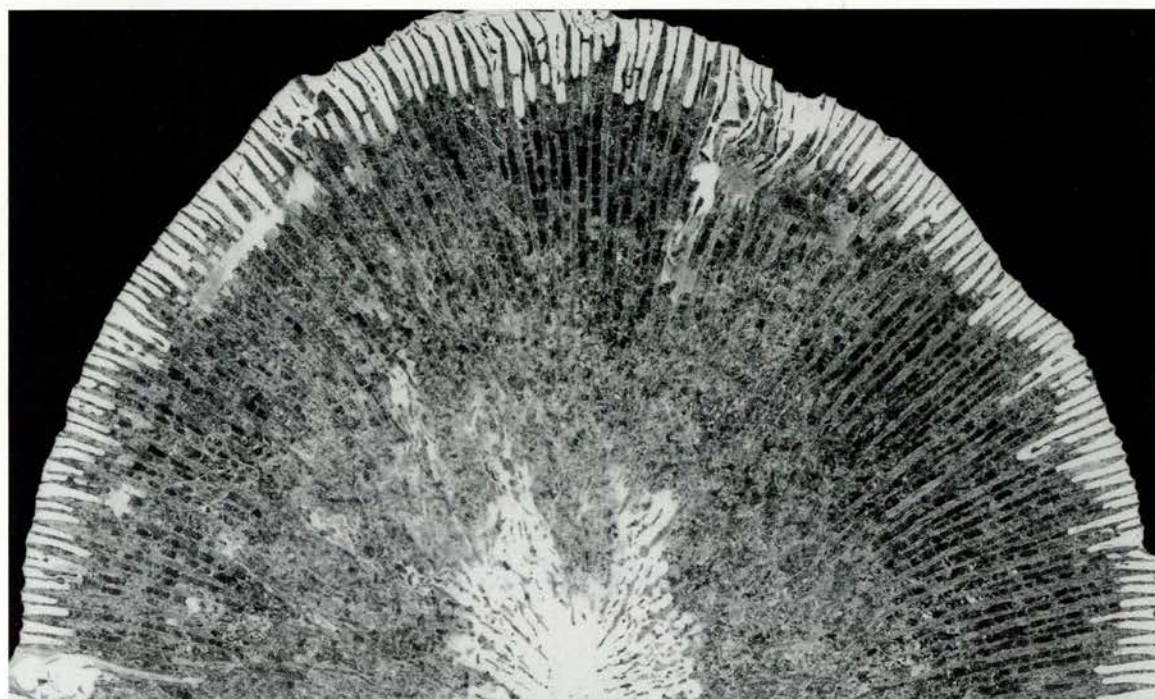
E



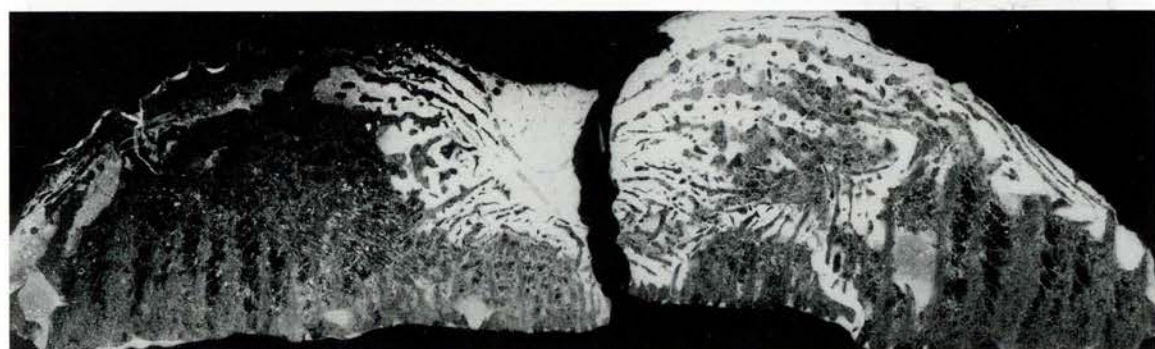
C



D



F



G

Cunolites (Plesiocunolites) undulata (Goldfuss) 1826

- 1826 *Fungia undulata* n. sp. GOLDFUSS, 49, Pl. 14, fig. 7.
 1854 *Cyclolites undulata* Goldfuss. REUSS, 121-122, Pl. 22, figs. 11-13.
 1930 *Cyclolites undulatus* Goldfuss. OPPENHEIM, 106-107, ?Pl. 7, figs. 3-3a, ?Pl. 11, figs. 3-3a, Pl. 12, figs. 2-2a, Pl. 35, figs. 6-6a.
 1954 *Cyclolites undulata undulata* Goldfuss. KOLOS-VÁRY, 88, Pl. 7, figs. 13-16.
 1954 *Cyclolites undulata* Goldfuss. GECZI, 12-13, 85-86, Pl. 8, figs. 12.14.
 1957 *Cyclolites undulata* Goldfuss. SURARU, 292.
 1964 *Plesiocunolites undulatus* (Goldfuss). BEAUVAIS M., 537, Pl. 16, figs. 4a-d.
 1971 *Plesiocunolites undulata* (Goldfuss). TCHECHMEDJEVA, 3-4, Pl. 1, figs. 3-4.
 1978 *Cunolites (Plesiocunolites) undulata* (Goldfuss). TURNŠEK, 91, 119-120, Pl. 25, figs. 7-10.
 1980 *Cunolites (Plesiocunolites) undulata* (Goldfuss). VIDAL, 72-73, Pl. 7, figs. 7-8.
 1982 *Cunolites undulatus* (Goldfuss). BEAUVAIS, II, 195-197, Pl. 41, fig. 10.
 1986 *Cunolites undulatus*. TCHECHMEDJEVA, 63.

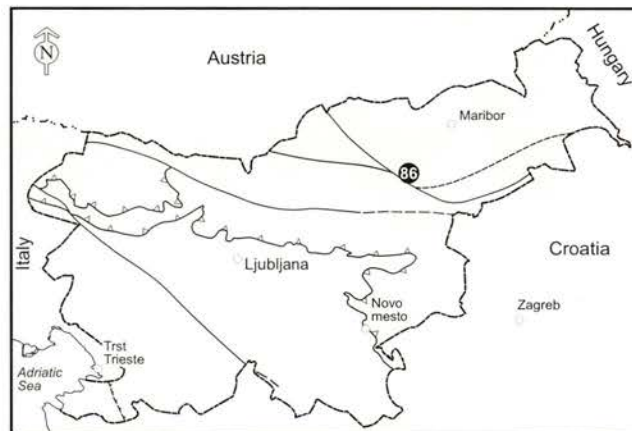
Description: Solitary discoid rather high corallum, round base plate and folded epitheca, stem raised, edge very sharp. Calice raised in middle, fossula long and oval. Septa of first two cycles compact, younger cycles porous, laterally pennulated. No columella, vesicular dissepiments and synapticulae present, microstructure trabecular. h = 12 mm, d = 30 x 26 mm, f = 11 mm, s = 9/5 mm.

Localities: 86 Stranice-Rugelj (5); Germany, France, Austria, Hungary, Romania, Bulgaria.

Age: K: Santonian-Campanian; K: Santonian, Campanian, Maastrichtian.

Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
		Turonian		
		Cenomanian		
	Lower	Albian		
		Aptian		
		Barremian		
		Hauterivian		
		Valanginian		
		Berriasian		

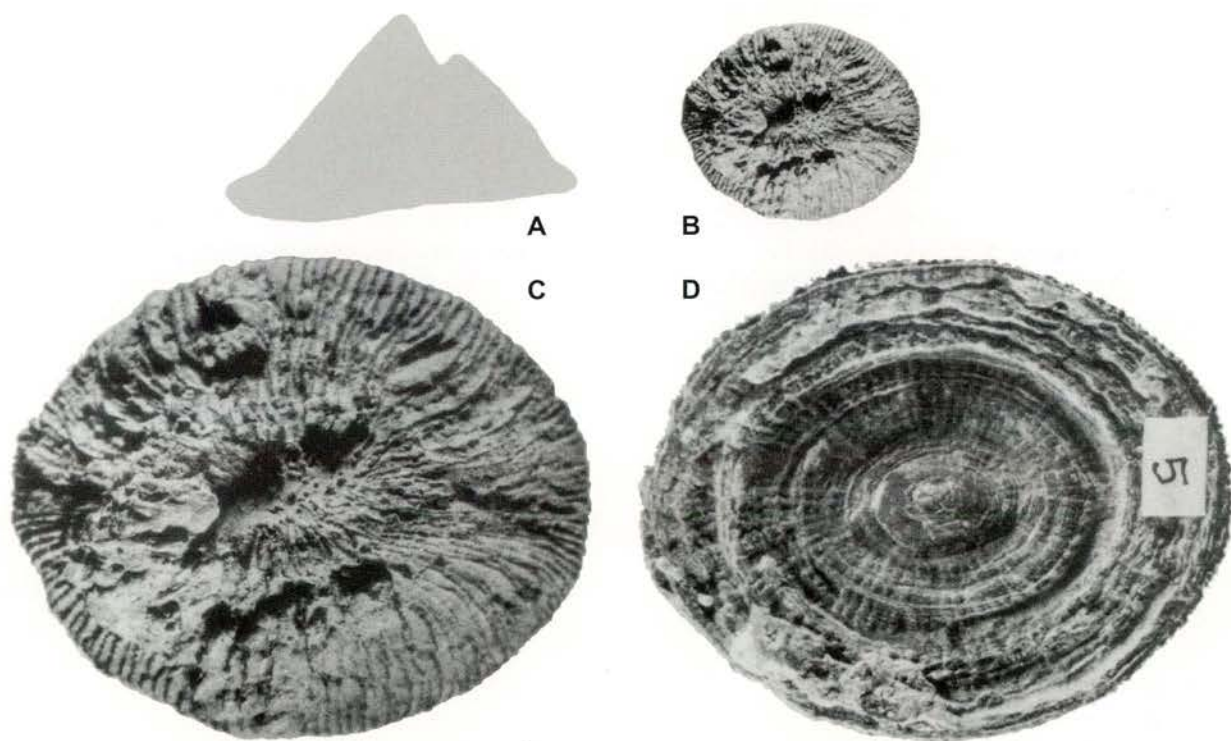


A: drawing of corallum St-5 from side; x 2.

B: surface from above; St-5, x 1.

C: the same as B, x 3.

D: surface from below, St-5, x 3.



Cunolites (Plesiocunolitopsis) robusta (Quenstedt) 1880

- 1880 *Fungia robusta* n. QUENSTEDT, 869, Pl. 177, fig. 23.
 1903 *Cyclolites undulata* var. *robusta* Qu. FELIX, 196, Pl. 17, figs. 4-4a.
 1930 *Cyclolites robustus* Quenstedt. OPPENHEIM, 111-112, Pl. 7, figs. 4-5, Pl. 41, figs. 11-12.
 1954 *Cyclolites robusta* (Quenstedt). GECZI, 83, Pl. 5, figs. 1-2.
 1961 *Cyclolites robusta* (Quenstedt). SURARU, 127, Figs. 11-12.
 1964 *Plesiocunolites robustus* Quenstedt. BEAUVAIS M., 539-541, Pl. 15, figs. 3a-d, Textfig. 1.
 1978 *Cunolites (Plesiocunolitopsis) robusta* Quenstedt. TURNŠEK, 95-96, 123, Pl. 28, figs. 1-5, Pl. 29, figs. 1-3.
 1982 *Cunolites robustus* (Quenstedt). BEAUVAIS, II, 193-194.

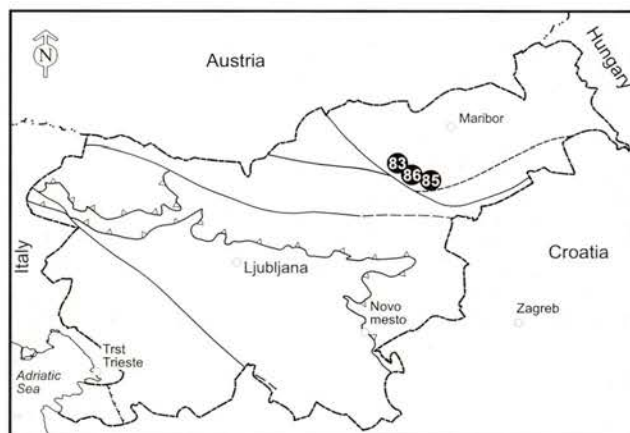
Description: Solitary discoidal, high corallum, base plate oval, epithecal rings, calice half globular, fossula narrow, long, parallel to long axis. Septa of first two cycles compact, younger cycles perforated, laterally rare pennulae, no columella, synapticulae and vesicular dissepiments present, microstructure trabecular. h = 21-25 mm, d = 42-50 x 37-42 mm, f = ca 20 mm, s = 10-11/5mm.

Localities: 83 Stranice-quarry (1035), 86 Stranice-Rugelj (6), 85 Stranice-Radana vas (W-10); Austria, Romania, Hungaria, Germany.

Age: K: Santonian-Campanian; K: Santonian-Campanian.

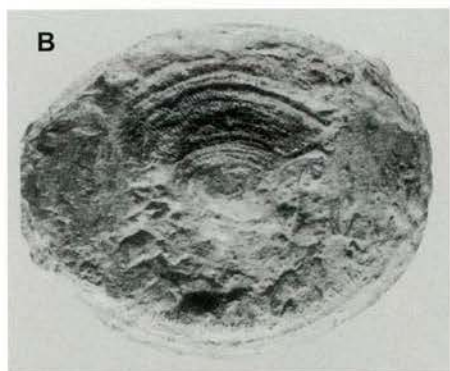
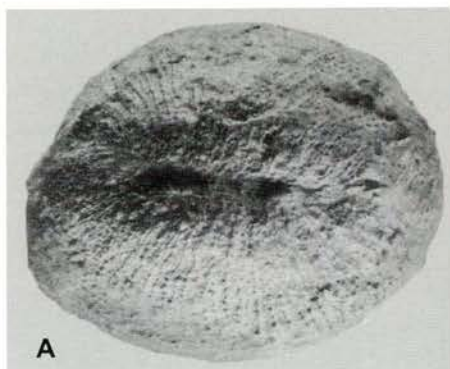
Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
		Turonian		
		Cenomanian		
	Lower	Albian		
		Aptian		
		Barremian		
		Hauterivian		
		Valanginian		
		Berriasian		



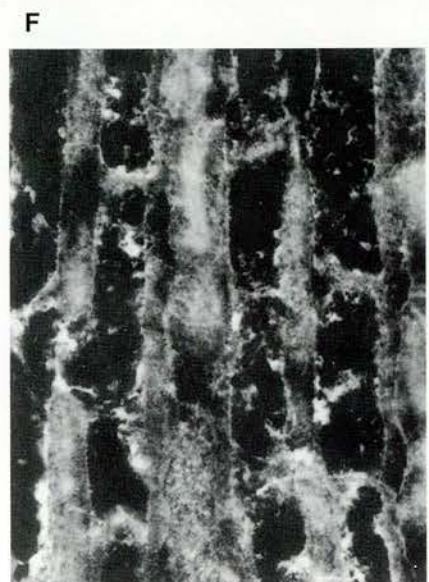
A: surface from above; W-10, x 1.
 B: surface from below, W-10, x 1.
 C: transverse section of a part of corallum; W-10a, x 4.

D: longitudinal section; W-10b, x 8.
 E: detail from C, x 8.
 F: microstructure, medium-sized polycentric trabeculae; W-10a, x 40.

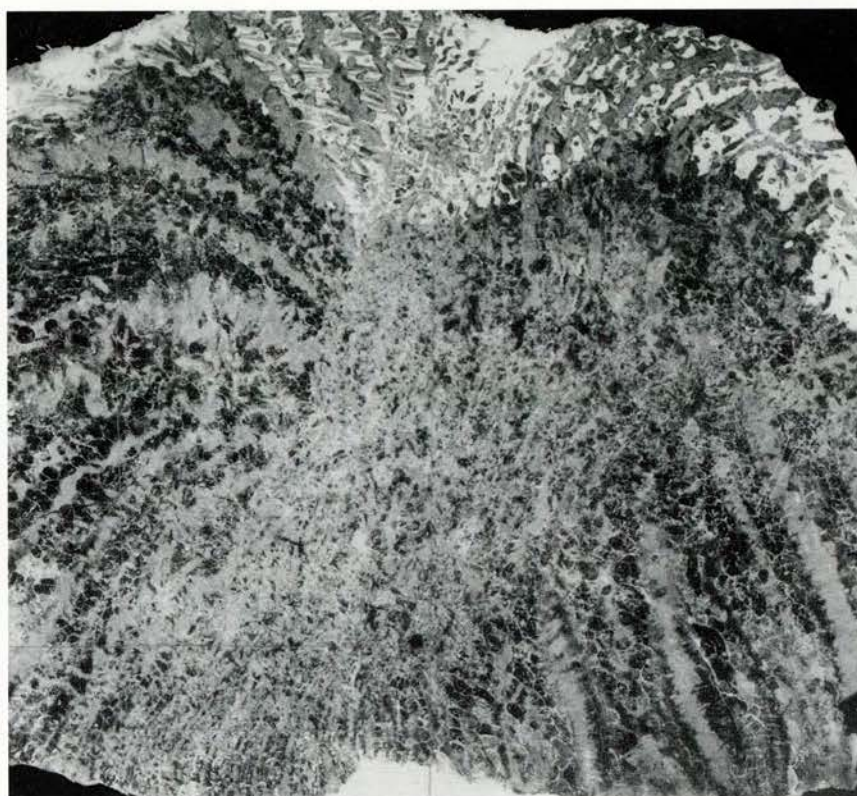


E

C



D



Cyathophora miyakoensis (Eguchi) 1936

- 1936 *Miyakopora miyakoensis* gen. nov. n. sp. EGUCHI, 72, Textfigs. 4, 4a.
1976 *Cyathophora miyakoensis* (Eguchi). TURNŠEK & BUSER, 47-48, 74, Pl. 1, figs. 3-5.
1979 *Cyathophora* aff. *miyakoensis* (Eguchi). SCHOLZ, 55-56, Textfig. 43.
1997 *Cyathophora miyakoensis* (Eguchi). BARON-SZABO, 40, Pl. 3, figs. 4, 6.

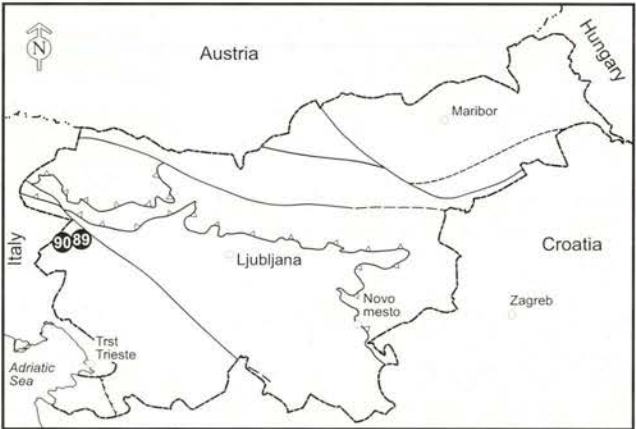
Description: Plocoid colony, round corallites, costate peritheca. Septa indicated, rudimented. Septotheca, tabulate dissepiments, no columella. Microstructure not preserved. d = 0.7-1.5 mm, cc = 1.3-2 mm, s = 6+s2.

Localities: 90 Levpa (P-679, P-680), 89 Kanalski Lom (P-606); Germany, Japan.

Age: K: reworked in Senonian breccia; K: Lower Cretaceous.

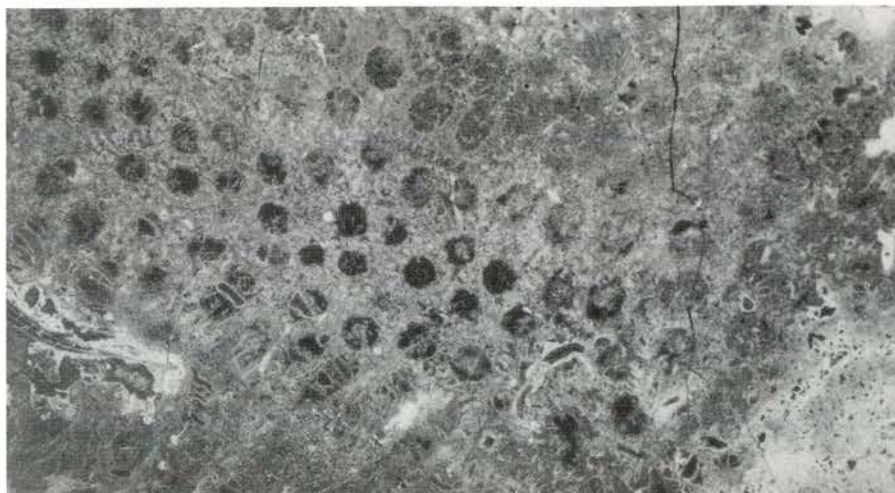
Paleoenvironment: Outer slope of the Dinaric Carbonate Platform. Reef limestone resedimented in breccia.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: transverse section; P-679a, x 4.
B: transverse section; P-606a, x 4.
C: transverse section; P-680a, x 4.

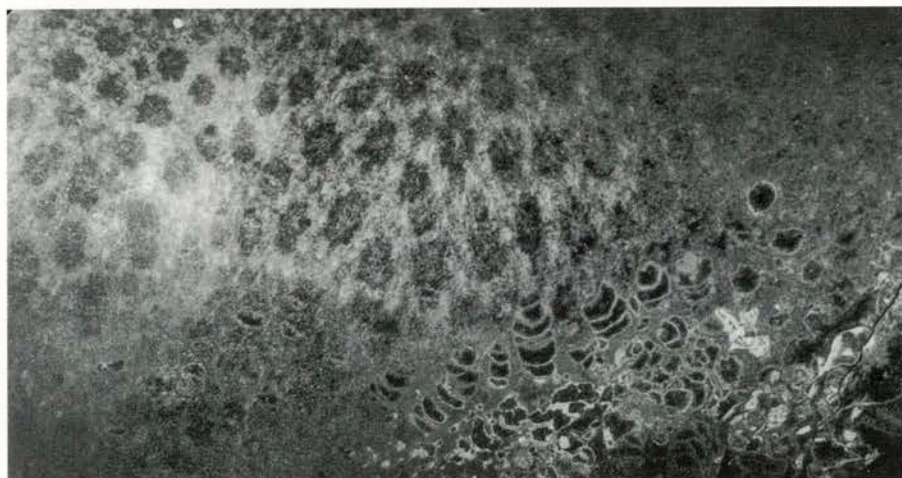
D: longitudinal section; P-680b, x 4.
E: microstructure, recrystallized; P-679a, x 40.



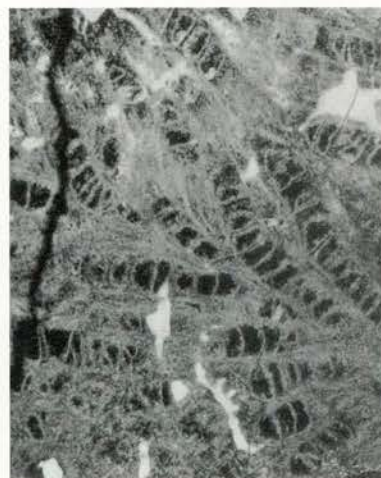
A



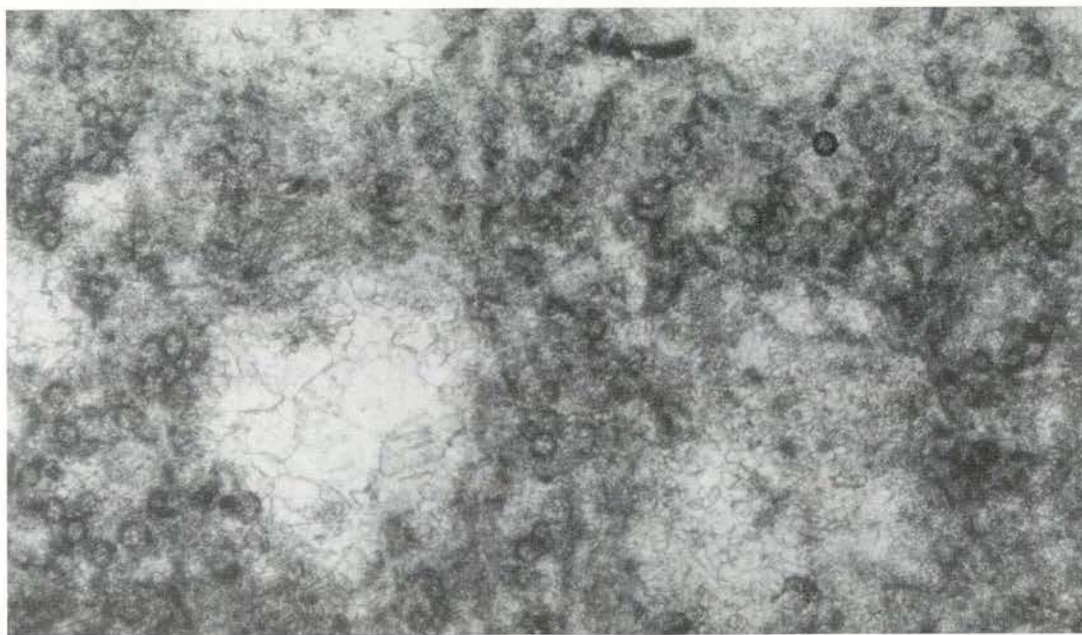
C



B



D



E

Cyathophora pygmaea Volz 1903

- 1903 *Cyathophora pygmaea* nov. spec. VOLZ, 26-27, Pl. 4, figs. 4-7.
 1954 *Cyathophora* cf. *pygmaea* Volz. KOLOSÁRY, 74.
 1964 *Orbignycoenia pygmaea* (Volz). MORYCOWA, 30-31, Pl. 4, fig. 1, Pl. 7, fig. 1.
 1971 *Cyathophora pygmaea* Volz. MORYCOWA, 40-42, Pl. 5, fig. 1, Textfigs. 6b-c.
 1974 *Cyathophora pygmaea* Volz. TURNŠEK & BUSER, 92-93, Ill. 3, Pl. 4, fig. 1.
 1976 *Cyathophora pygmaea* Volz. TURNŠEK & BUSER, 47, 74, Pl. 1, figs. 1-2.
 1981 *Cyathophora pygmaea* Volz. TURNŠEK & MIHAJLOVIĆ, 18, Pl. 13, figs. 1-2.
 1992 *Cyathophora pygmaea* Volz. TURNŠEK et al., 213, Pl. 5, figs. 1-2.
 1994 *Adelocoenia pygmaea* (Volz). LÖSER, 10-12, Pl. 12, figs. 1-2, Textfigs. 4-5.

Description: Massive plocoid to subcerioid colony, round corallites, costate peritheca. Septa hexameral in two cycles, very short. Paraseptotheca, tabulate dissepiments abundant. $d = 0.5-1.2$ mm, $cc = 1-1.8$ mm, $s = 12$ (5-6/2mm).

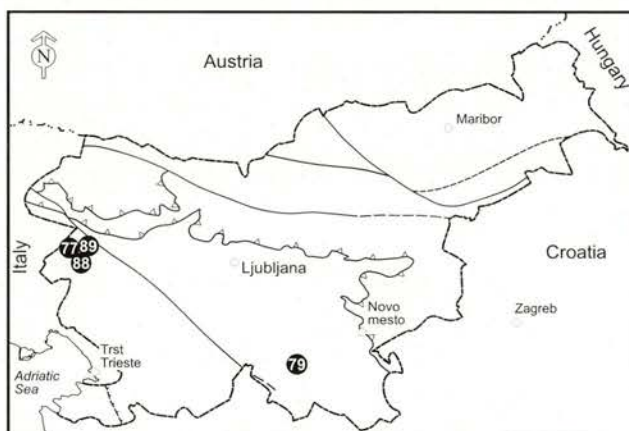
Remarks: LÖSER (1994) revised *Cyathophora pygmaea* to *Adelocoenia*. Because of priority I still use the genus *Cyathophora*.

Localities: 77 Osojnica (P-535, P-678), 89 Kanalski Lom (P-547, P-601, P-607), 79 Slovenski vrh (A/3a, B/3ac), 88 Hoje (P-694); Romania, Hungary, Poland, Serbia.

Age: K: Barremian-Aptian and reworked in Senonian breccia; K: Hauterivian-Barremian-Aptian.

Paleoenvironment: Patch reef in the back reef area on the Dinaric Carbonate Platform, Urgonian facies, and outer slope of the Dinaric Carbonate Platform, reef limestone resedimented in breccia.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	

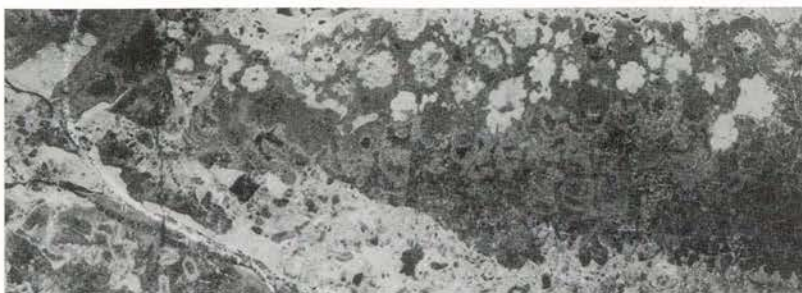


A: transverse section; P-601a, x 4.
 B: longitudinal section; P-601b, x 4.
 C: transverse section; P-535a, x 4.

D: longitudinal section; P-535b, x 4.
 E: Longitudinal and transverse sections of several colonies; P-694, x 4.
 F: microstructure, ?thick trabeculae; P-601a, x 40.

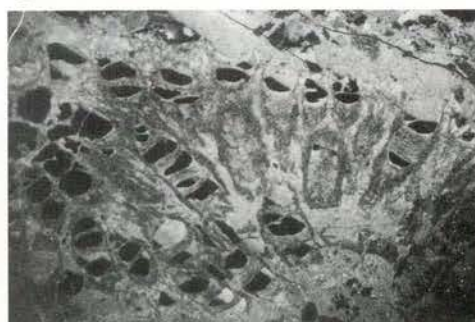


A



C

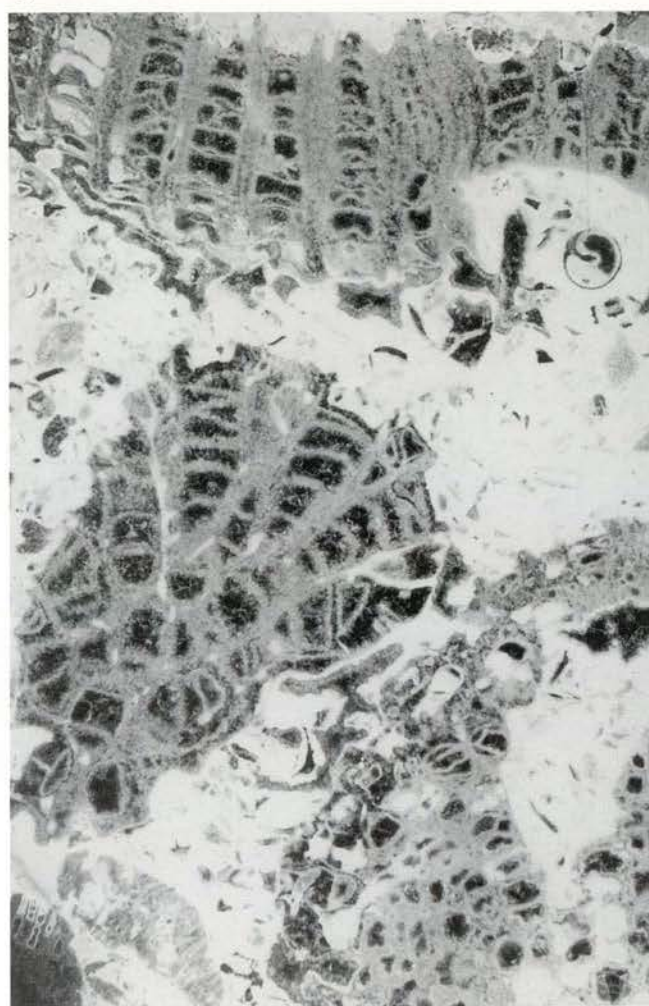
B



E



D



F



Cyathophora steinmanni (Fritzsche) 1924

- 1924 *Cyathophora steinmanni* n. sp. FRITZSCHE, 316-317, Pl. 3, figs. 8, Pl. 4, fig. 3.
 ?1964 *Cyathophora steinmanni* Fritzsche. MORYCOWA, 24-25, Pl. 3, fig. 2, Pl. 5, figs. 2-3.
 1976 *Cyathophora steinmanni* Fritzsche. TURNŠEK & BUSER, 48, 74, Pl. 2, figs. 1-2.
 1981 *Cyathophora steinmanni* Fritzsche. TURNŠEK & MIHAJLOVIĆ, 18, Pl. 13, figs. 3-4.
 1985 *Cyathophora steinmanni* Fritzsche. SIHARULIDZE, 14-15, Pl. 1, figs. 1ab.
 1985 *Cyathophora steinmanni* Fritzsche. KUSMICHEVA, 155-156, Pl. 1, figs. 2ab.
 1996 *Cyathophora steinmanni* (Fritzsche). BARON-SZABO & STEUBER, 8, Pl. 1, figs. 5-6.

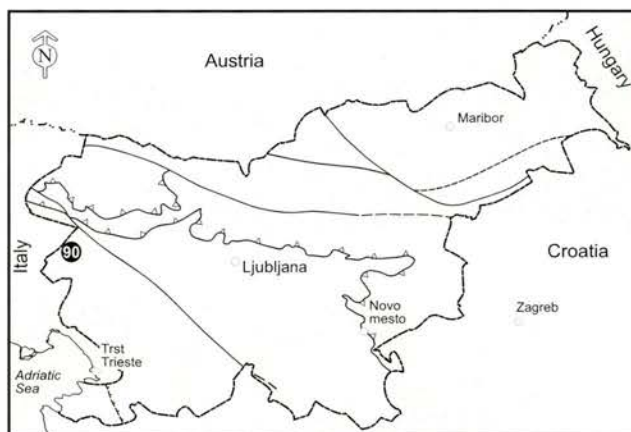
Description: Massive plocoid colony, round corallites separated by narrow costate and tabulate peritheca. Septa rudimented, indicated 2-3 cycles. Paraseptothea, tabulate dissepiments. $d = 1.5-2$ mm, $cc = ca 2$ mm, $s = 12-24$.

Localities: 90 Levpa (P-681); Chile, Poland, Serbia, Georgia, Turkmenia, Caucasus, Greece.

Age: K: reworked in Senonian breccia; K: Berriasian-Albian.

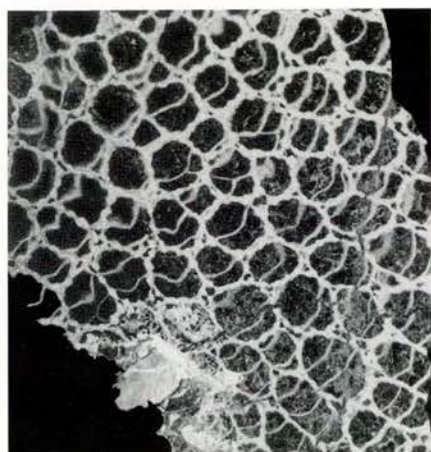
Paleoenvironment: Outer slope of the Dinaric Carbonate Platform. Reef limestone resedimented in breccia.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: transverse section; P-681a, x 4.
 B: longitudinal section; P-681b, x 4.

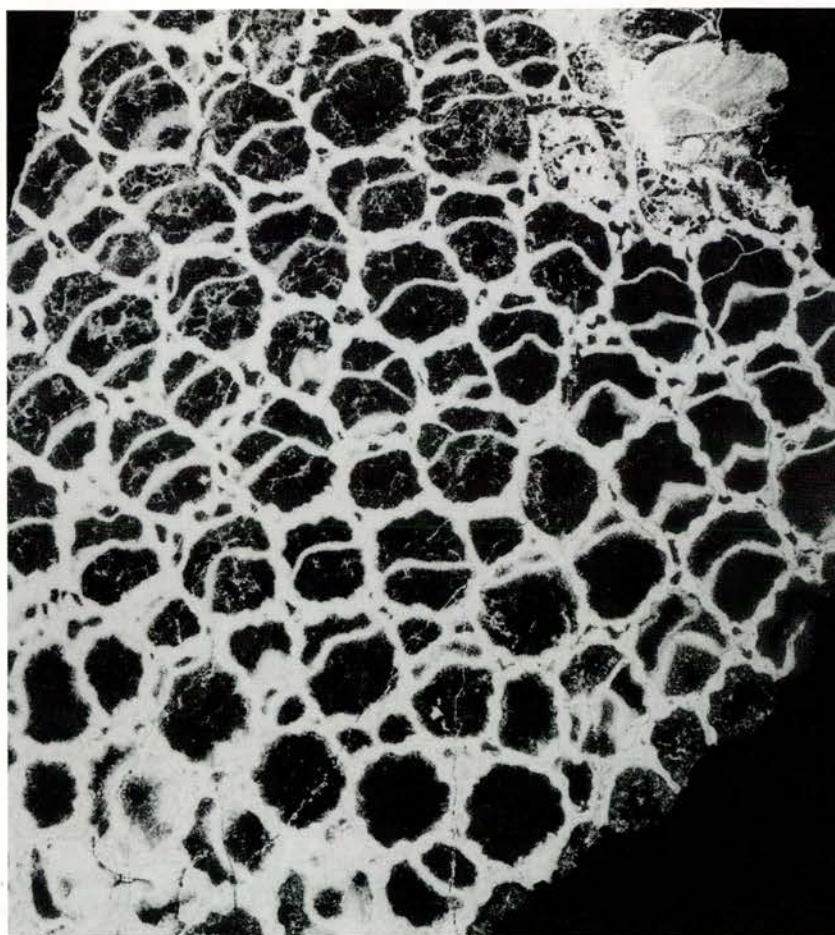
C: the same as A, x 8.
 D: microstructure, ?thick trabeculae; P-681a, x 40.



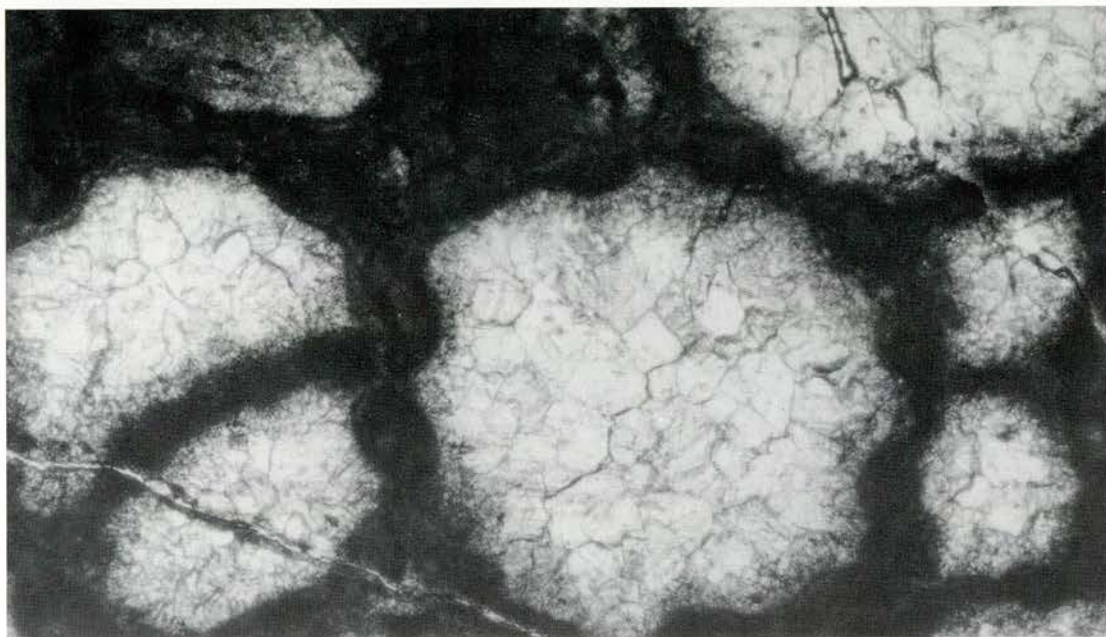
A



B



C



D

Cyclophyllia cyclica (Schäfer & Senowbari-Daryan) 1978

- 1978 *Thecosmilia cyclica* n. sp. SCHÄFER & SENOWBARI-DARYAN, 125-128, Pl. 3, figs. 4-5.
1989 *Cyclophyllia cyclica* (Schäfer & S.-D.). RONIEWICZ, 27-28, Pl. 1, figs. 1, 4-6, Pl. 2, fig. 1.
1991 *Cyclophyllia cyclica* (Schäfer & S.-D.). RAMOVŠ & TURNŠEK, 183, Pl. 5, figs. 3-4.
1996 *Cyclophyllia cyclica* (Schäfer & S.-D.). BERNECKER, 52.

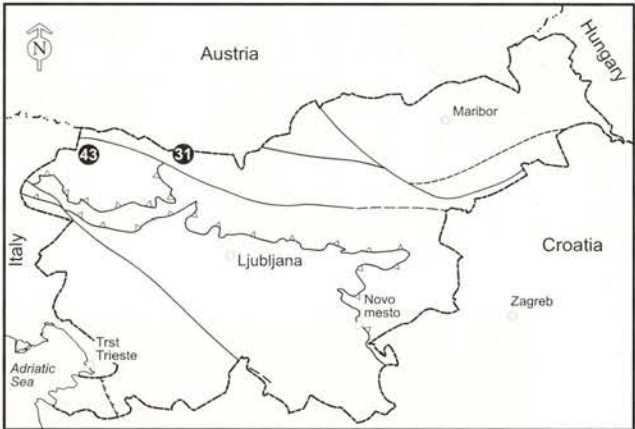
Description: Phaceloid colony with dense round corallites, budding marginal. Septa compact, in 3-4 cycles, laterally sharply granulated. Epitheca in some places, numerous vesicular dissepiments, columella parietal(?). Microstructure not preserved. d = 5-9 mm. cc = 5-10 mm, s = ca 48.

Localities: 43 Razor (977), 31 Begunjščica (P-976); Austria, Oman.

Age: T: Lower Norian (Latian); T: Norian-Rhaetian.

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	

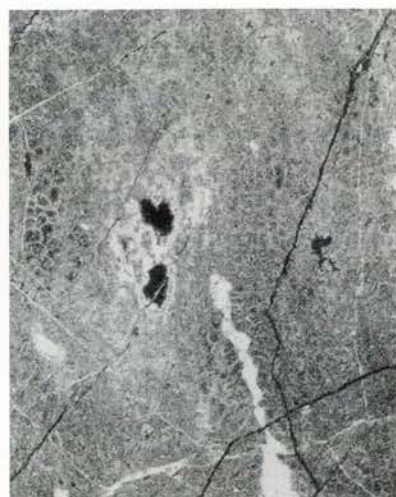


A: transverse section; R-977a, x 4.
B: longitudinal section; R-977b, x 4.

C: detail from A, x 8.
D: detail from B, x 8.

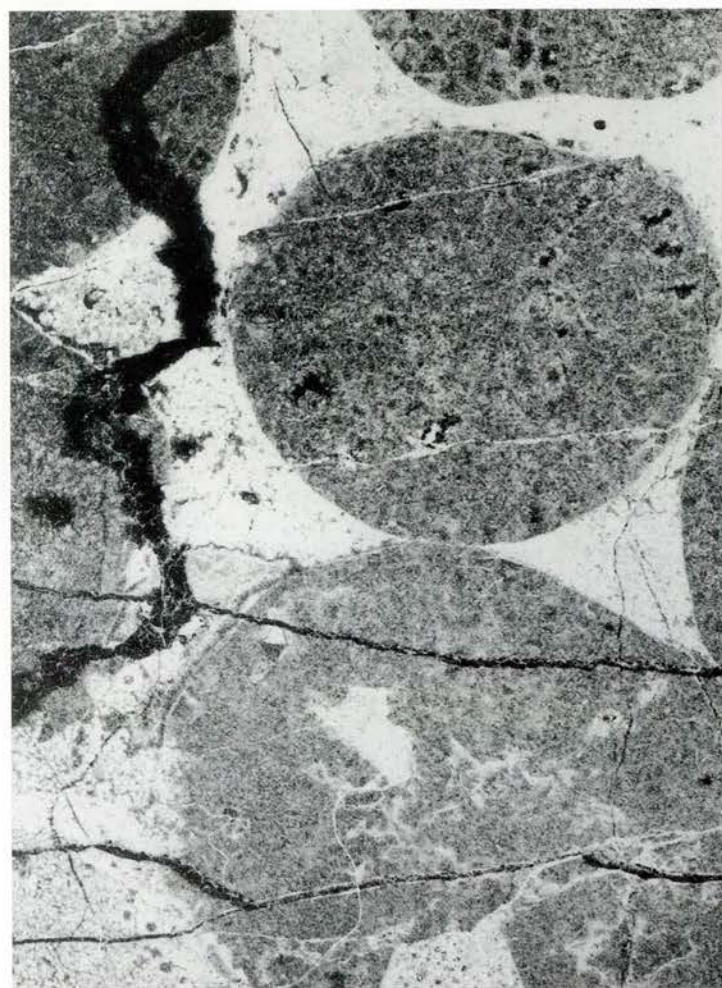


A

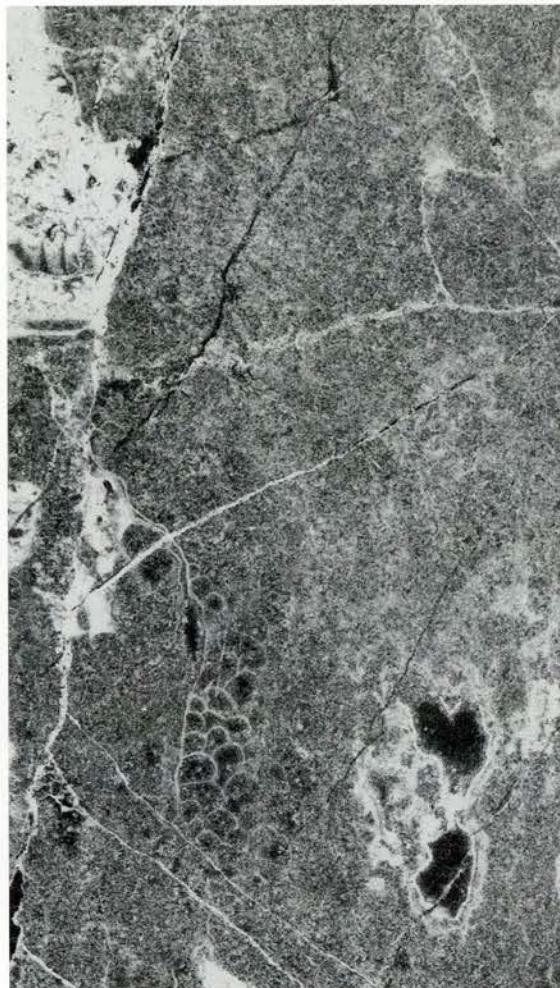


B

C



D



Cyclophyllia raricorallita Turnšek 1991

- 1991 *Cyclophyllia raricorallita* n. sp. RAMOVŠ & TURNŠEK, 183-184, Pl. 4, figs. 1-4, Pl. 5, figs. 1-2.
 1991 *Cyclophyllia raricorallita* Turnšek. TURNŠEK & BUSER, 225, Pl. 1, figs. 3, 5.

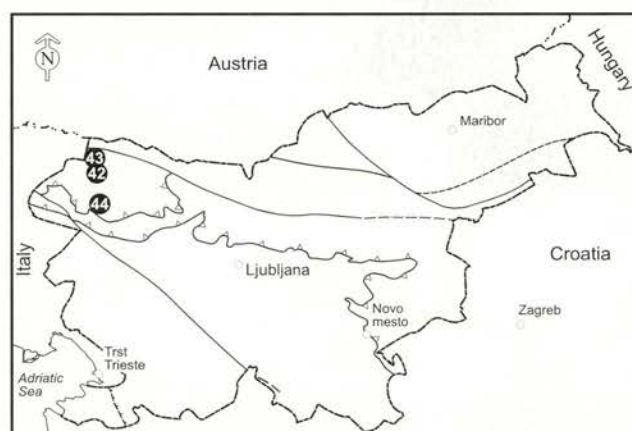
Description: Phaceloid colony with rare round corallites. Septa in 3-4-5 cycles, lateral granulae, axial trabecular prolongations. Epitheca thin, complex (primary fibrous), numerous vesicular and bent dissepiments. Microstructure trabecular. $d = 5-8$ mm, $cc = 7-12$ mm, $s = 35-60$.

Localities: **43** Razor (27/85-1, 2 holotype, 4, 5), **42** Planja (10/ 86-34, 12/86-37), **44** Rdeči rob (P-905).

Age: T: Norian-Rhaetian.

Paleoenvironment: Reef complex on the Julian Carbonate Platform and on its southern edge. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	



- A: surface from above; 27/85-2, x 1.5.
 B: transverse section; 27/85-2a, x 4.
 C: longitudinal section; 27/85-2b, x 4.
 D: detail from B, x 8.

- E: detail from C, x 8.
 F: detail from D, x 15.
 G: transverse peripheral section with wall; microstructure, medium-sized trabeculae; 27/85-2a, x 20.

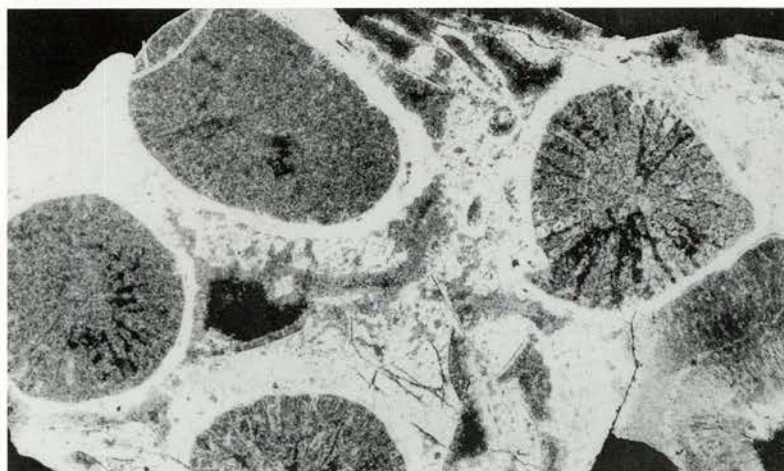


A

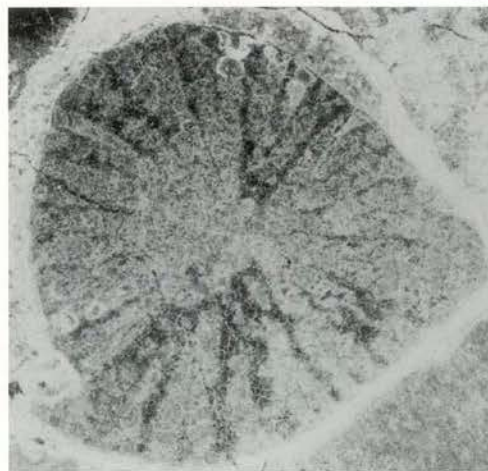


C

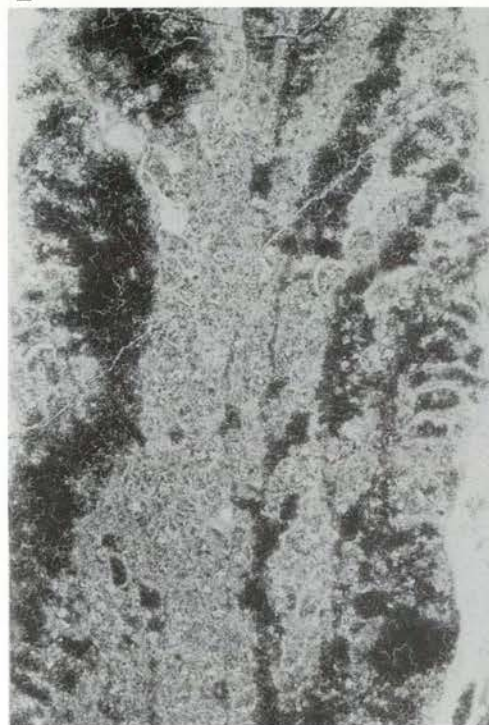
B



E



F



G



Dasmiopsis lamellicostatus (Reuss) 1854

- 1854 *Trochocyathus lamellicostatus* n. sp. REUSS, 79-80, Pl. 13, figs. 17-19.
 1930 *Dasmiopsis lamellicostatus* REUSS. OPPENHEIM, 542-546, Pl. 20, figs. 6-7, Pl. 26, fig. 3.
 1978 *Dasmiopsis lamellicostatus* (Reuss). TURNŠEK, 74, 106, Pl. 5, figs. 1-5.
 1982 *Dasmiopsis lamellicostatus* (Reuss). BEAUVAIS, I, 235-237, Pl. 20, figs. 6-8, Pl. 64, fig. 1.

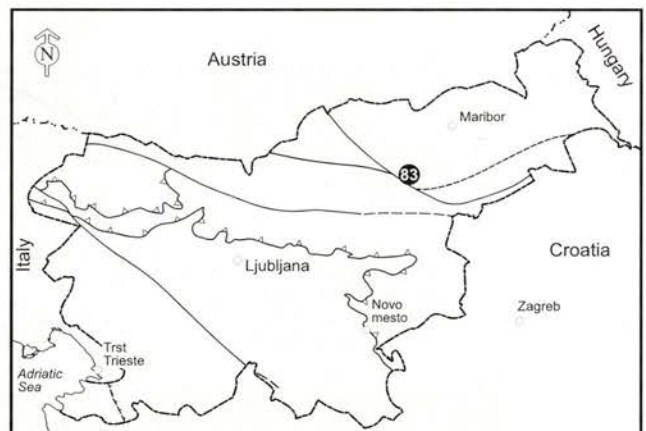
Description: Solitary trochoid corallum, pointed base, calice oval, widened towards the top. Septa compact, in 4-5 differentiated cycles, laterally strongly granulated, axially thickened. Septotheca wide, columella lamellar, free, peripheral dissepiments rare and thin. Microstructure lamellar, fibrous or trabecular(?). h = 20 mm, d = 30 x 25 mm, s = 48+s5.

Localities: 83 Stranice-quarry (78); Austria (Gosau)

Age: K: Santonian-Campanian; K: Senonian.

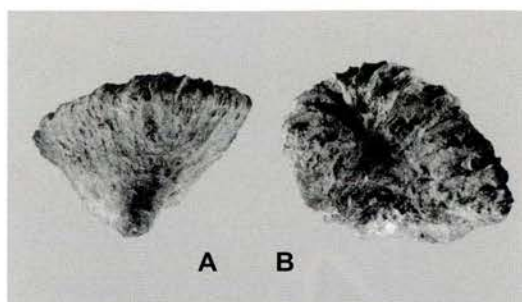
Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
	Lower		Cenomanian	
			Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: surface from side; St-78, x 1.
 B: surface from above; St-78, x 1.
 C: transverse section; St-78a, x 4.

D: the same as C, x 8.
 E: microstructure; fibres or minitrabeculae, midseptal line; St-78a, x 40.



Dermosmilia cretacica Turnšek 1974

- 1974 *Dermosmilia cretacica* n. sp. TURNŠEK & BUSER, 103-104, 118, Pl. 12, figs. 1-2, Pl. 13, figs. 1-3.
 1980 *Dermosmilia cretacica* Turnšek. KUSMICHEVA, 103-104, Pl. 38, fig. 2.
 1988 *Dermosmilia cretacica* Turnšek. KUSMICHEVA & ALIEV, 173-174, Pl. 7, fig. 3.
 1996 *Dermosmilia cretacica* Turnšek. BARON-SZABO & STEUBER, 15, Pl. 8, figs. 2-3.
 1997 *Dermosmilia cretacica* Turnšek. BARON-SZABO, 56, Pl. 4, fig. 1.

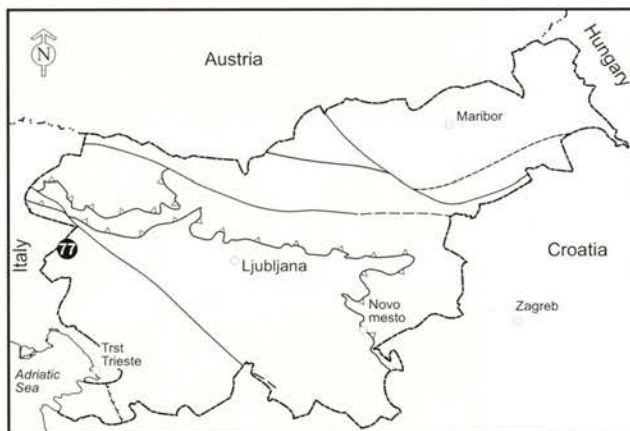
Description: Phaceloid colony with short dense corallites. Septa subcompact, thin in three incomplete cycles, laterally granulated, pennulated. Wall septothecate, thin vesicular dissepiments and rare synapticalae. Large spongy columella. Microstructure trabecular. $d = 6-13$ mm, $s = 60-90$, $cc = 8-15$ mm.

Localities: 77 Osojnica (P-517, P-523 holotype, P-530); Germany, East Carpathians, Greece, Caucasus, Azerbajdzhan.

Age: K: Barremian-Aptian; K: Barremian-Aptian.

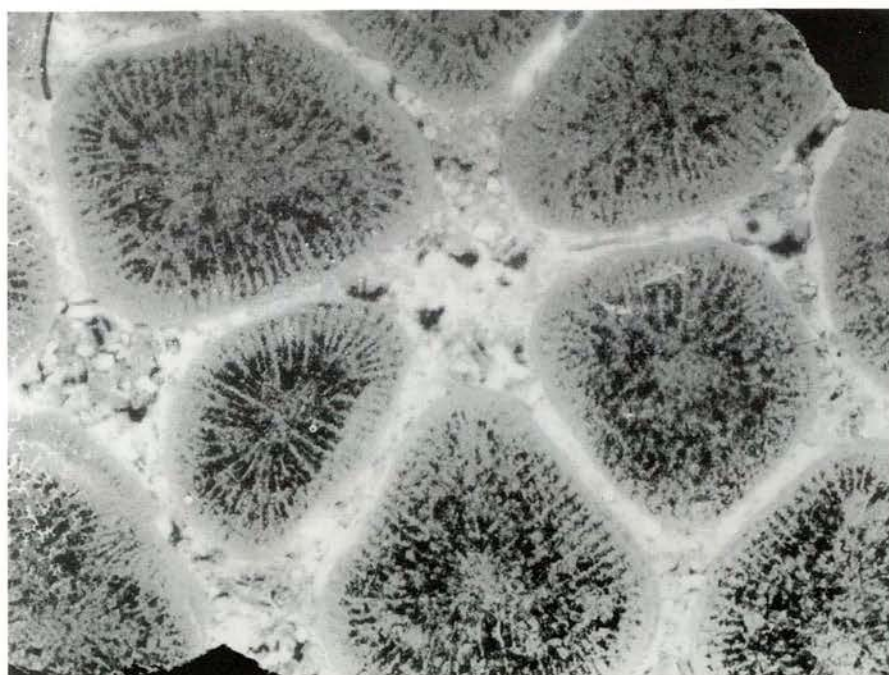
Paleoenvironment: Patch reef in the back reef area on the Dinaric Carbonate Platform. Urgonian facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: transverse section; P-523a, x 4.
 B: longitudinal section; P-523b, x 4.

C: detail from A, x 8.
 D: microstructure; thick trabeculae, P-523a, x 40.

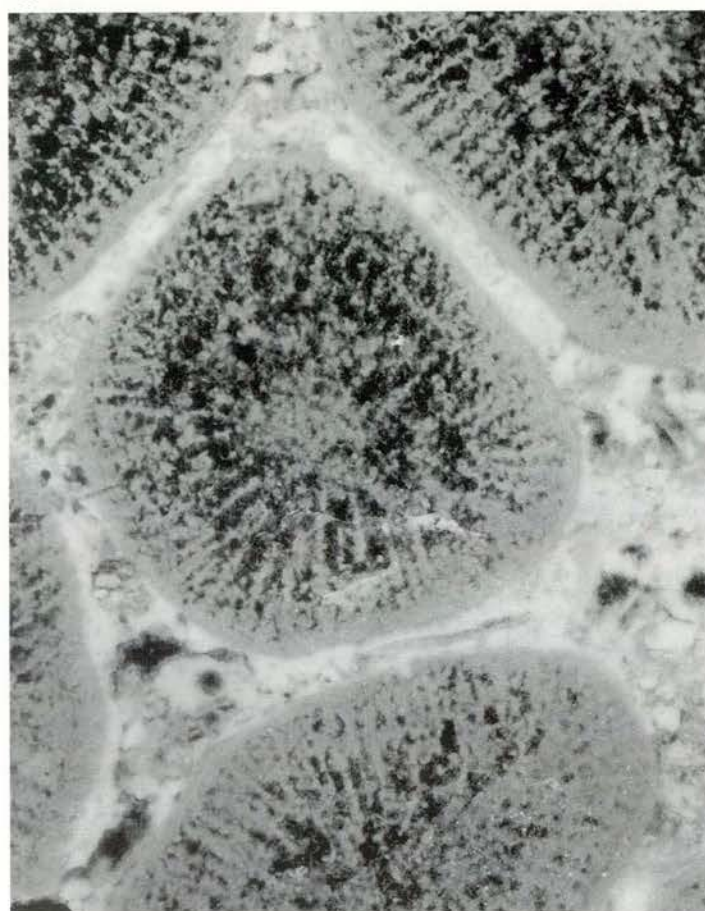


A



B

C



D



Dermosmilia fiagdonensis Starostina & Krasnov 1970

- 1970 *Dermosmilia fiagdonensis* n. sp. KRASNOV & STAROSTINA, 78, Pl. 4, fig. 4.
1972 *Dermosmilia fiagdonensis* Starostina & Krasnov. TURNŠEK, 200, Pl. 32, figs. 3-4.

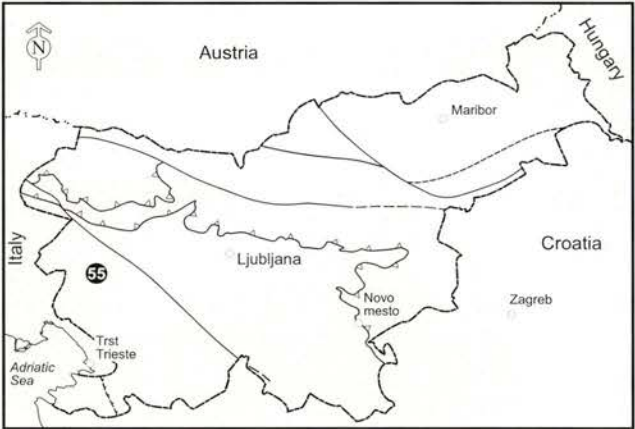
Description: Phaceloid colony with branching oval corallites, budding intercalicinal. Septa irregularly perforated, in 3 cycles, laterally granulated. Septoparatheca, spongy columella, long large dissepiments. Microstructure trabecular. d = 6-12 mm, s = 60-66.

Localities: 55 Mrzovec (P-269, P-452, P-469); Georgia and Crimea.

Age: J: Upper Oxfordian-Kimmeridgian; J: Kimmeridgian-Tithonian.

Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	

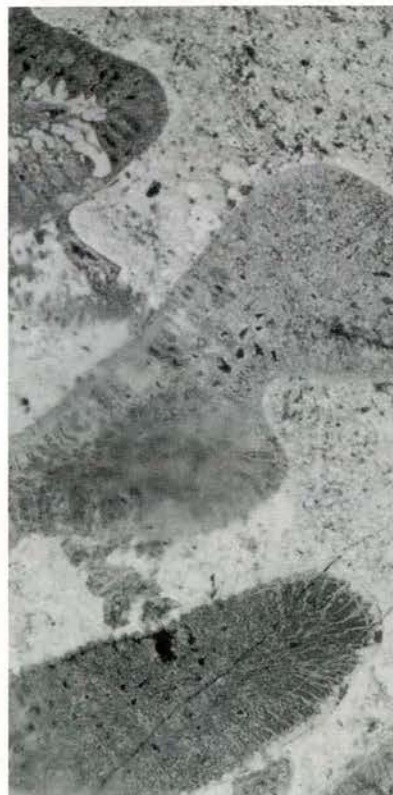
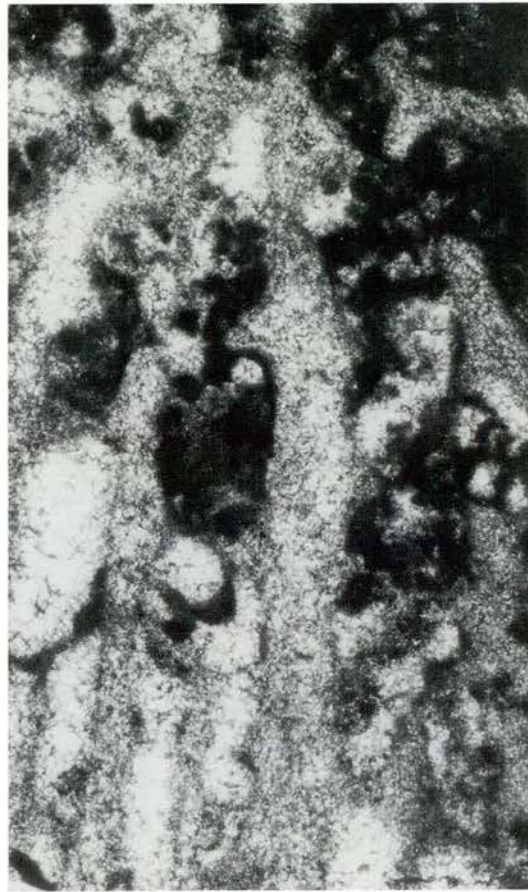
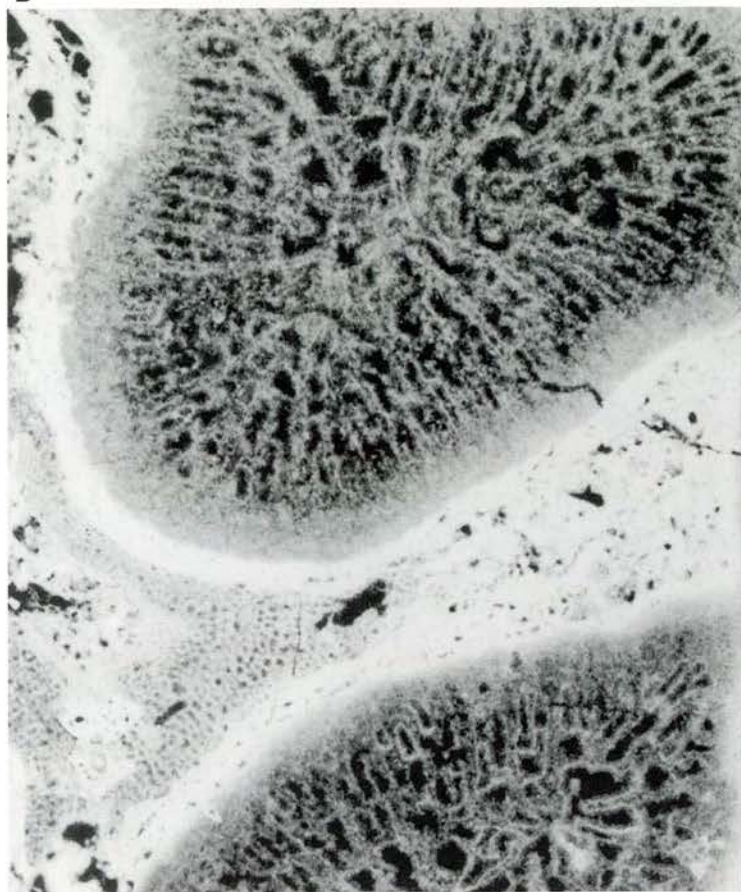


A: transverse section; P-269x, x 4.
B: longitudinal section; P-269b, x 4.
C: transverse section; P-469, x 4.

D: detail from A, x 8.
E: microstructure, medium-sized to thick trabeculae; P-269a, x 40.



A

C
EB
D

Dermosmilia laxata (Étallon) 1864

- 1864 *Thecosmilia laxata* Étallon. THURMANN & ÉTALLON, 384, Pl. 54, fig. 10.
 1884 *Dermosmilia laxata* Étallon. KOPY, 195-196, Pl. 51, figs. 1-5.
 1897 *Diplaraea laxata* Étallon. OGILVIE, 257.
 1954 *Dermosmilia laxata* (Étallon). GEYER, 144, Pl. 10, fig. 6.
 1955a *Dermosmilia laxata* (Étallon). GEYER, 202.
 1966 *Dermosmilia laxata* (Étallon). RONIEWICZ, 239-240, Pl. 23, fig. 2.
 1972 *Dermosmilia laxata* (Étallon). TURNŠEK, 199-200, Pl. 32, figs. 1-2.
 1990 *Dermosmilia laxata* (Étallon). ERRENST, 200, Pl. 12, fig. 4.
 1994 *Dermosmilia* cf. *laxata* Étallon. LIAO & XIA, 114, Pl. 19, figs. 8-9.
 1996 *Dermosmilia laxata* (Étallon). BARON-SZABO & STEUBER, 17-18, Pl. 8, fig. 4.

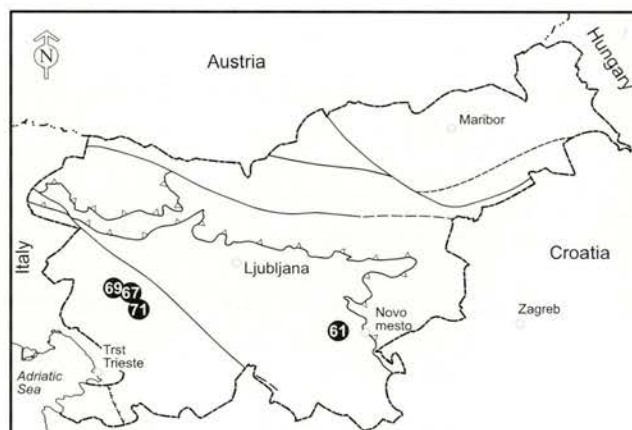
Description: Phaceloid colony with short oval corallites, budding intratentacular. Septa subcompact, porous in axial part, laterally granulated. Septoparatheca, spongy columella, large dissepiments. d = 8-13 mm, s = 70-115 (25/10 mm).

Localities: 71 Col (P-299), 67 Otlica (P-422), 61 Frata (P-347, P-348, P-349, P-350, P-351), 69 Selovec (P-970); France, Switzerland, Czech R. (Štramberk), Germany, Poland, Spain, Greece, China (Xizang).

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian-Tithonian, K: Aptian.

Paleoenvironment: Inner (sheltered) and central barrier reef on the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-348a, x 4.

B: transverse section; P-348c, x 4.

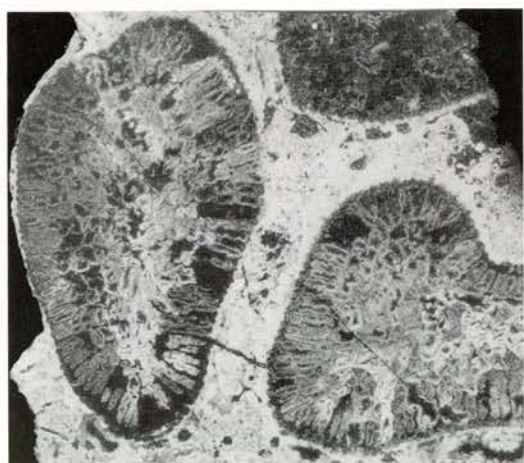
C: longitudinal section; P-348b, x 4.

D: transverse section; P-299a, x 4.

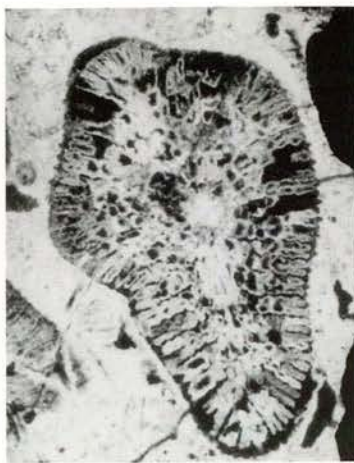
E: longitudinal section; P-299b, x 4.

F: detail from D, x 8.

G: microstructure, not preserved; P-348a, x 40.



A



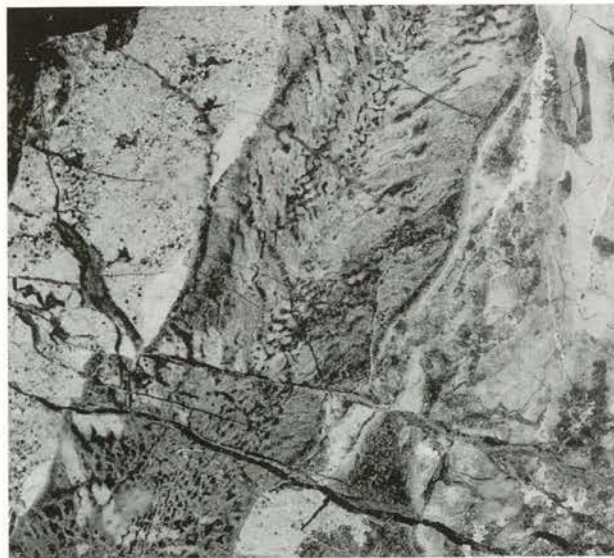
B



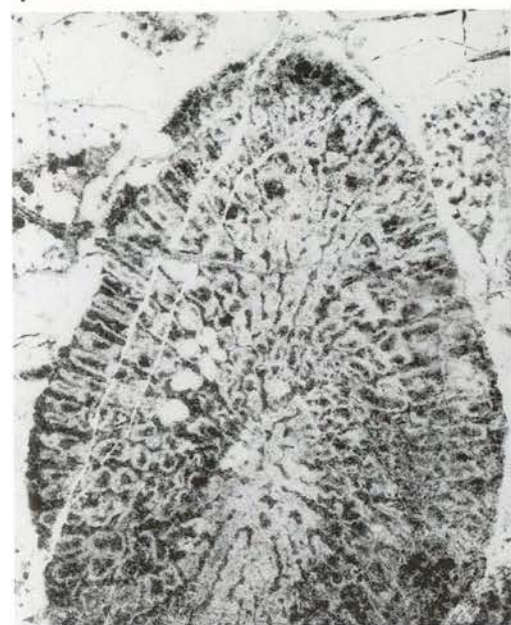
C



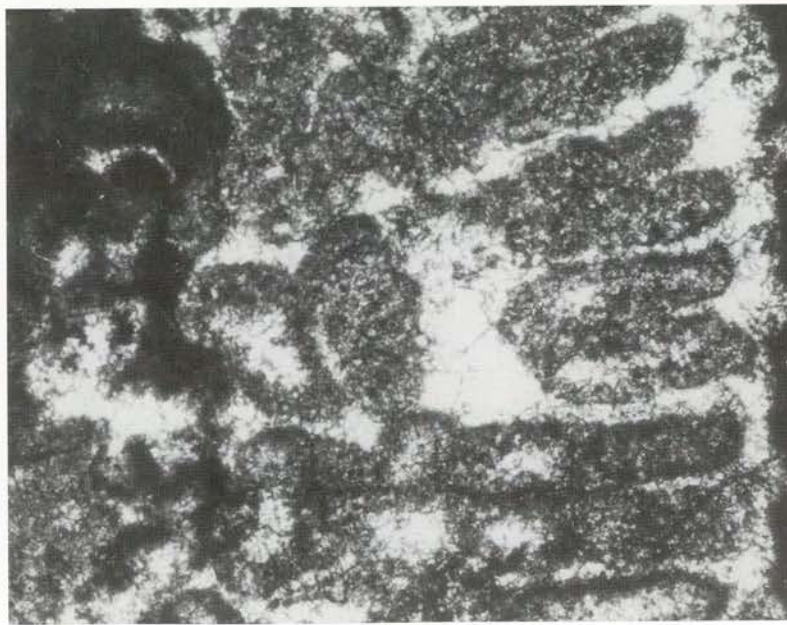
D



E



F



G

Dimorphastraea composita (Sowerby) 1835

- 1835 *Cyathophyllum compositum*. SOWERBY, n.v.
 1849 *Synastraea composita* Sowerby. MILNE EDWARDS & HAIME, 148.
 1854 *Thamnastraea composita* Sowerby. REUSS, 117, Pl. 9, figs. 1-4.
 1903 *Thamnastraea composita* Sowerby. FELIX, 206.
 1930 *Synastraea composita* Sowerby. OPPENHEIM, 152-154, Pl. 28, figs. 7-9, Pl. 33, fig. 10.
 1937 *Synastraea composita* Sowerby. BATALLER, 192.
 1982 *Dimorphastraea composita* (Sowerby). BEAUVAIS, II, 81-83, Pl. 29, fig. 4, Pl. 30, fig. 2, Pl. 46, fig. 4.
 1994 *Dimorphastraea composita* (Sowerby). TURNŠEK, 14, Pl. 9, figs. 1-4.

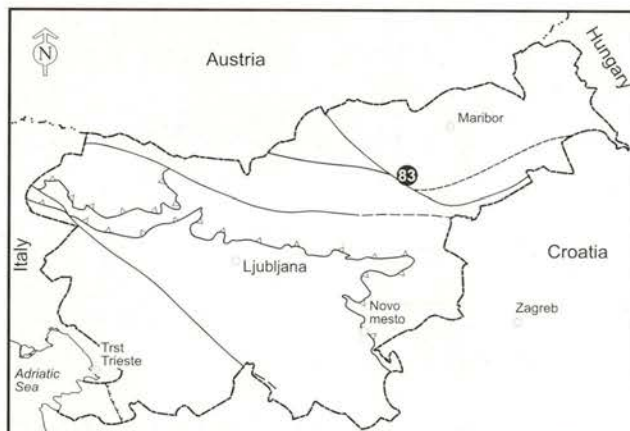
Description: Fungiform or cylindrical to bulbous colonies, corallites dimorphastraeid concentrically arranged. Septa porous, confluent, laterally granulated and pennulated. No wall, tabulate dissepiments, synapticalae numerous, columella parietal, microstructure ?minitrabecular, poorly preserved. d = (4)5-7 mm, s in thin section = 20/10 mm (counted on the surface 14-15/10 mm).

Localities: 83 Stranice-quarry (1/6, 1/9, 1/A, 2/1); Austria (Gosau), Spain (Catalonia).

Age: K: Santonian-Campanian; K: Santonian.

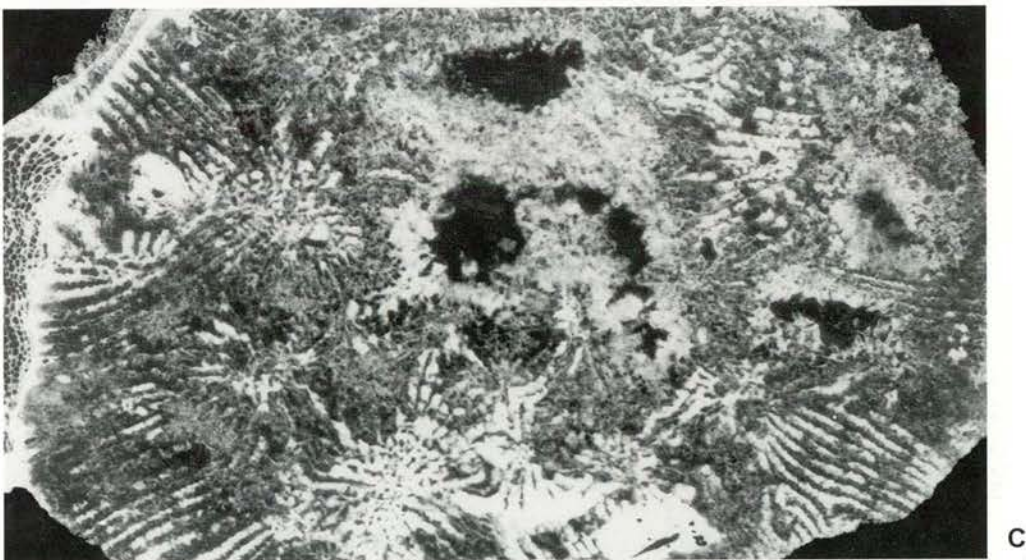
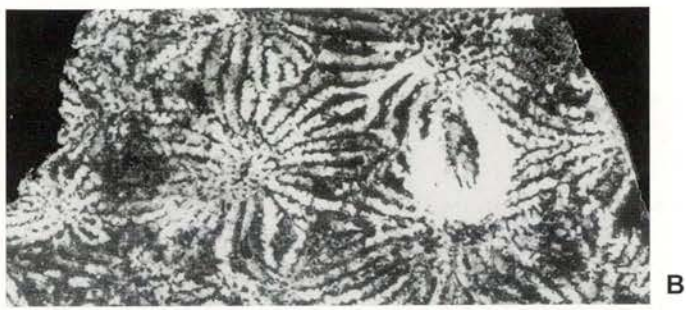
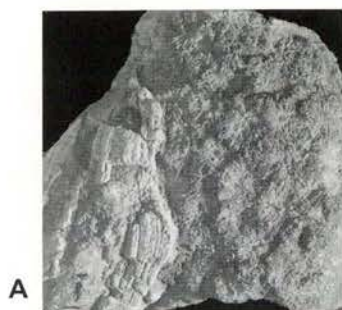
Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
	Lower		Cenomanian	
			Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: surface from above; St-1/9, x 1.
 B: transverse section; St-1/9a, x 4.

C: radial section; P-1/9b, x 4.
 D: detail from B, x 8.



Dimorphastraea leptophyllia (Felix) 1903

- 1903 *Thamnastraea leptophyllia* nov. sp. FELIX, 208-209, Pl. 22, fig. 3.
 1930 *Synastraea leptophyllia* Reuss. 171-173, Pl. 24, figs. 1-1c.
 1930 *Dymorphastraea leptophyllia* Felix. OPPENHEIM, 182-183, Pl. 34, figs. 3-3a.
 1982 *Dimorphastraea leptophyllia* (Felix). BEAUVAIS, II, 83-84, Pl. 30, fig. 4, Pl. 71, fig. 3.
 1994 *Dimorphastraea leptophyllia* (Felix). TURNŠEK, 13, Pl. 8, figs. 1-5.

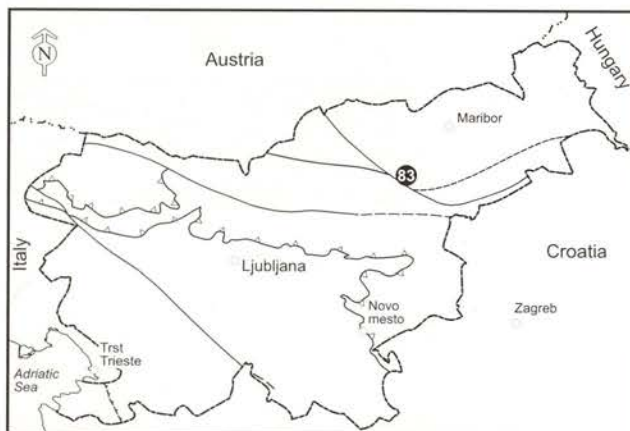
Description: Fungiform to cylindrical colony, concentric thamnasterid corallites, budding circumoral. Septa porous, confluent, laterally granulated, ?pennulated. No wall, dissepiments thin, tabulate, rare synapticalae, parietal columella, microstructure ?mini trabecular, poorly preserved. d = 3-4(5) mm, s = 26-30 (25-30/10 mm).

Localities: 83 Stranice-quarry (1/4, 1/5, 1/7, 1/15, 1/16, 3/3); Austria (Gosau), France (Corbières).

Age: K: Santonian-Campanian; K: Coniacian-Santonian.

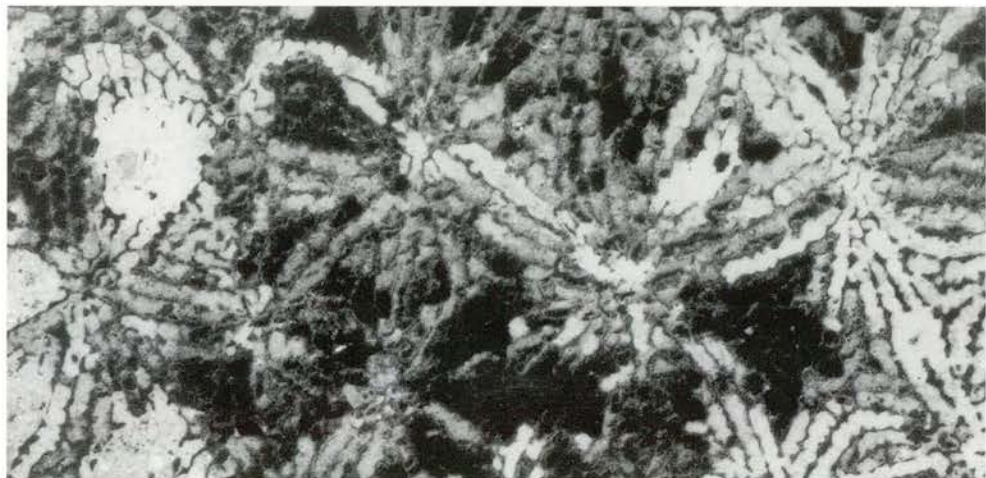
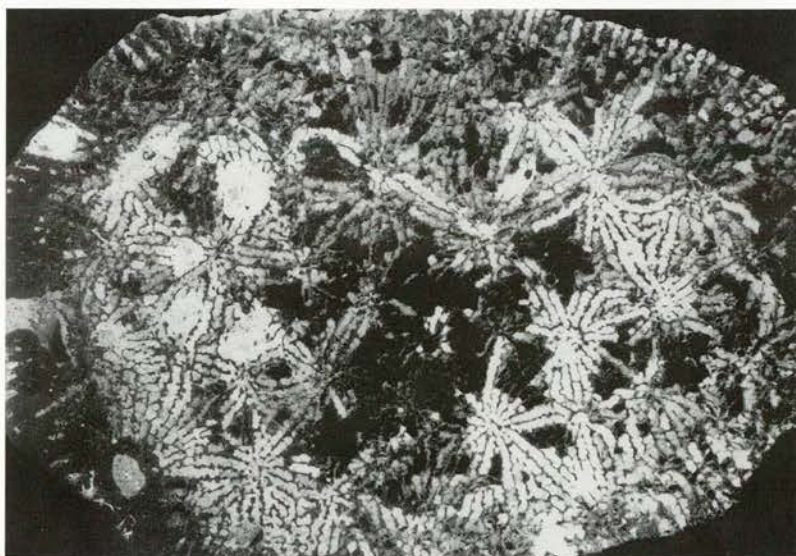
Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: surface from peripheral side; St-1/16, x 1.
 B: detail from A, x 4.

C: radial section; St-1/16a, x 4.
 D: detail from C, x 8.



Diplaraea croatica Turnšek 1975

1975 *Diplaraea croatica* n. sp. TURNŠEK, 14, Pl. 7, figs. 1-3, Pl. 8, figs. 1-2.

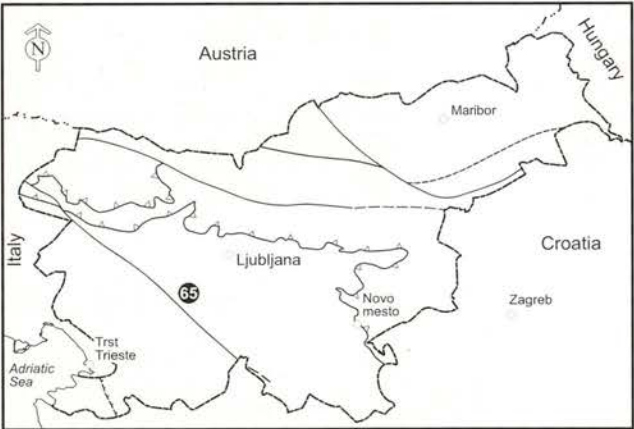
Description: Phaceloid colony with large cylindrical corallites. Septa subcompact, in 5-6 cycles, thickened in periphery, axially prolonged in paliform lobes, laterally rarely granulated. Paratheca, papillose collumela, tabulate dissepiments, rare synapticalae, microstructure recrystallized trabecular. d = ca 30 mm, s = ca 150 (4/2 mm)

Localities: 65 Logaška planota (P-939); Croatia (Zlobin).

Age: J: Upper Oxfordian-Kimmeridgian; Upper Jurassic.

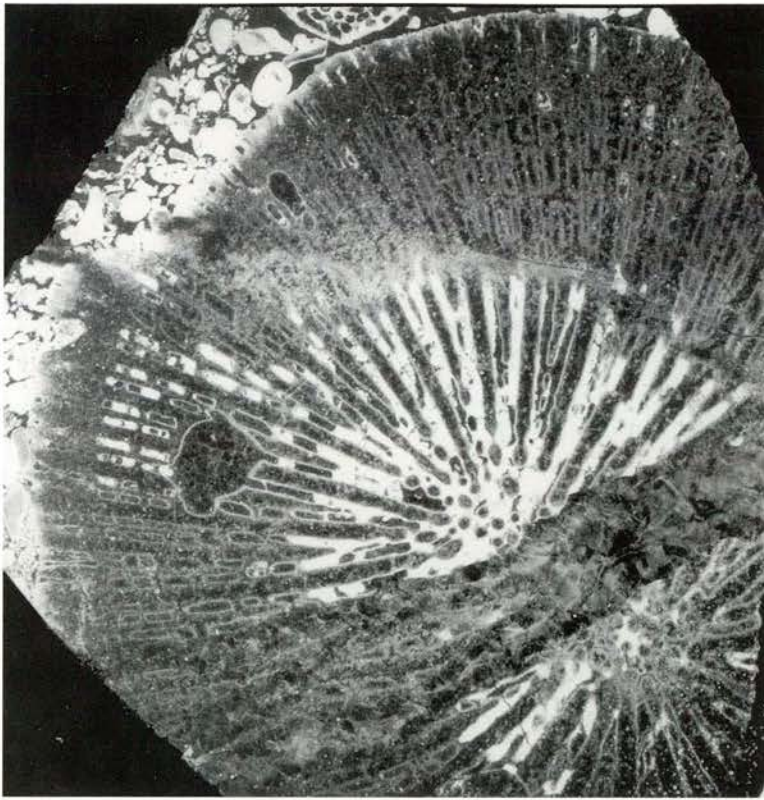
Paleoenvironment: Inner barrier reef of the Dinaric Carbonate Platform.

JURASSIC	Malm	<i>Tithonian</i>	
		<i>Kimmeridgian</i>	
		<i>Oxfordian</i>	
	Dogger	<i>Callovian</i>	
		<i>Bathonian</i>	
		<i>Bajocian</i>	
		<i>Aalenian</i>	
		<i>Toarcian</i>	
	Lias	<i>Pliensbachian</i>	
		<i>Sinemurian</i>	
		<i>Hettangian</i>	



A: transverse section; P-939a, x 5.
B: detail from A, x 8.

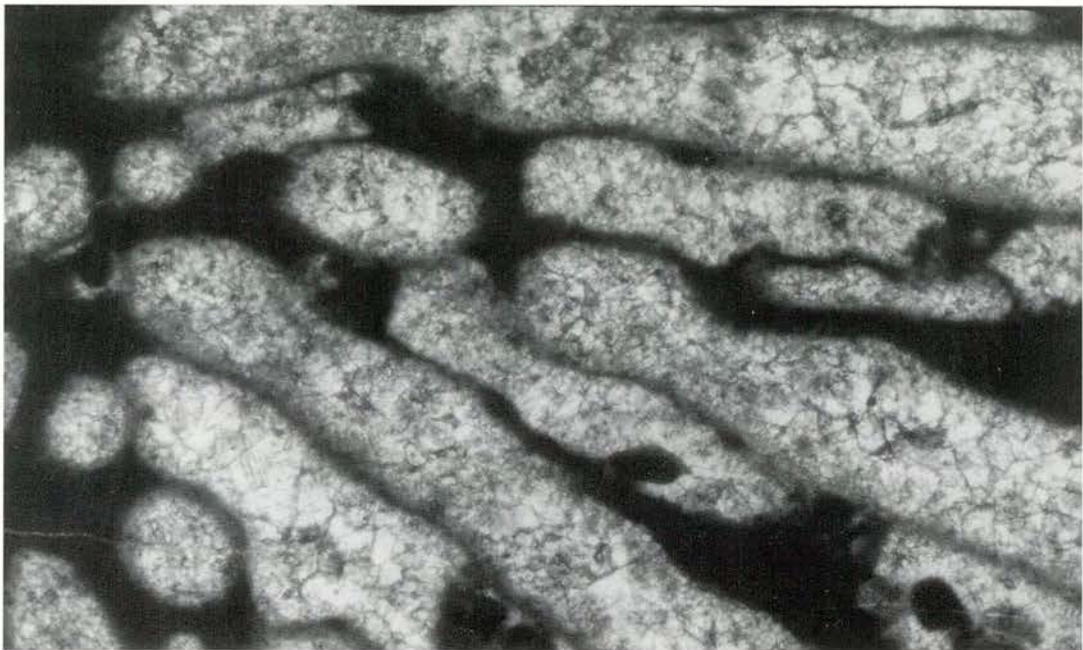
C: microstructure, medium-sized to thick trabeculae; P-939a, x 40.



A



B



C

Diplaraea elegans (Milaschewitsch) 1876

- 1876 *Haplaraea elegans* Milaschewitsch. MILASCHEWITSCH, 229, Pl. 51, fig. 2.
 1954 *Diplaraea elegans* (Milaschewitsch). GEYER, 171, Pl. 14, fig. 3.
 1972 *Diplaraea elegans* (Milaschewitsch). TURNŠEK, 194, Pl. 33, fig. 1.

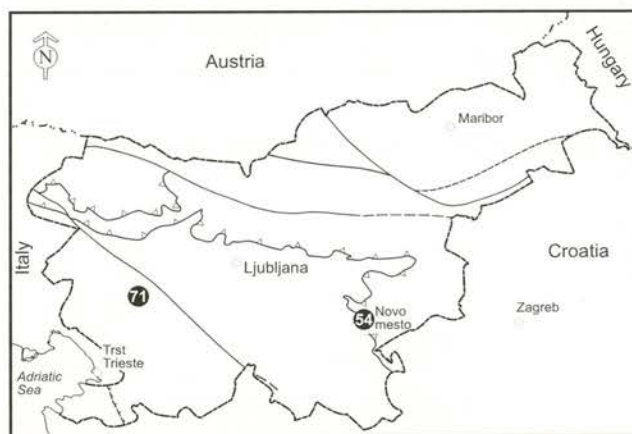
Description: Phaceloid colony with long round corallites. budding ?extracalicular. Septa irregularly perforated, straight, laterally granulated, in several cycles. Synapticulotheca, parietal columella, tabulate dissepiments. d = 25x20 mm, s = 90 (17-19/10 mm).

Localities: 71 Col (P-303, P-307A), 54 Mačkovec (P-272); Germany, Spain.

Age: J: Upper Oxfordian-Kimmeridgian; J: Kimmeridgian.

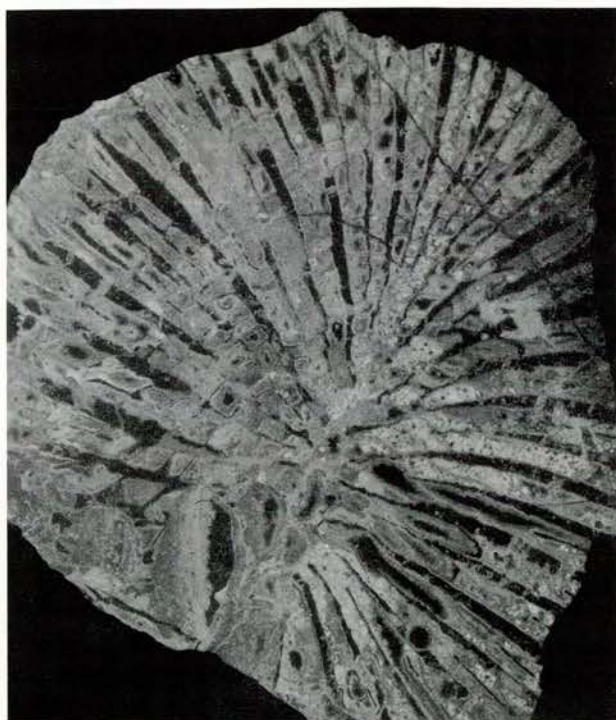
Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform, reef limestone, and patch reef in the back reef area.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-303a, x 4.
 B: longitudinal section; P-303b, x 4.
 C: transverse section; P-307a, x 4.

D: detail from C, x 8.
 E: microstructure, medium-sized trabeculae; P-307a, x 40.



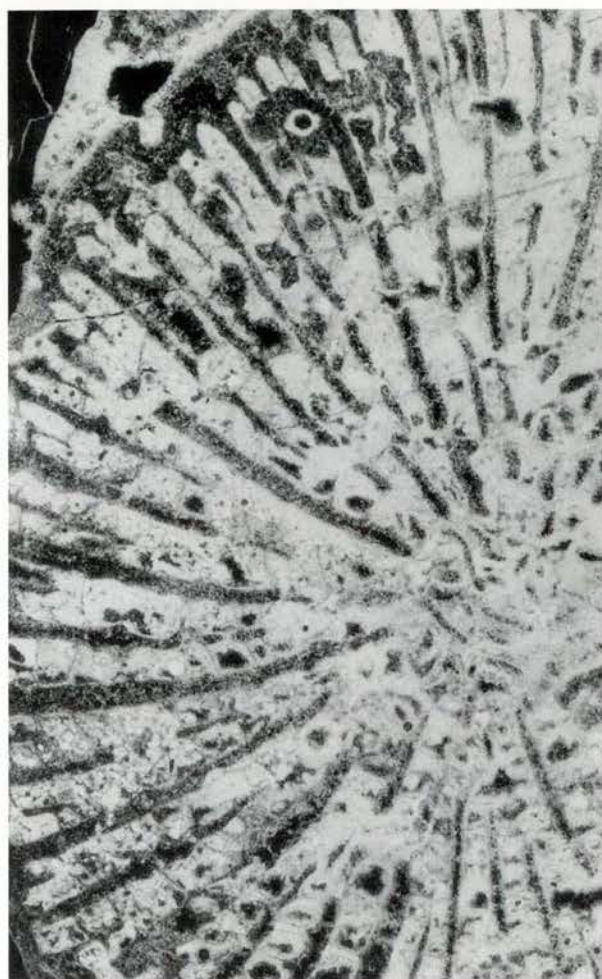
A



B



C



D



E

Diplogyra lamellosa eguchii Morycowa 1971

- 1971 *Diplogyra lamellosa eguchii* n. subsp. MORYCOWA, 81-83, Pl. 15, fig. 1, Pl. 23, fig. 2, Textfig. 25.
 1976 *Diplogyra lamellosa eguchii* Morycowa. TURNŠEK & BUSER, 54-55, 78, Pl. 11, figs. 1-3.
 1997 *Diplogyra lamellosa eguchii* Morycowa. BARON-SZABO & FERNANDEZ-MENDIOLA, 45, Figs. 4A, B.

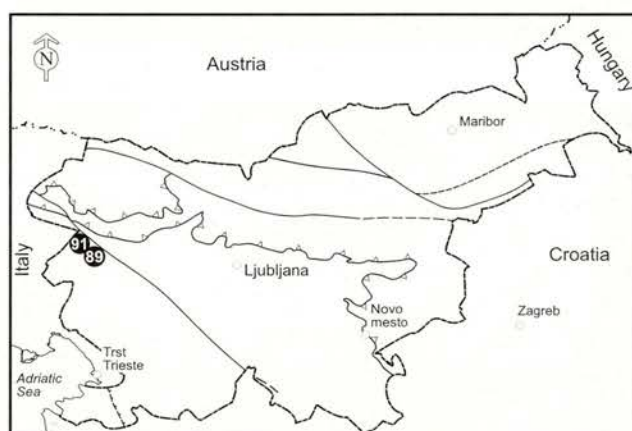
Description: Meandroid colony with corallites in prolonged series without clear centres. Septa in two cycles. Double septothecate walls with ambulacres, tabulate and long dissepiments, columella not clear, microstructure trabecular. $d \text{ ser} = (2)2.5-3.5(4)$, density of septa = $3/2 \text{ mm}$, density of dissepiments = $5-6/2 \text{ mm}$.

Localities: 89 Kanalski Lom (P-550, P-552, P-554, P-682), 91 Mešnjač (P-689); Romania.

Age: K: reworked in Senonian breccia; K: Barremian-Aptian.

Paleoenvironment: Outer slope of the Dinaric Carbonate Platform. Reef limestone resedimented in breccia.

CRETACEOUS	Upper	Senonian	Maastrichtian
			Campanian
			Santonian
			Coniacian
		Lower	Turonian
			Cenomanian
	Albian		
	Aptian		
	Barremian		
	Hauterivian		
	Valanginian		
	Berriasian		



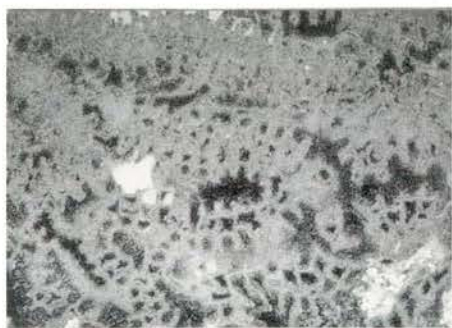
A: transverse section; P-682a, x 4.

B: oblique transverse section; P-552c, x 4.

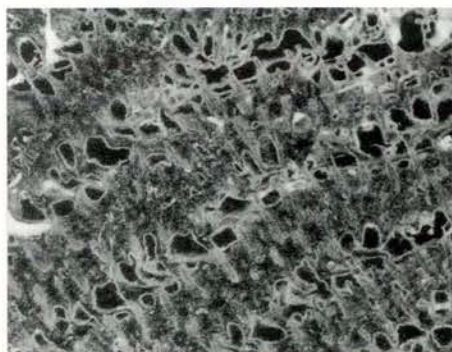
C: longitudinal section; P-552b, x 4.

D: the same as A, x 8.

E: microstructure, minitraculae, midseptal line; P-682a, x 40.



A



B



C



D



E

Distichophyllia gosaviensis (Frech) 1890

- 1890 *Montlivaltia gosaviensis* nov. sp. FRECH, 41, Pl. 11, fig. 7.
 1975 *Reimaniphyllia gosaviensis* (Frech). MELNIKOVA, 87-89, Pl. 15, figs. 1-2.
 1987 *Distichophyllia gosaviensis* (Frech). TURNŠEK & RAMOVŠ, 35-36, Pl. 4, figs. 5-6.
 pars 1989 *Distichophyllia norica* (Frech). RONIEWICZ, 39-41.

Description: Solitary cylindrical corallum, round calice. Septa in 5-6 cycles, laterally granulated. Parathecæ, tabulate and vesicular dissepiments, no columella, microstructure trabecular. $d = 15-22$ mm, $s = ca$ 96.

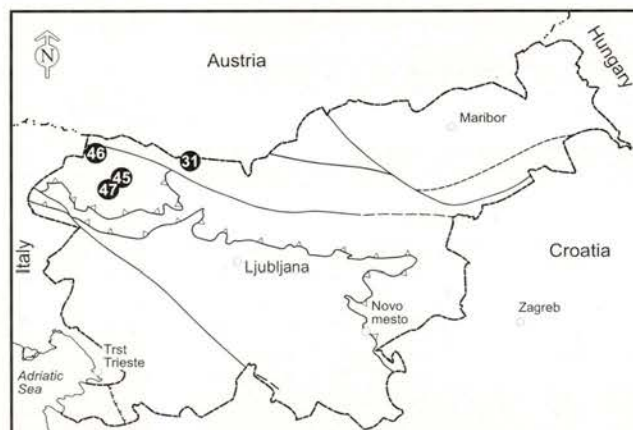
Remarks: RONIEWICZ (1989) considers *D. gosaviensis* as a synonymus of *D. norica*. I recognize both species because *D. norica* is much larger and has more septa.

Localities: 45 Rušnata Mlinarica (18/85), 47 Tominškova pot (5/85), 46 Šplevta (25/85-a1, A3), 31 Begunjsčica (P-977, P-978, P-979, P-980); Austria, Pamir.

Age: T: Norian-Rhaetian; T: Norian-Rhaetian.

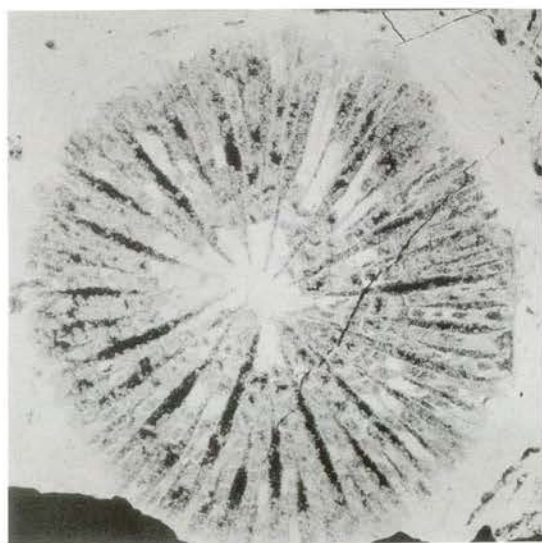
Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	

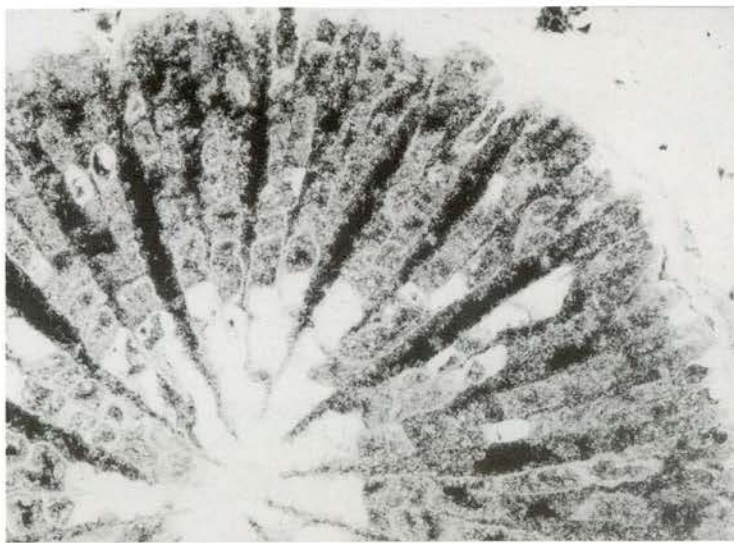


A: transverse section; 18/85a, x 4.
 B: detail from A, x 8.

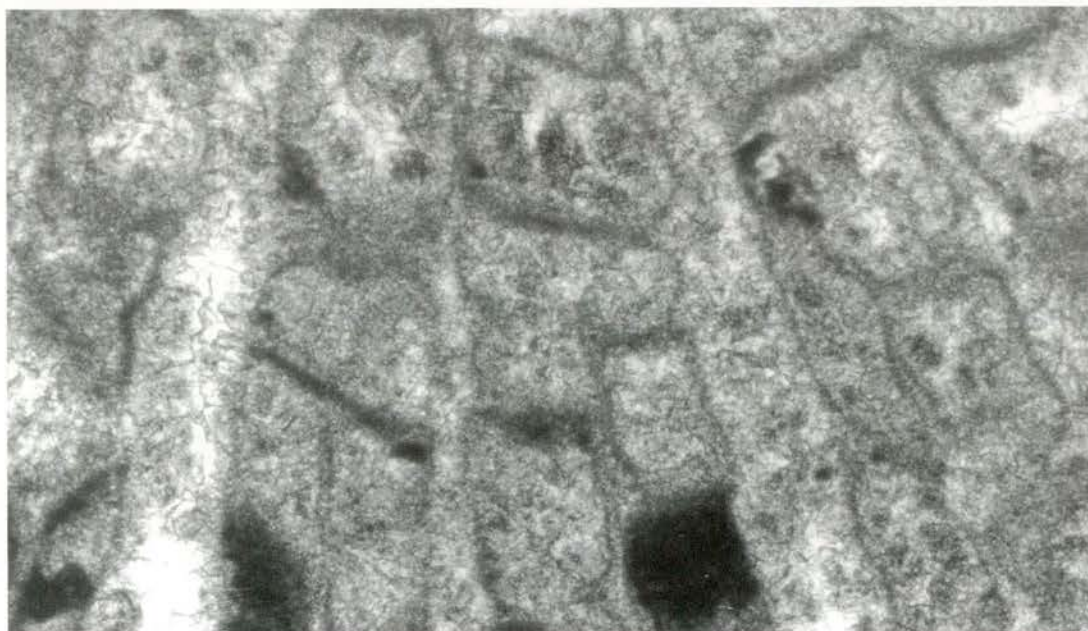
C: microstructure, mini to medium-sized trabeculae; 18/85a, x 40.



A



B



C

Distichophyllia norica (Frech) 1890

- 1890 *Montlivaltia norica* nov. nom. FRECH, 39-40, Pl. 3, fig. 9, Pl. 10, figs. 1-5, Pl. 13, figs. 1-7, Pl. 18, fig. 17.
- 1966a *Montlivaltia norica* Frech. KOLOSVÁRY, 182.
- 1966b *Montlivaltia norica* Frech. KOLOSVÁRY, 127.
- 1974 *Distichophyllia* (*Montlivaltia*) *norica* (Frech). CUIF, 304-318, 398, Textfigs. 2-6.
- 1975 *Reimaniphyllia norica* (Frech). MELNIKOVA, 87.
- 1977 *Distichophyllia norica*. *Montlivaltia norica* Frech. CUIF, 19, 39, Textfig. 4, Pl. 3, figs. 4-8, Pl. 4, figs. 5-7, Pl. 5, fig. 3.
- 1979 *Montlivaltia norica* Frech. SCHÄFER, 44.
- 1979 "*Montlivaltia*" *norica* Frech. STANLEY, 12, 24, 28, 32, 38.
- 1979 *Distichophyllia* cf. *norica* (Frech). MONTANARO GALLITELLI et al., 149, Pl. 4, figs. 9ab.
- 1980 *Montlivaltia norica* Frech. SENOWBARI-DARYAN, 39, Pl. 4, fig. 1.
- 1980 *Montlivaltia norica* Frech. KRISTAN-TOLLMANN et al., 173, Pl. 5, fig. 6, Pl. 6, figs. 1,3.
- 1980 *Distichophyllia norica* (Frech). CUIF, 365, Textfig. 3.
- 1981 *Montlivaltia norica* Frech. SADATI, 199.
- 1989 *Distichophyllia norica* (Frech). RONIEWICZ, 39-41, Pl. 6, figs. 2-4.
- 1989 *Distichophyllia norica* (Frech). STANLEY & WHALEN, 806-807, Figs. 5/4-5.
- 1991 *Distichophyllia norica* (Frech). TURNŠEK & BUSER, 227, Pl. 2, figs. 4-5.
- 1994 *Distichophyllia norica* (Frech). STANLEY, 88, Pl. 4, figs. 3-4.
- ?1994 *Distichophyllia norica* (Frech). LIAO & XIA, 54, Pl. 2, figs. 8-12, Pl. 3, fig. 8.
- 1996 *Distichophyllia norica* (Frech). BERNECKER, 54.

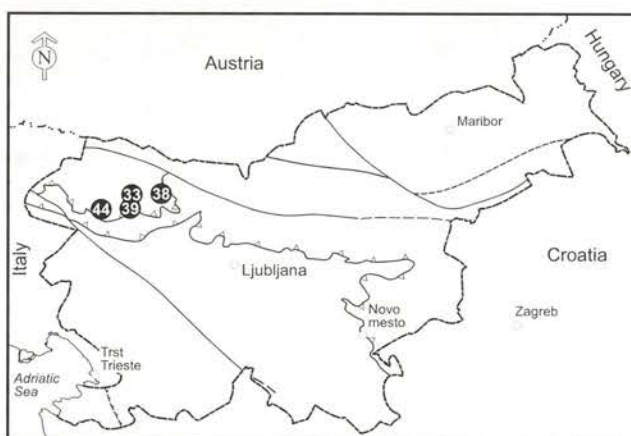
Description: Solitary cylindrical corallum, oval calice. septa in 5-6 cycles, first three very thick, laterally granulated. Paratheca, tabulate and long dissepiments, microstructure trabecular. d = 30-50 mm, s = 120-150.

Localities: **33** Bohinj-Bitnje (P-868, P-869, P-870, P-892), **39** Kobla (P-1037), **44** Rdeči rob (P-915), **38** Jelovica (P-995, P-996); Austria, Hungary, Czech R., Oman, Pamir, North America, Peru, Japan, Timor.

Age: T: Norian-Rhaetian; T: Norian and/or Rhaetian

Paleoenvironment: Reef body at the southern edge of the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle	Ladinian		
		Anisian		
	Lower	Scythian		



A: surface from above; P-869, x2.
 B: transverse section; P-869a, x 4.
 C: transverse section; P-996a, x 4.

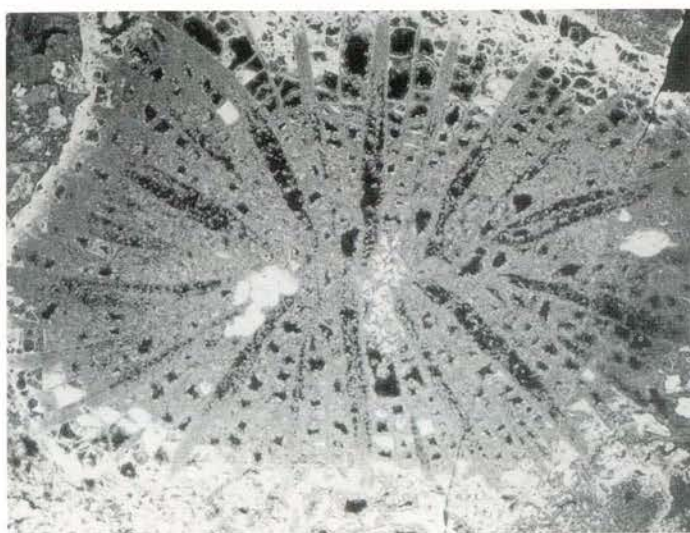
D: microstructure, ?minitrabeculae with midseptal line; P-868a, x 40.



A



C



B



D

Donacosmilia corallina Fromentel 1861

- 1861 *Donacosmilia corallina*. FROMENTEL, 146.
 1957 *Donacosmilia corallina* Fromentel. ALLOITEAU, 365-366, Pl. 14, fig. 4, Pl. 15, fig. 8, Pl. 17, fig. 2.
 1964 *Donacosmilia corallina* Fromentel. BEAUVAIS, 203.
 1972 *Donacosmilia corallina* Fromentel. TURNŠEK, 189-190, Pl. 27, fig. 1.
 1985 *Donacosmilia corallina* Fromentel. ROSENDAHL, 53, Pl. 6, fig. 2.
 1994 *Donacosmilia corallina* Fromentel. LIAO & XIA, 77, Pl. 8, figs. 1-2.

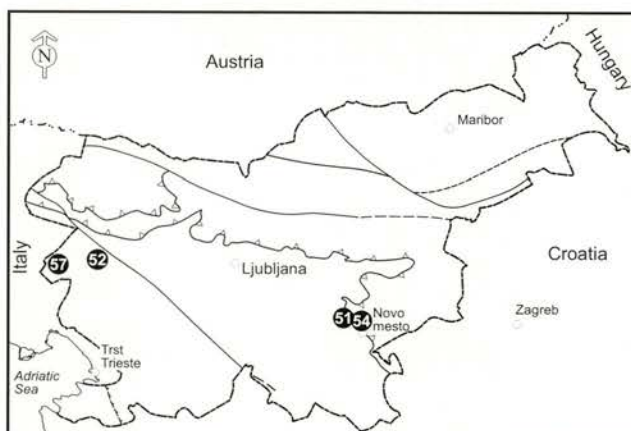
Description: Phaceloid colony with long round corallites, budding by "Taschenknospung". Septa bilateral, main septum slightly noticed, lateral granulae. Septoparatheca, tabulate and long bent dissepiments, no columella. Microstructure ?trabecular with median line. d = 9-18 mm, s = 26-30.

Localities: **51** Ivanja vas (P-315, P-322), **54** Mačkovec (P-271), **52** Kal nad Kanalom (P-636), **57** Plave (P-637); France, Portugal, China (Xizang).

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian.

Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-636a, x 4.

B: transverse section; P-315a, x 4.

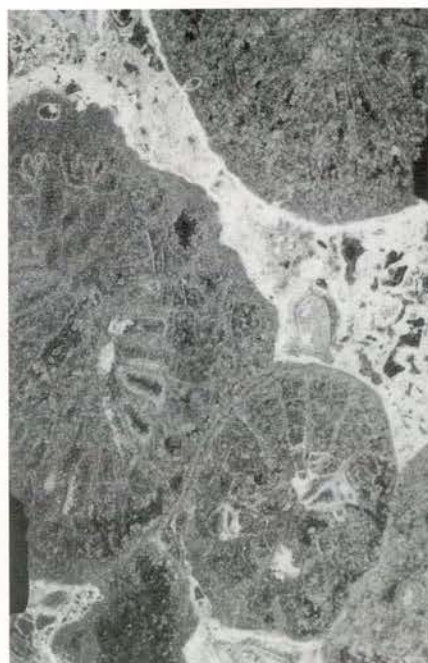
C: transverse section; P-271a, x 4.

D: longitudinal section; P-271b, x 4.

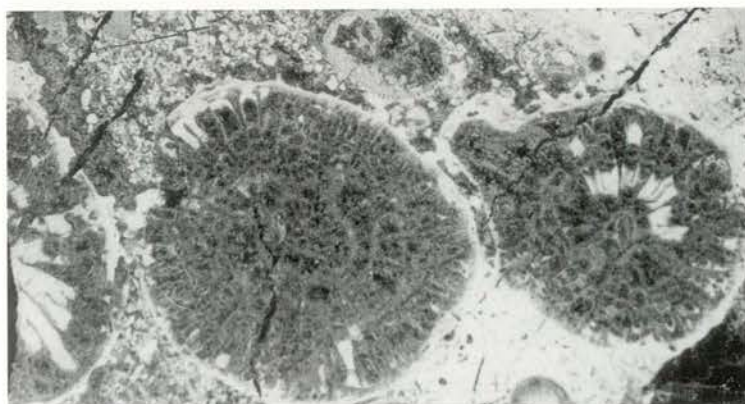
E: microstructure, ?fibres or minitraculae with midseptal line; P-363a, x 40.



A



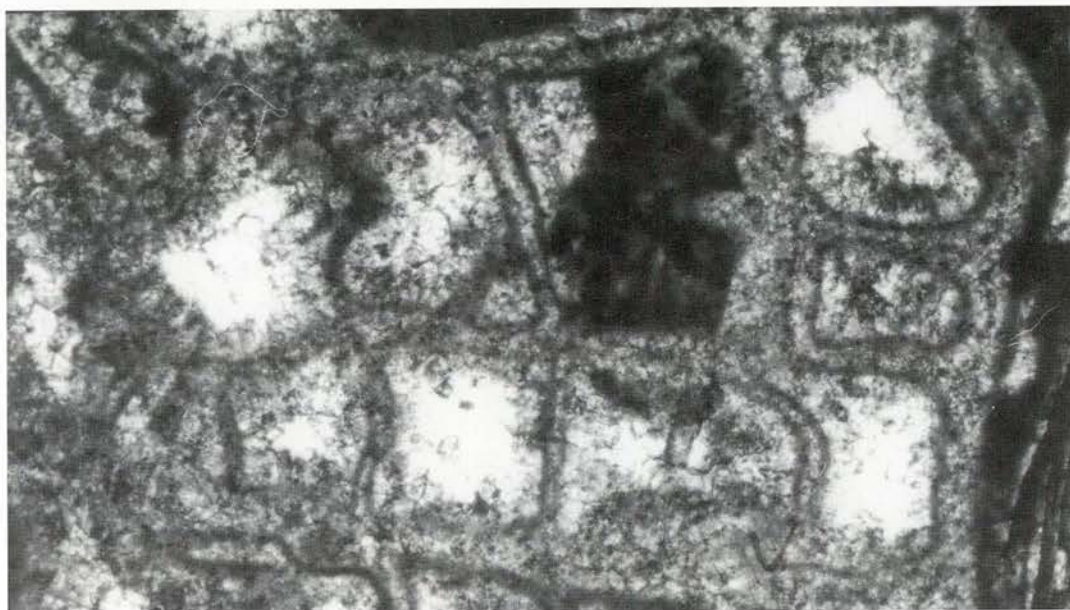
B



C



D



E

Donacosmilia etalloni (Koby) 1888

- 1888 *Pseudothecosmilia étalloni* Koby. Koby, 428-429, Pl. 114, figs. 1-2.
 1897 *Pseudothecosmilia étalloni* Koby. OGILVIE, 112, Pl. 12, fig. 23.
 1955a *Donacosmilia étalloni* (Koby). GEYER, 190.
 1972 *Donacosmilia étalloni* (Koby). TURNŠEK, 190, Pl. 27, figs. 2-3.
 1974 *Donacosmilia* sp. TURNŠEK & BUSER, 100-101, Pl. 10, figs. 3-4.

Description: Phaceloic colony with long circular corallites, budding with »Taschenknospung«. Septa bilateral with slightly larger main septum, another septa in 3-4 cycles. Septoparatheca, numerous long bent dissepiments. Microstructure poorly preserved (trabecular with median segmented line). d = 10-13 mm, s = 29-33.

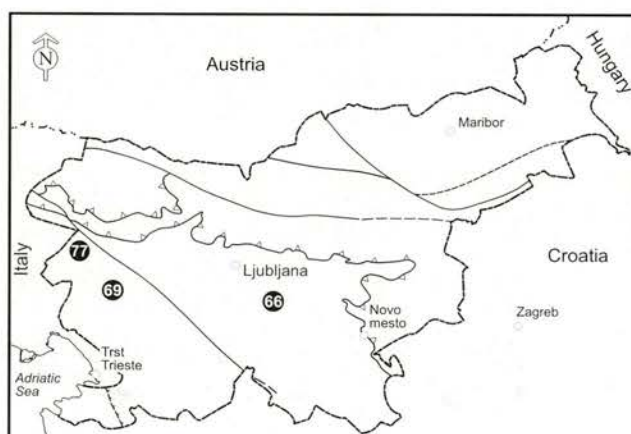
Remarks: Specimens of Ogilvie (not Koby) ELIÁŠOVÁ (1974) revised to her new species *Intersmilia malevola*. Our specimens match those of Koby. *Donacosmilia* sp. found on Osojnica is similar to *D. etalloni*.

Localities: 69 Selovec (P-481), 66 Luče (P-382); 77 Osojnica (P-519); Switzerland, Czech R. (Štramberk).

Age: J: Upper Oxfordian-Kimmeridgian; J: Upper Oxfordian-?Tithonian.

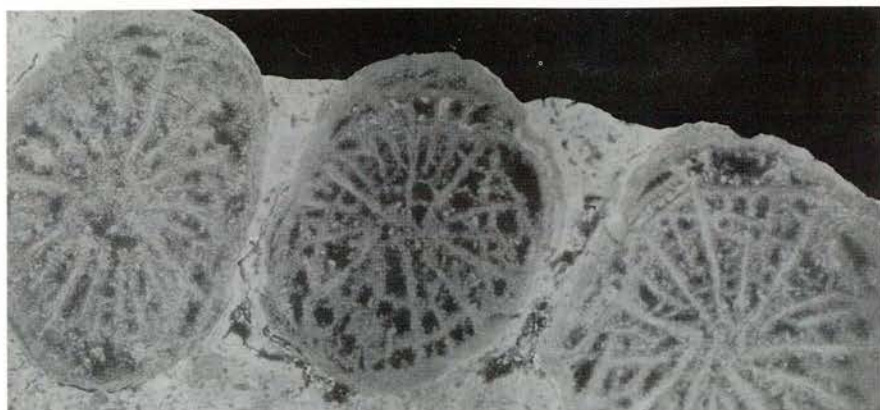
Paleoenvironment: Central and inner (sheltered) barrier reef on the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-481a, x 4.
 B: longitudinal section; P-481b, x 4.
 C: longitudinal section; P-519b, x 4.

D: transverse section; P-519a, x 4.
 E: detail from A, x 8.
 F: microstructure, ?fibres, poorly preserved; P-481a, x 40.

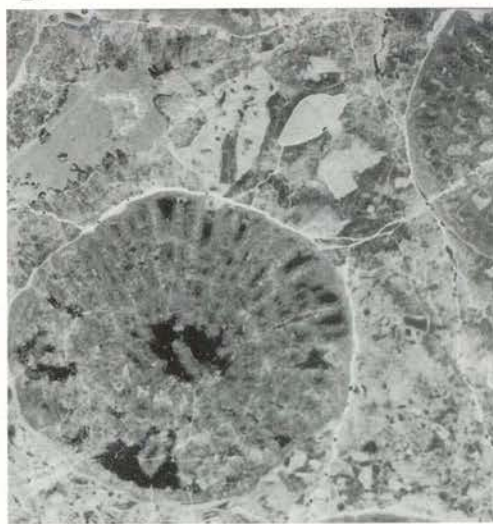


A

C

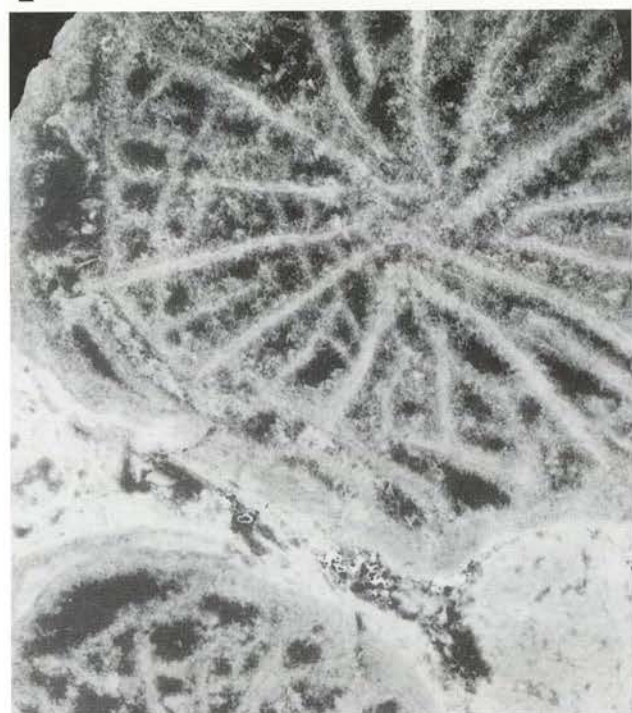
B

D



E

F



Elysastraea juliana Turnšek 1987

1987 *Elysastraea juliana* n. sp. TURNŠEK & RAMOVŠ, 36, Pl. 5, figs. 1-4, Pl. 6, figs. 1-2.

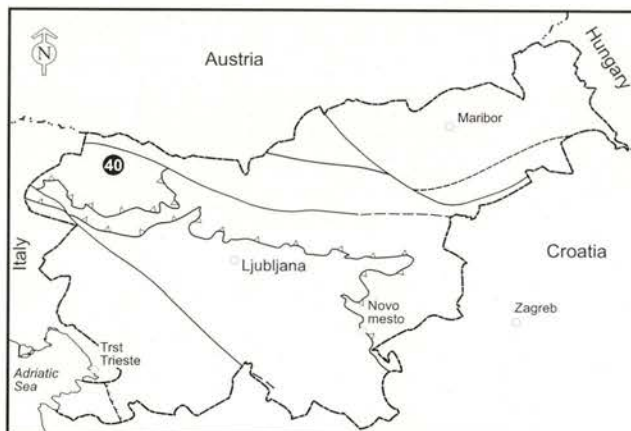
Description: Cerioid-phaceloid-meandroid colony, corallites mono to polycentric, budding by division along two opposite septa. Septa in 2-4 cycles, differ in thickness, laterally sharp granulations. Thick septotheca and incomplete epitheca, thin tabulate dissepiments, microstructure not preserved. d = 3-4 mm, s = 20-30.

Locality: 40 Kopice (61/81-1 holotype, 2).

Age: T: Lower Norian.

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper		<i>Rhaetian</i>	
			<i>Norian</i>	
		<i>Carnian</i>	<i>Tuvalian</i>	
			<i>Julian</i>	
			<i>Cordevolian</i>	
	Middle	<i>Ladinian</i>		
		<i>Anisian</i>		
	Lower	<i>Scythian</i>		

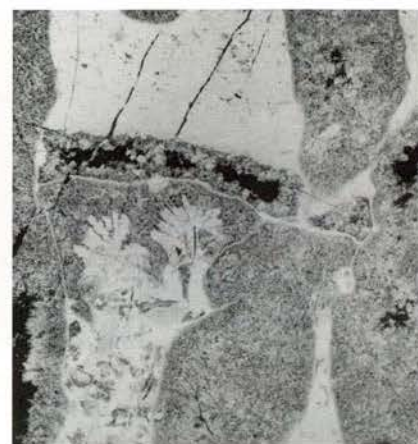


A: transverse section; 61/81-1a, x 4.
B: longitudinal section; 61/81-1b, x 4.
C: detail from A, x 8.

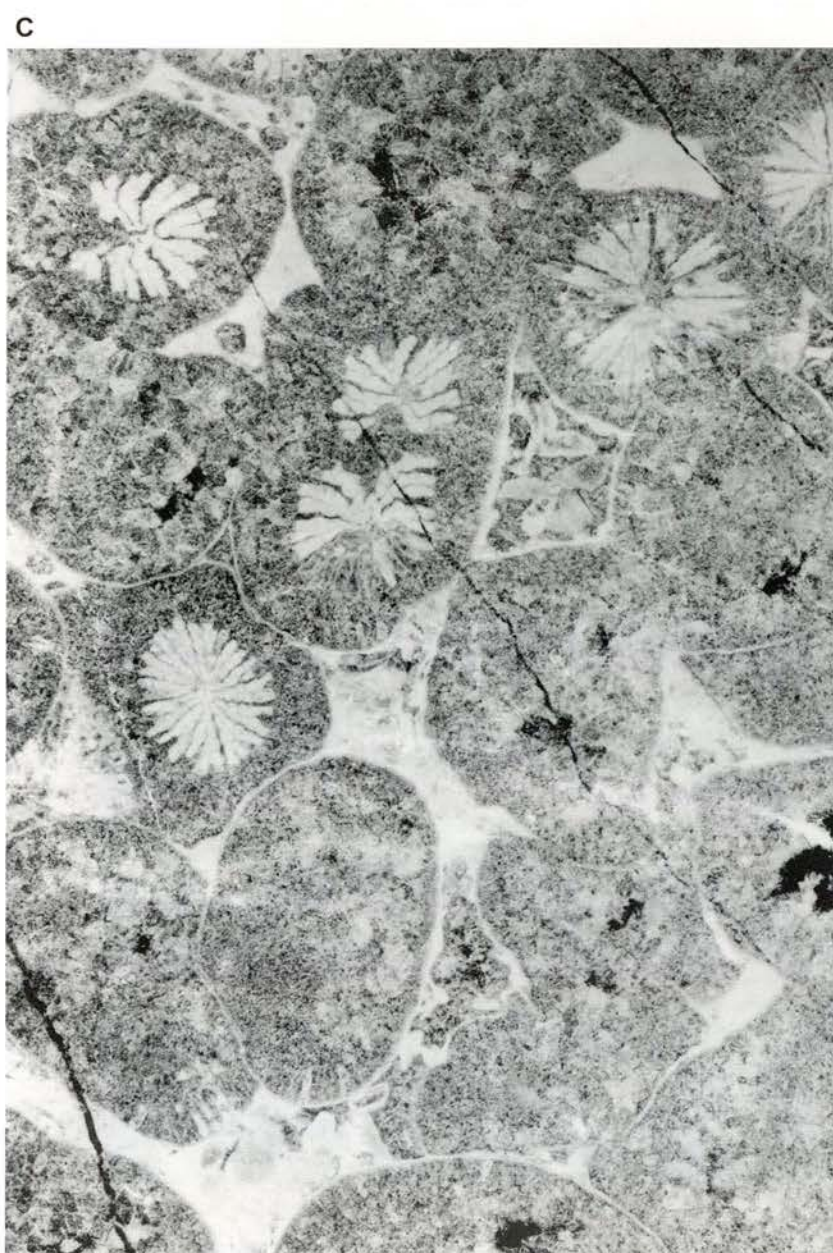
D: detail from B, x 8.
E: detail from C, x 16.



A



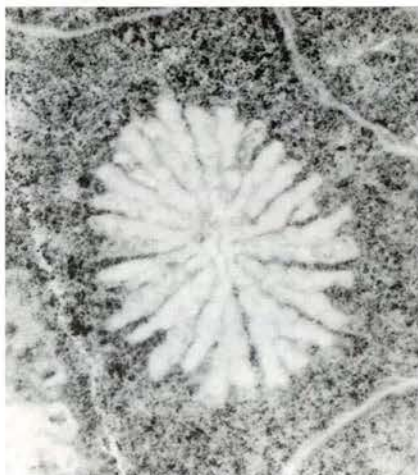
B



C



D



E

Enallhelia sp.

1993 *Enallhelia* sp. DOZET & TURNŠDEK, 68, 71,

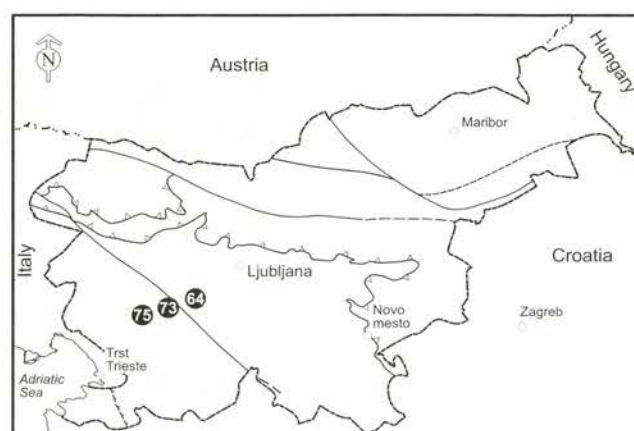
Description: Dendroid colony in the form of rods with many buds. Hexameral septa in 2-3 cycles, irregularly join with columella. $d = 0.5-1$ mm, $s = ca\ 12+s$.

Localities: **75** Nanos (P-928), **73** Hrušica (P-929, P-930), **64** Logaška planota (P-927).

Age: J: Upper Oxfordian-Kimmeridgian.

Paleoenvironment: Inner barrier reef and patch reef in the back reef area of the Dinaric Carbonate Platform.

JURASSIC	Malm	<i>Tithonian</i>	
		<i>Kimmeridgian</i>	
		<i>Oxfordian</i>	
	Dogger	<i>Callovian</i>	
		<i>Bathonian</i>	
		<i>Bajocian</i>	
		<i>Aalenian</i>	
		<i>Toarcian</i>	
	Lias	<i>Pliensbachian</i>	
		<i>Sinemurian</i>	
		<i>Hettangian</i>	



A: transverse section; P-928a, x 4.

B: transverse section; P-930a, x 4.

C: detail from A, x 8.

D: transverse section; P-929a, x 8.

E: microstructure, not preserved; P-928a, x 40.

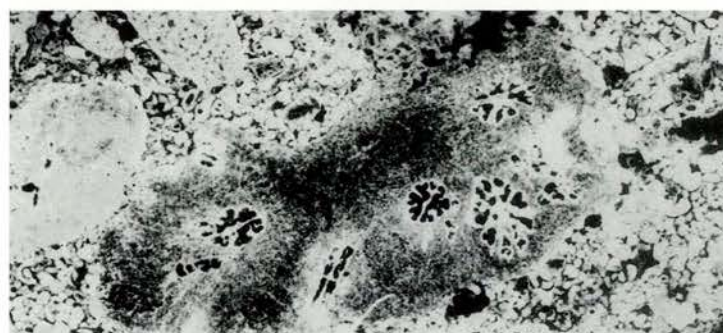
A



B



C



D



E

Enallocoenia salisburgensis Beauvais 1982

- 1982 *Enallocoenia salisburgensis* nov. sp. BEAUVAIS, I, 24-25, Pl. 1, figs. 5ab.
1994 *Enallocoenia salisburgensis* Beauvais. TURNŠEK et al., 9-10, Pl. 2, figs. 4-7.

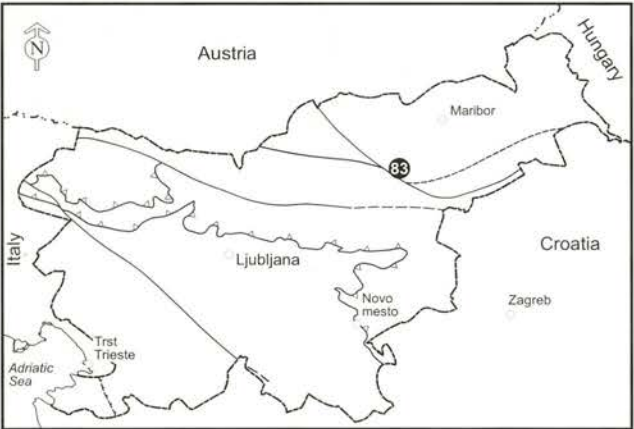
Description: Bulbous subcerioid colony, polygonal or round to oval corallites, narrow peritheca?, extratentacular budding. Septa compact, hexagonal, in 3 cycles, lateral sharp granulae. Septotheca, styliform columella, vesicular dissepiments, microstructure trabecular. $d = (1.5)2(2.2)$ mm, $cc = 2.5-3$ mm, $s = 24(6+6+12)$.

Localities: 83 Stranice-quarry (1/19); Austria (Gosau region).

Age: K: Santonian-Campanian; K: Upper Santonian.

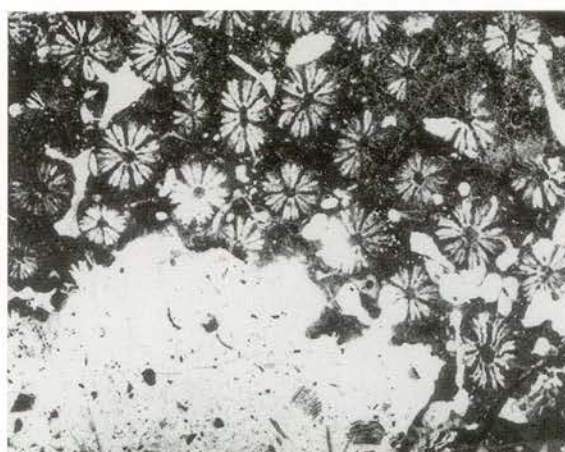
Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
	Lower		Cenomanian	
			Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: surface from above; St-1/19, x 1.
B: detail from A, x 4.

C: transverse section; St-1/19a, x 4.
D: detail from C, x 8.



C



D

Eohydnophora incerta (Morycowa) 1971

- 1971 *Hydnophora incerta* n. sp. MORYCOWA, 91-92, Pl. 21, figs. 1a-h.
 1976 *Eohydnophora incerta* (Morycowa). TURNŠEK & BUSER, 49-50, 75, Pl. 4, figs. 1-2.

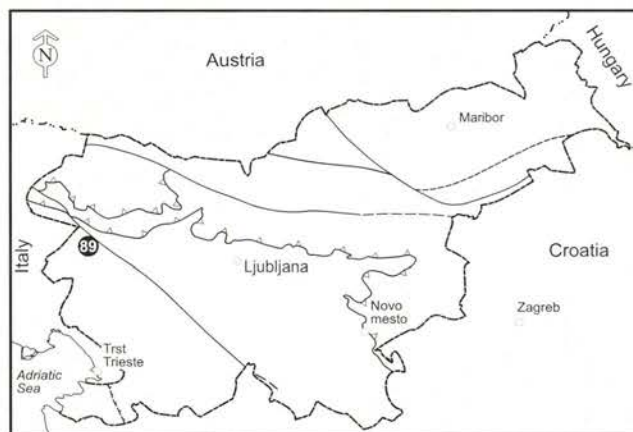
Description: Massive meandroid colony with short colines and corallites in series centres of which are not clear. Septa in two different cycles, axially thickened, laterally granulated. Septotheca, columella not clear, tabulate and vesicular dissepiments, microstructure not preserved. $d \text{ ser} = (1.5)2-2.5(3) \text{ mm}$, $s = 4(5)/2 \text{ mm}$, $diss = 3/2 \text{ mm}$, $l \text{ coline} = 3-5 \text{ mm}$.

Localities: 89 Kanalski Lom (P-602, P-603); Romania

Age: K: reworked in Senonian breccia; K: Aptian.

Paleoenvironment: Outer slope of the Dinaric Carbonate Platform. Reef limestone resedimented in breccia.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
	Lower		Cenomanian	
			Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	

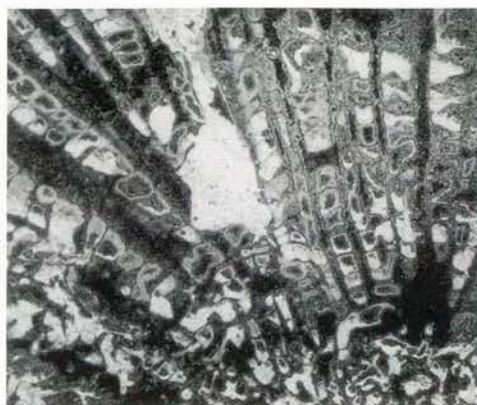


A: transverse section; P-603a, x 4.
 B: longitudinal section; P-603b, x 4.
 C: detail from A, x 8.

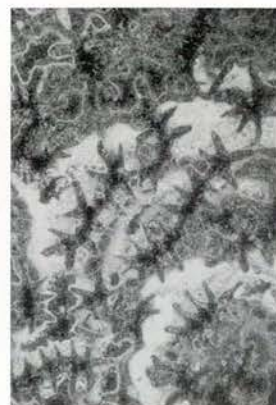
D: microstructure, ?divergent medium-sized trabeculae; P-603a, x 40.
 E: transverse section; P-602a, x 4.



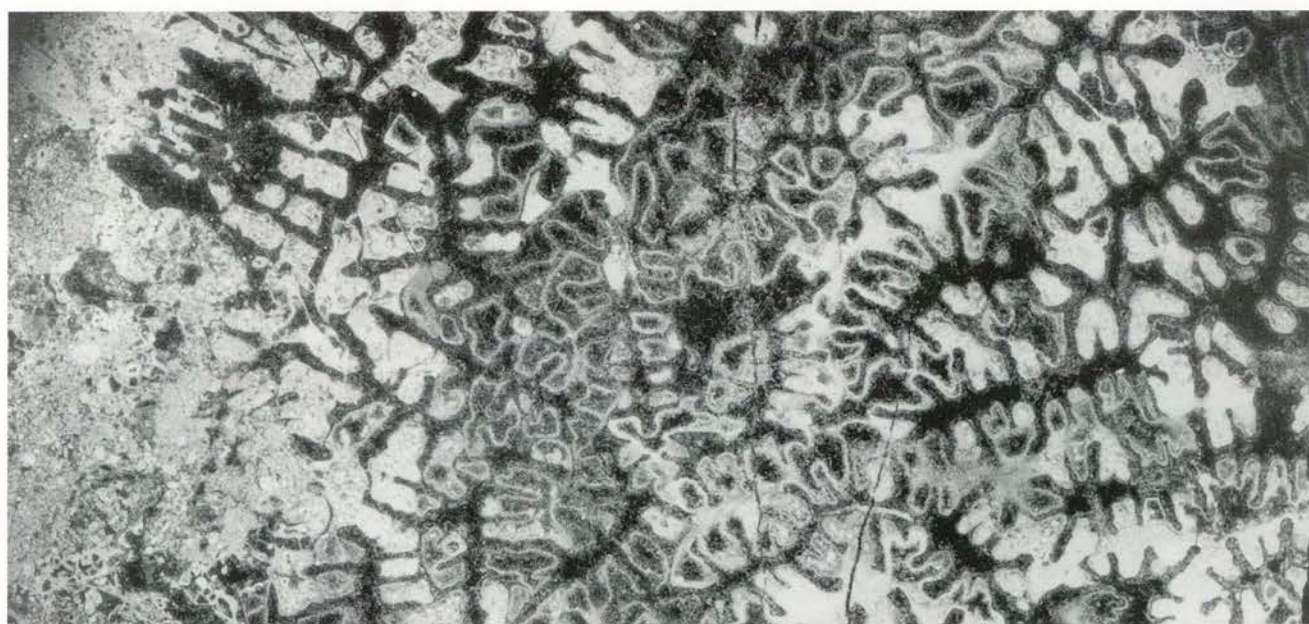
A



B



E



C



D

Eohydnophora picteti (Koby) 1897

- 1897 *Hydnophora picteti* Koby. Koby, 45, Pl. 8, figs. 1-2.
 1905a *Hydnophora picteti* Koby. ANGELIS D'OSSAT, 26-27, Pl. 2, figs. 1-2.
 1951 *Hydnophora picteti* Koby. KOCHANSEY, 107.
 1951 *Hydnophora* aff. *picteti* Koby. MARKOVIĆ, 189, Pl. 4, fig. 2.
 1964 *Felixigyra* sp. ind. MORYCOWA, 53-54, Pl. 9, fig. 4, Pl. 10, fig. 6, Textfig. 8.
 1964 *Felixigyra* sp. MORYCOWA, 54-55, Pl. 19, fig. 4.
 1971 *Eohydnophora picteti* (Koby). MORYCOWA, 65-66, Pl. 13, fig. 1.
 1974 *Eohydnophora picteti* (Koby). TURNŠEK & BUSER, 95, 113-114, Pl. 5, figs. 3-4.
 1976 *Eohydnophora picteti* (Koby). TURNŠEK & BUSER, 50, 75, Pl. 4, figs. 3-6.
 1981 *Eohydnophora picteti* (Koby). TURNŠEK & MIHAJLOVIĆ, 18, Pl. 12, figs. 4-6.
 1994 *Eohydnophora picteti* (Koby). MASSE & MORYCOWA, 435, Textfig. 3, Pl. 1, figs. 1-5. Synonymy.
 1995 *Eohydnophora* cf. *picteti* (Koby). ABDEL-GAWAD et al. 16, Pl. 13, figs. 7-9.

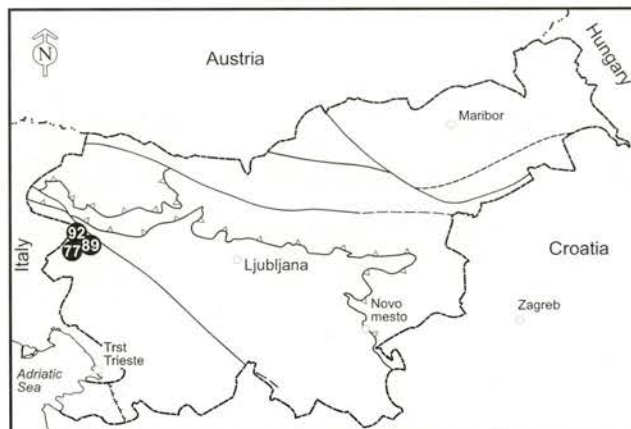
Description: Massive hydnophoroid colony with short irregular colines and corallites in longer meandroid series, centres unclear, budding circumoral. Septa costate in two cycles, laterally slightly thickened, laterally very rarely granulated. Septotheca, columella unclear, partly styliform or lamellar or absent, tabulate and long dissepiments, microstructure not preserved. d ser = 1.5-3 mm, l colines = 2-5(8) mm, s = 2-3/2mm.

Localities: 77 Osojnica (P-508, P-520, P-528, P-540), 89 Kanalski Lom (P-600), 92 Podselca (P-688); Switzerland, Italy, Poland, Romania, Serbia, France (Provence), Greece, Japan.

Age: K: Barremian-Aptian and reworked in Senonian breccia; K: Hauterivian-Barremian-Aptian?Cenomanian.

Paleoenvironment: Reef flat at the edge of the Dinaric Carbonate Platform, Urgonian facies, and outer slope with reef limestone resedimented in breccia.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
	Lower		Cenomanian	
			Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



- A: transverse section; P-600a, x 4.
 B: longitudinal section; P-600d, x 4.
 C: transverse section; P-688a, x 4.
 D: longitudinal section; P-688b, x 4.

- E: transverse section; P-508a, x 4.
 F: detail from A, x 8.
 G: microstructure, not preserved; P-600a, x 40.



A



B



E



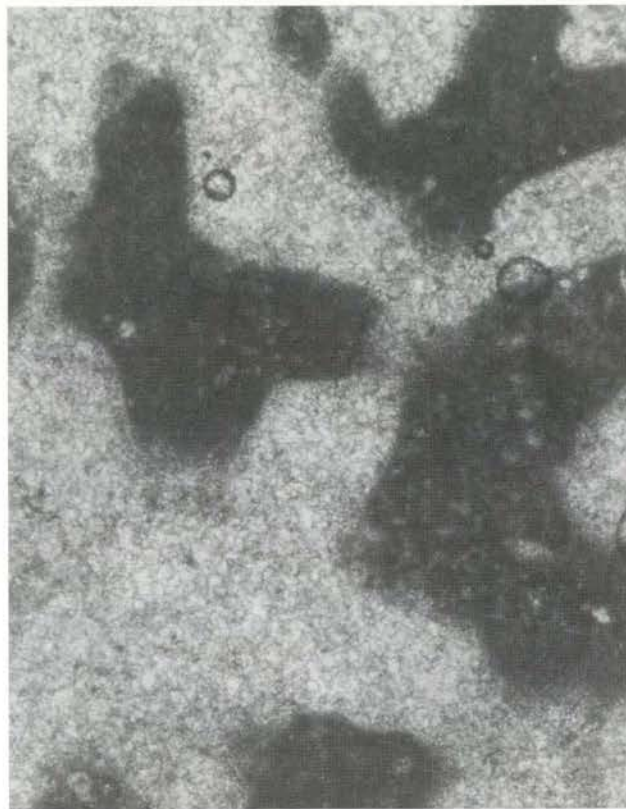
C



D

F

G



Epistreptophyllum bonjour (Étallon) 1864)

- 1864 *Montlivaultia bonjour* Étallon. THURMANN & ÉTALLON, 376, Pl. 53, fig. 2.
 1883 *Montlivaultia bonjour* Étallon. Koby, 110-111, Pl. 34, fig. 6.
 1964 *Epistreptophyllum bonjour* (Étallon). BEAUVAIS, 238-239. Pl. 31, figs. 5-6.
 ?1965 *Epistreptophyllum bonjour* Étallon nov. var. KRKOVIĆ, 169-170, Pl. 4, fig. 2.
 1972 *Epistreptophyllum bonjour* (Étallon). TURNŠEK, 201-202, Pl. 33, fig. 4.

Description: Solitary trochoid corallum, with round calice. Costosepta straight, rarely porous, laterally granulated. Paratheca to synapticulotheca, vesicular long dissepiments, spongy columella, microstructure trabecular. d = ca 35 mm, s = ca 180 (4-5/2 mm).

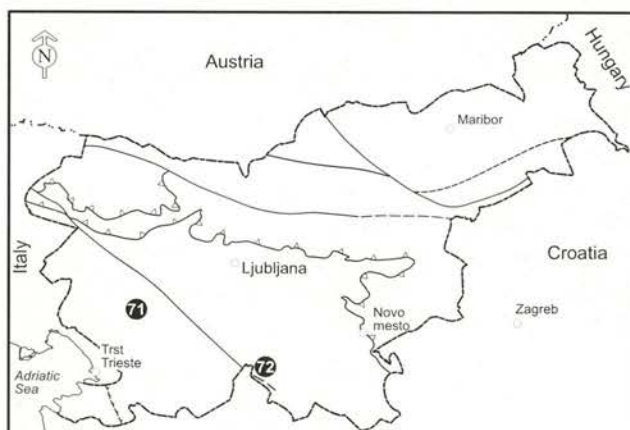
Remarks: Comparison of the solitary *Epistreptophyllum* with the phaceloid “*Diplaraea*” was discussed by GILL (1982).

Localities: 71 Col (P-289), 72 Draga (Kočevsko) (P-961); Switzerland, Montenegro, France.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian.

Paleoenvironment: Patch reef in the back reef area on the Dinaric Carbonate Platform.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-289a, x 4.

B: longitudinal peripheral section; P-289b, x 4.

C: detail from A, x 8.

D: microstructure, medium-sized to thick trabeculae; P-289a, x 40.

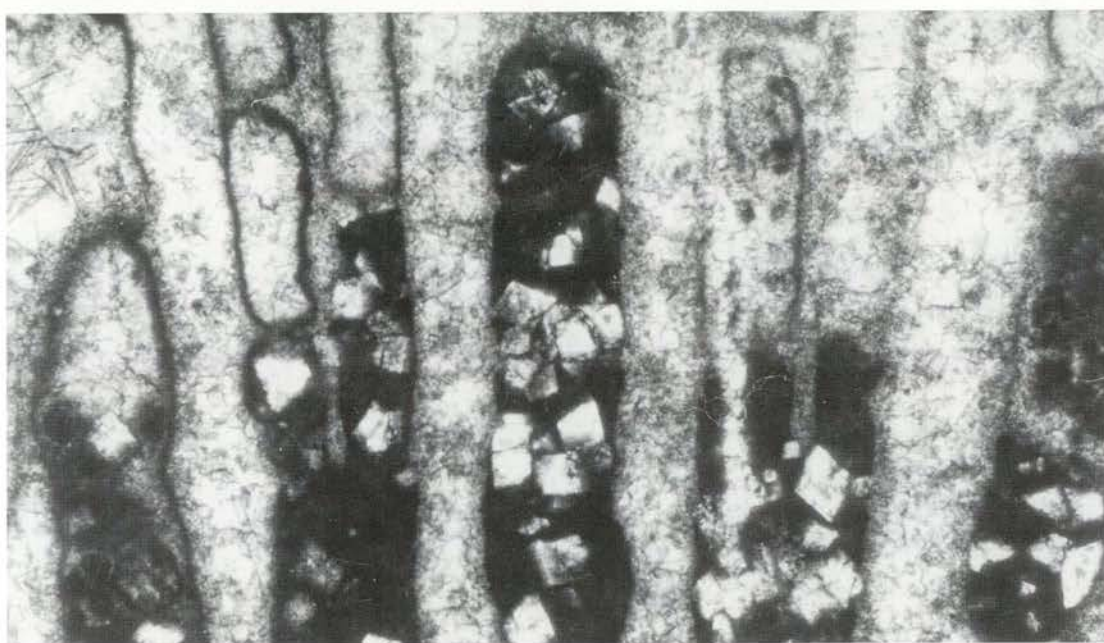
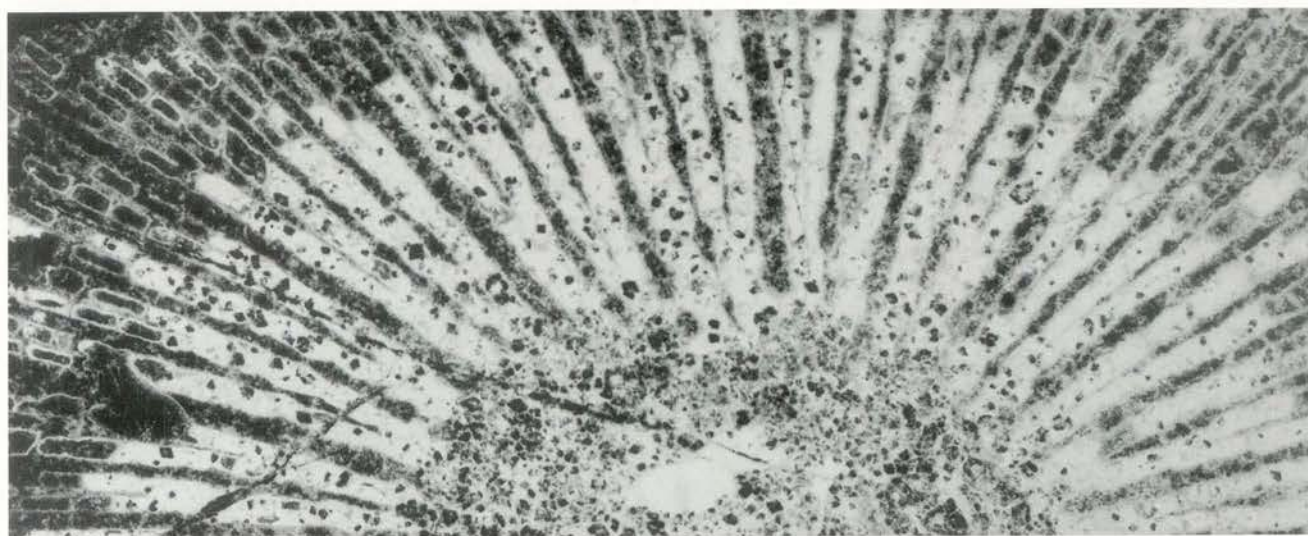


A



B

C



D

Epistreptophyllum tenue Milaschewitsch 1876

- 1876 *Epistreptophyllum tenue* Milaschewitsch. MILASCHEWITSCH, 212, Pl. 50, figs. 4, 4a.
 1876 *Epistreptophyllum cylindratum* Milaschewitsch. MILASCHEWITSCH, 211-212, Pl. 50, fig. 3.
 1954 *Epistreptophyllum tenue* Milaschewitsch. GEYER, 143.
 1955b *Epistreptophyllum tenue* Milaschewitsch. GEYER, 345.
 ?1966 *Epistreptophyllum cylindratum* Milaschewitsch. RONIEWICZ, 238, Pl. 21, fig. 2.
 1968 *Epistreptophyllum cylindratum* Milaschewitsch. LAMBELET, 163-169,
 1972 *Epistreptophyllum tenue* Milaschewitsch. TURNŠEK, 200-201, Pl. 33, figs. 2-3.
 1973 *Epistreptophyllum tenue* Milaschewitsch. TURNŠEK & MIHAJLOVIĆ, 101, Pl. 6, fig. 3.
 1985 *Epistreptophyllum tenue* Milaschewitsch. ROSENDAHL, 66.
 1993 *Epistreptophyllum tenue* Milaschewitsch. BARON-SZABO, 160, Pl. 4, fig. 2.
 1996 *Epistreptophyllum ?cylindratum* Milaschewitsch. BARON-SZABO & STEUBER, 16-17, Pl. 7, fig. 5.

Description: Solitary cylindrical corallum with oval calice. Septa subcompact, straight, laterally sharply granulated. Parasynapticulotheca, thin long vesicular dissepiments, spongy columella, microstructure trabecular. d=10-20 mm, s = ca 100.

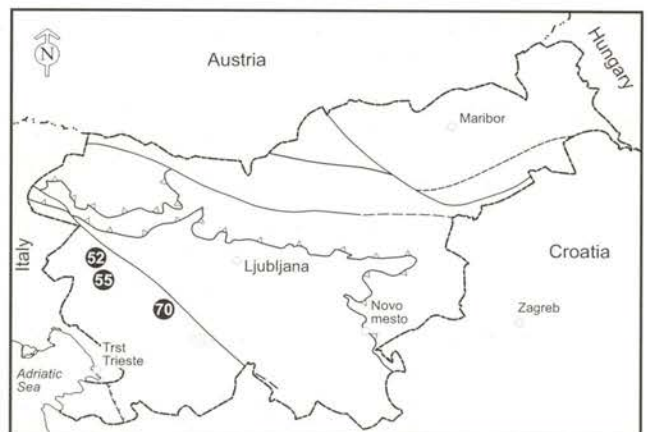
Remarks: In both species mentioned in the synonymy all the characteristics intermix. Because of the common use of the name *tenue* it is better to retain this name.

Localities: 70 Bukovje (Hrušica) (P-293), 55 Mrzovec (P-640), 52 Kal nad Kanalom (P-638, P-639); Germany, Poland, Portugal, Serbia, Greece.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian, K: Aptian.

Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform, reef limestone, and patch reef in the back reef area.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-293a, x 4.
 B: longitudinal section; P-293b, x 4.

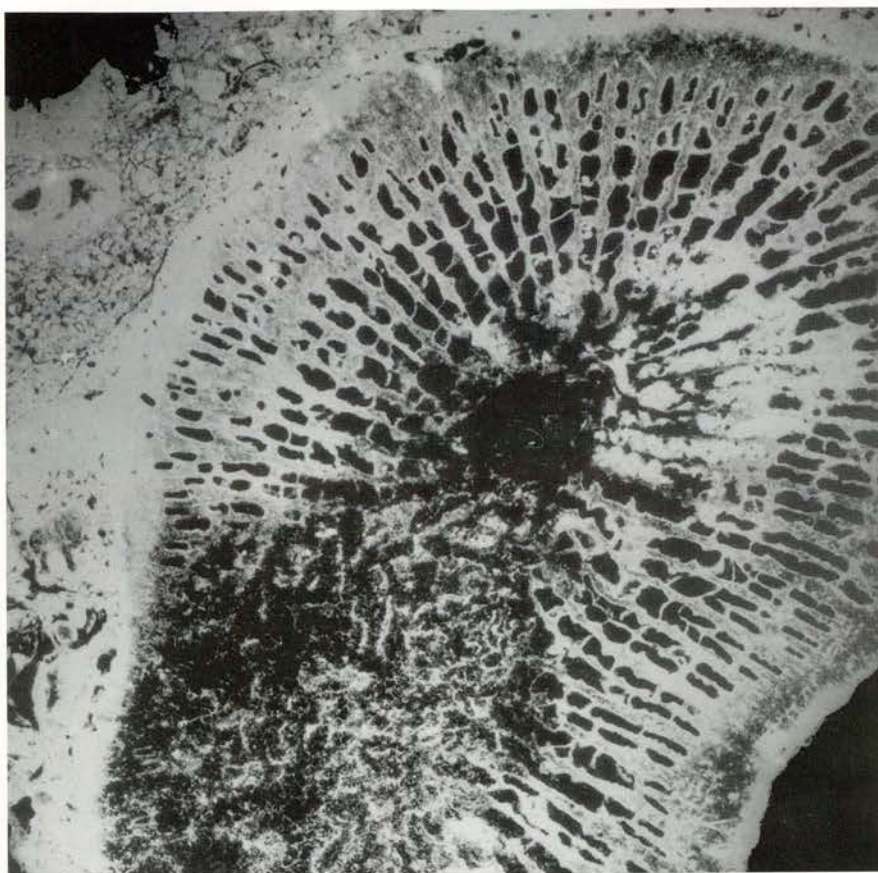
C: the same as A, x 8.
 D: microstructure, ?medium-sized trabeculae; P-293a, x 40.



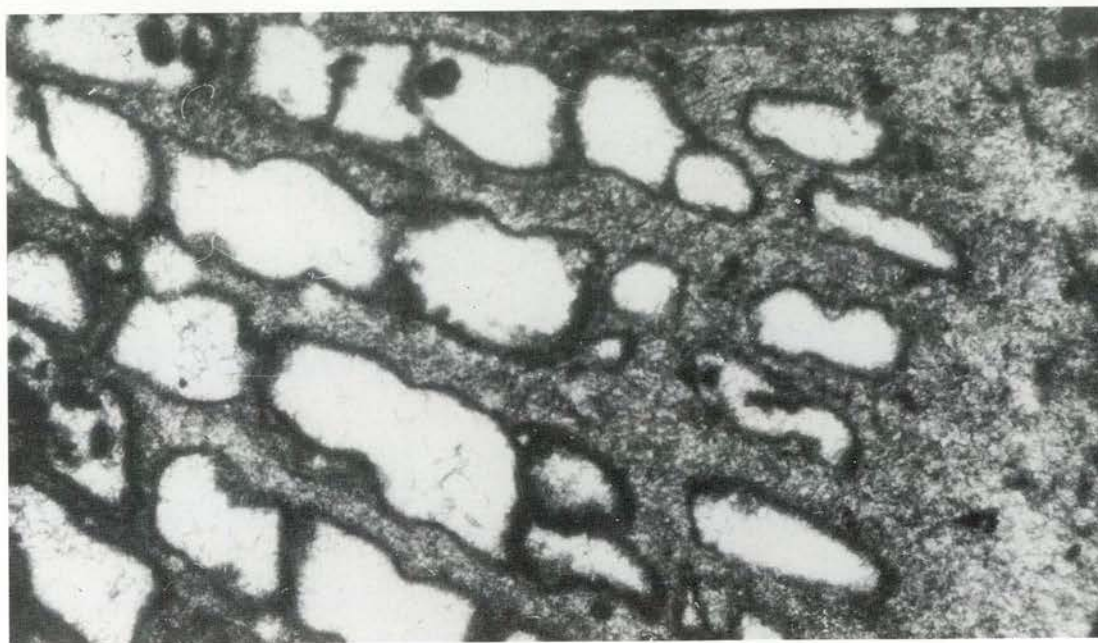
A



B



C



D

Etallonasteria minima (Étallon) 1864

- 1864 *Cyathophora minima* Étallon. THURMANN & ÉTALLON, 373, Pl. 52, fig. 9.
 1881 *Convexastrea minima* Étallon. Koby, 107-108, Pl. 25, figs. 4-5.
 1964 *Adelocoenia minima* (Koby). BEAUVAIS, 121, Pl. 4, fig. 2, Pl. 5, fig. 1.
 1964 *Cryptocoenia minima* (Étallon). BEAUVAIS, 124.
 1966 *Étallonia minima* (Étallon). RONIEWICZ, 247-249, Pl. 24, figs. 1-2, Textfig. 19.
 1972 *Étallonia minima* (Étallon). TURNŠEK, 161-162, Tab. 2, sl. 5-6.
 1976 *Étallonia minima* (Étallon). RONIEWICZ, 109, Pl. 34, figs. 1ab.
 1982 *Étallonia minima* (Étallon). BENDUKIDZE, 114-115, Pl. 6, fig. 1.
 1987 *Étallonasteria* nom. n. RONIEWICZ, 152.
 1994 *Étallonasteria minima* (Étallon). ELIÁŠOVÁ, 69, Pl. 3, figs. 3-4.

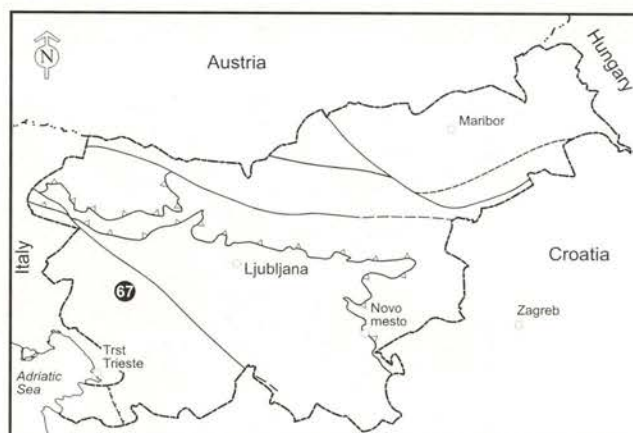
Description: Cerioid colony, calices irregularly round, squashed, extracalicular budding. Septa compact, subconfluent, radially hexameral, in two very different cycles. Wall synapticulotheca with pores, no costae, no columella. Small tabulate dissepiments. Microstructure not preserved. $d = 1.5-2.0$ mm, $cc = 1.5-2.5$ mm, $s = 12$ (6+6), tabulae 13-15/5 mm.

Localities: 67 Otlica (P-264); Switzerland, France, Czech R. (Brno).

Age: J: Upper Oxfordian-Kimmeridgian; J: Lower Oxfordian-Upper Oxfordian.

Paleoenvironment: Inner (sheltered) barrier reef on the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	<i>Tithonian</i>	
		<i>Kimmeridgian</i>	
		<i>Oxfordian</i>	
	Dogger	<i>Callovian</i>	
		<i>Bathonian</i>	
		<i>Bajocian</i>	
		<i>Aalenian</i>	
		<i>Toarcian</i>	
	Lias	<i>Pliensbachian</i>	
		<i>Sinemurian</i>	
		<i>Hettangian</i>	

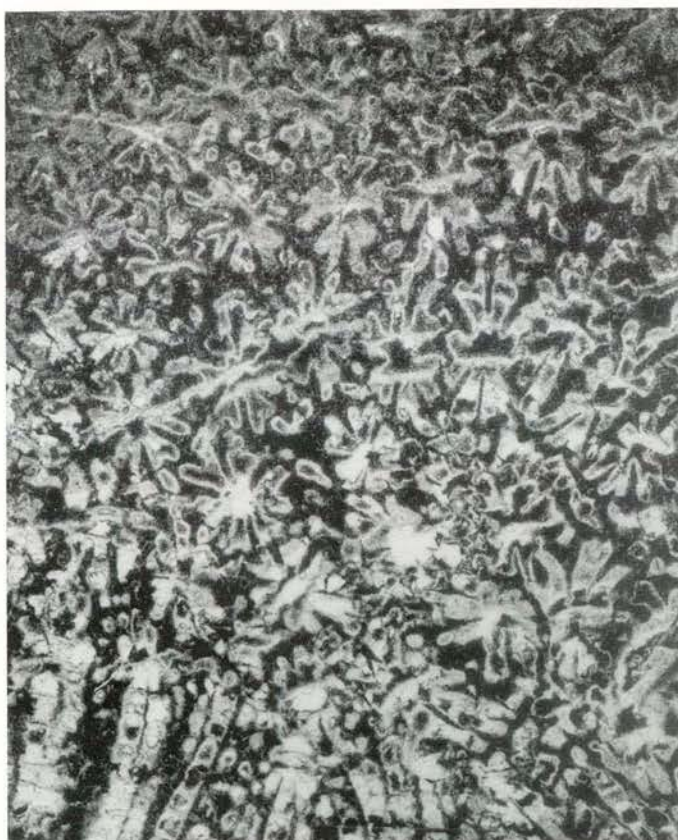


A: transverse section; P-264a, x 4.
 B: longitudinal section; P-264b, x 4.
 C: part of A, x 8.

D: microstructure, ?mini- or medium-sized trabeculae; P-264a, x 40.



A
B



C



D

Eugyra cotteaui Fromentel 1857

- 1857 *Eugyra Cotteaui* Fromentel. FROMENTEL, 30-31, Pl. 3, fig. 4-5.
 1898 *Eugyra Cotteaui* de Fromentel. KOPY, 20-21, Pl. 5, fig. 2.
 1961 *Eugyra cotteaui* de Fromentel. MORYCOWA, 55-56, Pl. 13, fig. 2.
 1961 *Eugyra* cf. *cotteaui* Fromentel. BENDUKIDZE, 10-11, Pl. 1, fig. 5.
 1964 *Eugyra cotteaui* (d'Orbigny). MORYCOWA, 48-49, Pl. 11, fig. 4. Synonymy.
 1971 *Eugyra cotteaui* de Fromentel. MORYCOWA, 55-56, Pl. 13, fig. 2.
 1974 *Eugyra cotteaui* Fromentel. TURNŠEK & BUSER, 94, 113, Pl. 4, sl. 4.
 1976 *Eugyra cotteaui* Fromentel. TURNŠEK & BUSER, 48-49, 75, Pl. 2, figs. 3-6.
 1979b *Eugyra cotteaui* Fromentel. SIHARULIDZE, 303.
 1980 *Eugyra cotteaui* Fromentel. KUZMICHEVA in: CHERNOV et al., 94, Pl. 34, figs. 6ab.
 1981 *Eugyra cotteaui* Fromentel. TURNŠEK & MIHAJLOVIĆ, 17, Pl. 11, figs. 3-4.
 1985 *Eugyra cotteaui* Fromentel. SIHARULIDZE, 21-22, Pl. 5, figs. 2ab.
 1987 *Eugyra cotteaui* Fromentel. KUZMICHEVA. Mali Balkan
 1996 *Eugyra cotteaui* Fromentel. BARON-SZABO & STEUBER, 9-10, Pl. 2, fig. 6.

Description: Massive meandroid colony with long even or meandroid colines and series. Centres of corallites unclear. Septa costate in two cycles. Septoparatheca, horizontal and vesicular dissepiments, no columella, microstructure not preserved. d in ser = 2-3 mm, d of wall = 1-1.3 mm, density of septa = $5/2$ mm.

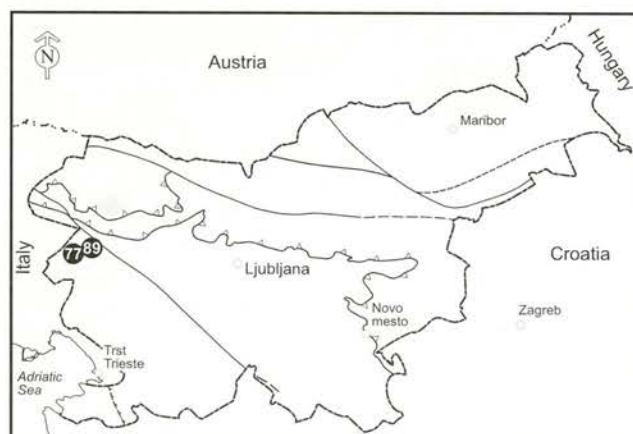
Remarks: The distinction between *Eugyra* and *Hydnophora* was given by REIG (1994). The genus *Eugyra* was put into *Astraeoina* by MORYCOWA (1995).

Localities: 77 Osojnica (P-532), 89 Kanalski Lom (P-591, P-592, P-617, P-682ab); France, Switzerland, Poland, Romania, Crimea, Serbia, Greece, Georgia, Mali Balkan, and elsewhere.

Age: K: Barremian-Aptian and reworked in Senonian breccia; K: Berriasian-Hauterivian-Barremian-Aptian ?Cenomanian.

Paleoenvironment: Reef flat at the edge of the Dinaric Carbonate Platform, Urgonian facies, and outer slope where reef limestone is resedimented in breccia.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
		Turonian		
		Cenomanian		
	Lower	Albian		
		Aptian		
		Barremian		
		Hauterivian		
		Valanginian		
		Berriasian		

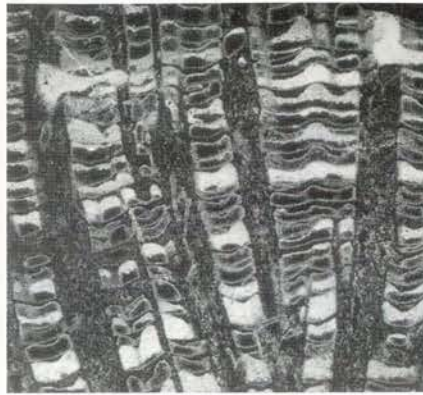


- A: transverse section; P-592a, x 4.
 B: longitudinal section; P-592b, x 4.
 C: transverse section; P-682a, x 4.
 D: longitudinal section; P-682b, x 4.

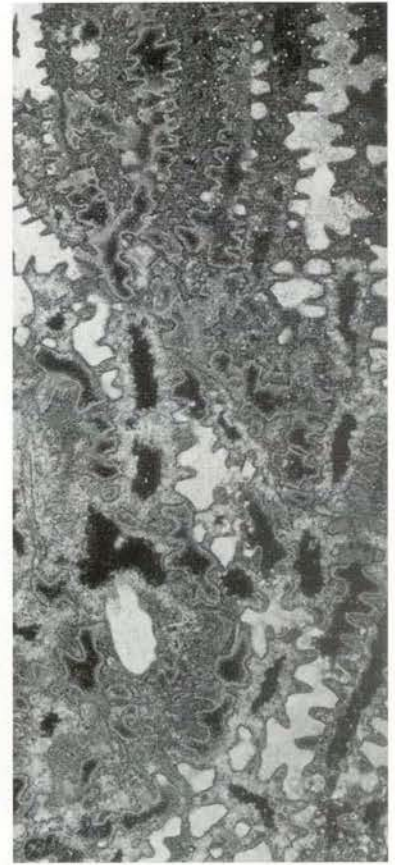
- E: transverse section; P-591a, x 5.
 F: microstructure, ?polyaxial divergent trabeculae; P-592a, x 40.



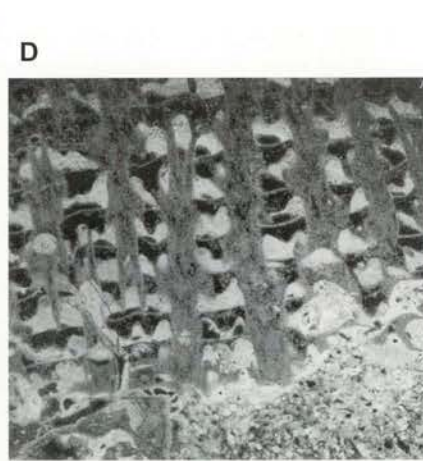
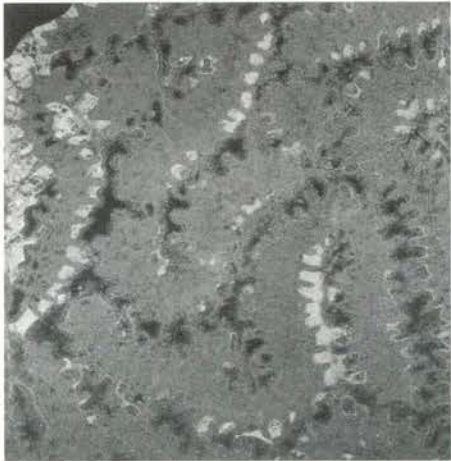
A
C



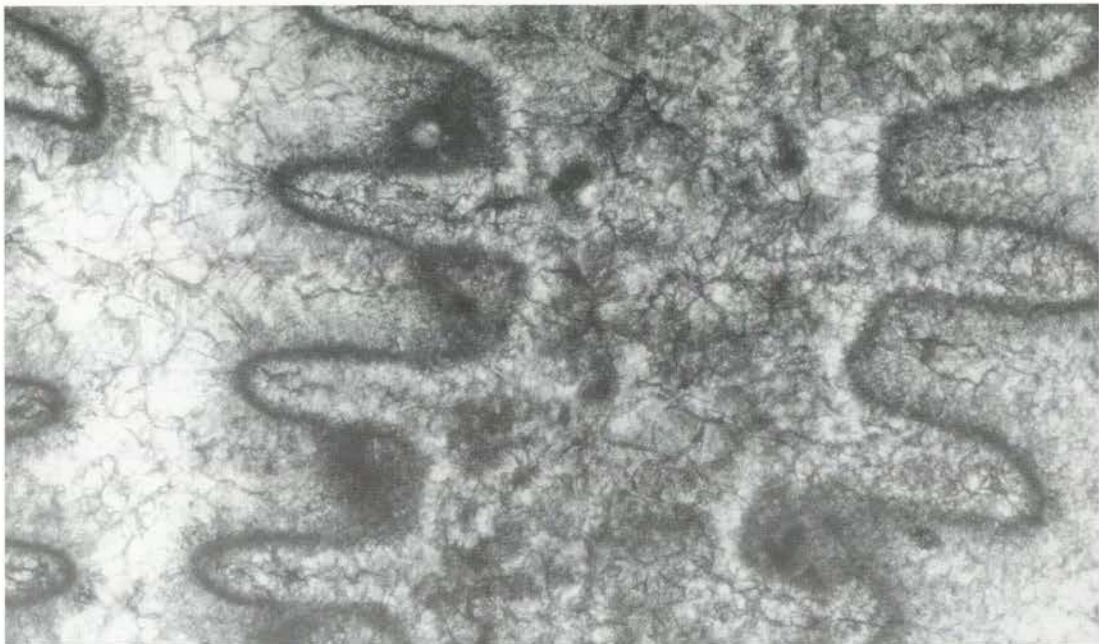
B



E



D



F

Eugyra lanckoronensis (Morycowa) 1964

- 1964 *Myriophyllia lanckoronensis* n. sp. MORYCOWA, 50-51, Pl. 9, fig. 3, Pl. 10, fig. 2-3, Textfig. 6.
 1966 *Myriophyllia lanckoronensis* Morycowa. MORYCOWA & LEFELD, 525-526, Pl. 32, figs. 1-2.
 1971 *Eugyra lanckoronensis* (Morycowa). MORYCOWA, 58-60, Pl. 9, fig. 1, Textfigs. 16, 17A.
 1976 *Eugyra lanckoronensis* (Morycowa). TURNŠEK & BUSER, 49, 75, Pl. 3, figs. 1-4.
 1981 *Eugyra lanckoronensis* (Morycowa). TURNŠEK & MIHAJLOVIĆ, 18, Pl. 12, figs. 1-3.
 1980 *Eugyra lanckoronensis* (Morycowa). KUSMICHEVA, 94-95, Pl. 35, figs. 1ab.
 1988 *Eugyra lanckoronensis* (Morycowa). KUSMICHEVA & ALIEV, 157-158, Pl. 2, figs. 1ab.
 1996 *Eugyra lanckoronensis* (Morycowa). BARON-SZABO & STEUBER, 7, Pl. 3, figs. 1-2.
 1997 *Eugyra lanckoronensis* (Morycowa). BARON-SZABO, 50, Pl. 4, fig. 5.
 1997 *Eugyra lanckoronensis* (Morycowa). BARON-SZABO & FERNANDEZ- MENDIOLA, 45, 47, figs. 4C, E.

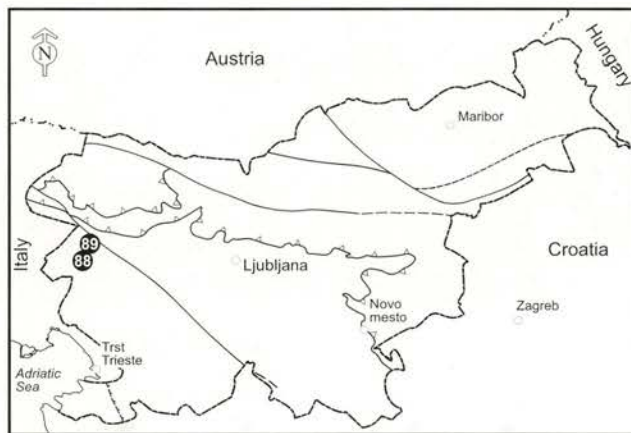
Description: Massive meandroid colony with colines and corallites in series. Septa in two equal cycles. Narrow septotheca, feable ?styliform or ?lamellar columella, tabulate dissepiments abundant, microstructure not preserved. d ser = 1-1.5 (2) mm, s = 5-6/2 mm, diss = 4-4/2 mm.

Localities: 89 Kanalski Lom (P-595, P-615), 88 Hoje (P-684); Germany, Spain, Poland, Romania, Serbia, E Carpathians, Greece, Azerbajdzhan.

Age: K: reworked in Senonian breccia; K: Barremian-Aptian.

Paleoenvironment: Outer slope of the Dinaric Carbonate Platform. Reef limestone resedimented in breccia.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	

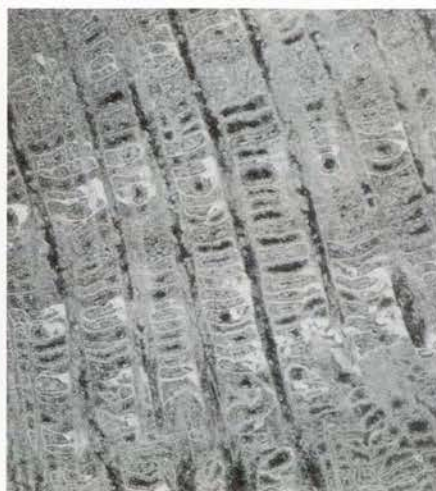


A: transverse section; P-684a, x 4.
 B: longitudinal section; P-684b, x 4.
 C: transverse section; P-595a, x 4.

D: longitudinal section; P-595b, x 4.
 E: transverse section; P-615a, x 4.
 F: microstructure, not preserved; P-684a, x 40.



A



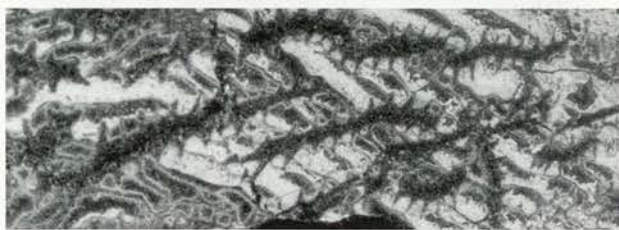
B



C



D



E



F

Felixigyra patruliusi tenuiseptata Morycowa 1971

- 1971 *Felixigyra patruliusi tenuiseptata* n. subsp.
MORYCOWA, 64-65, Pl. 11, Fig. 2.
1974 *Felixigyra patruliusi tenuiseptata* Morycowa.
TURNŠEK & BUSER, 94-95, 113, Pl. 5, figs. 1-2.
1994 *Felixigyra patruliusi tenuiseptata* Morycowa.
MASSE & MORYCOWA, 442, Textfig. 5, Pl. 2, figs.
3a-b, 4.

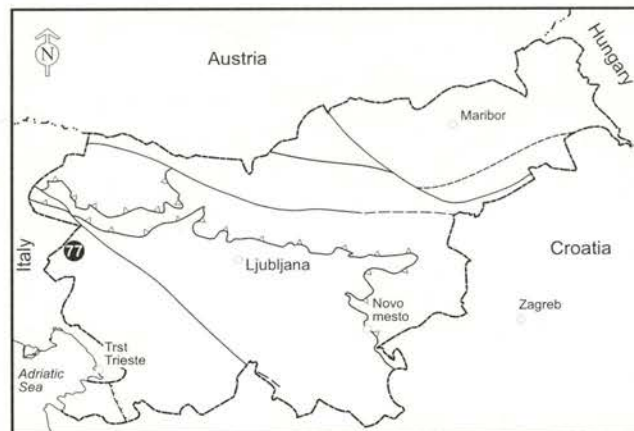
Description: Meandroid colony with short sometimes isolated colines and corallites in irregular series. Septa costate, short in two cycles. Septotheca, long horizontal and vesicular dissepiments, columella not clear. d ser = 1.2-2 mm, l colines = 1.5-3 mm, s = 6/2 mm.

Localities: 77 Osojnica (P-528, P-529b, P-664); Romania, France (Provence).

Age: K: Barremian-Aptian; K: Barremian-Lower Aptian.

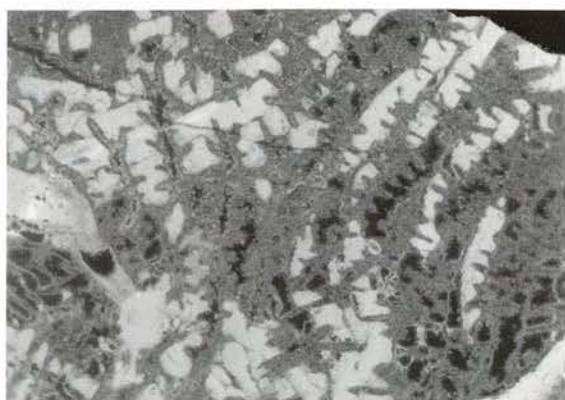
Paleoenvironment: Reef flat at the edge of the Dinaric Carbonate Platform. Urgonian facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
	Lower		Cenomanian	
			Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: transverse section; P-529a, x 4.
B: longitudinal section; P-529b, x 4.
C: transverse section; P-528a, x 4.

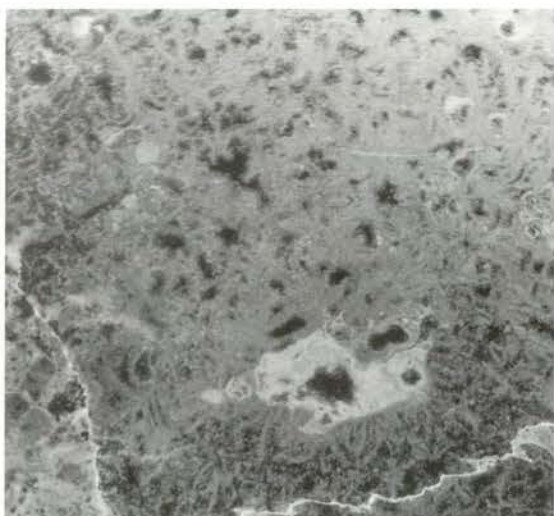
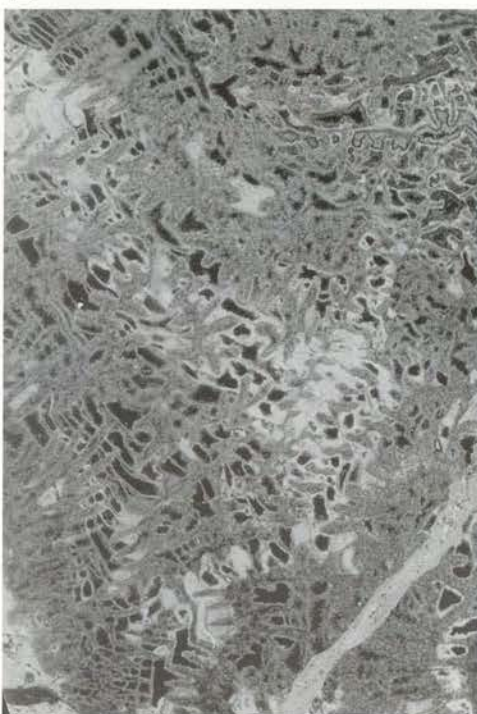
D: longitudinal section; P-528b, x 4.
E: oblique transverse section; P-529c, x 4.
F: longitudinal section; P-664a, x 4.



A



B

C
ED
F

Fungiastraea arachnoides (Parkinson) 1808

- 1966 *Fungiastraea arachnoides* (Parkinson). RONIEWICZ, 237, Pl. 20, fig. 4,
 1972 *Fungiastraea arachnoides* (Parkinson). TURNŠEK, 206, 256, Pl. 35, figs. 5-6.
 1974 *Fungiastraea arachnoides* (Parkinson). MORYCOWA, 476-477.
 1976 *Fungiastraea arachnoides* (Parkinson). RONIEWICZ, 98-99, Pl. 29, fig. 2.
 1979 *Fungiastraea arachnoides*. NEGUS & BEAUVAIS, 225.
 1985 *Fungiastraea arachnoides* (Parkinson). ROSENDAHL, 62.
 1987 *Thamnasteria arachnoides* (Parkinson). HUSANOV, 69, Pl. 12, fig. 2.
 1991 *Fungiastraea arachnoides* (Parkinson). ERRENST, 24-25, Pl. 18, figs. 8ab.
 1994 *Fungiastraea* cf. *arachnoides* (Parkinson). ELIAŠOVÁ, 68-69.
 1994 *Fungiastraea arachnoides* (Parkinson). LIAO & XIA, 124, Pl. 24, figs. 6-7.

Description: Massive thamnasterioid colony of crusty growth, round corallites arranged in concentric rows, budding extracalicular. Septa subcompact, confluent, with lateral granulae and pennulae. Columella spongy. Synapticulae common, dissepiments vesicular, microstructure trabecular. cc = 3.5-6 mm, s = 25-43 (13-15/5 mm).

Localities: 61 Frata (P-360), 55 Mrzovec (P-254); Poland, England, France, Portugal, Romania, Uzbekistan, Spain, Czech R. (Brno), China (Xizang).

Age: J: Upper Oxfordian-Kimmeridgian; J: Callovian-Oxfordian-Kimmeridgian.

Paleoenvironment: Outer and inner (sheltered) barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-360a, x 4.
 B: longitudinal section; P-360b, x 4.
 C: transverse section; P-254a, x 4.

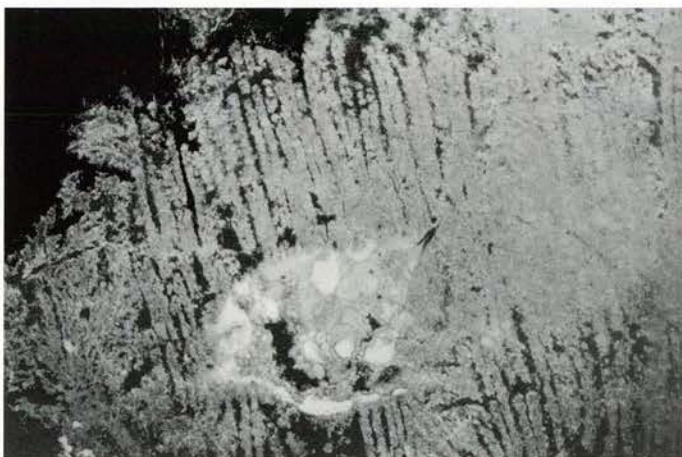
D: longitudinal section; P-254b, x 4.
 E: detail from A, x 8.
 F: microstructure, ?medium-sized trabeculae, midseptal line; P-360a, x 40.



A



C

B
ED
F

Fungiastraea tendagurensis (Dietrich) 1927

- 1927 *Thamnasteria tendagurensis* n. sp. DIETRICH, 84-85, Pl. 9, fig. 5, Pl. 11, fig. 1.
 1964 *Fungiastraea tendagurensis* (Dietrich). MORYCOWA, 81-82, Pl. 22, figs. 2-3, Pl. 25, fig. 6, Textfig. 17.
 1974 *Fungiastraea* sp. TURNŠEK & BUSER, 104, Pl. 11, fig. 4.
 1976 *Fungiastraea tendagurensis* (Dietrich). TURNŠEK & BUSER, 62, 83, Pl. 19, figs. 4-5.
 1988 *Fungiastraea tendagurensis* (Dietrich). KUSMIČEVA & ALIEV, 169-170, Pl. 6, figs. 1ab.

Description: Thamnasterioid colony with irregular corallites, Septa confluent, porous, in 2-3 cycles, laterally pennulated. No wall, synapticalae and tabulate dissepiments present, spongy columella, microstructure trabecular. cc = 4-9 mm, s = 20-30.

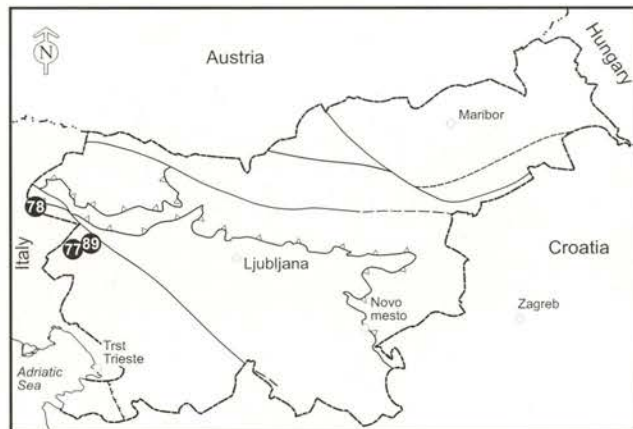
Remarks: According to LÖSER's personal communication, this species has characteristics of *Dimorphocoenia*.

Localities: 77 Osojnica (P-513), 78 Robidišče (UD/81-143,5, -162,1), 89 Kanalski Lom (P-566); East Africa, Poland.

Age: K: Barremian-Aptian and Senonian breccia; K: Hauterivian.

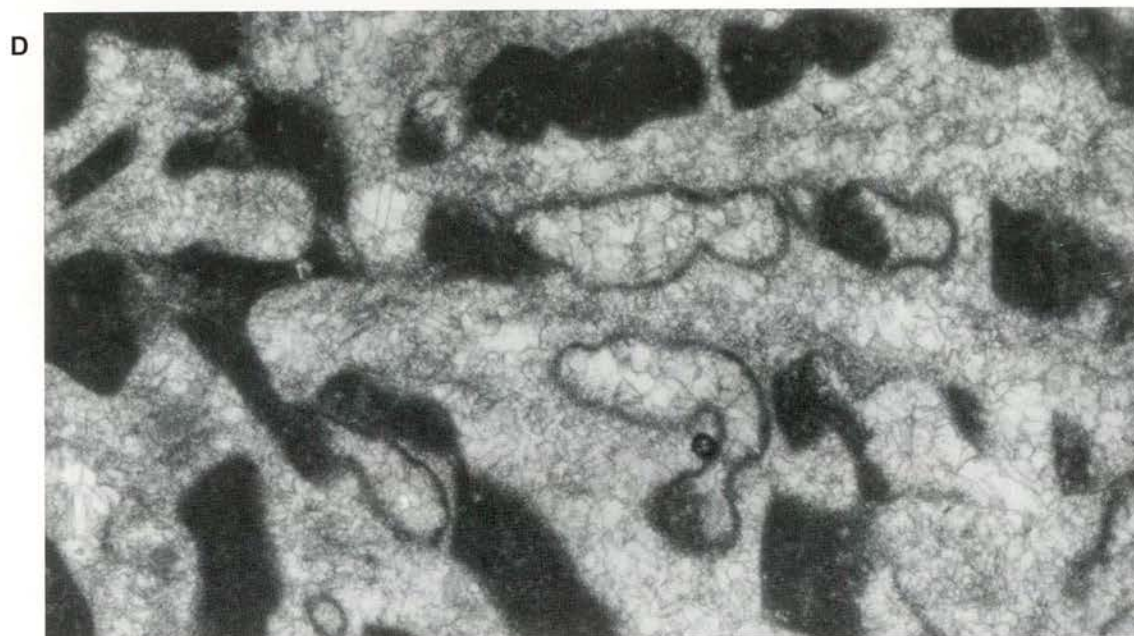
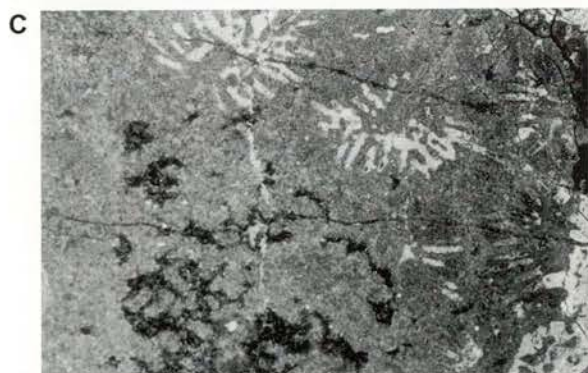
Paleoenvironment: Reef flat at the edge of the Dinaric Carbonate Platform, and outer slope where reef is resedimented in breccia.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: transverse a little oblique section; P-566a, x 4.
 B: longitudinal section; P-566b, x 4.

C: transverse section; P-513a, x 4.
 D: microstructure; ?mini or medium-sized trabeculae, midseptal line; P-566a, x 40.



Gablonzeria profunda (Reuss) 1854

- 1854 *Isastraea profunda* n. sp. REUSS, 116, Pl. 9. figs. 5-6.
 1890 *Isastraea profunda* Reuss. FRECH, 21-22, Pl. 5, figs. 1-3a.
 1976 *Gablonzeria profunda* Reuss. CUIF, 113-114, Textfig. 12, Pl. 12, figs. 2-6 (non 1).
 1986 *Gablonzeria profunda* (Reuss). STANLEY, 30, Pl. 31, figs. 13-14.
 1989 *Gablonzeria profunda* (Reuss). RONIEWICZ, 33-35, Pl. 4, fig. 1, Pl. 5, fig. 3
 1991 *Gablonzeria profunda* (Reuss). TURNŠEK & BUSER, 224, Pl. 1, figs. 1-2.
 1994 *Gablonzeria profunda* (Reuss). STANLEY et al., 82-83, Pl. 1, figs. 6-7.
 1996 *Gablonzeria profunda* (Reuss). BERNECKER, 52.

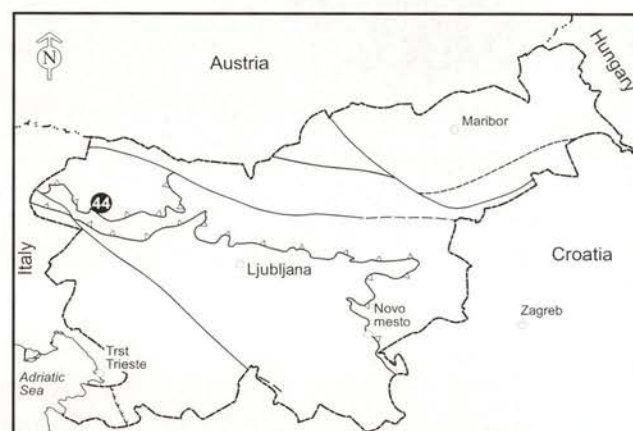
Description: Small cerioid colony with irregularly polygonal corallites, budding by division. Septa compact in 4-5 cycles, lateral granulae, axial trabecular prolongations. Thick septotheca, numerous vesicular dissepiments, columella not clear, microstructure trabecular. (see CUIF 1976, RONIEWICZ 1989). $d = 2.5-4$ mm, $s = 48+s$.

Localities: 44 Rdeči rob (P-910); Austria (Alps), Oman, Peru, Chile, USA, Canada, Alaska, Japan, Pamir (see STANLEY 1994).

Age: T: Norian-Rhaetian; T: Norian-Rhaetian.

Paleoenvironment: Reef body at the southern edge of the Julian Carbonate Platform.

TRIASSIC	Upper	Rhaetian		
		Norian		
		Carnian	Tuvalian	
			Julian	
			Cordevolian	
	Middle	Ladinian		
		Anisian		
	Lower	Scythian		



A: transverse section; P-910a, x 4.
 B: transverse section; P-910b, x 4.
 C: longitudinal section; P-910c, x 4.

D: detail from B, x 8.
 E: microstructure, medium-sized or thick trabeculae; P-910a, x 40.



A



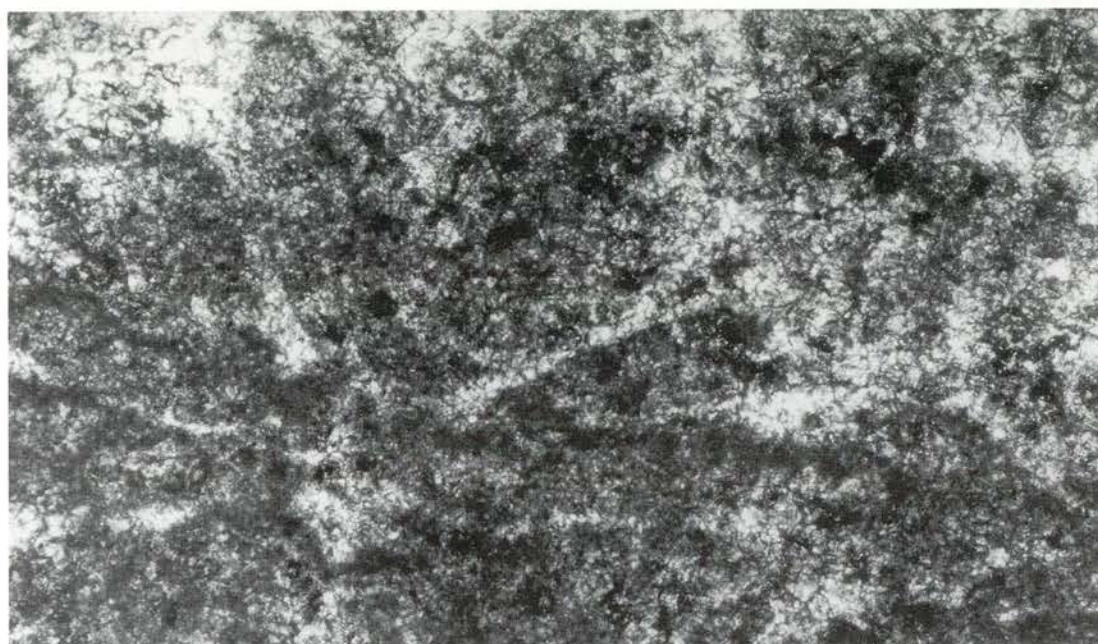
B



C



D



E

Gillastraea delicata Melnikova 1983

1983 *Gillastraea delicata* sp. nov. MELNIKOVA, 52, Pl. 4, fig. 1.

1987 *Gillastraea delicata* Melnikova. TURNŠEK & RAMOVŠ, 36-37, Pl. 6, figs. 3-4.

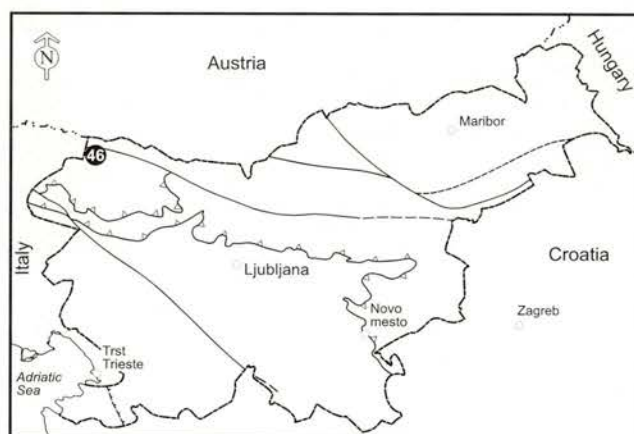
Description: Phaceloid colony with cylindrical corallites. Septa porous, thin, lateral pennulae. ?Paraseptotheca, no costae, synapticalae and dissepiments rare. Columella trabecular, microstructure trabecular. d = 5-9 mm, s = ca 120.

Localities: 46 Šplevta (25/85-A3ad); Pamir.

Age: T: Upper Norian-Rhaetian; T: Upper Norian.

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
			Scythian	
	Lower			



A: transverse section; 25/85-A3a, x 4.

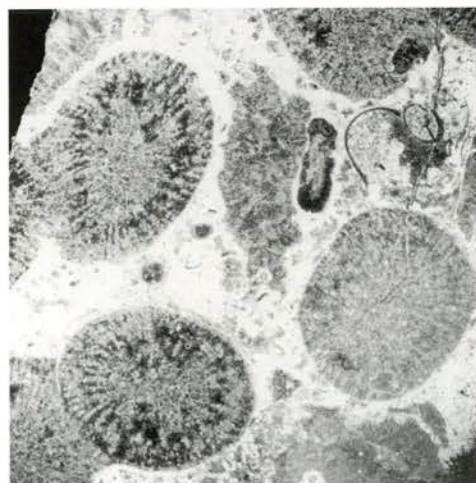
B: transverse section; 25/85-A3b, x 4.

C: detail from A, x 8.

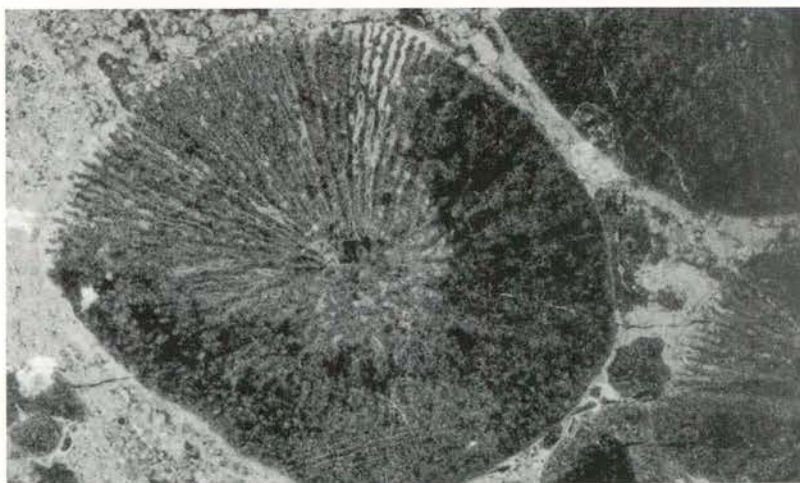
D: microstructure, mini or medium-sized trabeculae; 25/85-A3a, x 40.



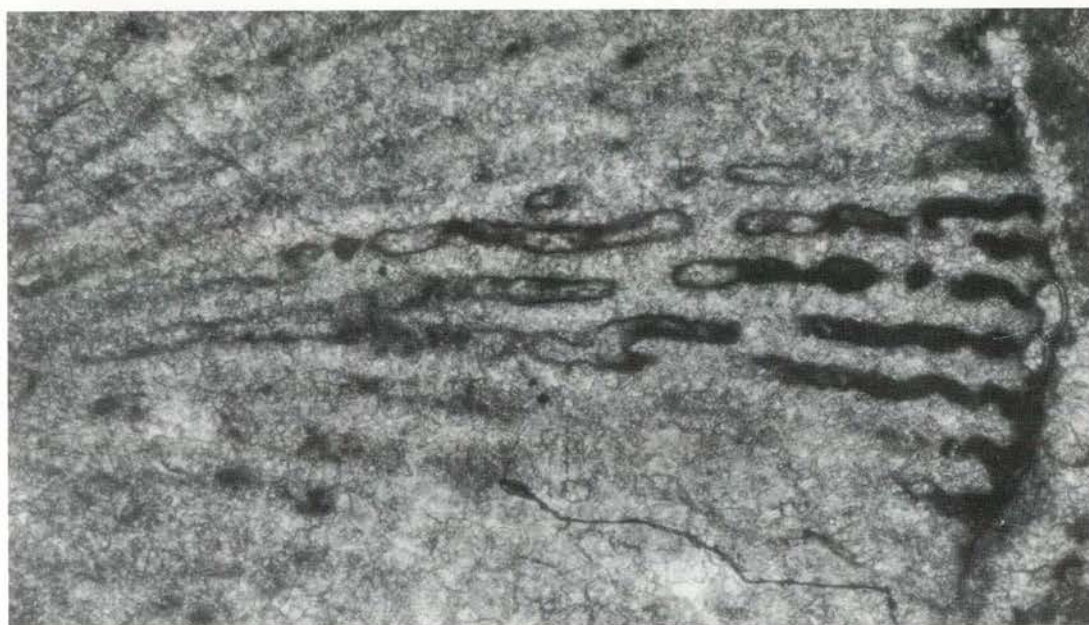
A



B



C



D

Goniocora annulata Roniewicz 1966

- 1966 *Goniocora annulata* n. sp. RONIEWICZ, 194, Pl. 8, fig. 7.
 1972 *Goniocora annulata* Roniewicz. TURNŠEK, 171-172, Pl. 11, fig. 3.
 1994 *Goniocora* cf. *annulata* Roniewicz. LIAO & XIA, 136, Pl. 32, figs. 2-4.

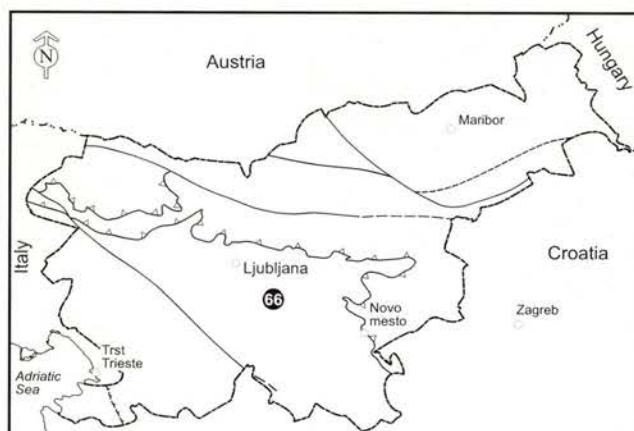
Description: Dendroid phaceloid colony, round corallites, budding at wide angle. Septa decamer, in two cycles, lateral granulae, axial auriculae. Septotheca, styliform columella, subtabulate dissepiments, microstructure trabecular. d = 3-4 mm, s = 20.

Localities: 66 Luče (P-376); Poland, China (Xizang)

Age: J: Upper Oxfordian-Kimmeridgian; J: Upper Oxfordian.

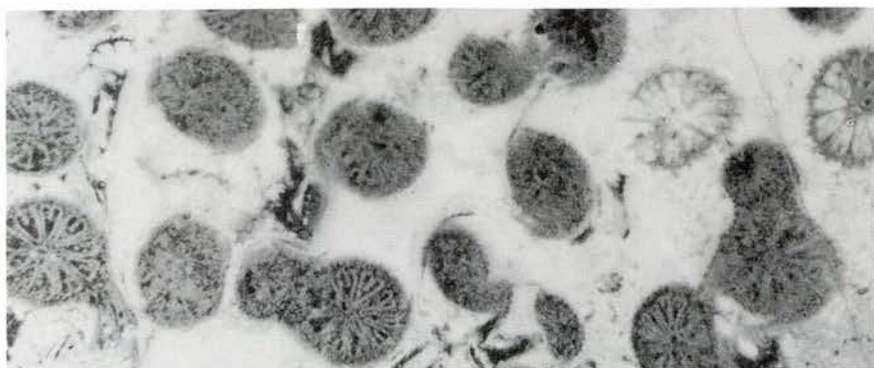
Paleoenvironment: Inner (sheltered) barrier reef on the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-376a, x 4.
 B: longitudinal section; P-376b, x 4.

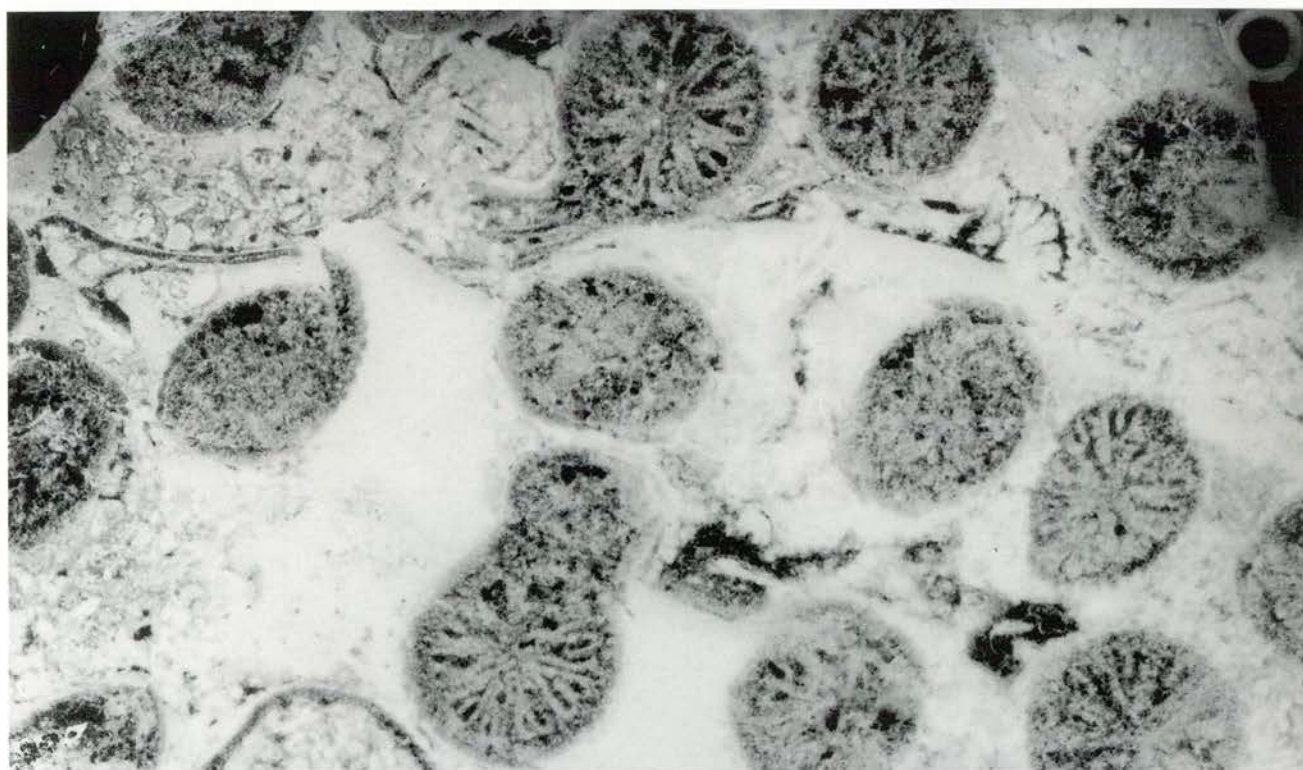
C: the same as A, x 8.
 D: microstructure, ?thick trabeculae; P-376a, x 40.



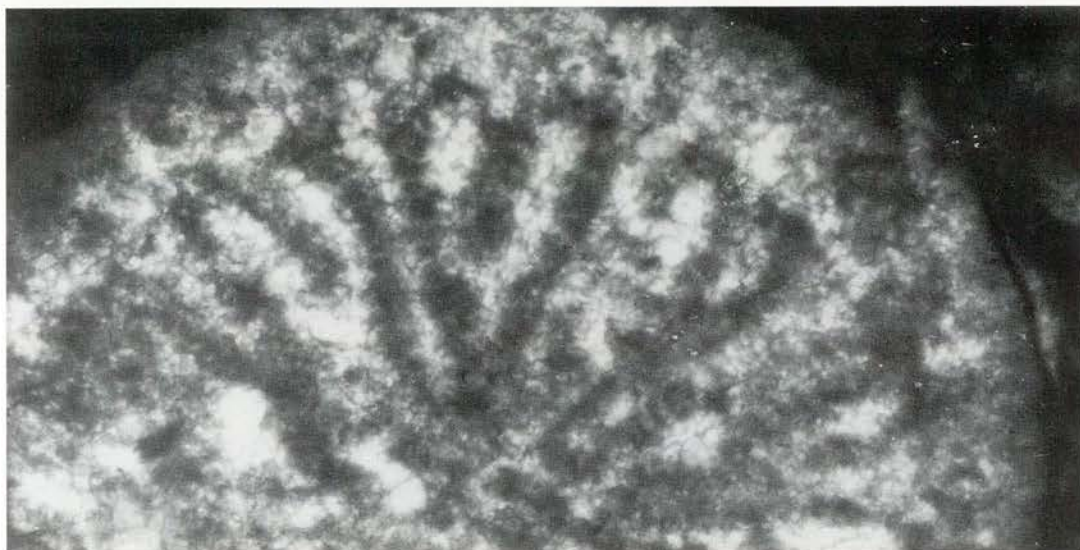
A



B



C



D

Goniocora pumila (Quenstedt) 1852

- 1852 *Caryophyllia pumila*. QUENSTEDT, 652, Pl. 58, fig. 16.
 1875 *Goniocora pumila* Quenstedt. BECKER, 165.
 1954 *Goniocora pumila* (Quenstedt). GEYER, 187, Pl. 15, fig. 7.
 1966 *Goniocora pumila* (Quenstedt). RONIEWICZ, 193-194, Pl. 7, fig. 3.
 1968 *Goniocora pumila* (Quenstedt). LAMBELET, 154-155, Textfigs. 79a-c.
 1972 *Goniocora pumila* (Quenstedt). TURNŠEK, 171, Pl. 11, figs. 1-2.
 1976 *Stylosmilia pumila* (Quenstedt). RONIEWICZ, 57, Pl. 8, fig. 1.
 1982 *Goniocora pumila* (Quenstedt). BENDUKIDZE, 19-20, Pl. 5, fig. 1.
 1985 *Goniocora pumila* (Quenstedt). ROSENDAHL, 42-43.
 1990 *Stylosmilia pumila* (Quenstedt). ERRENT, 176-177, Pl. 5, figs. 5ab.
 1993 *Stylosmilia pumila* (Quenstedt). DOZET & TURNŠEK, 69, Pl. 1, fig. 5.

Description: Phaceloid colony, corallites round, budding at wide angle. Septa decamerall in two cycles, lateral granulae, axial auriculae. Septotheca costate, subtabulate dissepiments, styliiform columella, microstructure not preserved. d = 2.5-3 mm, s = 20.

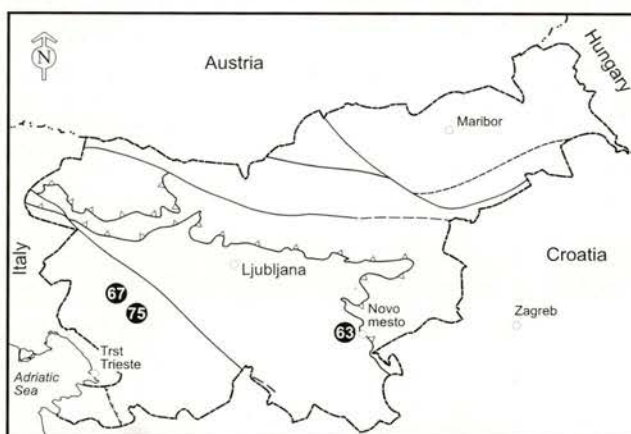
Remarks: I recognize *Goniocora* because it differs from *Stylosmilia* in budding at wide angle.

Localities: 67 Otlica (P-434, P-437), 63 Frata-Mali vrh (P-406), 75 Nanos (P-951); Germany, Switzerland, Portugal, Poland, Czech R. (Štramberk), Romania, Crimea, Spain.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian-Tithonian.

Paleoenvironment: Inner (sheltered) barrier reef on the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
	Lias	Toarcian	
		Pliensbachian	
		Sinemurian	
		Hettangian	

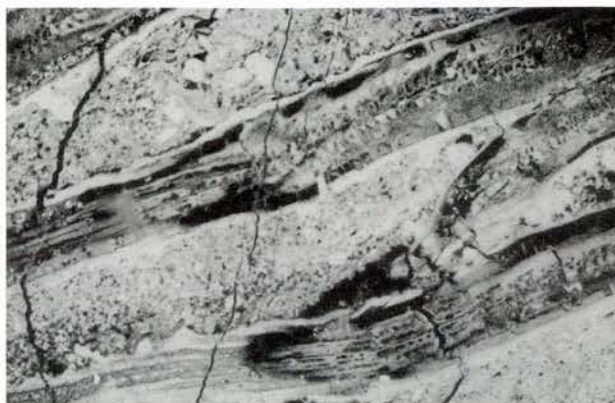


A: transverse section; P-437a, x 4.
 B: longitudinal section; P-437b, x 4.

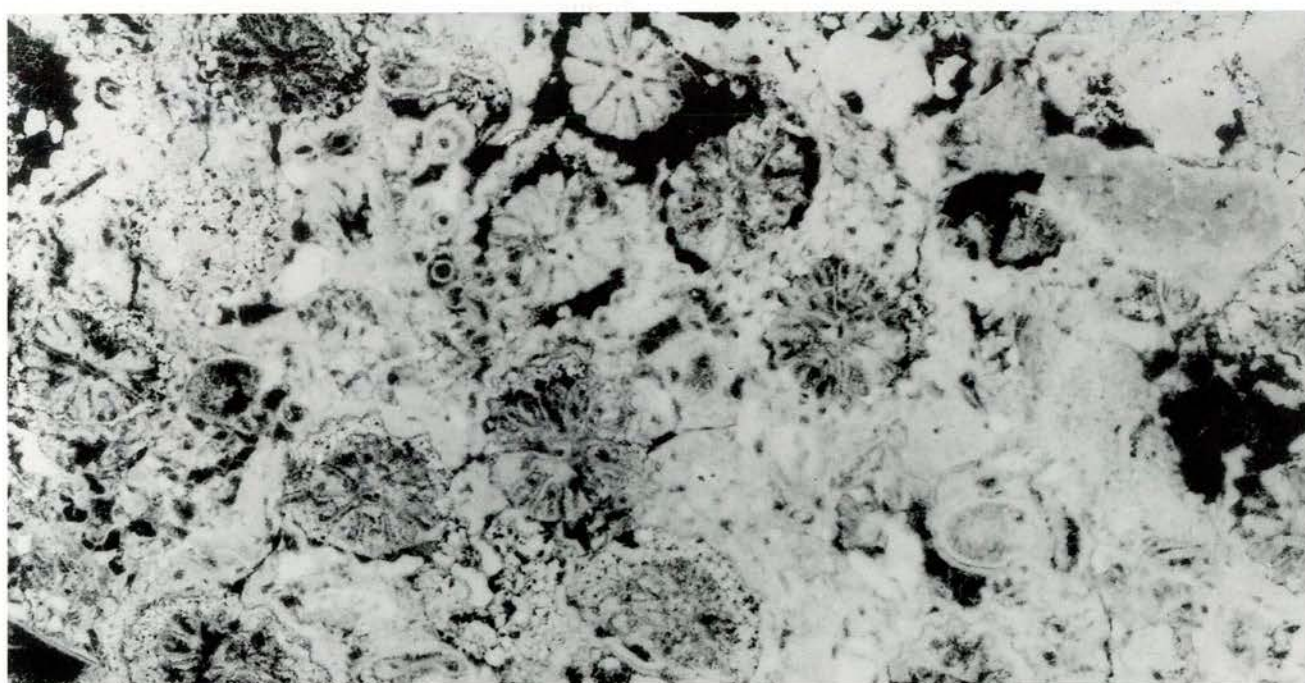
C: the same as A, x 8.
 D: microstructure; ?midseptal line; P-437a, x 40.



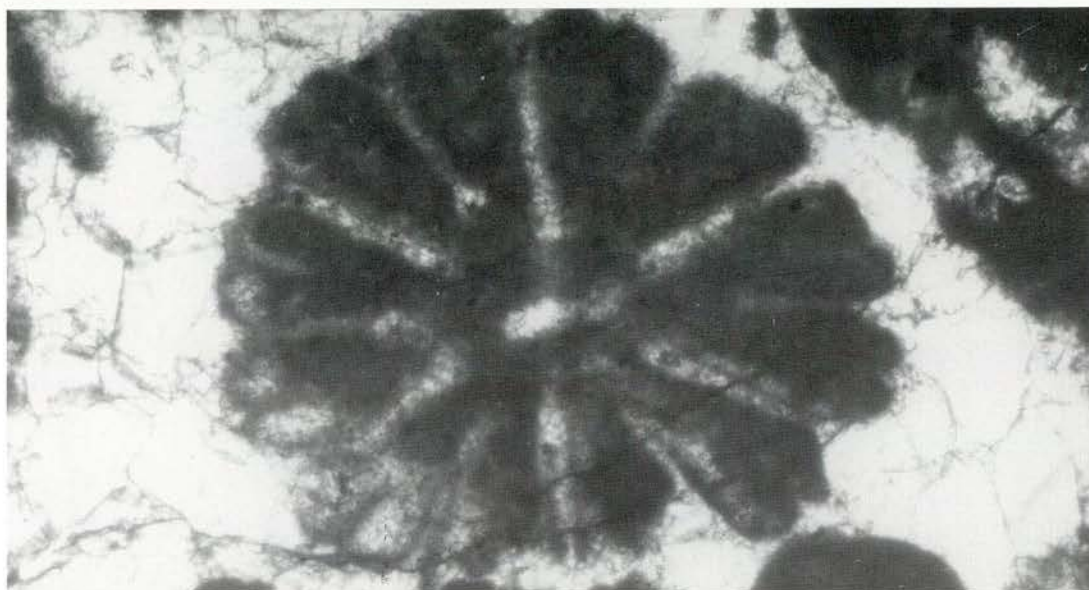
A



B



C



D

Gumbelastrea guembeli (Laube) 1865

- 1865 *Isastraea Gümbeli* Laube. LAUBE, 263, Pl. 7, fig. 2.
 1896 *Isastraea Gümbeli* Laube. VOLZ, 50, Pl. 4, figs. 1-5.
 1975 *Isastraea guembeli* Laube. CUIF, 102-104, Pl. 14, figs. 1-6.
 1976 *Gumbelastrea guembeli* Laube. CUIF, 105-108, Pl. 8, figs. 1-6.
 1984 *Gumbelastrea guembeli* (Laube). RAMOVŠ & TURNŠEK, 175, Pl. 3, figs. 3-5.
 1990 *Gumbelastrea guembeli* (Laube). RIEDEL, 61, Pl. 11, fig. 3.
 1993 *Gumbelastrea guembeli* (Laube). ZAMPARELLI, 252, Pl. 3, figs. 1-3.

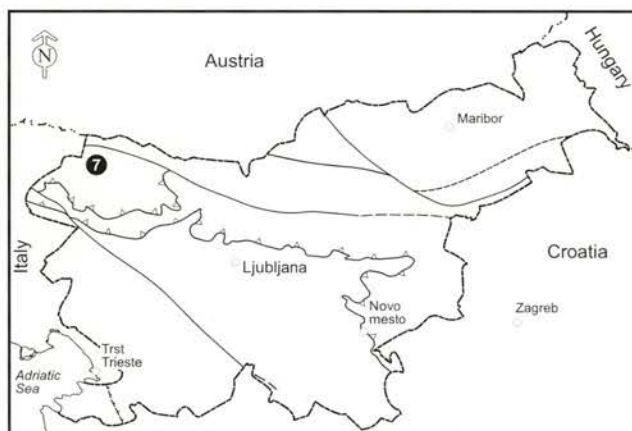
Description: Cerioid colony with polygonal to oval corallites, budding by division. Septa compact, in 3-4 cycles, irregularly granulated, thickened in axial part. Septotheca, vesicular dissepiments, no columella, somewhere axial prolongations of septa. Microstructure of centrated trabeculae. $d = 2-3$ mm, $s = 30-35$.

Localities: 7 Krnica (SJA-58/1); Italy (Dolomites, Campania).

Age: T: Carnian (Cordevolian); T: Carnian (Cassian beds).

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

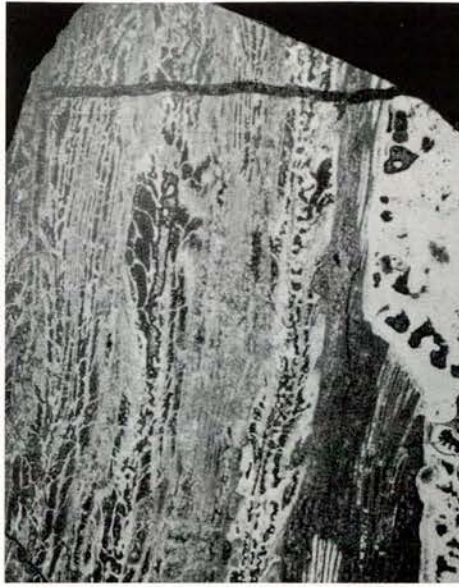
TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
			Scythian	
	Lower			



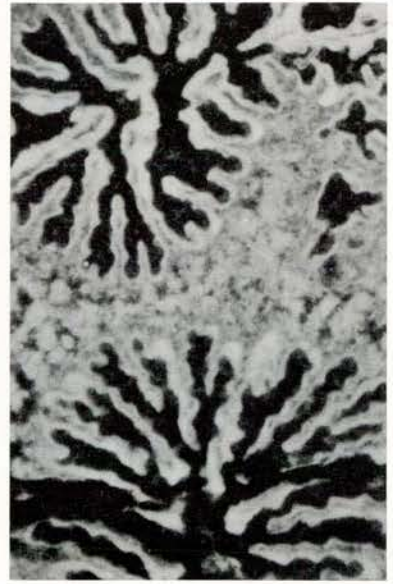
A: transverse section; SJA-58/1a, x4.
 B: longitudinal section; SJA-58/1b, x 4.
 C: detail from A, x 8.



A



B



C

Heliocoenia costulata Koby 1881

- 1881 *Heliocoenia costulata* Koby. Koby, 64, Pl. 30, fig. 4.
 1972 *Heliocoenia costulata* Koby. TURNŠEK, 168, Pl. 8, figs. 1-2.
 1981 *Heliocoenia costulata* Koby. ELIÁŠOVÁ, 130.
 1990 *Heliocoenia costulata* Koby. ERRENST, 181-182, Pl. 7, figs. 1ab.

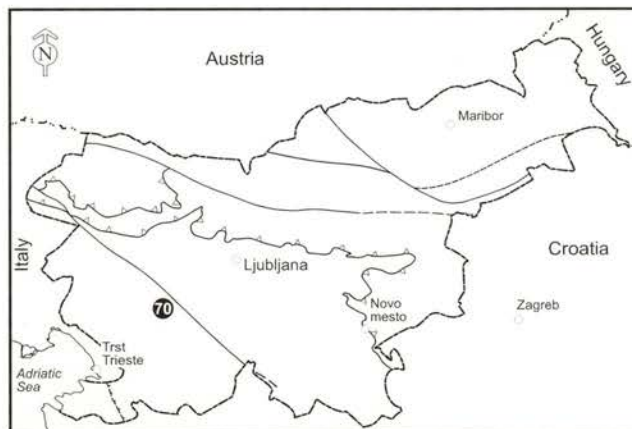
Description: Plocoid colony with round to slightly oval corallites, costate peritheca, budding extracalicular. Septa hexameral, in 2-3 cycles, lateral spinous granulae. Paraseptotheca, costate peritheca, columella slightly lamellar, subtabulate to vesicular dissepiments. Microstructure trabecular, poorly preserved. $d = 1.4-1.8$ mm, $c-c = 2.5-4$ mm, $s = 12+s$.

Localities: 70 Bukovje (P-296); Switzerland, Czech R. (Štramberk), Spain.

Age: J: Upper Oxfordian-Kimmeridgian; J: Bathonian-Kimmeridgian-Tithonian.

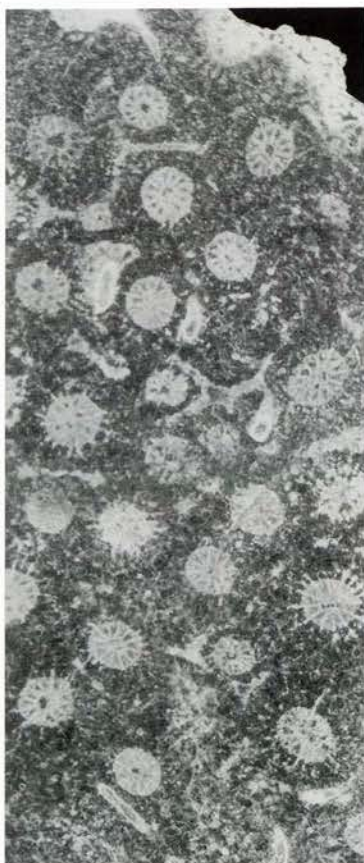
Paleoenvironment: Inner barrier reef and patch reef in the back reef area on the Dinaric Carbonate Platform.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	

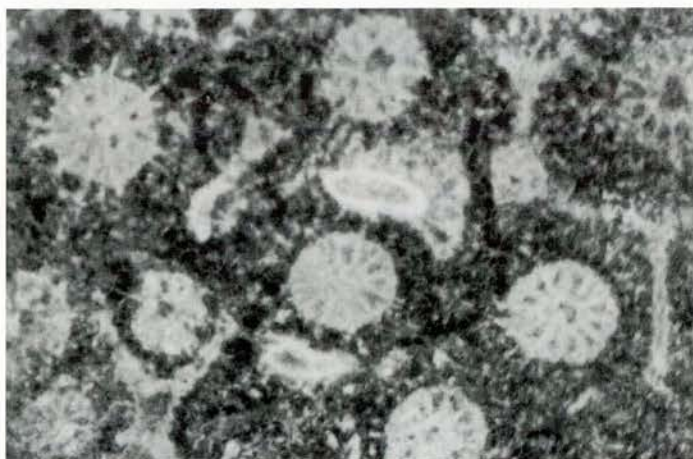


A: transverse section; P-296a, x 4.
 B: longitudinal section; P-296b, x 4.
 C: detail from A, x 8.

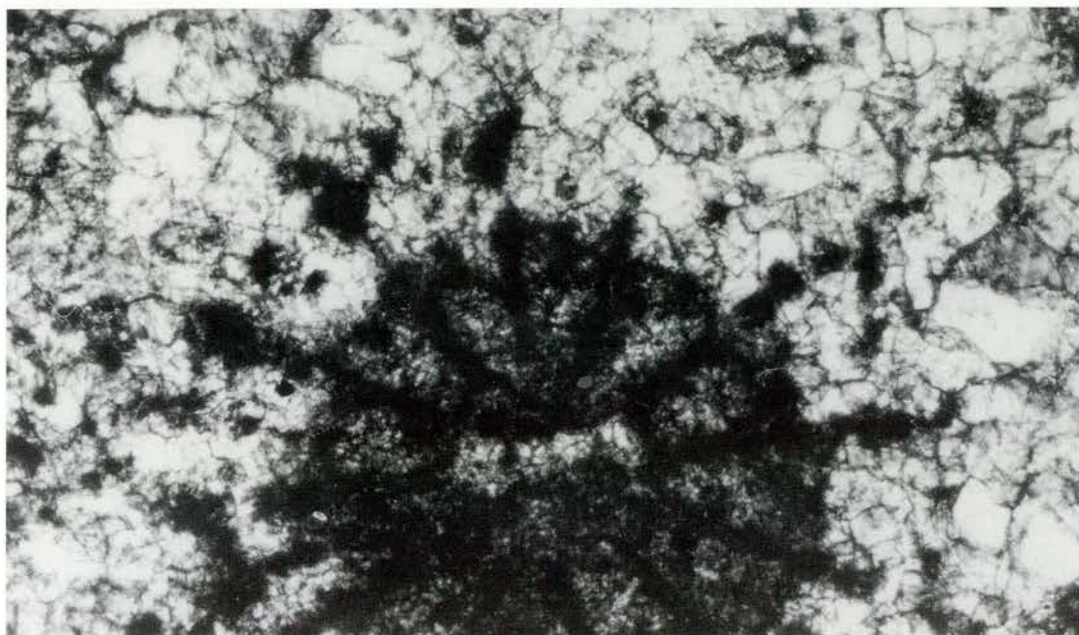
D: microstructure, ?medium-sized to thick trabeculae; P-296a, x 40.



B



A C



D

Heliocoenia variabilis (Étallon) 1859

- 1859 *Heliocoenia variabilis*. ÉTALLON, 475.
 1881 *Heliocoenia variabilis* Étallon. Koby, 66-67, Pl. 28, figs. 1-2, Pl. 30, fig. 5.
 1955b *Heliocoenia variabilis* Étallon. GEYER, 341.
 1965 *Heliocoenia* cf. *variabilis* Étallon. KRKOVIĆ, 168.
 1966 *Heliocoenia* (*Decaheliocoenia*) *variabilis* Étallon. RONIEWICZ, 207-208, Pl. 10, fig. 1, Textfigs. 9D-E.
 1968 *Heliocoenia* (*Decaheliocoenia*) *regularis* n. sp. TURNŠEK, 9-10, 20-21, Pl. 8, figs. 1-3.
 ?1968 *Stylina* (*Heliocoenia*) *variabilis* Étallon. LAMBELET, 159-162, Textfigs. 80-81.
 1972 *Heliocoenia variabilis* Étallon. TURNŠEK, 168-169, Pl. 8, fig. 3, Pl. 9, figs. 1-6.
 1975 *Heliocoenia variabilis* Étallon. TURNŠEK, 9, Pl. 1, figs. 4-5.
 1976 *Heliocoenia variabilis* Étallon. RONIEWICZ, 60, Pl. 9, fig. 4.
 1977 *Heliocoenia variabilis* Étallon. PAPOJAN, 35, Pl. 1, fig. 5.
 1979a *Heliocoenia variabilis* Étallon. SIHARULIDZE, 10, Pl. 1, fig. 1, Pl. 4, fig. 1.
 1981 *Heliocoenia variabilis* Étallon. ELIÁŠOVÁ, 129.
 1982 *Heliocoenia variabilis* Étallon. BENDUKIDZE, 29-30, Pl. 6, fig. 2, Pl. 7, figs. 1ab.
 1985 *Heliocoenia variabilis* Étallon. ROSENDAHL, 42.
 1990 *Heliocoenia variabilis* Étallon. ERRENT, 182-183, Pl. 7, figs. 2a-g. Synonymy.
 1993 *Heliocoenia variabilis* Étallon. DOZET & TURNŠEK, 69, Pl. 1, fig. 2.

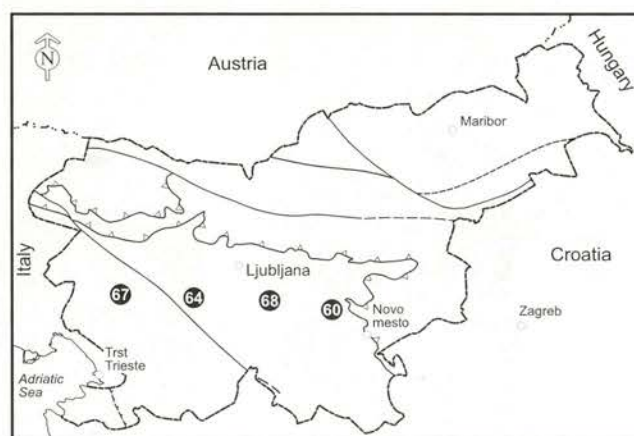
Description: Plocoid colony, corallites round to oval of different size, extracalicular budding. Septa decamer in two irregular cycles. Septoparatheca, slightly lamellar columella, subtabular and vesicular dissepiments. $d = 1.5-2.3$ mm, $c-c = 1.5-2.5$ mm, $s = 17-20$.

Localities: 60 Dobrnič (P-384), 67 Otlica (P-423, P-427, P-433, P-436), 64 Logaška planota (P-931), 68 Predole (P-380, P-381); France, Switzerland, Montenegro, Croatia, Portugal, Poland, Armenia, Georgia, Czech R. (Štramberk), Spain, Romania.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian-Tithonian.

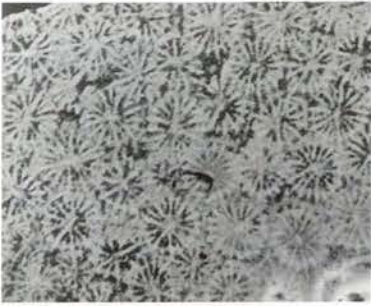
Paleoenvironment: Inner (sheltered) barrier reef on the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	

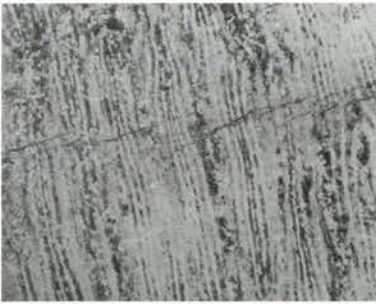


- A: transverse section; P-423a, x 4.
 B: longitudinal section; P-423b, x 4.
 C: transverse section; P-384a, x 4.
 D: longitudinal section; P-384b, x 4.

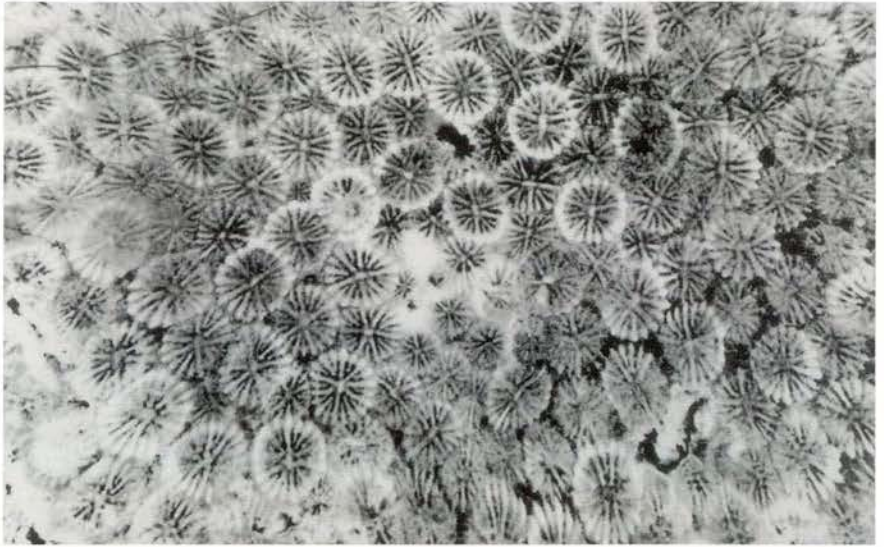
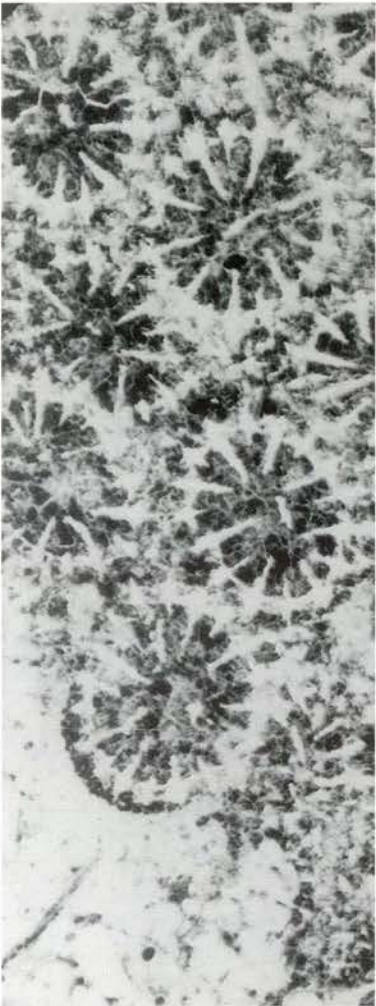
- E: the same as D, x 8.
 F: transverse section; P-433a, x 8.
 G: microstructure, medium-sized to thick trabeculae; P-423a, x 40.



A
B



F



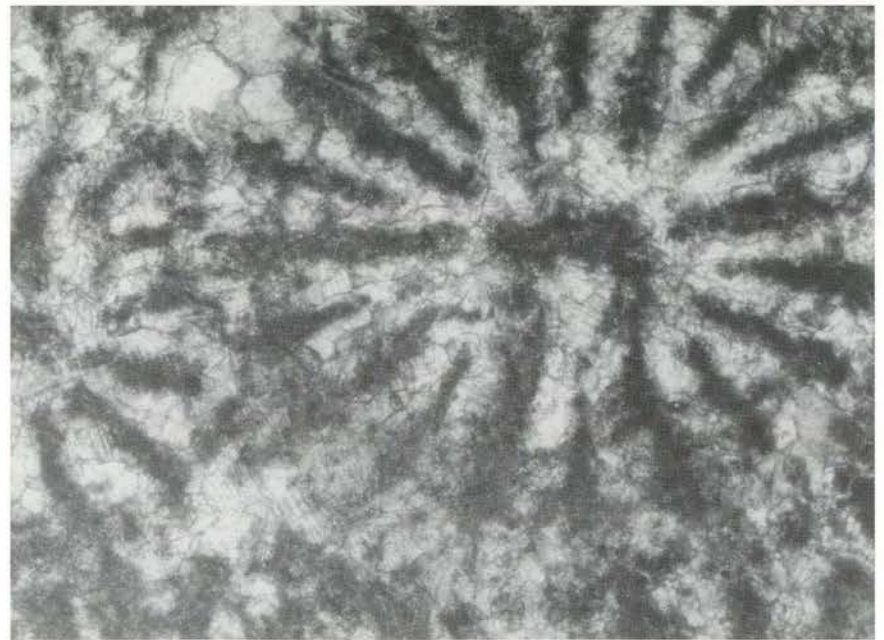
C



D



E



G

Heterocoenia grandis Reuss 1854

- 1854 *Heterocoenia grandis* n. REUSS, 100, Pl. 10, figs. 1-2.
 1903 *Heterocoenia grandis* REUSS. FELIX, 229-230, Pl. 19, figs. 1, 6, 7.
 1930 *Heterocoenia grandis* REUSS. OPPENHEIM, 262-263, Pl. 48, fig. 9.
 1976 *Heterocoenia grandis* REUSS. TURNŠEK & BUSER, 50-51, 76, Pl. 5, figs. 1-3.

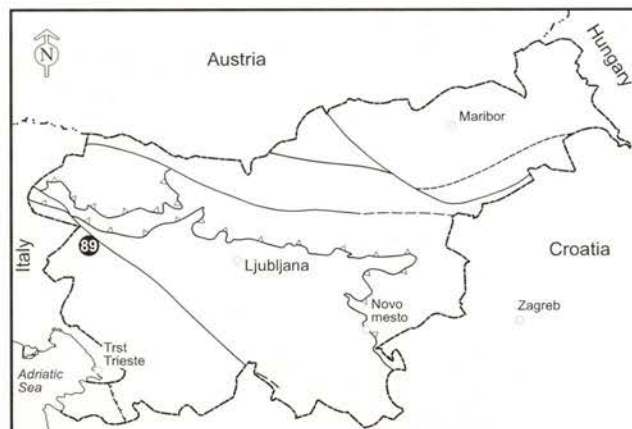
Description: Plocoid colony with round corallites and large peritheca, budding extracalicular. Septa radial to bilateral, in hexamerous system, uneven, thicken toward wall, lateral granulae. Paraseptotheca, long bent lonsdaleoid dissepiments, no columella but some kind of trabecular structure. Microstructure of fibres running parallel to septa and wall. $d = 3-4(7)$ mm, $cc = ca$ 7 mm, $s = 6+s$, d of peritheca = 1-3 mm.

Localities: 89 Kanalski Lom (P-587c,d,i,h,g); Austria (Gosau)

Age: K: Senonian breccia; K: Santonian-Campanian.

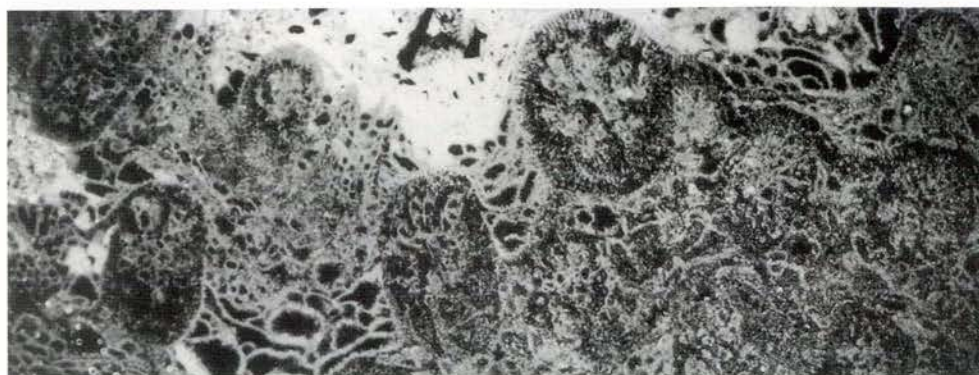
Paleoenvironment: Outer slope of the Dinaric Carbonate Platform. Reef limestone resedimented in breccia.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
		Turonian		
		Cenomanian		
	Lower	Albian		
		Aptian		
		Barremian		
		Hauterivian		
		Valanginian		
		Berriasian		



A: transverse section; P-587c, x 4.
 B: longitudinal section; P-587d, x 4.
 C: transverse section; P-587i, x4.

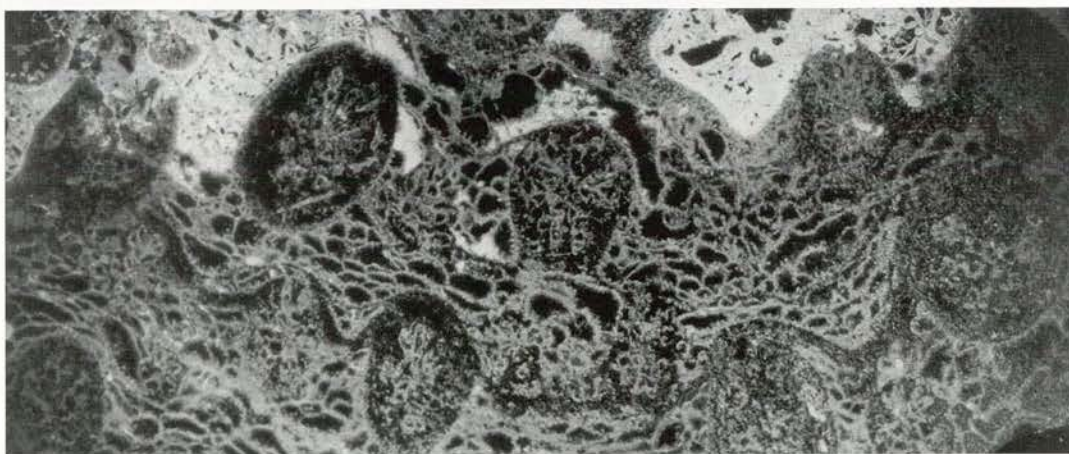
D: microstructure, ?fibres in septa and wall, poorly preserved; P-587c, x 40.



A



B



C



D

Hydnophora ataciana d'Orbigny 1850

- 1850 *Hydnophora ataciana*. D'ORBIGNY, II, 207.
 1930 *Hydnophoraraea parviconus* n. sp. OPPENHEIM, 227, Pl. 18, figs. 3,5,8.
 1982 *Hydnophora styriaca ataciana* d'Orbigny. BEAUVAIS, I, 90-92, Pl. 5, fig.4.
 1994 *Hydnophora ataciana* d'Orbigny. TURNŠEK et al., 11, Pl. 4, figs. 1-7.

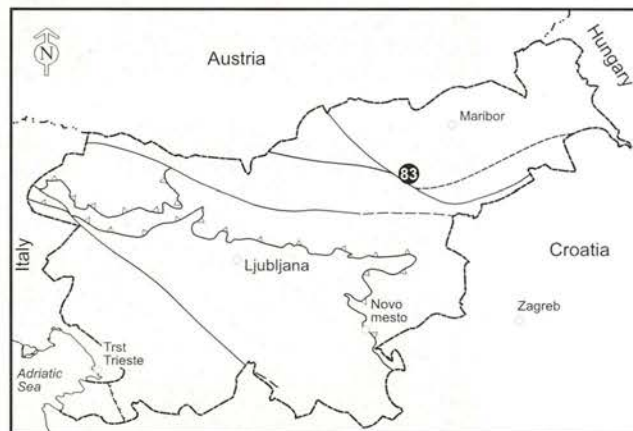
Description: Colony of cylindrical shape, hydnochoroid corallites, budding circumthecal. Collines very narrow and irregularly arranged. Septa compact, laterally granulated, axially thickened. Centres of corallites in series unclear, columella unclear (?dotted). Dissepiments tabulate and vesicular, microstructure not preserved. d (coline with septa) = (1.5)2(2.5) mm, cc (between colinae) = 2-3 mm, s (around one colina) = 6-8(12).

Localities: 83 Stranice-quarry (1/1, 1/12, 1/23); Austria (Gosau), France (Corbières).

Age: K: Santonian-Campanian; K: Santonian.

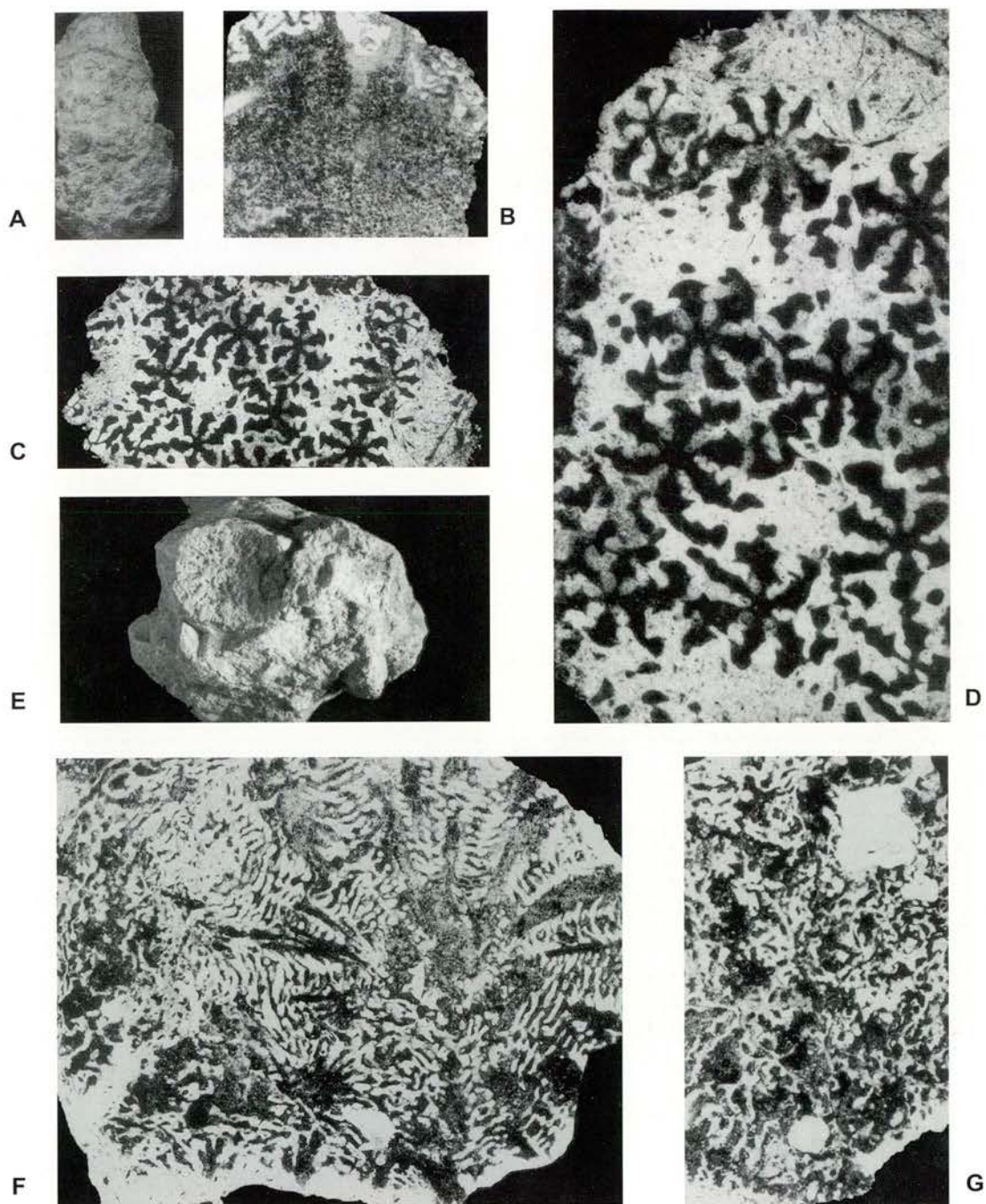
Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
		Turonian		
		Cenomanian		
		Lower	Albian	
	Aptian			
	Barremian			
	Hauterivian			
	Valanginian			
	Berriasian			



- A: surface showing calices; St-1/23, x1.
 B: radial longitudinal section; St-1/23b, x 4.
 C: transverse peripheral section; St-1/23a, x 4.
 D: the same as C, x 8.

- E: surface showing radial section; St-1/12, x 1.
 F: radial longitudinal section; St-1/12b, x 4.
 G: transverse peripheral section; St-1/12a, x 4.



Hydnophora multilamellosa Reuss 1854

- 1854 *Hydnophora multilamellosa* m. REUSS, 111, Pl. 14, figs. 5-6.
 1930 *Hydnophoraraea multilamellosa* Reuss. OPPENHEIM, 92-93, 228-230, Pl. 14, figs. 2-2ab, Pl. 47, fig. 9.
 1982 *Hydnophora multilamellosa* Reuss. BEAUVAIS, I, 92-93, Pl. 5, fig. 3.
 1994 *Hydnophora multilamellosa* Reuss. TURNŠEK, 12, Pl. 5, figs. 1-5.
 1996 *Hydnophora styriaca*. JURKOVŠEK et al. Pl. 12, fig. 5.

Description: Bulbous colonies with hydnophoroid circular to oval collines, corallites in series with unclear centres. Septa compact, in 2-3 cycles, laterally strongly granulated, axially thickened. Columella looks parietal, dissepiments vesicular, microstructure not preserved. d (colline with septa) = (1.5)2-3(3.5) mm, s around one coline = (10)15-20(21).

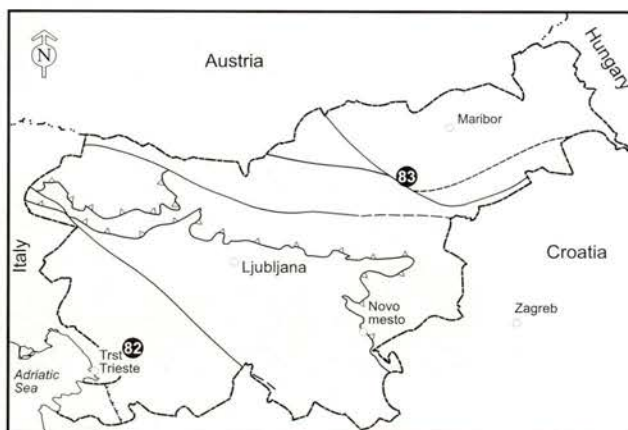
Remarks: A preliminary Lipica specimen was attributed to *Hydnophora styriaca* (JURKOVŠEK et al. 1996), which has very similar calices but fewer septa. Therefore it is here revised.

Localities: 83 Stranice-quarry 1/18, 82 Lipica (Jurkovšek collection); Austria (Gosau), France (Corbières).

Age: K: Santonian-Campanian; K: Santonian.

Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



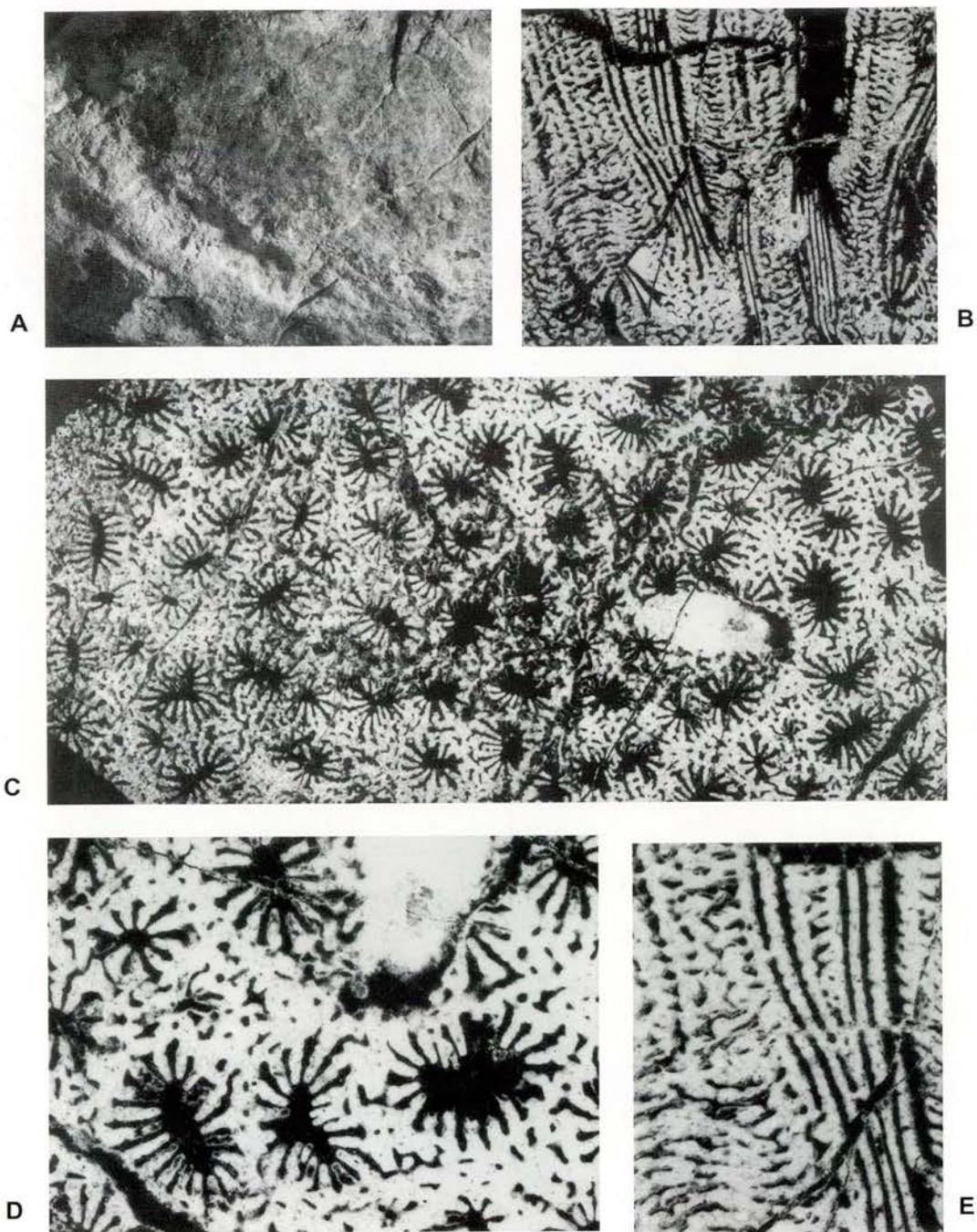
A: surface showing calices; St-1/18, x 1.

B: longitudinal section, St-1/18b, x 4.

C: transverse section; St-1/18a, x4.

D: detail from C, x 8.

E: detail from B, x 8.



Hydnophora styriaca (Michelin) 1847

- 1847 *Monticularia styriana*. MICHELIN, 295, Pl. 68, fig. 2;
 1930 *Hydnophoraraea styriaca* Michelin. OPPENHEIM, 224-225, Pl. 14, fig. 4; Pl. 18, figs. 1, 6;
 1954 *Hydnophora styriaca* (Michelin). KOLOSÁRY, 85, Pl. 6, figs. 13-16.
 1961 *Hydnophora styriaca* Michelin. SURARU, 129.
 1976 *Hydnophoraraea styriaca* (Michelin). TURNŠEK & BUSER, 55-56, 78, Pl. 11, figs. 4-6.
 1979 *Hydnophoraraea* aff. *styriaca* (Michelin). SCHOLZ, 62-65, Textfigs. 50-51.
 1982 *Hydnophora styriaca* (Michelin). BEAUVAIS, I, 88, Pl. 5, fig. 4, Pl. 7, fig. 4, Pl. 62, figs. 3-4.
 1996 *Hydnophora styriaca* (Michelin). BARON-SZABO & STEUBER, 11, Pl. 2, figs. 2, 4.
 1997 *Hydnophora styriaca* (Michelin). BARON-SZABO, 52, Pl. 3, fig. 2.

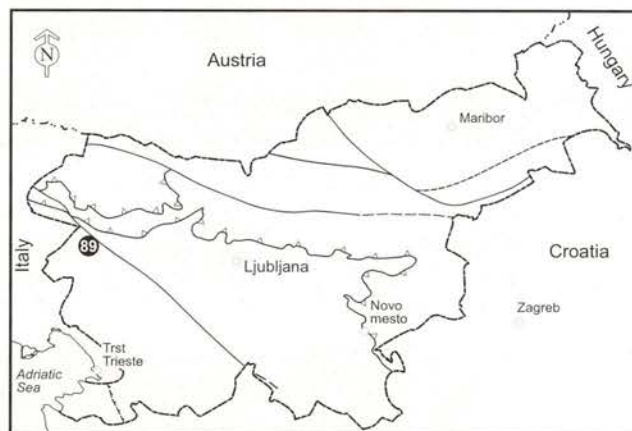
Description: Semicircular hydnochoroid colony with short unequal wide collines and corallites in series, budding intracalicular. Septa in two cycles, axially thickened, laterally granulated, no clear centres. Septotheca, numerous subhorizontal dissepiments. Microstructure trabecular. $d_{ser} = 1.5-2.5$ mm, density of septa = $3/2$ mm, around one coline = 4-12 septa.

Localities: 89 Kanalski Lom (P-568, P-569); Austria, Germany, Hungary, Romania.

Age: K: Senonian breccia; K: Santonian-Campanian.

Paleoenvironment: Outer slope of the Dinaric Carbonate Platform. Reef limestone resedimented in breccia.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



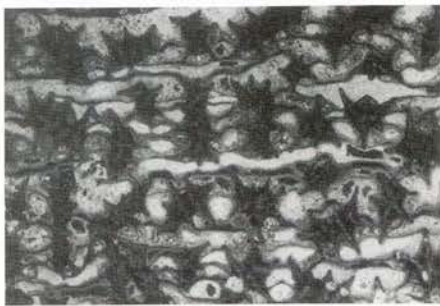
A: transverse section; P-568a, x 4.

B: transverse oblique section; P-568c, x 4.

C: longitudinal section; P-568b, x 4.

D: detail from A, x 8.

E: microstructure; ?medium-sized trabeculae, somewhere midseptal line; P-568a, x 40.



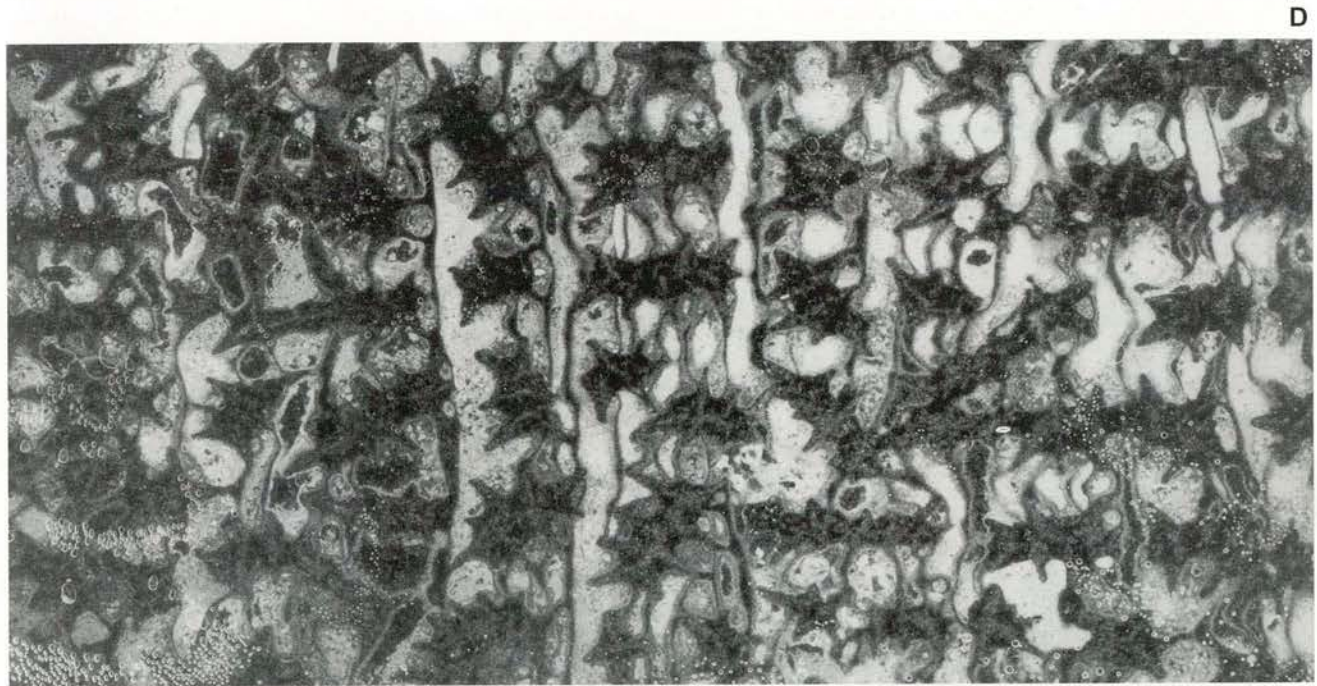
A



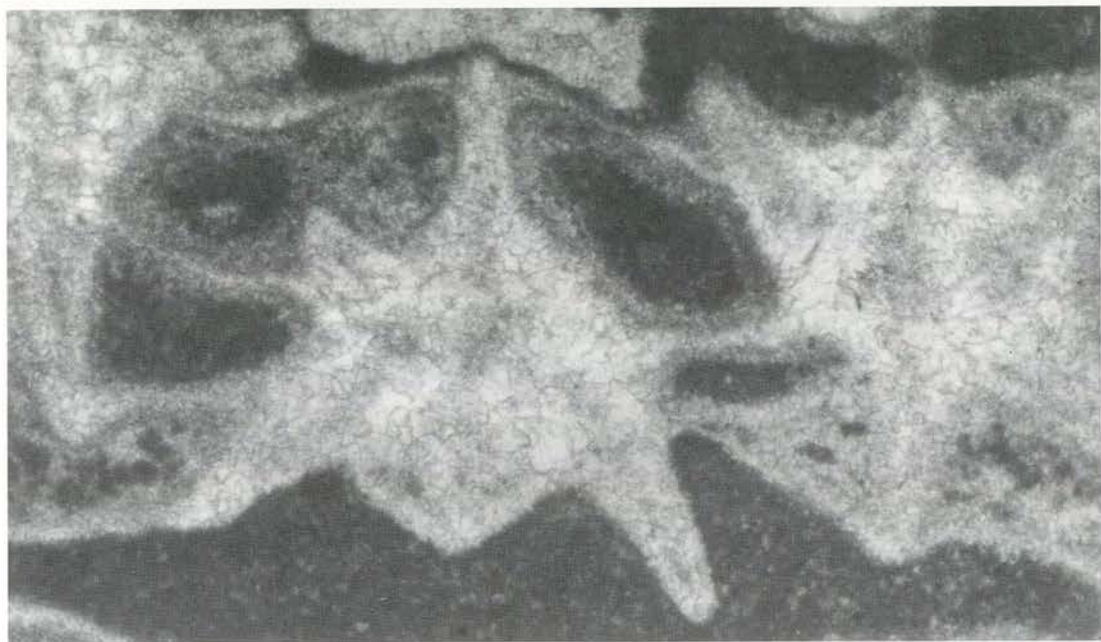
B



C



D



E

Ironella giseldonensis Starostina & Krasnov 1970

1970 *Ironeolla giseldonensis* sp. nov. KRASNOV & STAROSTINA, 80, Pl. 5, fig. 2.

1974 *Ironella giseldonensis* Starostina & Krasnov, TURNŠEK & BUSER, 95-96, 114, Pl. 1, fig. 1.

Description: Massive plocoid colony, round corallites and dissepimental peritheca. Septa thick, hexameral in three cycles, not confluent, laterally granulated. Paratheca, no columella, endotheca and exotheca of vesicular dissepiments. Microstructure trabecular fibrous. $d = (2,5)3-4$ mm, $cc = 5-6$ mm, $s = 24(22)$.

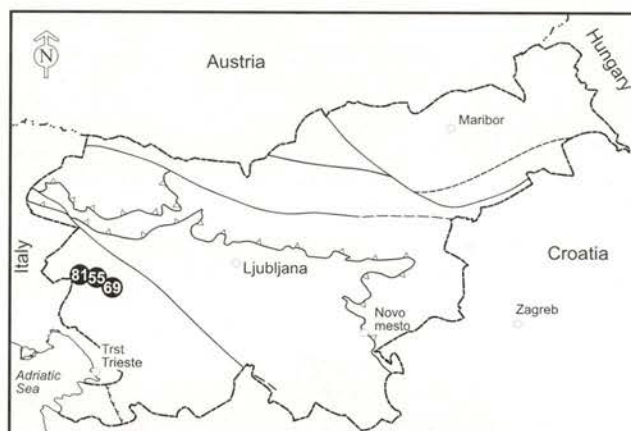
Localities: 81 Zavrh (P-672), 55 Mrzovec (P-455), 69 Selovec (P-487); Caucasus.

Age: J: Upper Oxfordian-Kimmeridgian, K: Valanginian; J: Tithonian.

Paleoenvironment: Outer and inner (sheltered) barrier reef at the edge of the Dinaric Carbonate Platform.

CRETACEOUS	Upper	Senonian
		Turonian
		Cenomanian
	Lower	Albian
		Aptian
		Barremian
		Hauterivian
		Valanginian
		Berriasian
Malm	Tithonian	
	Kimmeridgian	
	Oxfordian	





A: transverse oblique section; P-672a, x 4.

B: longitudinal oblique section; P-672b, x 4.

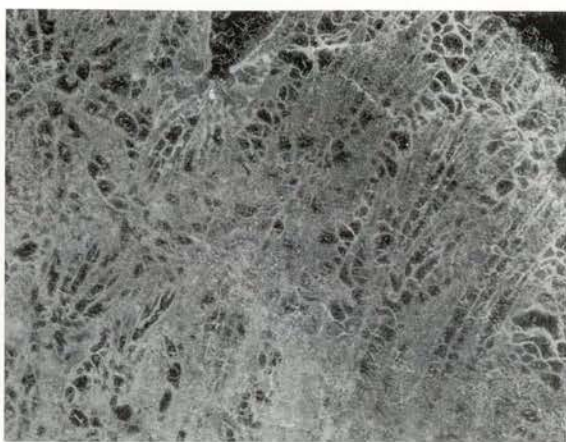
C: transverse section; P-487a, x 4.

D: longitudinal oblique section; P-487b, x 4.

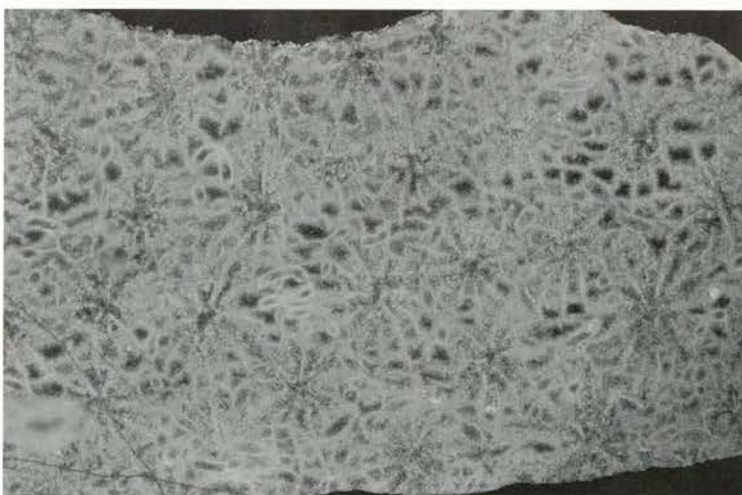
D: microstructure, medium-sized ?divergent trabeculae and fibres; P-672a, x 40.



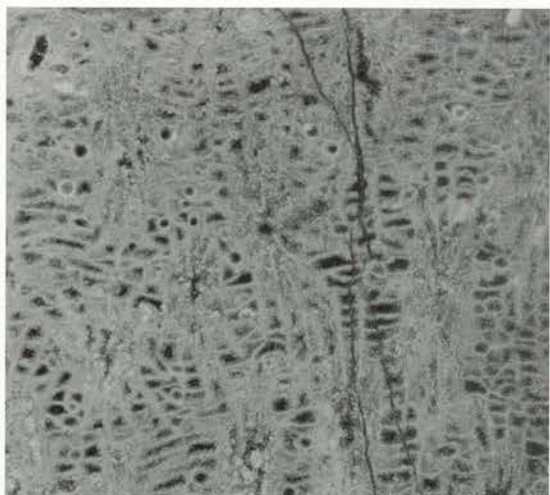
A



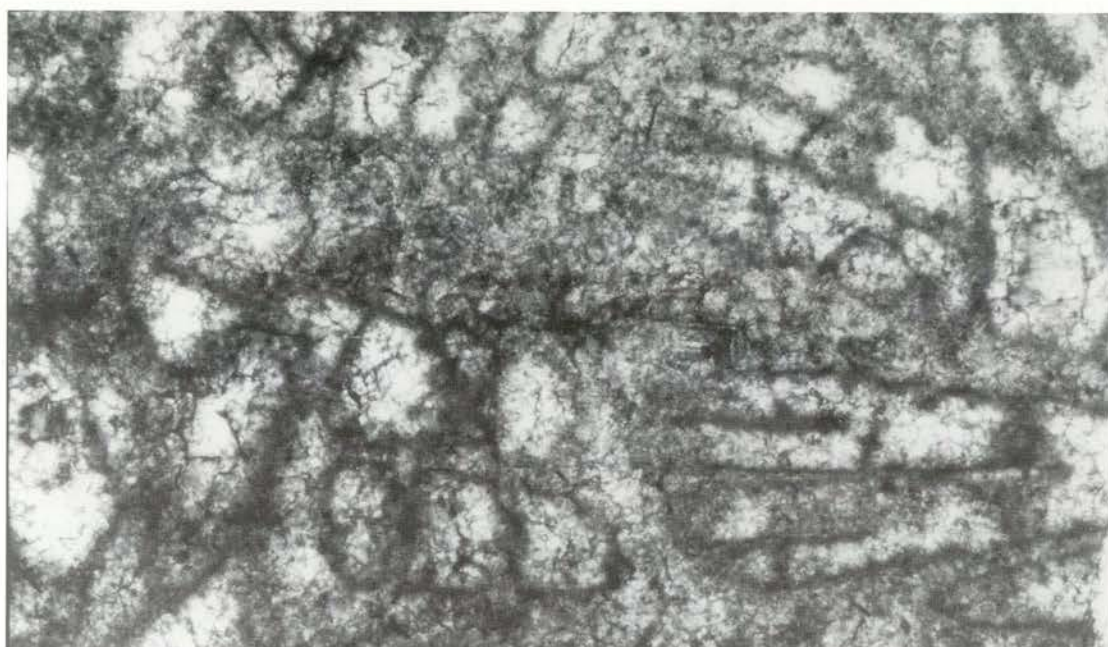
B



C



D



E

Isastraea helianthoides (Goldfuss) 1826

- 1826 *Astraea helianthoides*. GOLDFUSS, 65, Pl. 22, fig. 4a.
 1954 *Isastraea helianthoides* (Goldfuss). GEYER, 184-185, Pl. 15, fig. 4.
 1966 *Isastraea helianthoides* (Goldfuss). RONEWICZ, 216-217, Pl. 13, fig. 1, Pl. 15, figs. 3-4, Textfig. 11.
 1970 *Isastraea helianthoides* (Goldfuss). BABAEV, 87, Table 2.
 1972 *Isastraea helianthoides* (Goldfuss). TURNSEK, 181-182, Pl. 21, figs. 1-2.
 1976 *Isastraea cf. helianthoides* (Goldfuss). RONEWICZ, 66-67, pl. 13, fig. 4.
 1977 *Isastraea helianthoides* (Goldfuss). PAPOJAN, 37, Pl. 1, figs. 1-2.
 1982 *Isastraea helianthoides* (Goldfuss). BENDUKIDZE, 58-60, Pl. 13, fig. 6, Pl. 18, figs. 3-4.
 1990 *Isastraea helianthoides* (Goldfuss). ERRENT, 193-194, Pl. 11, figs. 2a-c,
 1994 *Isastraea helianthoides* (Goldfuss). ELIAŠOVÁ, 67, Pl. 1, fig. 2.
 1994 *Isastraea helianthoides* (Goldfuss). LIAO & XIA, 165, Pl. 47, figs. 4-6.

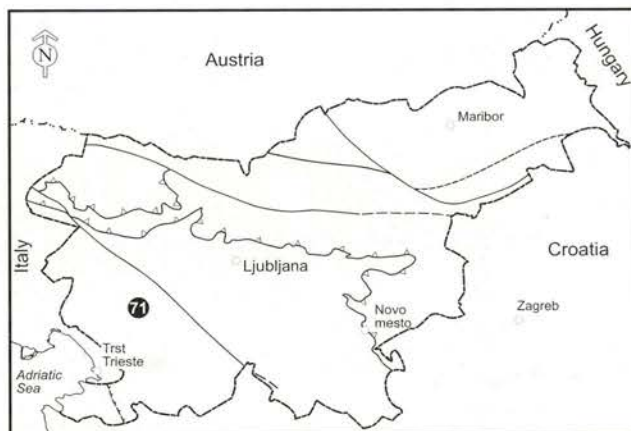
Description: Massive cerioid colony with different roundish to polygonal corallites, budding intracalicular. Septa compact, with sharp lateral granulae. Paraseptotheca, columella parietal, vesicular dissepiments, microstructure trabecular. d = 5-10 mm, s = 30-35 (14/5 mm).

Localities: 71 Col (P-292); Germany, Poland, Switzerland, Caucasus, Crimea, Romania, Spain, Czech R. (Brno), China (Xizang).

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian.

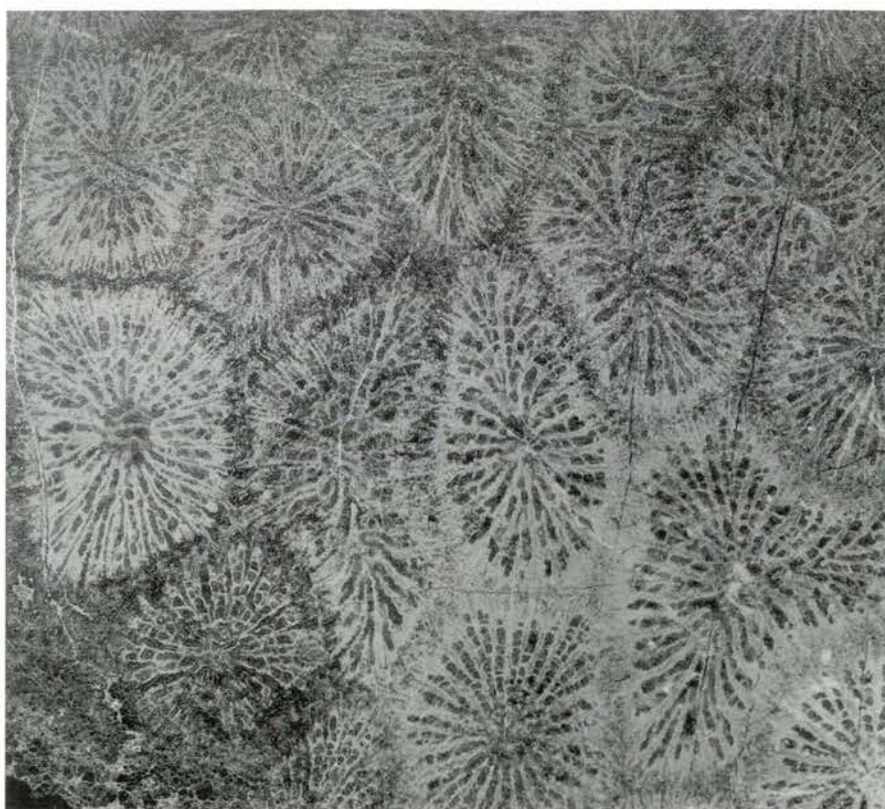
Paleoenvironment: Patch reef in the back reef area on the Dinaric Carbonate Platform.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-292a, x 4.
 B: longitudinal section; P-292b, x 4.
 C: detail from B, x 8.

D: detail from A, x 8.
 E: microstructure, ?medium-sized monoaxial trabeculae; P-292a, x 40.



A



B

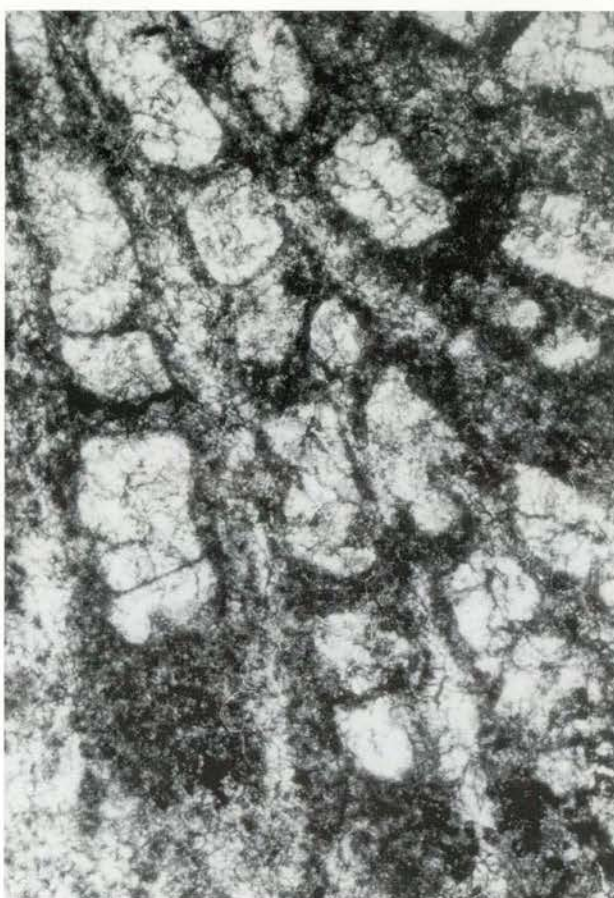


C

D



E



Koilocoenia decipiens (Laube) 1865

- 1865 *Phyllocoenia decipiens* Laube. LAUBE, 264, Pl. 6, fig. 1.
 1884 *Koilocoenia decipiens* Laube. DUNCAN, n. v.
 1896 *Coelocoenia decipiens* Laube. VOLZ, 84, Pl. 10, figs. 5-13.
 1952 *Koilocoenia decipiens* (Laube). ALLOITEAU, 600.
 1956 *Koilocoenia decipiens* (Laube). WELLS, F370, Fig. 262,4.
 1972 *Coelocoenia decipiens* (Laube). CUIF, 270-277, Figs. 27-29.
 1973 *Koilocoenia decipiens* (Laube). MONTANARO GALLITELLI et. al. 148, Table 1.
 1974 *Koilocoenia decipiens* (Volz). MONTANARO GALLITELLI, 222-223, Pl. 5, fig. 1.
 1984 *Koilocoenia decipiens* (Laube). RAMOVŠ & TURNŠEK, 175-176, Pl. 3, fig. 2.
 1989 *Koilocoenia* sp. TURNŠEK & BUSER, 84, Pl. 2, figs. 4-5.

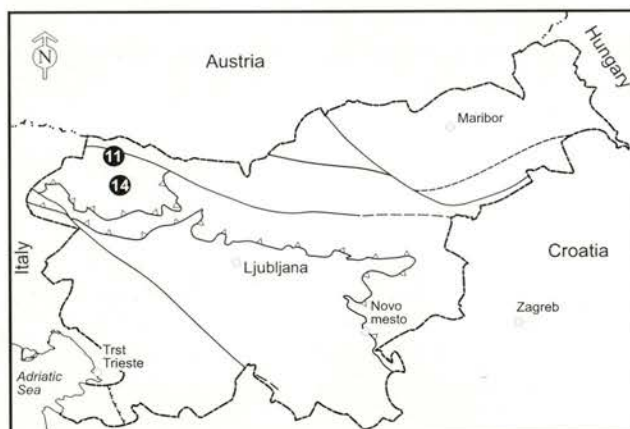
Description: Massive subplocoid colony, round to polygonal corallites, budding intracalicular, peritheca narrow. Septa subconfluent, laterally granulated, no columella, tabulate dissepiments, microstructure not preserved. d = 2-2.5(3) mm, s = ca 20.

Localities: **11** Mojstrana (SJA-43/2), **14** Pokljuka (P-825); Italy (Dolomites).

Age: T: Carnian (Cordevolian-Julian); T: Carnian (Cassian beds).

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

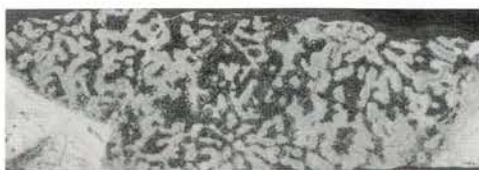
TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	



A: transverse section; P-825a, x 4.
 B: longitudinal section; P-825b, x 4.
 C: detail from B, x 8.

D: detail from A, x 8.
 E: microstructure, not preserved; P-825a, x40.

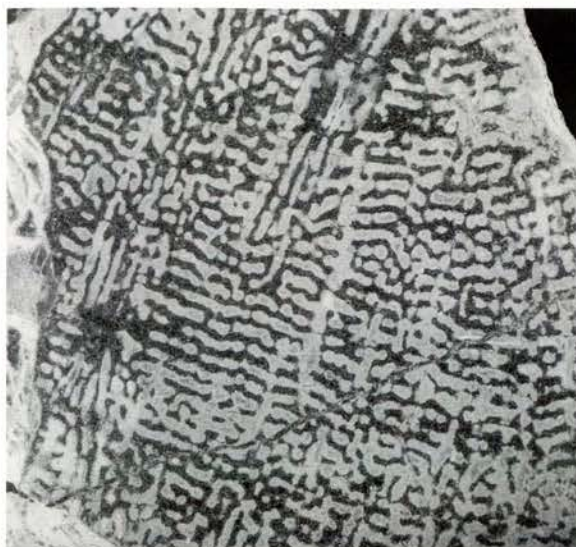
A



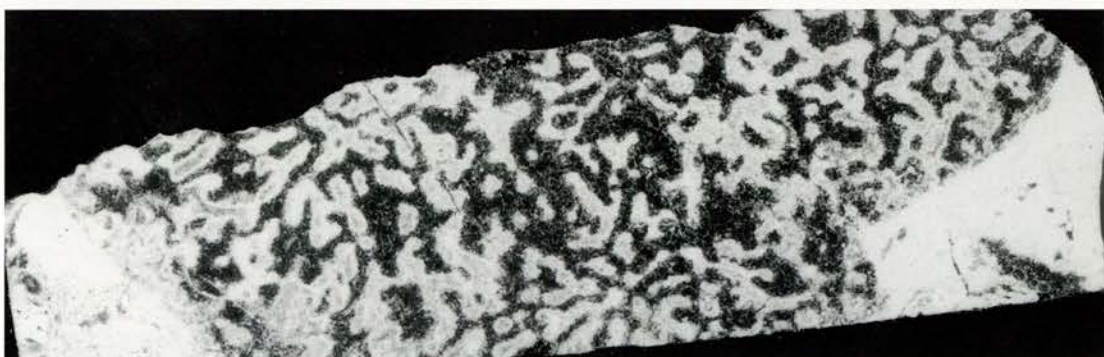
C



B



D



E



Latiphyllia suevica (Quenstedt) 1858

- 1858 *Lobophyllia suevica*. QUENSTEDT, 708, Textfig. 688.
 1875 *Thecosmilia suevica* Quenstedt. BECKER, 153-154, Pl. 3, figs. 6-8.
 1897 *Thecosmilia suevica* Quenstedt. OGILVIE, 212-213, Pl. 14, figs. 9, ?10, 11.
 1954 *Latiphyllia suevica* (Quenstedt). GEYER, 183, Pl. 15, fig. 1.
 1955a *Latiphyllia suevica* (Quenstedt). GEYER, 200.
 1955b *Latiphyllia suevica* (Quenstedt). GEYER, 345.
 ?1969 *Latiphyllia cf. suevica* (Quenstedt). DUSA, 115, Pl. 12, fig. 5.
 1972 *Thecosmilia suevica* (Quenstedt). TURNŠEK, 177, Pl. 15, figs. 1-2.
 1975 *Thecosmilia suevica* (Quenstedt). TURNŠEK, 12, Pl. 4, fig. 5.
 1982 *Latiphyllia suevica* (Quenstedt). BENDUKIDZE, 51-52, Pl. 13, fig. 2.
 1985 *Thecosmilia suevica* (Quenstedt). ROSENDAHL, 47, Pl. 5, fig. 3.
 1991 *Latiphyllia suevica* (Quenstedt). LAUXMANN, 149-150, Pl. 6, figs. 11-12, Pl. 7, fig. 1.

Description: Phacelo-flabeloid colony in which the corallites intracalically bud into two or three new corallites and have irregular shape in transverse section. Septa in 4-5 cycles, laterally granulated. Septoparatheca, tabulate and bent dissepiments, round fossula, microstructure montlivaltioid. $d = 12-15 \text{ mm}$, $s = \text{ca } 70$.

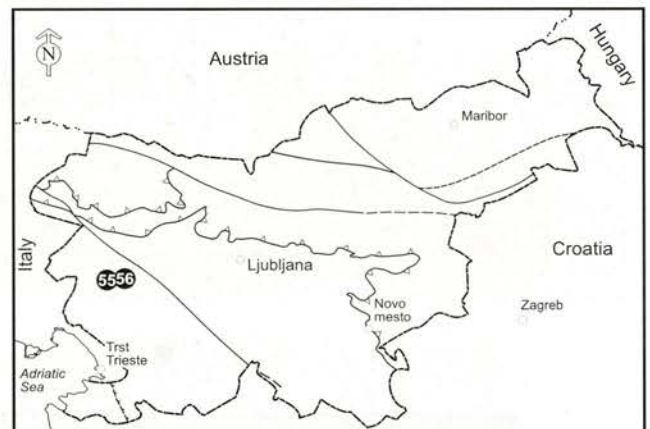
Remarks: The manner of budding in *Latiphyllia* is different from that in *Thecosmilia*, so I recognize the revision of LAUXMANN (1991), nevertheless, the structure of both genera is very similar.

Localities: 56 Ojstrovca (P-450), 55 Mrzovec (P-652, P-653); Germany, Switzerland, Portugal, Czech R. (Štramberk), ?Romania, Croatia, Crimea.

Age: J: Upper Oxfordian-Kimmeridgian; J: Upper Oxfordian-Kimmeridgian-Tithonian.

Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-450a, x 4.
 B: longitudinal section; P-450b, x 4.

C: longitudinal oblique section; P-652a, x 4.
 D: microstructure; monoaxial trabeculae; P-450a, x 40.

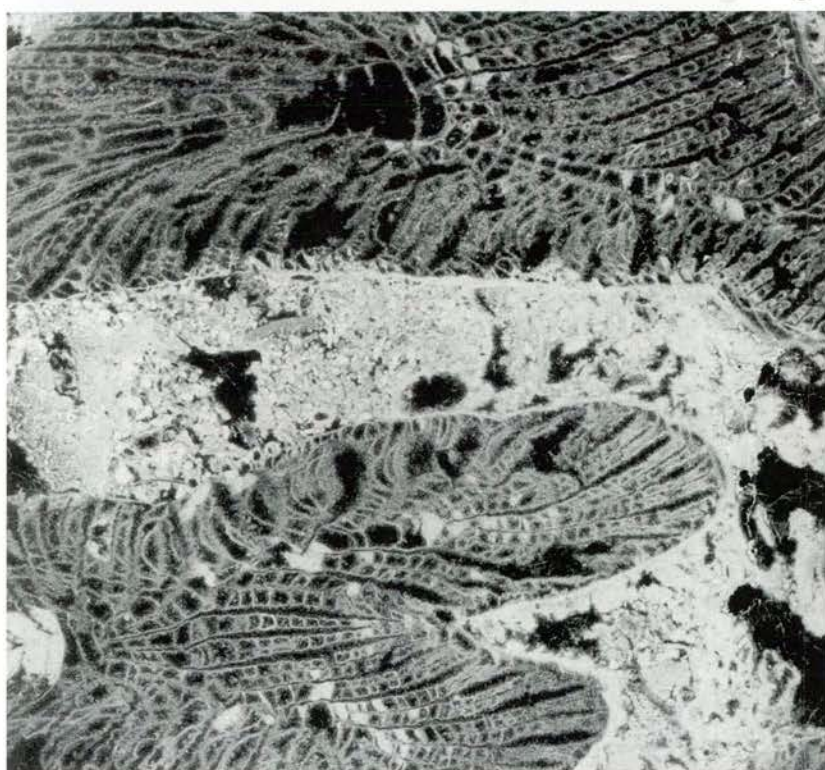


A

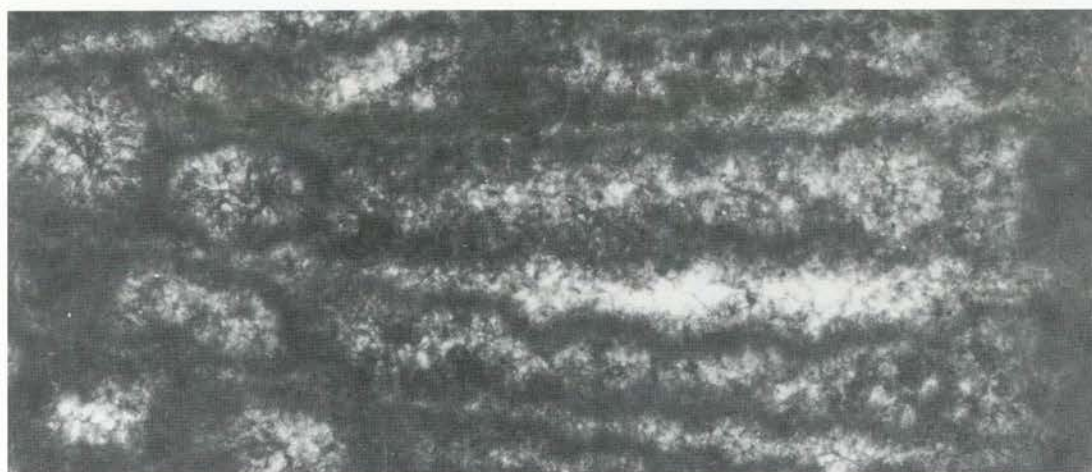
B



C



D



Latomeandra fromenteli (Koby) 1885

- 1885 *Chorisastrea Fromenteli* Koby. Koby, 222-223, Pl. 65, fig. 13.
 1889 *Chorisastrea Fromenteli* Koby. Koby, 482-483, Pl. 128, fig. 1.
 1964 *Latomeandra fromenteli* (Koby). BEAUVAIS, 247, Pl. 34, fig. 8, Pl. 35, fig. 2.
 1964 *Protoseris fromenteli* (Koby). BEAUVAIS, 258, Pl. 34, fig. 3, Pl. 35, fig. 5, Pl. 38, fig. 1.
 1972 *Latomeandra fromenteli* (Koby). TURNŠEK, 196-197, Pl. 30, fig. 5.
 1991 *Latomeandra fromenteli* (Koby). ERRENT, 16, Pl. 16, fig. 5.

Description: Phaceloid branched colony with mono- to polycentric corallites, budding intracalicular. Septa in 3-4 cycles, perforated, laterally granulated (?pennulae). Synapticulotheca, dissepiments and synapticalae frequent, spongy columella, microstructure trabecular. d = 4-20 mm, s = 35-40 (3-4/1 mm).

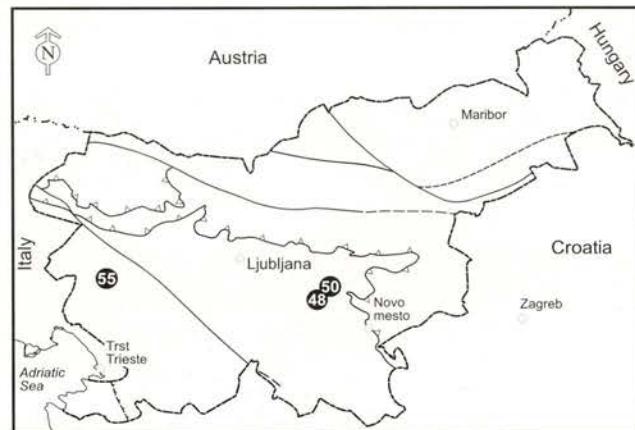
Remarks: *Latimeandra fromenteli* described by BÖLSCHÉ (1871) was revised by LÖSER (1994, 73) to *Valimeandra fromenteli*. This latter genus has no wall, so I still ascribe our specimen to the first genus.

Localities: 48 Bič (P-330, P-333), 50 Gaber (P-343), 55 Mrzovec (P-459); Switzerland, France, Spain.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian.

Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-333a, x 4.
 B: longitudinal oblique section; P-459b, x4.
 C: transverse section; P-330a, x 4.

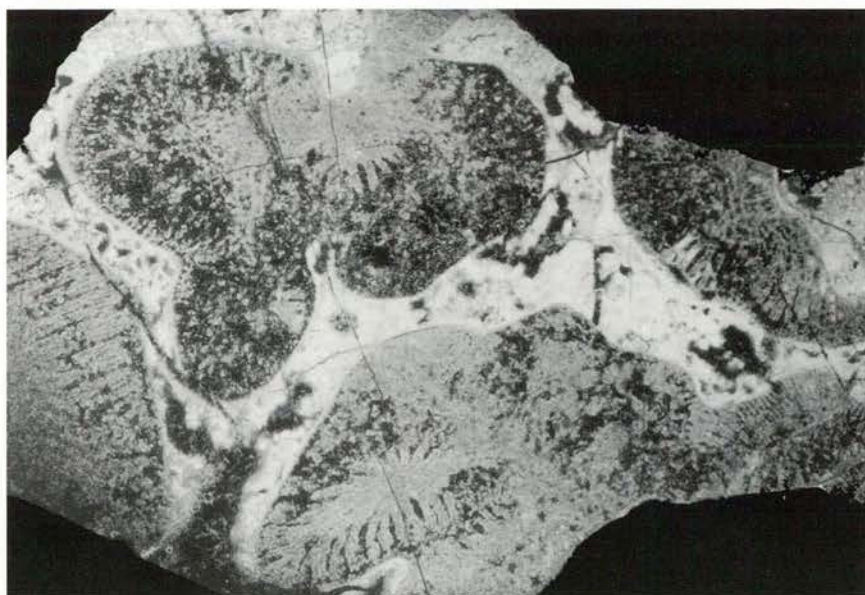
D: longitudinal section; P-330b, x 4.
 E: detail from C, x 8.
 F: microstructure, ?medium-sized trabeculae; P-333a, x 40.



A



B



C

E



D

F



Latusastraea decipiens (Prever) 1909

- 1909 *Heliopora decipiens* N. F. PREVER, 65-66, Pl. 1, fig. 18, 23, Pl. 2, figs. 1-2.
 1964 *Latusastraea decipiens* (Prever). MORYCOWA, 71-72, Pl. 20, figs. 1-2.
 1974 *Latusastraea decipiens* (Prever). TURNŠEK & BUSER, 96-97, 114-115, Pl. 6, fig. 3.
 1977 *Latusastraea decipiens* (Prever). SIHARULIDZE, 93-94, Pl. 17, fig. 1.
 1979b *Latusastraea decipiens* (Prever). SIHARULIDZE, 203.
 1981 *Latusastraea decipiens* (Prever). TURNŠEK & MIHAJLOVIĆ, 19, Pl. 13, figs. 7-8.

Description: Cerioid colony with semicircular or polygonal corallites, budding extracalicular. Septa bilateral, short, with major septum. Septotheca, tabulate dissepiments, no columella. Microstructure special trabecular. $d = 0.5-0.9$ mm, $cc = 1-1.5$ mm, $s = 1+ca10$.

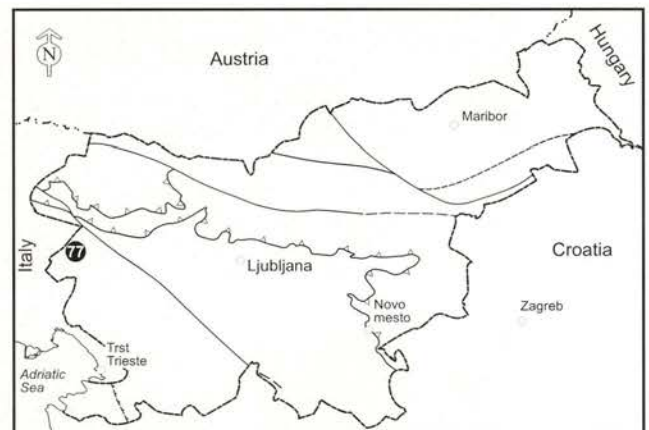
Remarks: A microstructure of the genus precisely described by KOŁODZIEJ (1995).

Localities: 77 Osojnica (P-521); Italy, Poland, Georgia, Serbia.

Age: K: Barremian-Aptian; K: Hauterivian-Barremian-Aptian, Cenomanian.

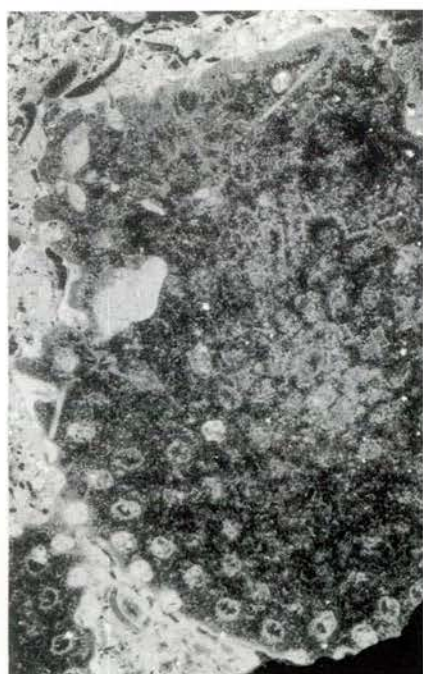
Paleoenvironment: Reef flat at the edge of the Dinaric Carbonate Platform. Urgonian facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
		Turonian		
		Cenomanian		
	Lower	Albian		
		Aptian		
		Barremian		
		Hauterivian		
		Valanginian		
		Berriasian		

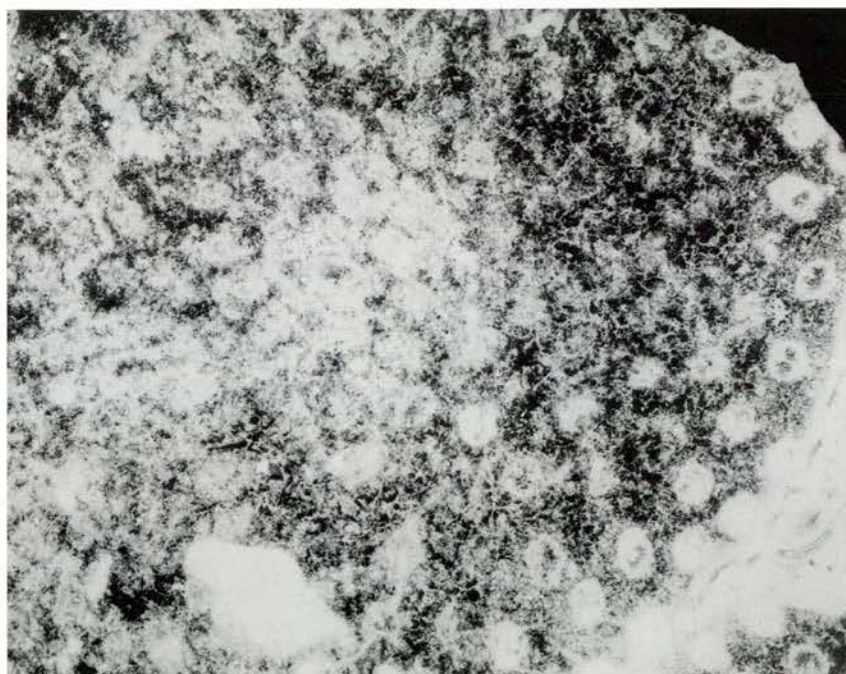


A: transverse section; P-521a, x 4.
 B: detail from A, x 8.

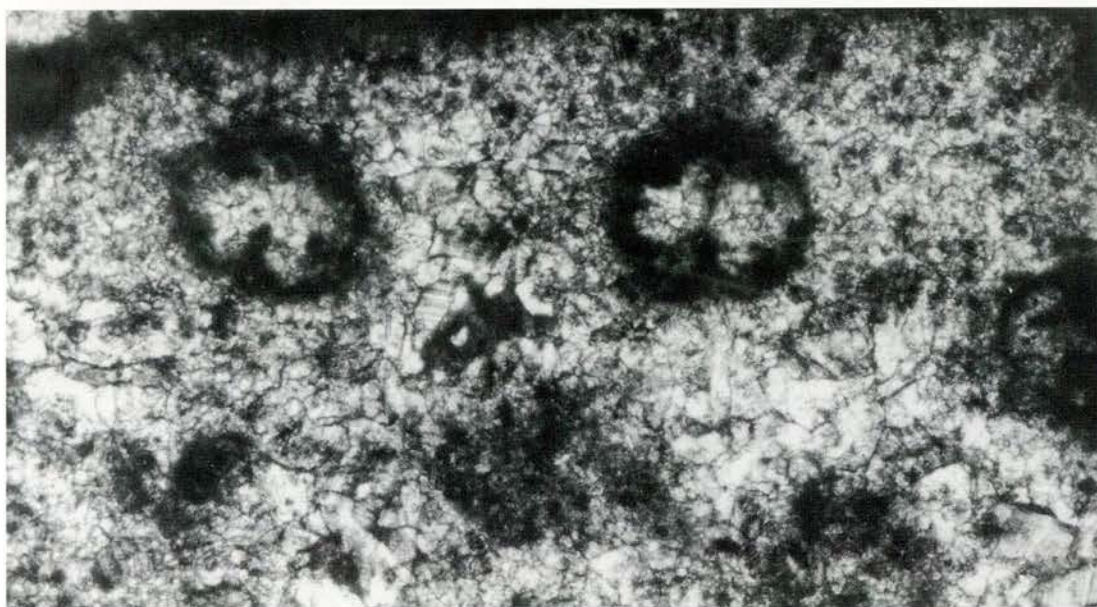
C: microstructure, ?thick trabeculae and fibres; P-521a, x 40.



A



B



C

Latusastraea exiguis (Fromentel) 1862

- 1862 *Pleurocoenia exiguis* Fromentel. FROMENTEL, n. v.
 1964 *Latusastraea exiguis* (Fromentel). MORYCOWA, 69-70, Pl. 20, fig. 3.
 1971 *Latusastraea exiguis* (Fromentel). MORYCOWA, 72-74, Pl. 14, fig. 1, Textfigs. 22-23.
 1974 *Latusastraea exiguis* (Fromentel). TURNŠEK & BUSER, 96, 114, Pl. 6, fig. 3.
 1980 *Latusastraea exiguis* (Fromentel). KUZMICHEVA, 100, Pl. 37, figs. 1ab.
 1980 *Latusastraea exigua* (Fromentel). MORYCOWA, 321, Pl. 9, figs. 1-6, Pl. 10, figs. a-d, Pl. 11, fig. 1, Pl. 12, figs. a-d.
 1985 *Latusastraea exigua* (Fromentel). SIHARULIDZE, 23-24, Pl. 8, fig. 1, Pl. 9, fig. 1.
 1985 *Latusastraea exiguis* (Fromentel). GEYER & ROSENDAHL, 167, Pl. 2, fig. 1.

Description: Cerioid colony with small semicircular corallites, which overlap, budding extracalicular. Septa of amphiastraeid type, bilateral with major septum, another septa rudimentary. Septotheca with ?hollows, tabulate dissepiments. Microstructure special trabecular. $d = 1-1.5 \text{ mm}$, $cc = 1.5-2 \text{ mm}$, $s = 1+s1$.

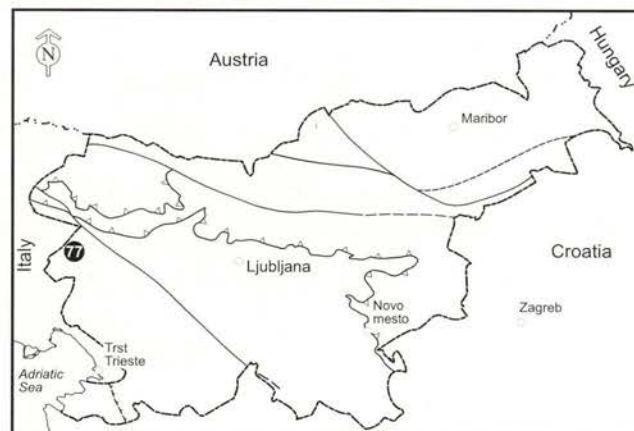
Remarks: BARON-SZABO (1997) ascribed *L. exiguis* to *L. provincialis* (D'ORBIGNY). However, on the basis of smaller corallites and fewer septa, I recognize it.

Localities: 77 Osojnica (P-524); Romania, France, Spain, Portugal, Carpathians, Georgia.

Age: K: Barremian-Aptian; K: Berriasian-Hauterivian-Barremian-Aptian

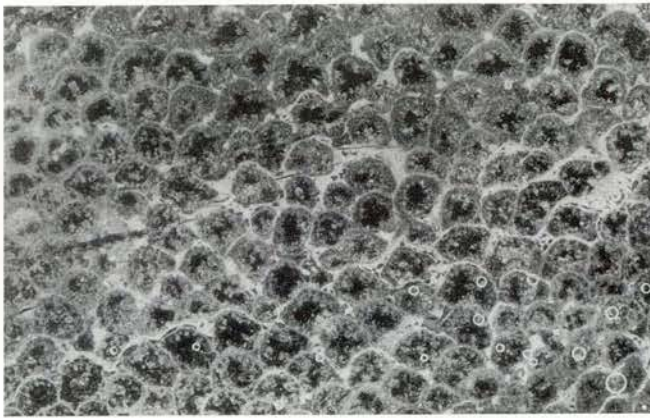
Paleoenvironment: Reef flat at the edge of the Dinaric Carbonate Platform. Urgonian facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
		Turonian		
		Cenomanian		
	Lower	Albian		
		Aptian		
		Barremian		
		Hauterivian		
		Valanginian		
		Berriasian		

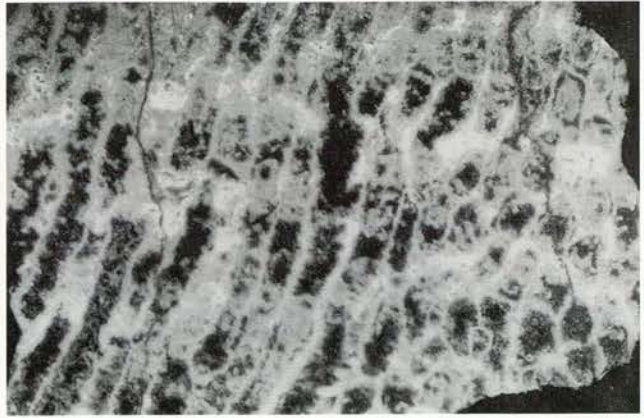


A: transverse section; P-524a, x 4.
 B: longitudinal section; P-524b, x 4.

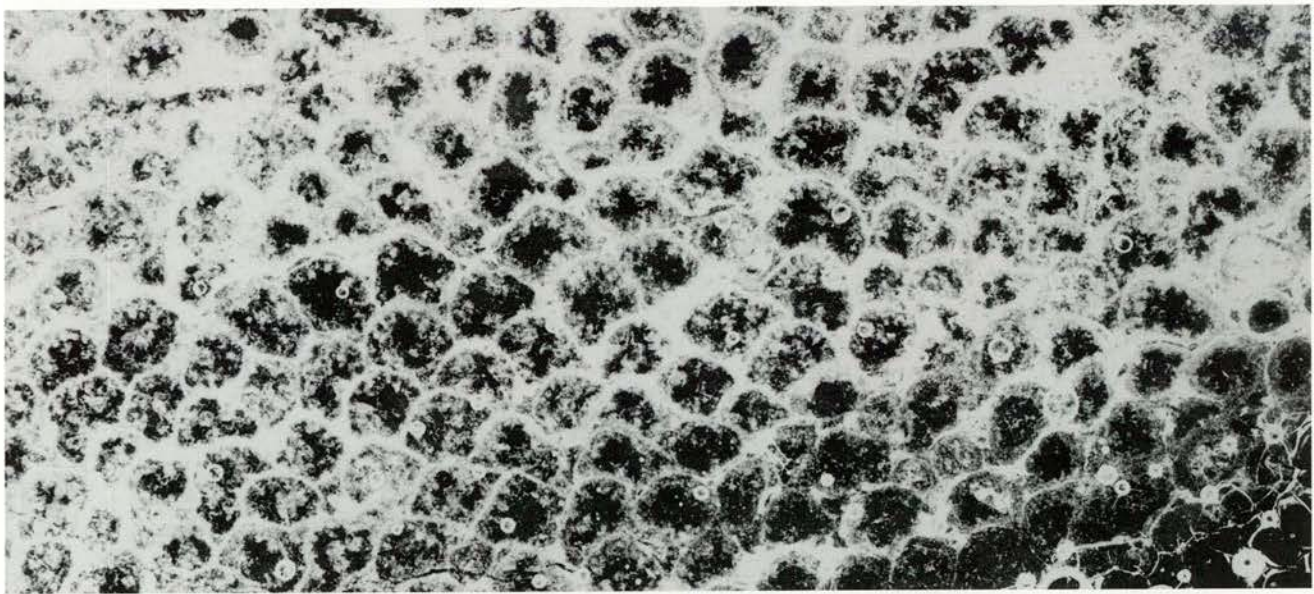
C: detail from A, x 8.
 D: microstructure, ?thick trabeculae and fibres; P-524a, x 40.



A



B



C



D

Margarophyllia capitata (Münster) 1841

- 1841 *Montlivaltia capitata*. MÜNSTER, n. v.
1896 *Margarophyllia capitata* M. VOLZ, 46-47, Pl. 3, figs. 1-4.
1967 *Margarophyllia capitata* Münster. LEONARDI, 255, 299.
1974 *Montlivaltia capitata* (=Margarophyllia Volz). CUIF, 318-324, Textfigs. 10-12.
1981 *Margarophyllia capitata* (Münster). ČAR et al., 237, fig. 4D (not 4E).
1982 *Margarophyllia capitata* (Münster). TURNŠEK et al. 67-68, Pl. 1, figs. 1-4.
1984 *Margarophyllia capitata* (Münster). RAMOVŠ & TURNŠEK, 176, Pl. 4, figs. 5-6.
1987 *Margarophyllia capitata* (Münster). TURNŠEK et al. 43, Pl. 1, fig. 2.
1989 *Margarophyllia capitata* (Münster). TURNŠEK & BUSER, 85, Pl. 3, fig. 2.
1992 *Margarophyllia capitata* (Münster). RAMOVŠ & ŠRIBAR, 74, 75, Pl. 2, fig. 3.
1994 *Margarophyllia capitata* (Münster). TURNŠEK & SENOWBARI-DARYAN, 480, Pl. 3, figs. 2-3.

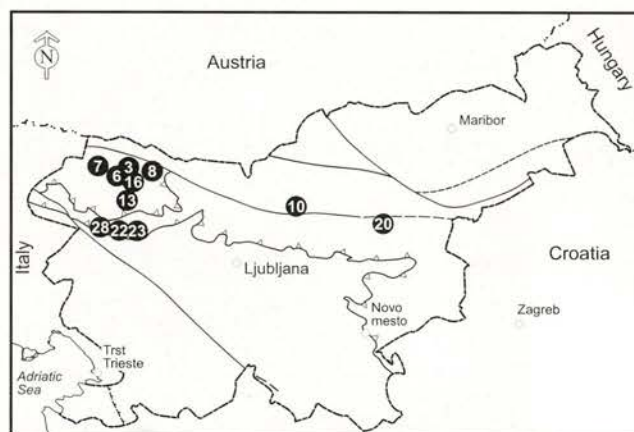
Description: Turbinate solitary corallum, calice round. Costosepta laterally irregularly granulated. Paratheca and thin epitheca, endotheca of numerous tabulate dissepiments. No columella, microstructure trabecular. d = 17 mm, s = ca 70.

Localities: 23 Jesenica (P-997), 22 Hudajužna (P-706), 7 Krnica (SJA 58/1), 16 Radovna (SJA 14/2), 3 Frčkov vrh (SJA 15/1, 9, 10, 11, 15), 6 Krma (SJA 17/1), 8 Mežakla-Brezovec (SJA 2/1), 28 Perbla (P-787, P-798, P-803), 13 Pokljuka (P-805, P-812, P-814), 10 Menina planina (5); 20 Celje (P-1026, P-1027, P-1028, P-1029, P-1030); Italy (Dolomites), Greece (Hydra).

Age: T: Upper Ladinian, Carnian (Cordevolian, Julian, Tuvanian); T: Carnian (Cassian Beds).

Paleoenvironment: Reef complex on the Julian Carbonate Platform, and reef mound within clastic beds in the Slovenian Basin.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvanian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
			Scythian	
	Lower			

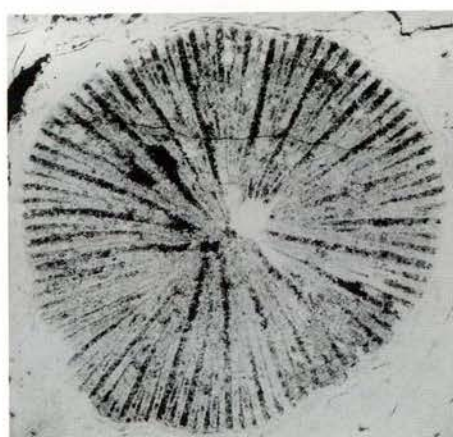


A: transverse section; P-706a, x 4.

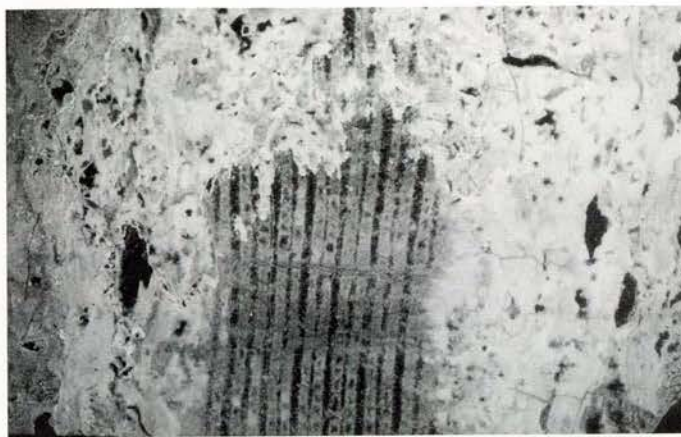
B: longitudinal section; P-706b, x 4.

C: transverse section of a half of corallum; P-812a, x 4.

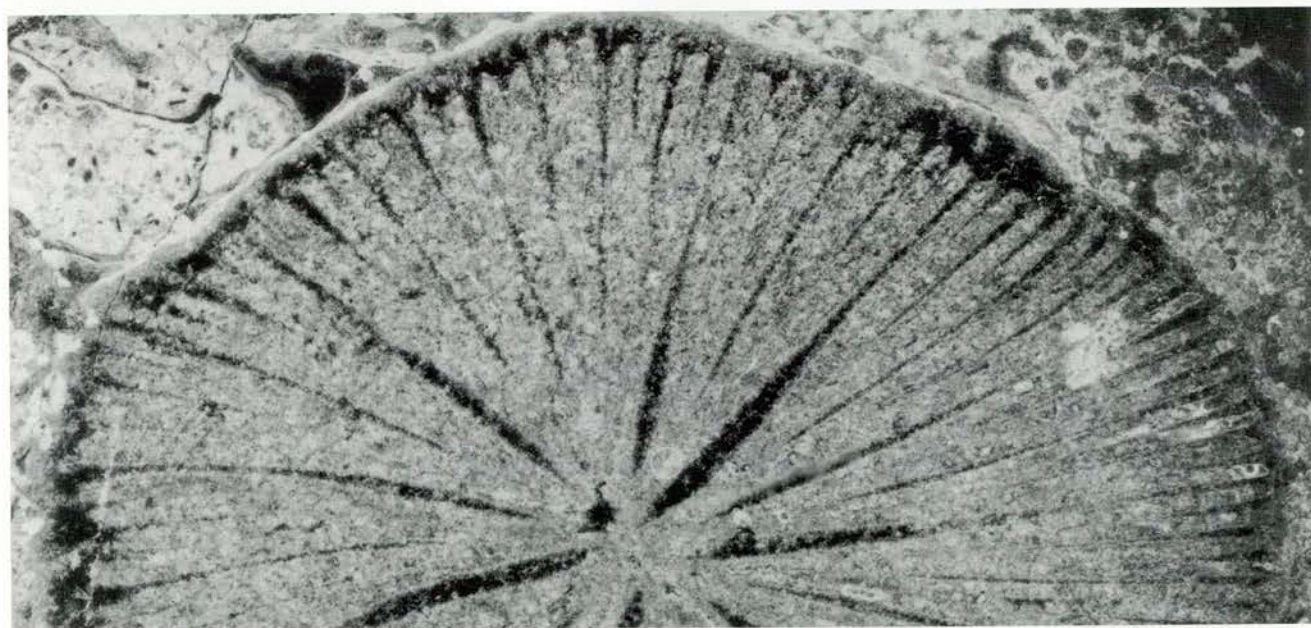
D: microstructure, ?medium-sized trabeculae, midseptal line; P-706a, x40.



A



B



C



D

Margarophyllia crenata (Münster) 1841

- 1841 *Montlivaltia crenata*. MÜNSTER, n. v.
 1896 *Margarophyllia crenata* M. VOLZ, 49-50, Pl. 3, figs. 6-11.
 1935 *Margarophyllia crenata* (Münster), Volz. KÜHN, 299.
 1967 *Montlivaltia crenata* Münster. LEONARDI, 299.
 1974 *Montlivaltia crenata* Münster 1838 (= *Margarophyllia crenata* in Volz). CUIF, 325-327, Textfig. 13.
 1981 *Margarophyllia crenata* (Münster). ČAR et al., 237, Fig. 4B.
 1982 *Margarophyllia crenata* (Münster). TURNŠEK et al. 68, Pl. 1, figs. 5-8.
 1984 *Margarophyllia crenata* (Münster). RAMOVŠ & TURNŠEK, 176, Pl. 4, fig. 2.
 1987 *Margarophyllia crenata* (Münster). TURNŠEK et al. 44, Pl. 1, fig. 3.
 1994 *Margarophyllia crenata* (Münster). TURNŠEK & SENOWBARI-DARYAN, 480, Pl. 3, fig. 1.
 1996 *Margarophyllia crenata* (Münster). BERNECKER, 54.

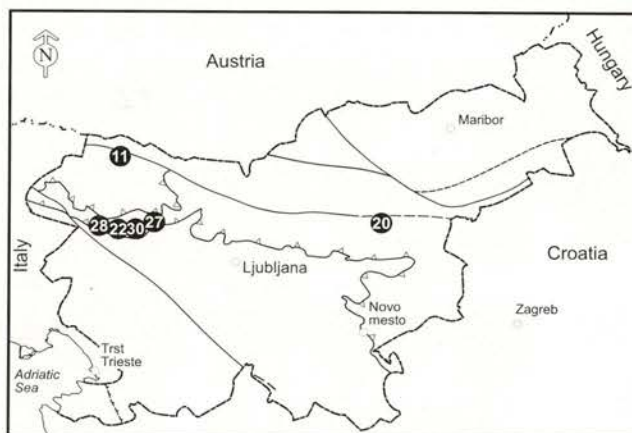
Description: Solitary turbinate corallum, calice oval. Septa costate, laterally granulated. Paratheca, tabulate dissepiments, microstructure trabecular. $d = 15-20$ mm, $s = ca\ 96+s6$.

Localities: **27** Novaki (P-998), **22** Hudajužna (P-702, P-710, P-726, P-732, P-740, P-741, P-745, P-756), **30** Zakriž (P-775, P-779), **11** Mojstrana (SJA 43/3), **28** Perbla (P-786, P-789), **20** Celje (P-984, P-985, P-986); Italy (Dolomites), Romania (Brasov), Greece (Hydra), Oman.

Age: T: Upper Ladinian, Carnian (Cordevolian, Julian, Tuvanian); T: Carnian (Cassian Beds).

Paleoenvironment: Reef complex on the Julian Carbonate Platform, and reef mound within clastic beds in the Slovenian Basin.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvanian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
			Scythian	
	Lower			



A: transverse section; P-702a, x 4.

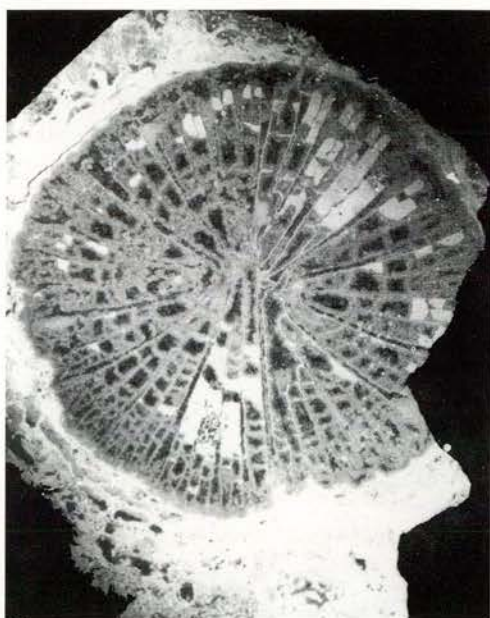
B: transverse oblique section; P-702b, x 4.

C: transverse section; P-786a, x 4.

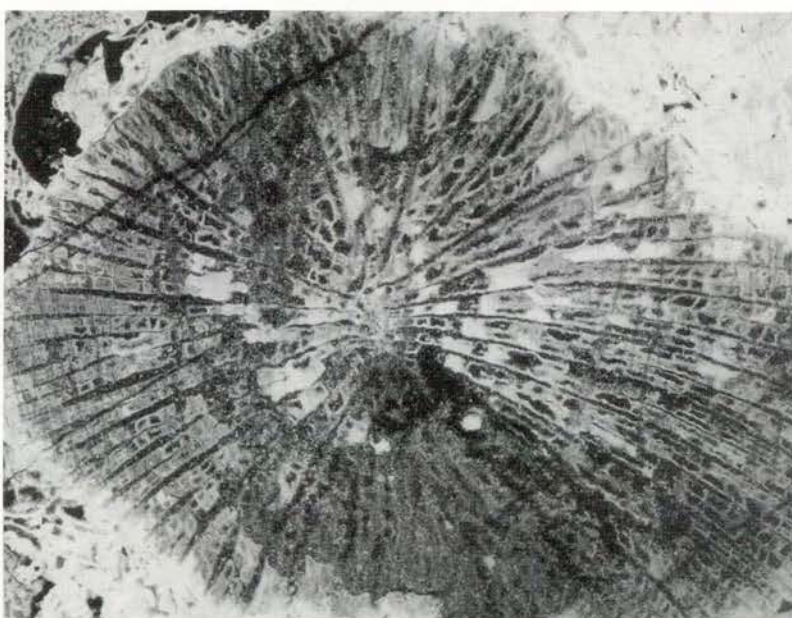
D: longitudinal section; P-789b, x 4.

E: detail from B, x 20.

F: microstructure, medium-sized trabeculae, somewhere midseptal line; P-702a, x 40.



A



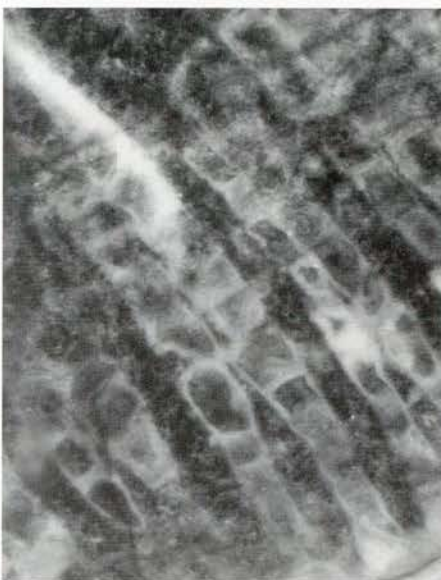
B



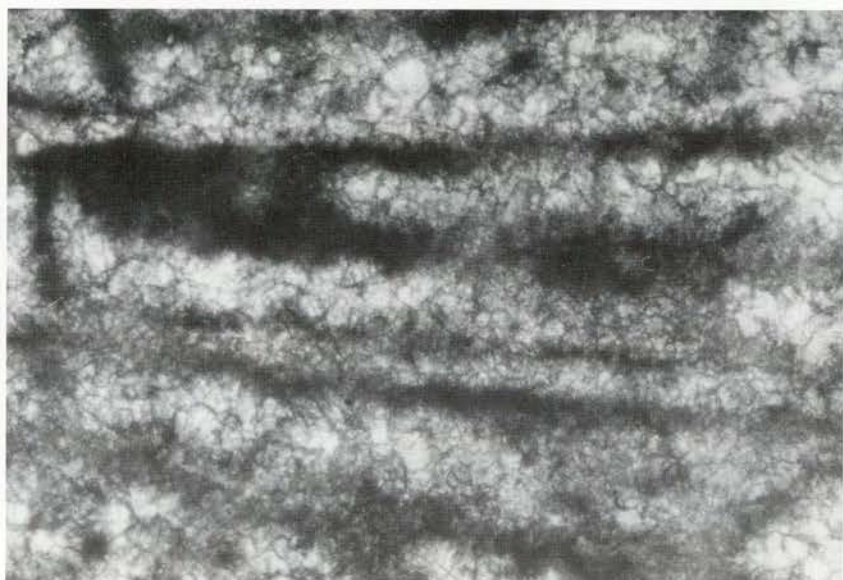
C



D



E



F

Margarosmia charliana (Frech) 1890

- 1890 *Thecosmia charliana* nov. sp. FRECH, 11, Pl. 3, fig. 5, Pl. 5, figs. 6-7.
1975 *Paradistichophyllum charlianum* (Frech). MELNIKOVA, 89.
1989 *Margarosmia charliana* (Frech). RONEWICZ, 77-78, Pl. 19, figs. 1-4, Pl. 22, figs. 3-4.
1991 *Margarosmia* cf. *charliana* (Frech). TURNSEK & BUSER, 230, Pl. 5, figs. 5-6.
1994 *Margarosmia charlyana* (Frech). STANLEY, 93-94, Pl. 5, figs. 6-8, Textfig. 10.
1996 *Margarosmia charlyana* (Frech). BERNECKER, 54.

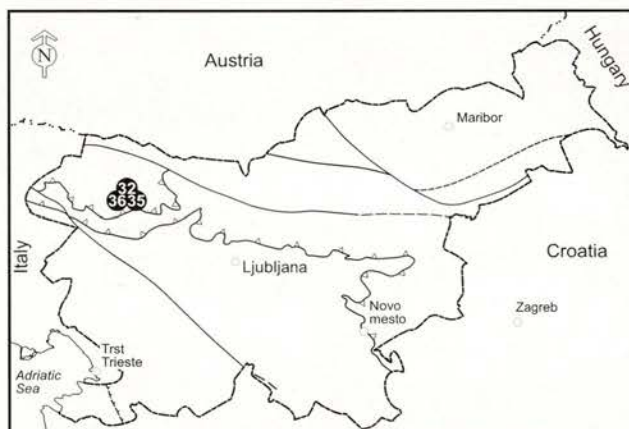
Description: Phaceloid colony with dense branching cylindrical corallites, budding extracalically. Septa in 5-6 cycles, laterally strongly granulated. Unclear paratheca, vesicular dissepiments, no columella, microstructure trabecular. d = 7-15 mm, cc = 10-20 mm, s = ca 100.

Localities: 32 Bohinj-Babna gora (P-897, P-898), 36 Bohinj-Gradišče (P-891), 35 Bohinj-Drenova Gora (P-887); Austria (Alps), Oman, Peru.

Age: T: Upper Norian-Rhaetian; T: Norian-Rhaetian.

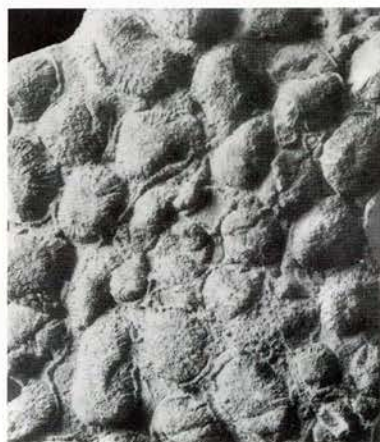
Paleoenvironment: Reef body at the southern edge of the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	



A: surface from above; P-897, x 1.
B: transverse section; P-897a, x 4.
C: transverse section; P-898a, x 4.

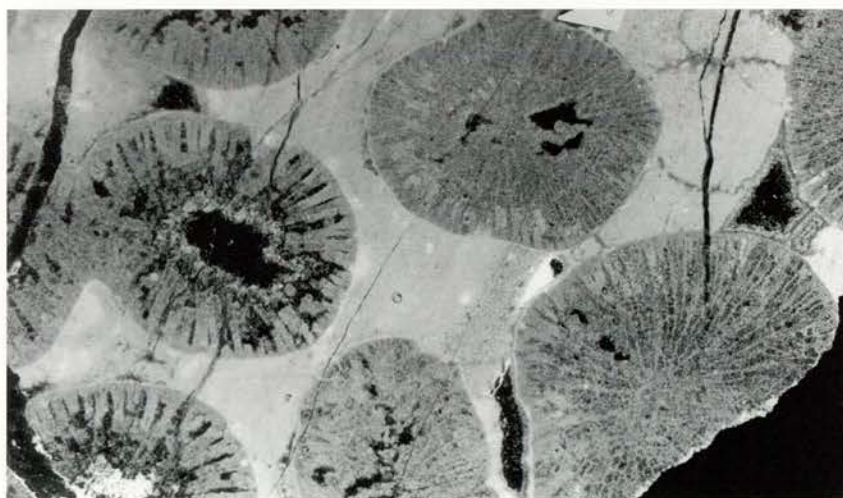
D: longitudinal section; P-898b, x 8.
E: detail from B, x 8.
F: microstructure, ?medium-sized trabeculae, midseptal line; P-897a, x 40.



A



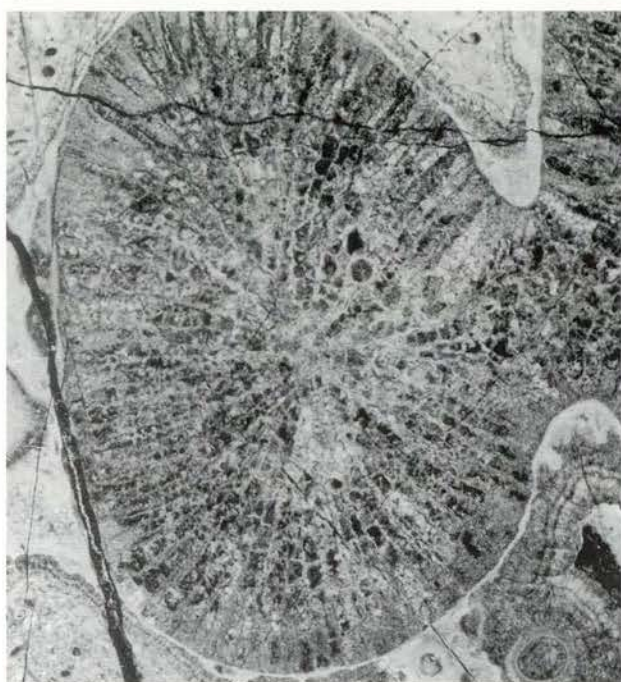
B



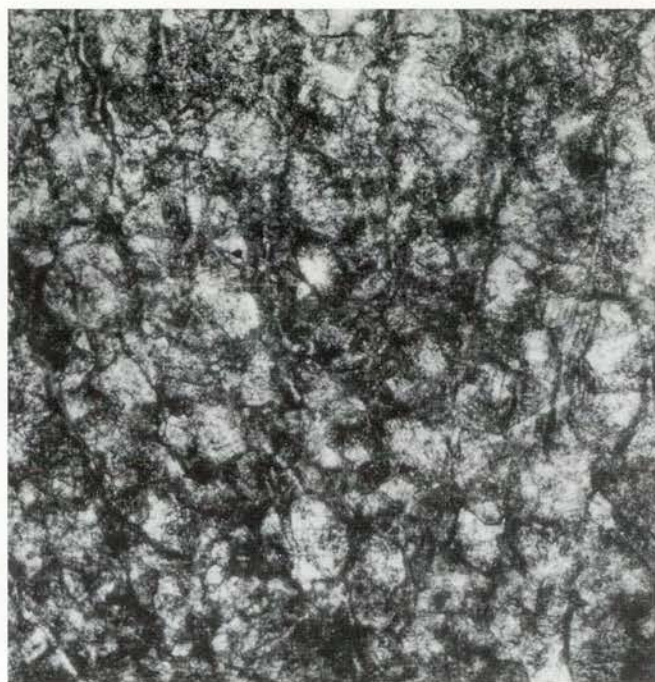
C



D



E



F

Margarosmia confluens (Münster) 1841

- 1841 *Cyathophyllum confluens*. MÜNSTER, n. v.
 1896 *Margarosmia Zieteni* Klipstein var. *confluens* Münster. VOLZ, 35-36, Pl. 1, figs. 8-12.
 1935 *Margarosmia confluens* (Münster). KÜHN, 113-114, Pl. 1, figs. 1a-c.
 1966a *Margarosmia confluens* (Münster). KOLOSVÁRY, 129, Pl. 1, fig. 1.
 1966b *Margarosmia* cf. *confluens* (Münster). KOLOSVÁRY, 184.
 1967 *Thecosmia confluens* Münster. LEONARDI, 299.
 1973 *Margarosmia confluens* Münster. MONTANARO GALLITELLI et al., Table 1.
 1974 *Margarosmia zietenii* var. *confluens*. CUIF, 359-362, Textfigs. 30d-f, 31.
 1981 *Volzeia badiotica* (Volz). ČAR et al. 237, Fig. 4E (not 4D).
 1982 *Margarosmia confluens* (Münster). TURNŠEK et al. 68-69, Pl. 2, figs. 5-6.
 1989 *Margarosmia confluens* (Münster). TURNŠEK & BUSER, 85, Pl. 3, fig. 3.
 1994 *Margarosmia confluens*. LIAO & XIA, 64, Pl. 4, figs. 3-4.
 1994 *Margarosmia confluens* (Münster). TURNŠEK & SENOWBARI-DARYAN, 480, Pl. 2, figs. 1-3.

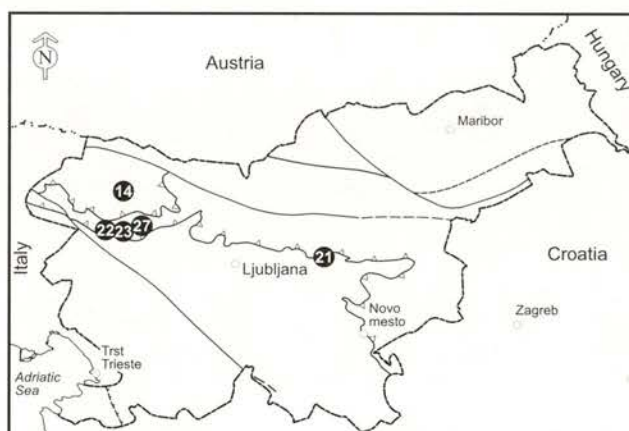
Description: Phaceloid colony, irregularly arranged, round corallites. Septa costate, radial, laterally sharply granulated. Paratheca, vesicular dissepiments, no columella, microstructure trabecular. d = 4-7 mm, s = 48-96.

Localities: **22** Hudajužna (P-695, P-703, P-707, P-708, P-715), **14** Pokljuka (P-828), **23** Jesenica (P-999), **27** Novaki (P-1018, P-1019), **21** Dole at Litija (175) (Jurkovšek collection); Italy (Dolomites), Hungary (Bükk), Slovakia (Male Karpati), Romania (Brasov), Greece (Hydra), China (Xizang).

Age: T: Carnian (Cordevolian, Julian); T: Carnian (Cassian Beds).

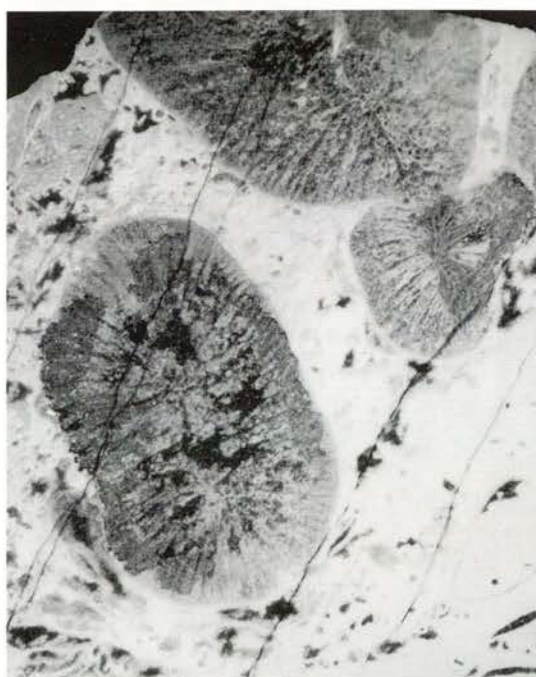
Paleoenvironment: Reef complex on the Julian Carbonate Platform, and reef mound within clastic beds in the Slovenian Basin.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	

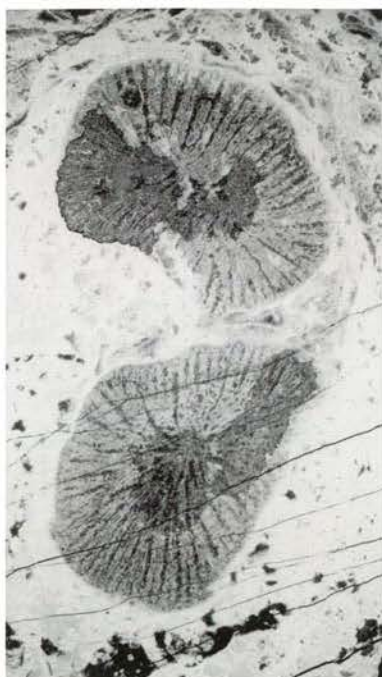


A: transverse section; P-708d, x 4.
 B: transverse section; P-708c, x 4.
 C: longitudinal section; P-708b, x 4.

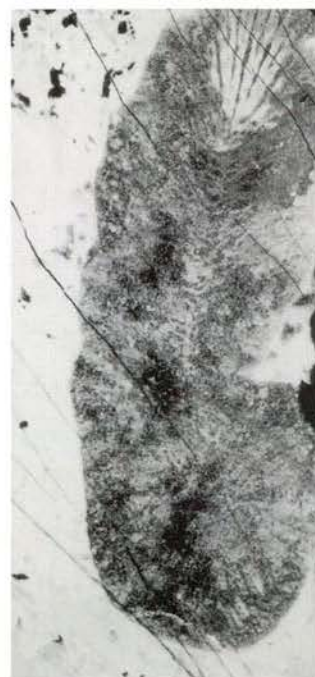
D: detail from B, x 8.
 E: microstructure, medium-sized to thick trabeculae, somewhere midseptal line; P-708c, x 40.



A

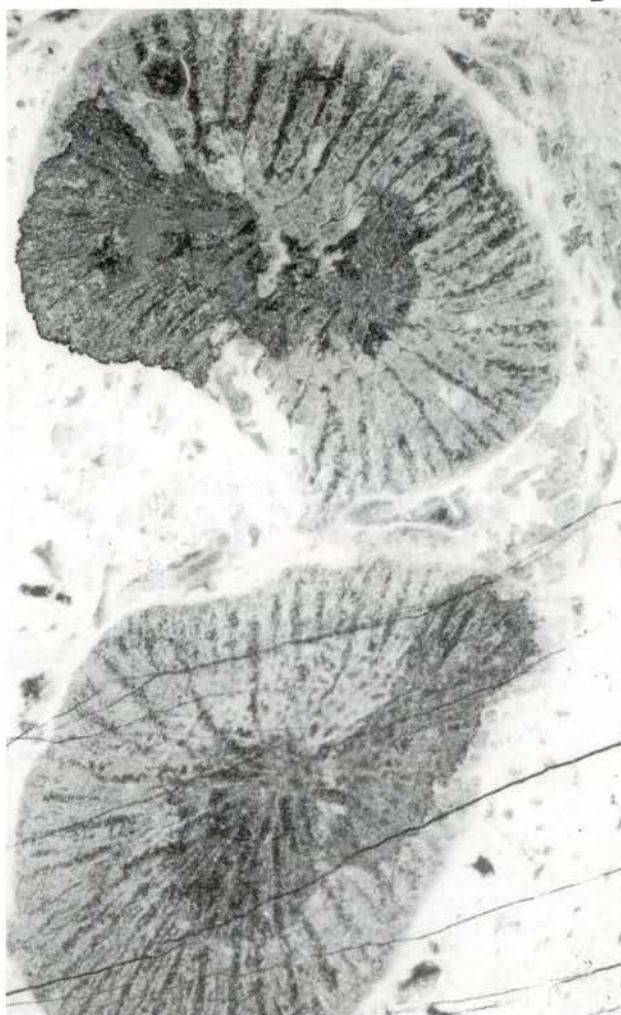


B



C

D



E



Margarosmia nova Turnšek 1991

- 1991 *Margarosmia nova* n. sp. RAMOVŠ & TURNŠEK, 184, Pl. 6, figs. 1-3.
1994 *Margarosmia nova* Turnšek. TURNŠEK & SENOW-BARI-DARYAN, 480, Pl. 2, fig. 4.

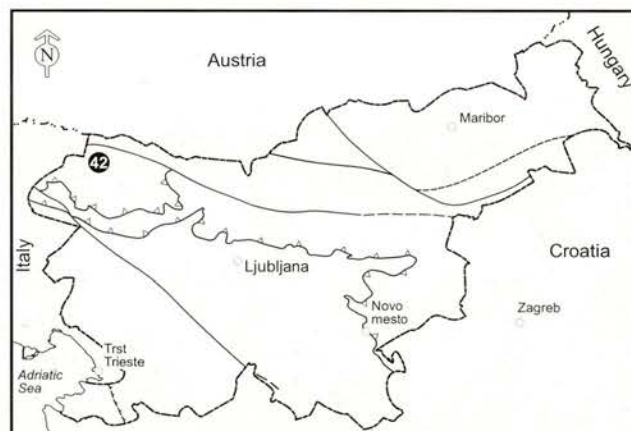
Description: Phaceloid colony, straight rare corallites. Septa irregularly radially arranged in 4-5 cycles, laterally granulated only in younger cycles. Paratheca, tabulate and bent dissepiments, no columella, microstructure trabecular, poorly preserved. d = 16-22 mm, s = 85-96.

Localities: 42 Planja (624/82 holotype, 625/82); Greece (Hydra).

Age: T: Lowermost Norian; T: Carnian-Lower Norian.

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	■
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	



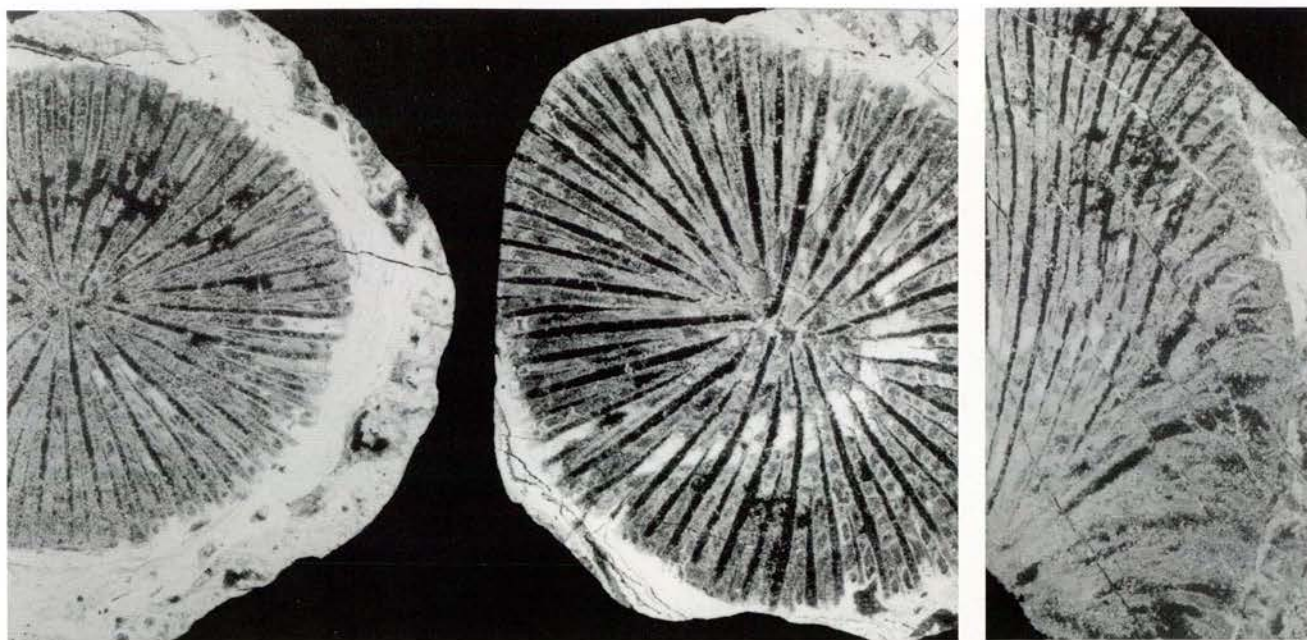
A: transverse section; 624/82a, x 4.

B: detail from A showing microstructure with midseptal line; x 20.

C: longitudinal oblique section; 625/82b, x 4.

D: transverse section; P-625/82a, x 4.

E: detail from A, x 15.

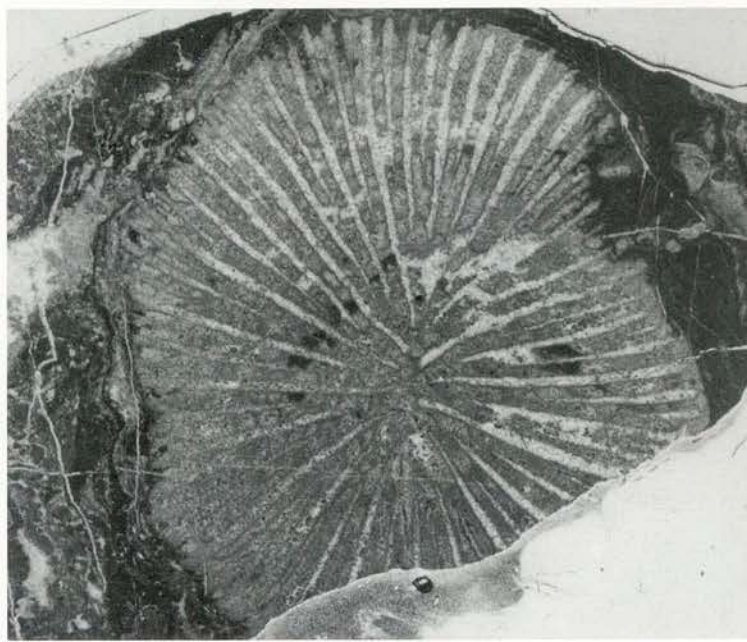


A

C



B



D



E

Margarosmilia richthofeni Volz 1896

- 1896 *Margarosmilia Richthofeni* nov. spec. VOLZ, 36, Pl. 1, figs. 13-14.
 1984 *Margarosmilia* cf. *richthofeni* Volz. RAMOVŠ & TURNŠEK, 176-177, Pl. 5, figs. 1-2.
 1989 *Margarosmilia richthofeni* Volz. TURNŠEK & BUSER, 85, Pl. 4, fig. 3.
 1994 *Margarosmilia richthofeni* Volz. LIAO & XIA, 65, Pl. 4, figs. 5-6.
 1994 *Margarosmilia richthofeni* Volz. TURNŠEK & SENOWBARI-DARYAN, 480. Pl. 2, figs. 6-7.
 1996 *Margarosmilia richthofeni* Volz. BERNECKER, 54.

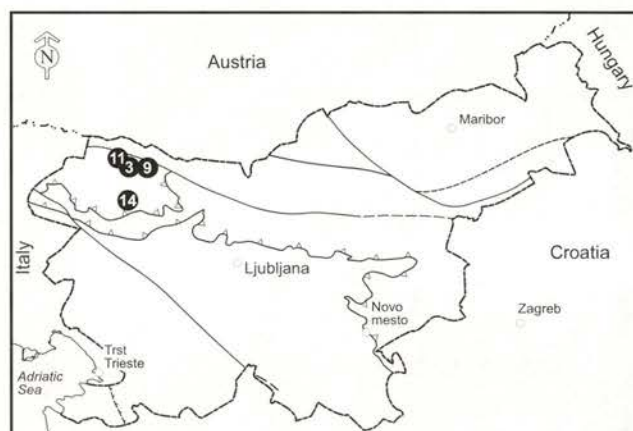
Description: Phaceloid colony with long windingly grown corallites, calices irregularly oval. Numerous septa of equal thickness in 5-6 cycles, lateral granulae, tabulate dissepiments, microstructure trabecular. $d = 12-20$ mm, $s = ca 160$.

Localities: 9 Mežakla-Kisovec (SJA 8/2), 3 Frčkov vrh (SJA 15A), 11 Mojstrana (SJA 43/2a), 14 Pokljuka (P-841); Italy (Dolomites), Greece (Hydra), Oman, China (Xizang).

Age: T: Carnian (Cordevolian, Julian); T: Carnian (Cassian Beds).

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	



A: surface from oblique side; SJA-8/2, x 1.

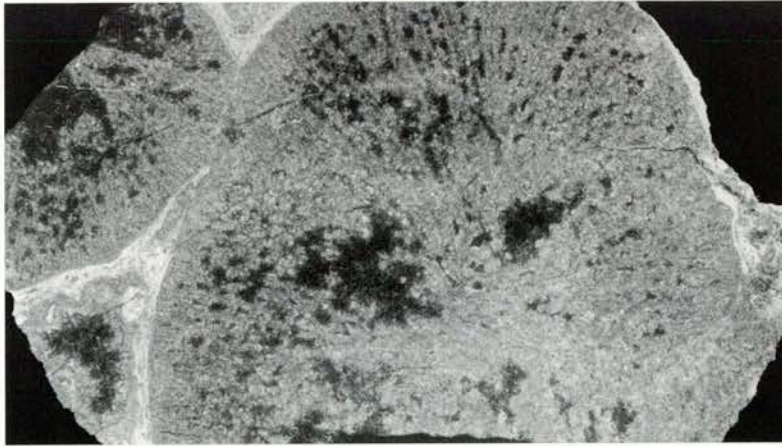
B: transverse section; SJA-8/2a, x 4.

C: transverse section; P-841a, x 4.

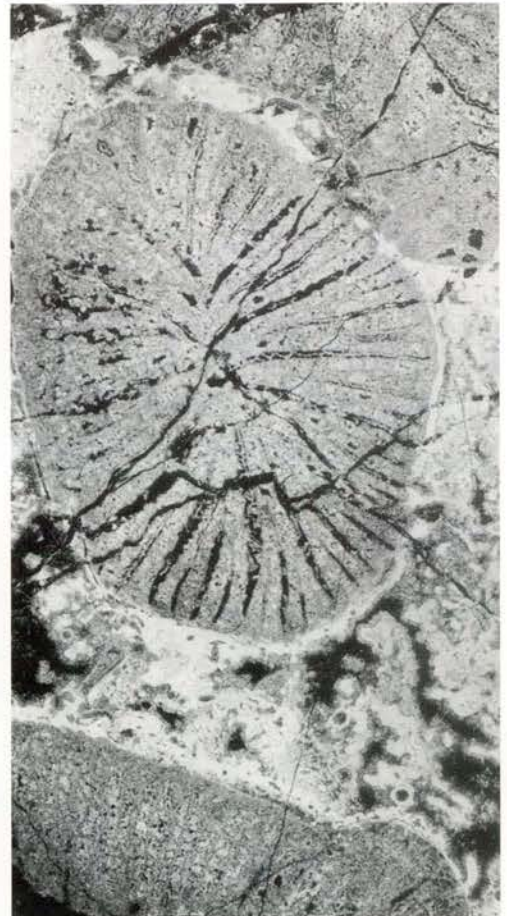
D: microstructure, medium-sized trabeculae, midseptal line; SJA-8/2a, x 40.



A



B



C



D

Margarosmilia septanectens (Loretz) 1875

- 1875 *Cladophyllia septanectens*. LORETZ, n. v.
1896 *Margarosmilia septanectens* Loretz. VOLZ, 37-39, Pl. 2, figs. 20-23, Textfig. 12.
1974 *Margarosmilia septanectens* (Loretz). CUIF, 366-368, Fig. 32.
1984 *Margarosmilia septanectens* (Loretz). RAMOVŠ & TURNŠEK, 177, Pl. 5, fig. 3.
1989 *Margarosmilia septanectens* (Loretz). TURNŠEK & BUSER, 85, Pl. 4, figs. 1-2.
1992 *Margarosmilia septanectens* (Loretz). RAMOVŠ & ŠRIBAR, 74, 75, Pl. 1, fig. 1.

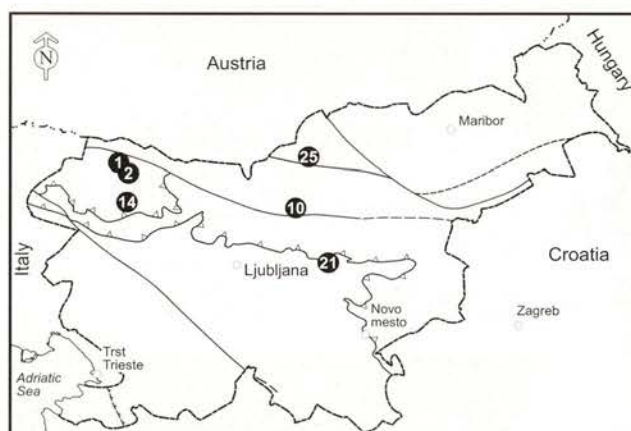
Description: Phaceloid colony with many round corallites. Septa compact, in all cycles of the same thickness, laterally granulated. Paratheca, tabulate dissepiments, microstructure trabecular, poorly preserved. d = 4-7 mm, s = 36-68.

Localities: 2 Debela peč (SJA 17/4), 1 Črna gora (SJA 33), 14 Pokljuka (P-820), 10 Menina planina (6, 7), 25 Mežica-Hlevnik (P-1009, P-1010, P-1011), 21 Dole at Litija (1229, Jurkovšek collection); Italy (Dolomites).

Age: T: Carnian (Cordevolian, Julian); T: Carnian (Cassian Beds).

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	

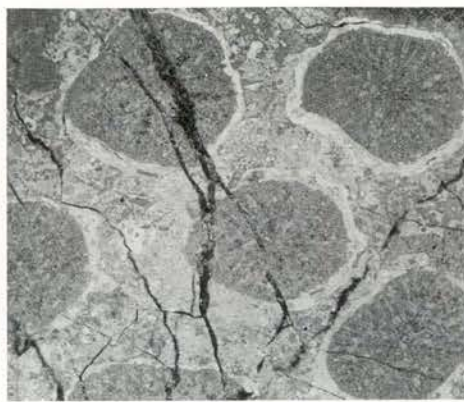


A: surface from above; P-820, x 1.
B: transverse section; P-820a, x 4.
C: longitudinal section; P-820b, x 4.

D: transverse section; P-1010a, x 4.
E: longitudinal section; P-1010b, x 4.
F: microstructure, trabeculae hardly seen; P-820a, x 40.



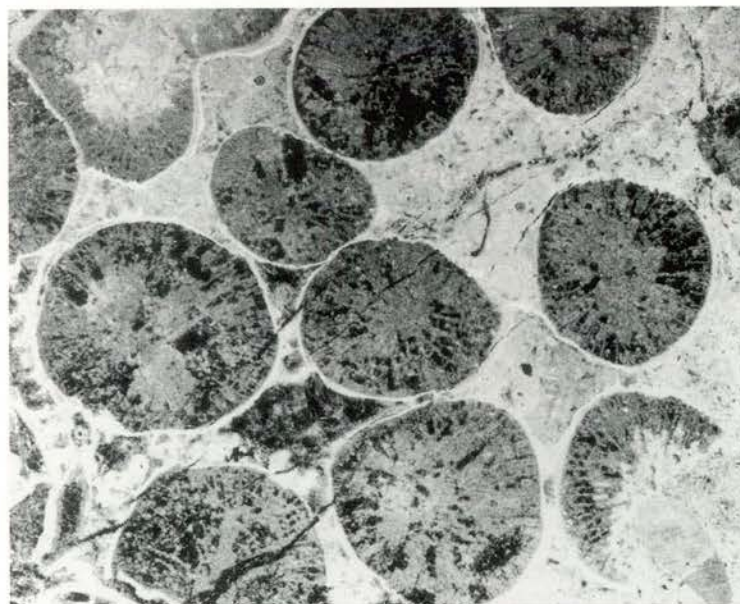
A



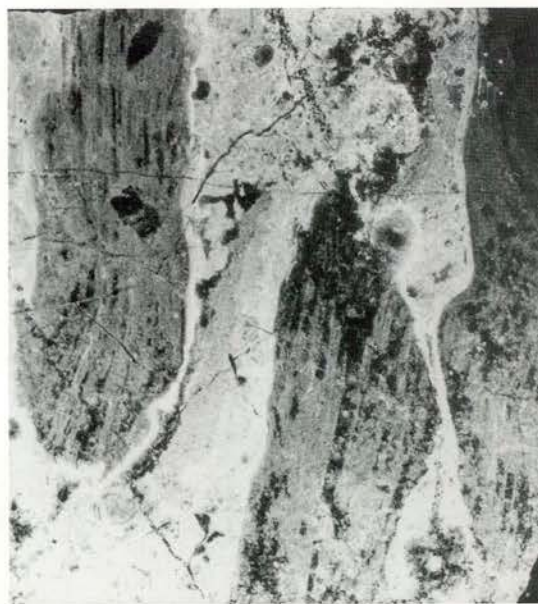
B



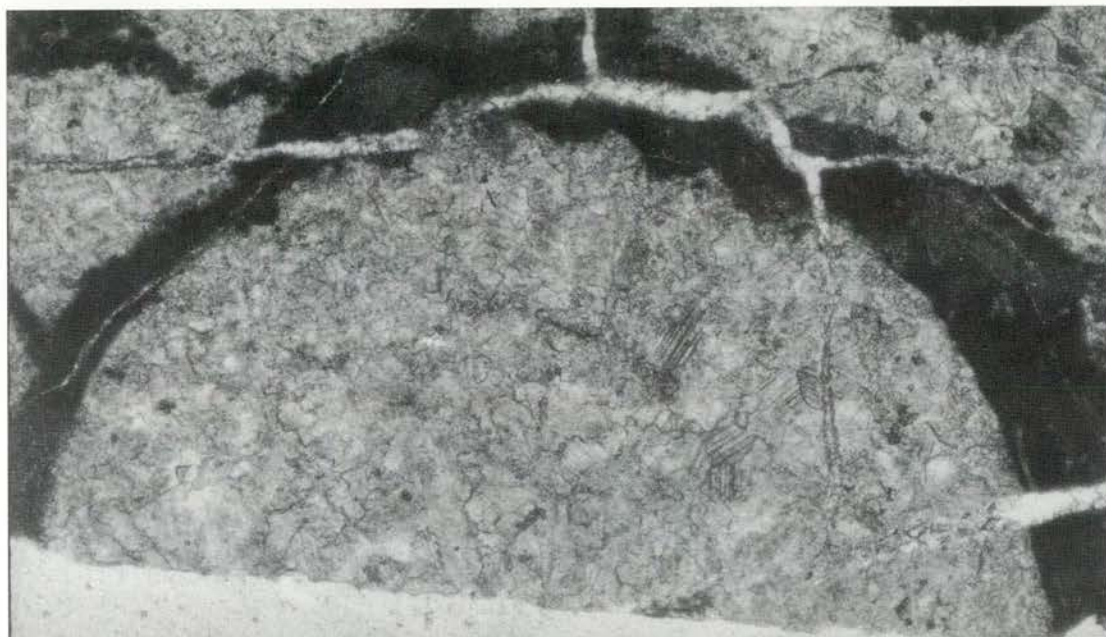
C



D



E



F

Margarosmilia zieteni (Klipstein) 1843

- 1843 *Montlivaltia Zieteni*. KLIPSTEIN, n. v.
1896 *Margarosmilia Zieteni* Kl. VOLZ, 34-35, Pl. 1, figs. 1-7, Textfig. 18.
1973 *Margarosmilia zieteni* Klipstein. MONTANARO GALLITELLI et al., 148, Tab. 1.
1974 *Margarosmilia zieteni*. CUIF, 358-366, Textfig. 29.
1979 *Margarosmilia zieteni* (Klipstein). MONTANARO GALLITELLI et al., 143, Pl. 3, figs 2ab.
1981 *Margarosmilia zieteni* Klipstein. ČAR et al. 237.
1982 *Margarosmilia zieteni* (Klipstein). TURNŠEK et al., 68, Pl. 2, figs. 1-4.
1987 *Margarosmilia zieteni* (Klipstein). TURNŠEK et al. 44, Pl. 1, fig. 4.
1994 *Margarosmilia zieteni* (Klipstein). LIAO & XIA, 64, Pl. 4, figs. 1-2.
1994 *Margarosmilia zieteni* (Klipstein). TURNŠEK & SENOWBARI-DARYAN, 480, Pl. 2, fig. 5.

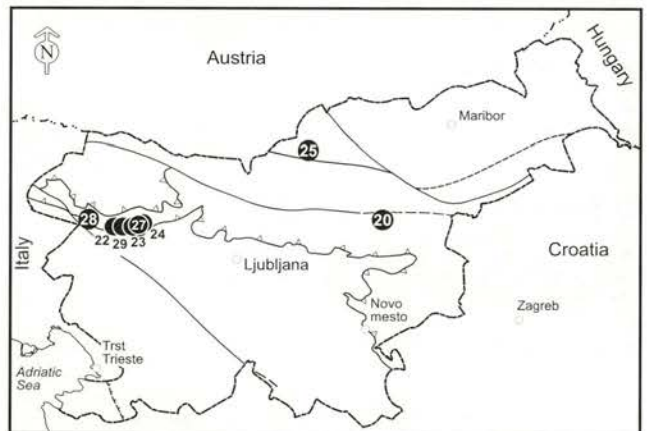
Description: Phaceloid colony with rare round corallites, Septa costate with sharp oblique lateral spines. Paratheca, vesicular or tabulate dissepiments, no columella, microstructure trabecular. d = 11-20 mm, s = ca 96.

Localities: **22** Hudajužna (P-699, P-705, P-753), **23** Jesenica (P-1000), **28** Perbla (P-795), **29** Zakojca (P-1022), **24** Leskovica (P-1007, P-1008), **27** Novaki (P-1020), **20** Celje (P-987, P-988), **25** Mežica-Hlevnik (P-1012); Italy (Dolomites), Greece (Hydra), California, China (Xizang).

Age: T: Carnian (Cordevolian, Julian, Tuvanian); T: Upper Ladinian, Carnian (Cassian Beds), Lower Norian (Am).

Paleoenvironment: Reef mound within the clastic beds in the Slovenian Basin.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvanian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
			Scythian	
	Lower			

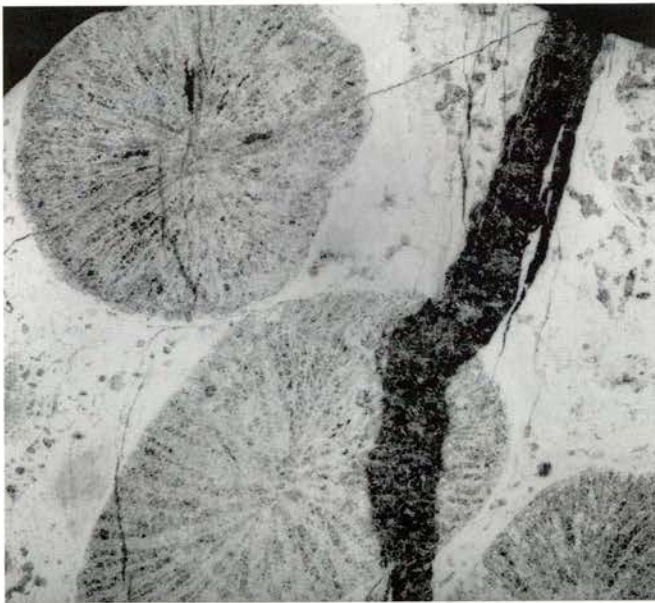


A: transverse section; P-705a, x 4.

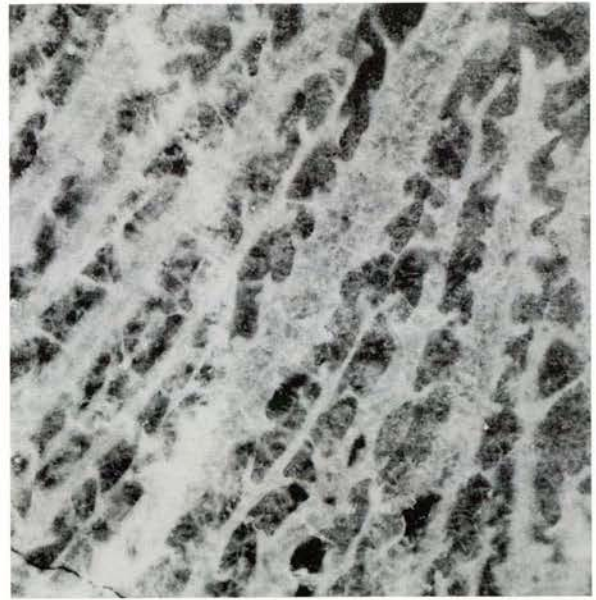
B: longitudinal section showing septal offsets; P-705b, x 20.

C: transverse section; P-1000a, x 4.

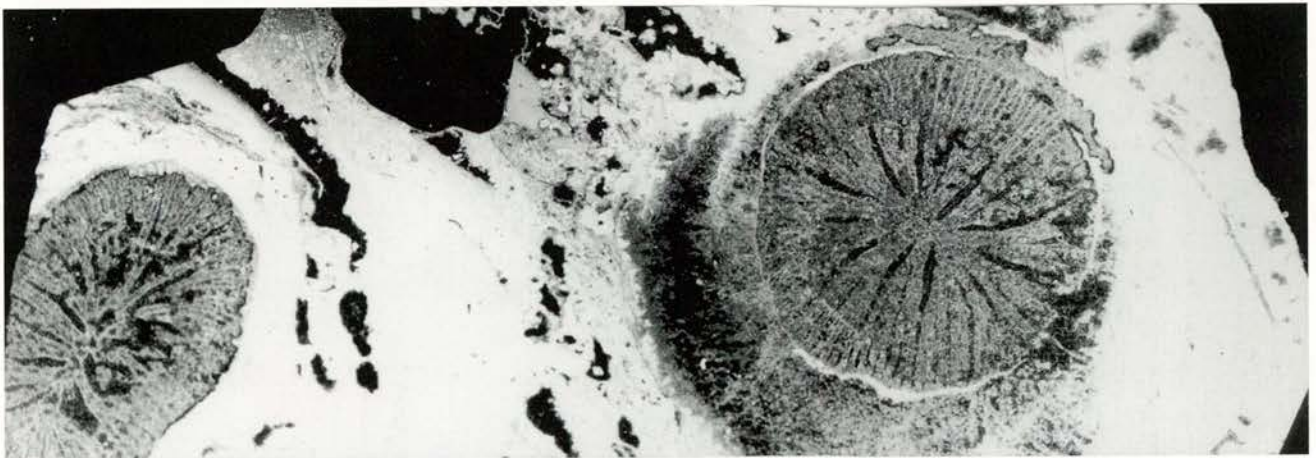
D: microstructure, ?medium-sized trabeculae, midseptal line; P-705a, x 40.



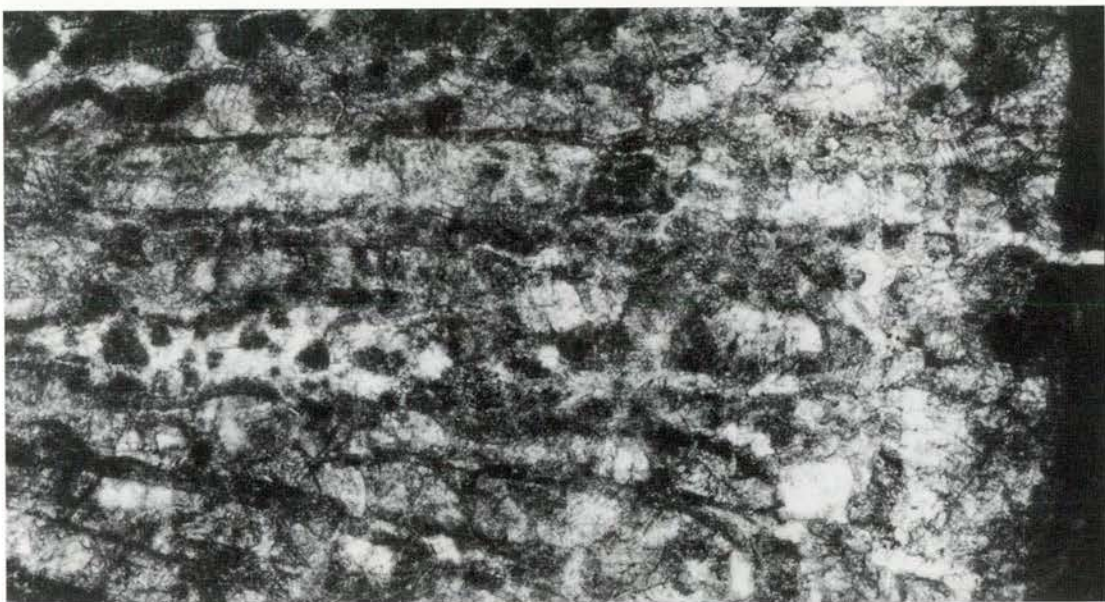
A



B



C



D

Meandraraea gresslyi Étallon 1864

- 1864 *Meandraraea gresslyi*. THURMANN & ÉTALLON, 407, Pl. 57, fig. 11.
 1888 *Meandraraea gresslyi* Étallon. Koby, 408, Pl. 59, figs. 1, 3.
 1955a *Meandraraea gresslyi* Étallon. GEYER, 336.
 1955b *Meandraraea gresslyi* Étallon. GEYER, 210.
 1964 *Meandraraea gresslyi* Étallon. BEAUVAIS. 235.
 1964 *Meandraraea gresslyi* Étallon. MORYCOWA, 88, Pl. 25, figs. 3-4.
 1976 *Meandraraea gresslyi* Étallon. RONIEWICZ, 89, Pl. 22, figs. 2-3, Pl. 23, fig. 1.
 1985 *Meandraraea gresslyi* Étallon. ROSENDAHL, 58, Pl. 2, fig. 1.
 1991 *Meandraraea gresslyi* Étallon. ERRENST, 10, Pl. 15, figs 1a-d. Synonymy with revisions.

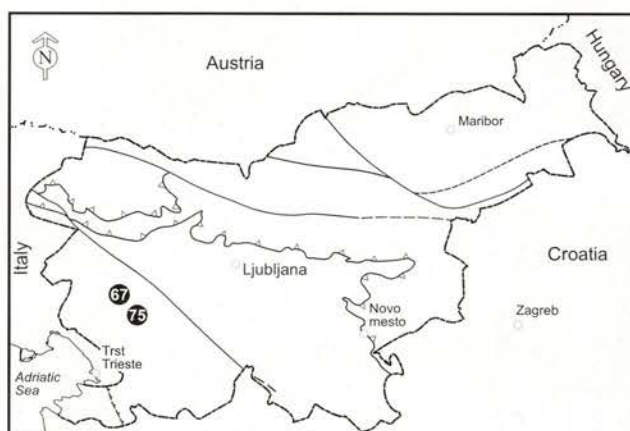
Description: Bulbous massive meandriform colony with discontinuous colines, and corallites in series, monocentric or polycentric, budding intracalical. Septa porous, lateral ?penulae, synapticalae, discontinuous synapticalotheca. d ser = 3-5 mm, s = ca 7-8/2 mm.

Localities: 75 Nanos (P-953), 67 Otlica (P-414, P-419, P-435); France, Switzerland, Spain, Portugal, Romania, Czech R. (Štramberk), Germany (see also ERRENST 1991).

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian, Tithonian.

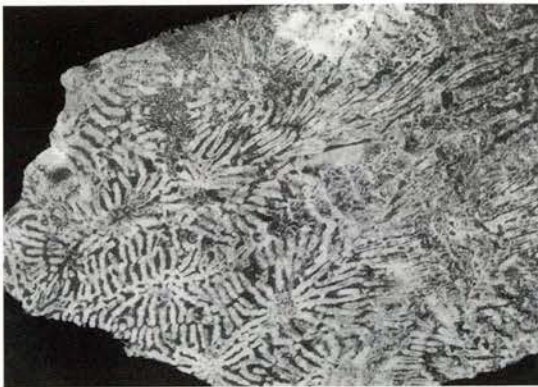
Paleoenvironment: Inner barrier reef and patch reef in the back reef area of the Dinaric Carbonate Platform.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	

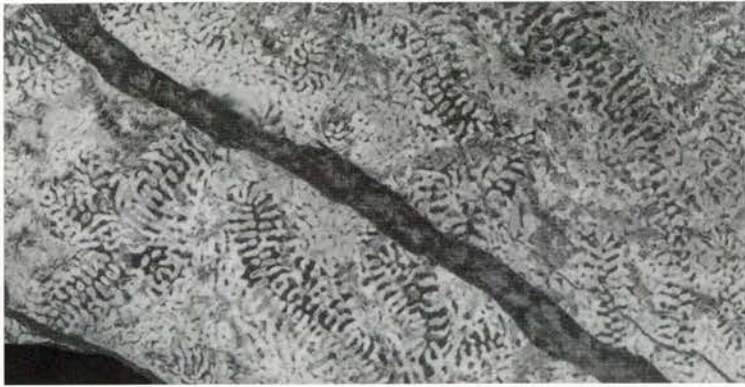


A: transverse and partly longitudinal section; P-414a, x 4.
 B: longitudinal and partly oblique section; P-414b, x 4.
 C: transverse section; P-435a, x 4.

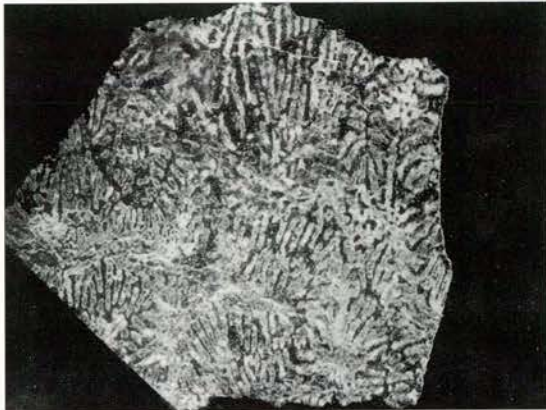
D: longitudinal section; P-435b, x 4.
 E: transverse section; P-419a, x 4.
 F: detail from E, x 8.



A



C



B



D



E



F

Meandrophyllia amedei Étallon 1864

- 1864 *Microphyllia amedei* Étallon. THURMANN & ÉTALLON, 393, Pl. 56, fig. 1.
 1885 *Latimeandra amedei* Étallon. Koby, 254-255, Pl. 71, fig. 5, Pl. 72, figs. 1-8.
 1966 *Meandrophyllia amedei* (Étallon). RONIEWICZ, 232, Pl. 23, figs. 1a-d.
 1972 *Meandrophyllia amedei* (Étallon). TURNŠEK, 195, Pl. 30, figs. 3-4.
 1976 *Meandrophyllia amedei* (Étallon). RONIEWICZ, 87, Pl. 23, figs. 2ab.
 1982 *Thamnoseris amedei* (Étallon). BENDUKIDZE, 92-93, Pl. 27, figs. 4-5.
 1991 *Meandrophyllia amedei* (Étallon). ERRENST, 9, Pl. 14, figs. 3ab.

Description: Meandroid colony of cylindrical or branching shape. Corallites in short series, intratentacular budding. Septa nonconfluent, irregularly perforated, lateral ?pennulae. Synapticulotheca, spongy columella, tabulate dissepiments and synapticalae. d = 2.5-3.5 mm, s = 22-26 (8/2 mm).

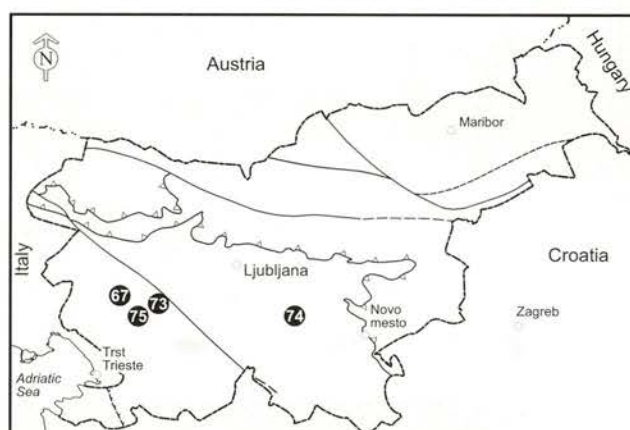
Remarks: Our specimens of *M. amedei* were ascribed by RONIEWICZ (1976) and ERRENST (1991) to *M. edwardsi*, which has a massive colony. Our specimens are somewhat larger but they are of cylindrical shape. Therefore I put them into *M. amedei* again.

Localities: 67 Otlica (P-418, P-426, P-431, P-432), 74 Korinj (P-945), 75 Nanos (P-954), 73 Hrušica (P-963, P-964, P-965); France, Switzerland, Poland, Romania, Caucasus, Spain.

Age: J: Upper Oxfordian-Kimmeridgian; J: Upper Oxfordian-Kimmeridgian.

Paleoenvironment: Inner (sheltered) barrier reef and patch reef in back reef area on the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



- A: transverse section; P-432a, x 4.
 B: longitudinal section; P-432b, x 4.
 C: longitudinal axial section; P-431b, x 4.

- D: the same as A, x 8.
 E: microstructure, ?medium-sized trabeculae; P-432a, x 40.



A



B



C



D



E

Meandrophyllia corrugata (Michelin) 1843

- 1843 *Meandrina edwardsi*. MICHELIN, n. v.
 1964 *Meandrophyllia edwardsi* (Michelin). BEAUVAIS, 207-208, Pl. 22, fig. 6, Textfig. 46A.
 1972 *Meandrophyllia edwardsi* (Michelin). TURNŠEK, 195, Pl. 30, figs. 1-2.
 1976 *Meandrophyllia edwardsi* (Michelin). RONIEWICZ, 87-88, Pl. 24, figs. 2a-c.
 1991 *Meandrophyllia edwardsi* (Michelin). ERRENT, 9, Pl. 14, figs. 4ab.
 1993 *Meandrophyllia edwardsi* (Michelin). DOZET & TURNŠEK, 69, Pl. 2, Fig. 3.
 1993 *Meandrophyllia corrugata* (Michelin). BEAUVAIS & NOUIOUAT, 313, Pl. 6, fig. 3, pl. 7, fig. 2. Synonymy.

Description: Massive meandroid to cerioid colony with intercalicinal budding. Corallites in series or free, monocentric, centres of calices clear. Septa irregularly perforated, lateral ?pennulae. Synapticulotheca, tabulate and long dissepiments and synapticalae, parietal columella. $d = 3.5-8$ mm, $s = 24+s_4$ (10-16/5 mm).

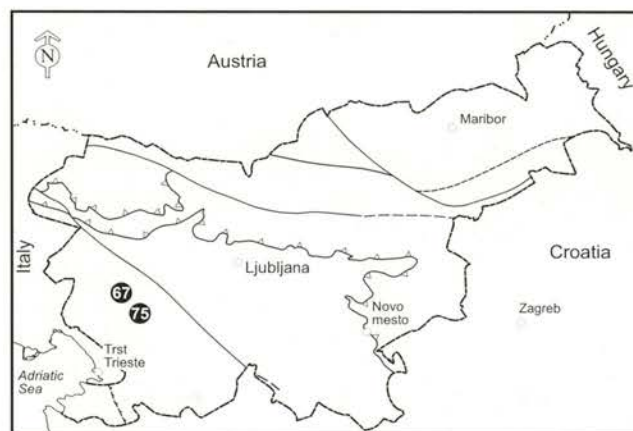
Remarks: BEAUVAIS & NOUIOUAT (1993, 313) ascribed *Meandrophyllia edwardsi* to *Meandrophyllia corrugata* (Michelin) when studying original collection, so I follow their results. Very similar is *Thamnoseris morchella* from the Senonian breccia, which differs in subcompact septa.

Localities: 67 Otlica (P-261, P-263, P-419, P-421), 75 Nanos (P-956, P-957); France, Romania, Spain.

Age: J: Upper Oxfordian-Kimmeridgian and Senonian breccia; J: Oxfordian-Kimmeridgian.

Paleoenvironment: Inner (sheltered) barrier reef and patch reef in the back reef area on the Dinaric Carbonate Platform.

CRETACEOUS	Upper	Senonian	
		Turonian	
		Cenomanian	
	Lower	Albian	
		Aptian	
		Barremian	
		Hauterivian	
		Valanginian	
		Berriasian	
Malm	Tithonian		
	Kimmeridgian		
	Oxfordian		



A: transverse section; P-421a, x 4.

B: longitudinal section; P-421b, x 4.

C: microstructure, ?medium-sized trabeculae, poorly preserved; P-421a, x 40.

D: transverse section; P-261a, x 4.

E: longitudinal section; P-261b, x 4.

F: detail from A, x 8.

G: microstructure, ?medium-sized trabeculae, poorly preserved; P-263a, x 40.



A



B



C



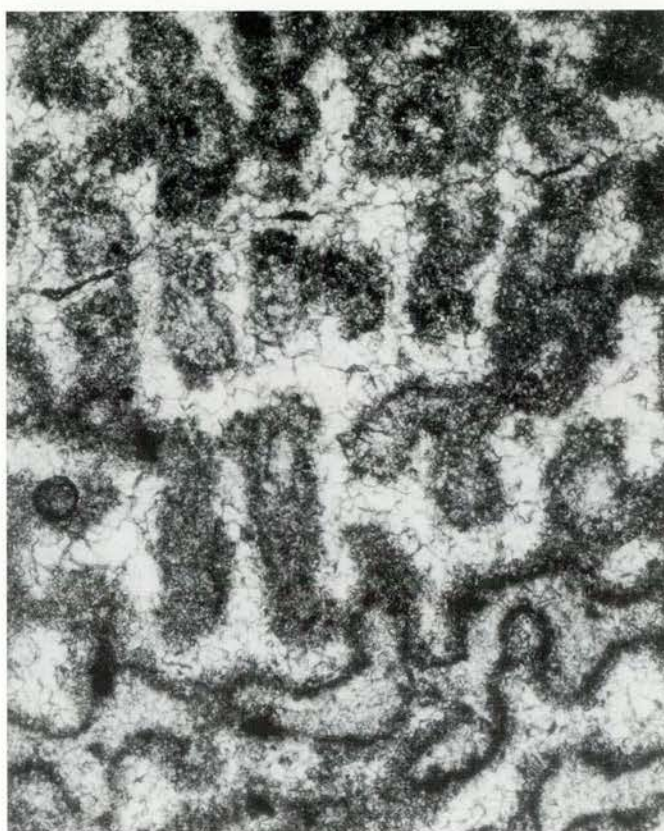
D



E



F



G

Meandroria konincki (Milne Edwards & Haime) 1849

- 1849 *Meandrina Konincki*. MILNE EDWARDS & HAIME, n. v.
 1854 *Leptoria Konincki* (M. Edw. & H.). REUSS, 110, Pl. 15, figs. 1-4.
 1903 *Leptoria Konincki*. FELIX, 276-277, Textfig. 38-39.
 1930 *Leptoria Konincki* (M. Edw. & H.). OPPENHEIM, 384-387, Pl. 27, fig. 15, Pl. 29, fig. 7, Pl. 43, fig. 1, Pl. 46, fig. 10.
 1933 *Leptoria Konincki*. RAKOVEC, 151.
 1957 *Meandroria konincki* (M. Edw. & H.). ALLOITEAU, 172;
 1976 *Meandroria konincki* (M. Edw. & H.). TURNŠEK & BUSER, 57-58, 79-80, Pl. 13, figs. 1-4, Pl. 14, figs. 1-3.
 1980 *Meandroria konincki* (M. Edw. & H.). VIDAL, 47-48, Pl. 12, figs. 1-2.

Description: Massive meandroid colony with colinae, corallites in long and curved series. Septa in 2-3 cycles, laterally granulated. Narrow septotheca, lamellar columella, short horizontal dissepiments. d ser = 2.5-3.5 mm, s = 12-15/5 mm.

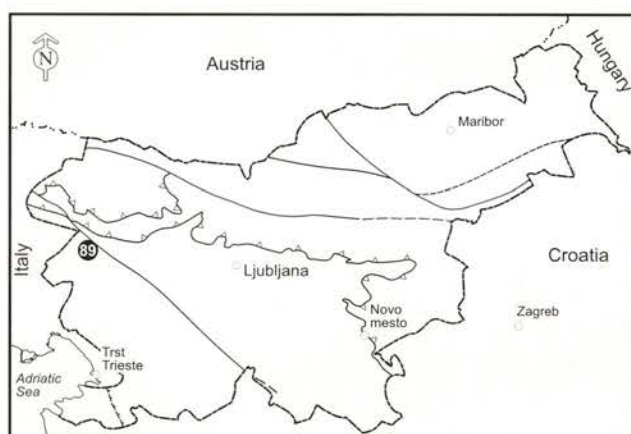
Remarks: REIG (1997) is of the opinion that *Leptoria konincki* differs from his species of the genus *Meandroria*.

Localities: 89 Kanalski Lom (P-572); Austria (Gosau), ?France, Spain.

Age: K: Senonian breccia; K: Santonian-Campanian.

Paleoenvironment: Outer slope of the Dinaric Carbonate Platform. Reef limestone resedimented in breccia.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: transverse section; P-572a, x 4.
 B: longitudinal section; P-572b, x 4.
 C: detail from A, x 8.
 D: detail from B, x 8.

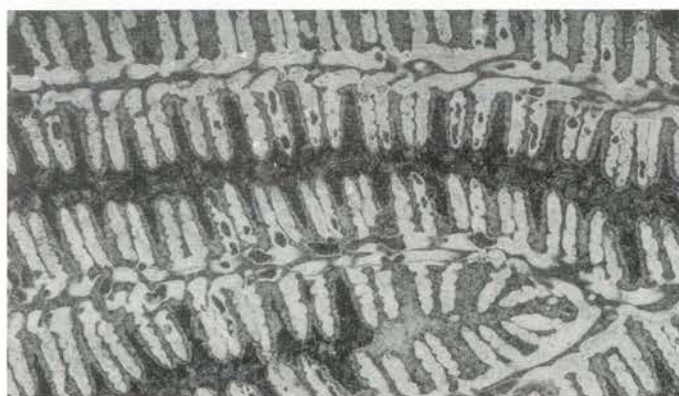
E: transverse section; P-572c, x 10.
 F: microstructure, monoaxial branching trabeculae; P-572a, x 40.



A



B



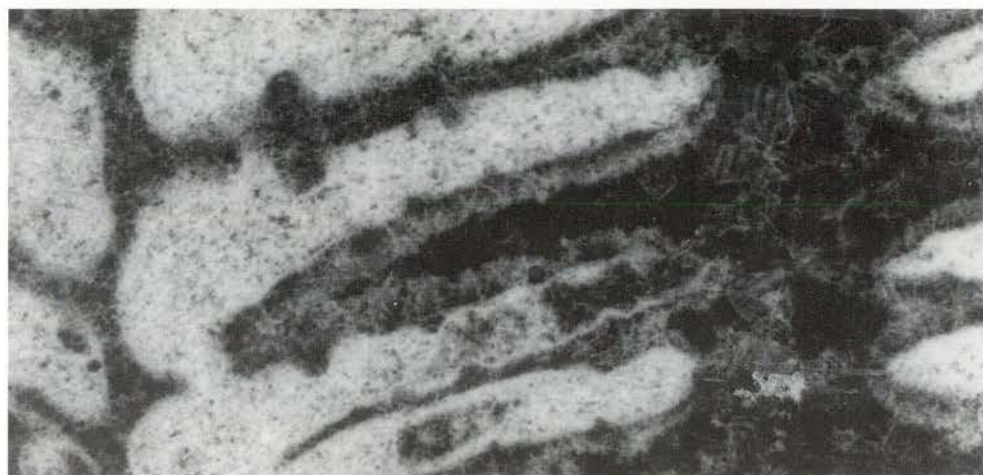
C



D



E



F

Microphyllia bachmayeri Geyer 1955

- 1955a *Microphyllia bachmayeri* n. sp. GEYER, Pl. 23, fig. 5, Pl. 25, fig. 2.
 1960 *Microphyllia bachmayeri* Geyer. FRAJOVA, 67, Pl. 5, fig. 2.
 1972 *Microphyllia bachmayeri* Geyer. TURNŠEK, 198, Pl. 31, fig. 2.
 1974 *Microphyllia bachmayeri* Geyer. TURNŠEK & BUSER, 102-103, Pl. 1, figs. 2-3.

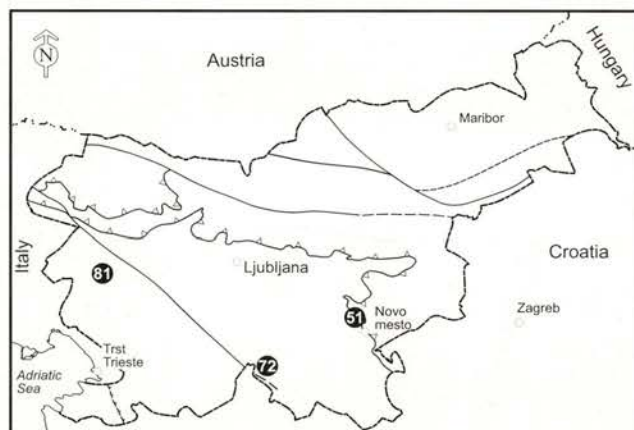
Description: Meandroid-ceroid colony with tectiform colinae and short series of corallites, budding intracalicular. Septa rarely perforated, laterally granulated, non confluent. Synapticulotheca, spongy columella, rare dissepiments and synapticulae. $d = 2-3$ mm, $s = 12/2$ mm.

Localities: **51** Ivanja vas (P-311, P-320, P-321), **81** Zavrh (P-675), **72** Draga (Kočevsko) (P-962); Czech R. (Štramberk).

Age: J: Upper Oxfordian-Kimmeridgian, K: Valanginian; J: Tithonian.

Paleoenvironment: Outer barrier reef and back reef area on the Dinaric Carbonate Platform. Reef limestone.

CRETACEOUS	Upper	Senonian	
		Turonian	
		Cenomanian	
	Lower	Albian	
		Aptian	
		Barremian	
		Hauterivian	
		Valanginian	
		Berriasian	
JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	



A: transverse section; P-320a, x 4.

B: longitudinal peripheral section; P-321b, x 4.

C: transverse oblique section; P-675a, x 4.

D: longitudinal axial section; P-675b, x 4.

E: detail from A, x 8.

F: detail from D, x 8.

G: microstructure, ?medium-sized trabeculae, poorly preserved; P-320a, x 40.



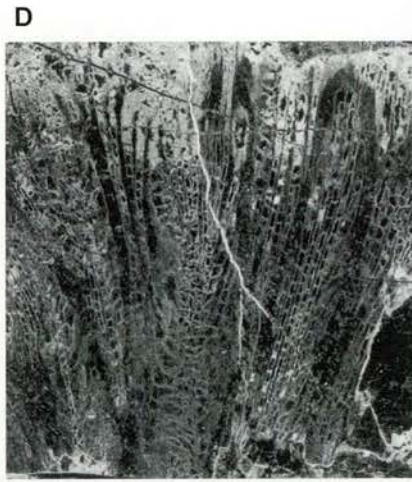
A



B



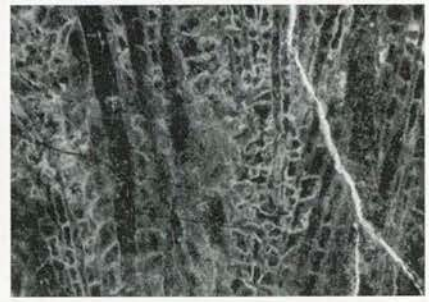
C



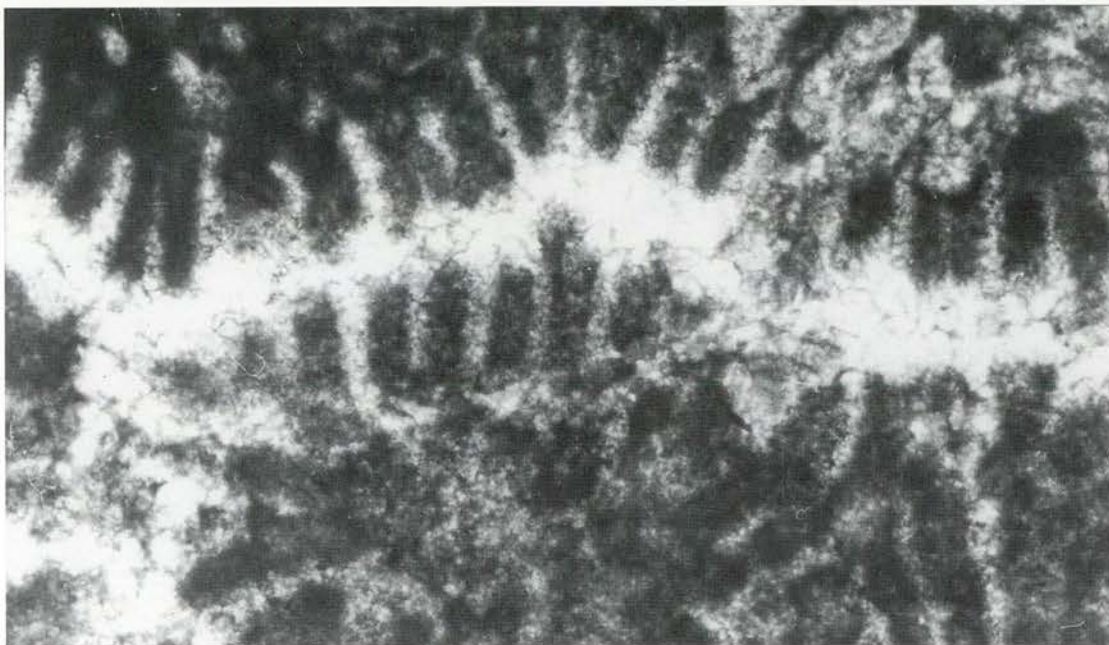
D



E



F



G

Microphyllia undans Étallon 1858

- 1858 *Microphyllia undans* Étallon, 108.
 1885 *Latimeandra undans* Étallon. Koby, 246-247, Pl. 7, fig. 3.
 1897 *Isastrea undans* Étallon. OGILVIE, 189, Pl. 15, figs. 8, 10, 14, 15.
 1955a *Microphyllia undans* Étallon. GEYER, 205.
 1955b *Microphyllia undans* Étallon. GEYER, 346.
 1964 *Microphyllia undans* Étallon. BEAUVAIS, 249-250.
 1972 *Microphyllia undans* Étallon. TURNŠEK, 197-198, Pl. 31, figs. 1-3.
 ?1974 *Microphyllia undans* Étallon. TURNŠEK & BUSER, 103, Pl. 2, figs. 1-2.
 1985 *Microphyllia undans* Étallon. ROSENDAHL, 60.
 1996 *Microphyllia undans* (Koby). CSÁSZÁR & TURNŠEK, 434, fig. 7/3.

Description: Meandroid-ceriod colony with colinae and corallites in series or monocentric, budding intracalicular. Septa in series confluent, between series nonconfluent, lateral granulae. Synapticulotheca, spongy columella, tabulate dissepiments and synapticalae. d = 3-5 mm, s = 7-9/2 mm.

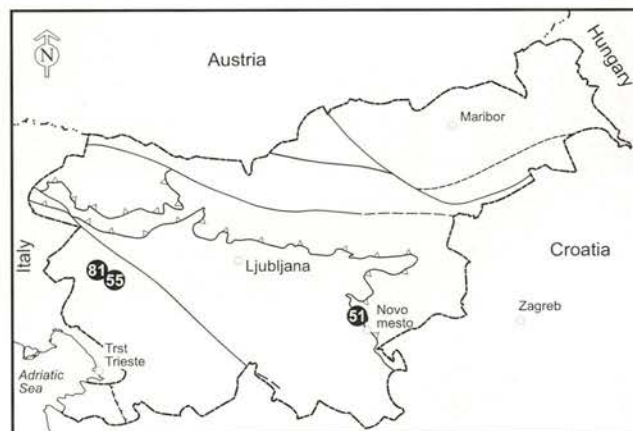
Localities: 55 Mrzovec (P-256, P-265, P-453, P-457, P-465, P-471), 51 Ivanja vas (P-316), 81 Zavrh (P-673); France, Switzerland, Czech R. (Štramberk), Portugal, Hungary.

Age: J: Upper Oxfordian-Kimmeridgian, K: Valanginian; J: Oxfordian-Kimmeridgian-Tithonian, K: Valanginian-Aptian.

Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

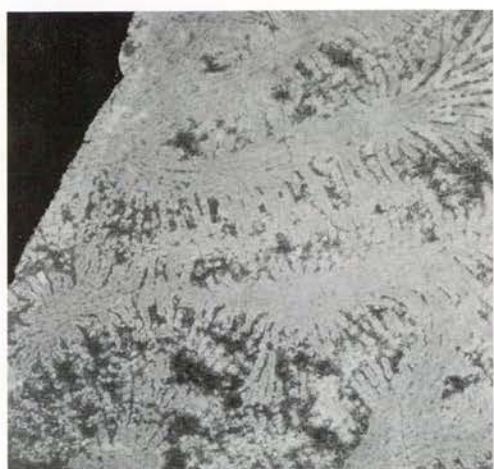
Remarks: Specimen from Valanginian of Zavrh has many monocentric corallites and differs a little from Jurassic prevailingly meandroid forms.

CRETACEOUS	Upper	Senonian	
		Turonian	
		Cenomanian	
	Lower	Albian	
		Aptian	
		Barremian	
		Hauterivian	
		Valanginian	
		Berriasian	
JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	



- A: transverse section; P-265a, x 4.
 B: longitudinal section; P-265b, x 4.
 C: transverse section; P-471a, x 4.
 D: longitudinal section; P-471b, x 4.

- E: detail from C, x 8.
 F: detail from D, x 8.
 G: microstructure, ?medium-sized trabeculae; P-265a, x 40.



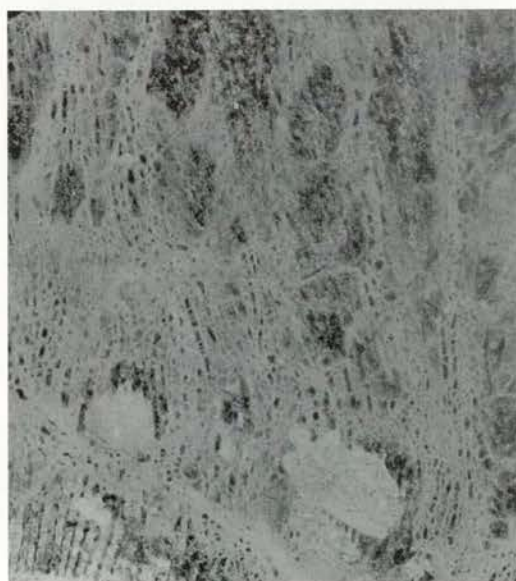
A



B



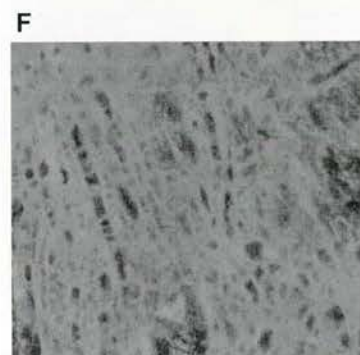
C



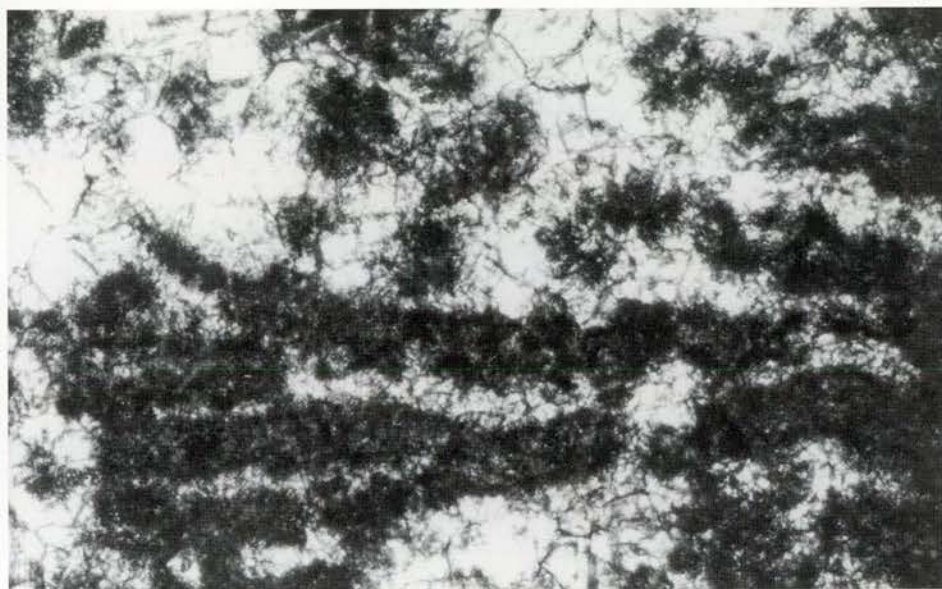
D



E



F



G

Microsolena agariciformis Étallon 1858

- 1858 *Microsolena agariciformis*. ÉTALLON, 252.
 1954 *Microsolena agariciformis* Étallon. GEYER 165-166.
 1955a *Microsolena agariciformis* Étallon. GEYER, 209.
 1955b *Microsolena agariciformis* Étallon. GEYER, 254.
 1965 *Microsolena agariciformis* Étallon. GEYER, 233.
 1966 *Microsolena agariciformis* Étallon. RONIEWICZ, 227-228, Pl. 17, figs. 1-2.
 1968 *Actinaraea agariciformis* (Étallon). LAMBELET, 191-195, Textfig. 105.
 1972 *Microsolena agariciformis* Étallon. TURNŠEK, 190-191, Pl. 28, fig. 1.
 1974 *Microsolena agariciformis* Étallon. MORYCOWA, 473, Pl. 9, fig. 3, Pl. 11, fig. 2.
 1976 *Microsolena agariciformis* Étallon. RONIEWICZ, 104, Pl. 32, figs. 2-3.
 1982 *Microsolena agariciformis* Étallon. BENDUKIDZE, 105-106, Pl. 29, figs. 1a-b.
 1985 *Microsolena agariciformis* Étallon. ROSENDAHL, 56.
 1987 *Microsolena agariciformis* Étallon. HUSANOV, 73-74, Pl. 14, fig. 3.
 1991 *Microsolena agariciformis* Étallon. ERRENST, 28, Pl. 19, figs. 6a-c.
 1995 *Microsolena* cf. *agariciformis* Étallon. LÖSER & RAEDER, 52.

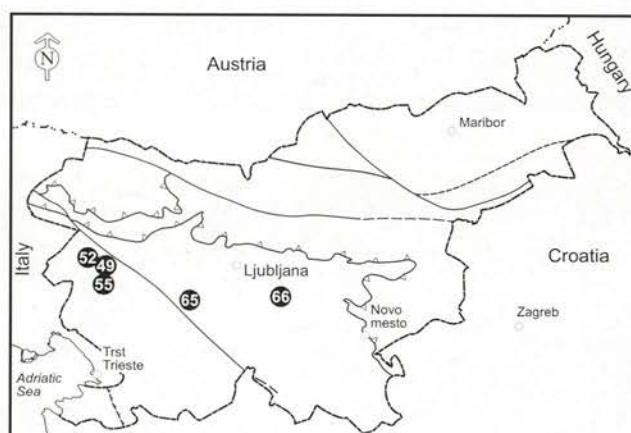
Description: Massive thamnasterid colony, irregularly spaced corallites with small round axial fields. Septa porous, confluent, lateral pennulae. No wall, synapticalae and ?tabulate dissepiments present, columella spongy. c-c = 6-8 mm, s = ca 50 (20-22/5 mm).

Localities: 66 Luče (P-374, P-375), 55 Mrzovec (P-634, P-635), 52 Kal nad Kanalom (P-633), 49 Čepovanski dol (P-632), 65 Logaška planota (P-940); France, Germany, Portugal, Czech R. (Štramberk), Spain, Poland, Greece, Georgia, Crimea, Uzbekistan.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian-Tithonian, K: Aptian-Albian.

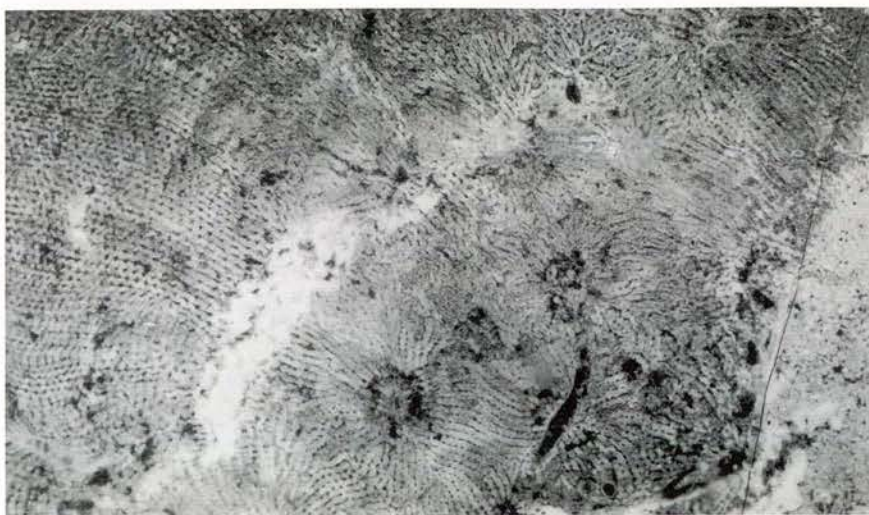
Paleoenvironment: Outer and inner (sheltered) barrier reef on the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
	Lias	Toarcian	
		Pliensbachian	
		Sinemurian	
		Hettangian	

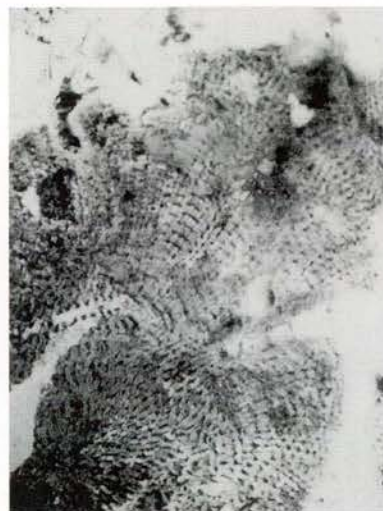


A: transverse section; P-375a, x 4.
 B: longitudinal section; P-374b, x 4.
 C: transverse section; P-375b, x 4.

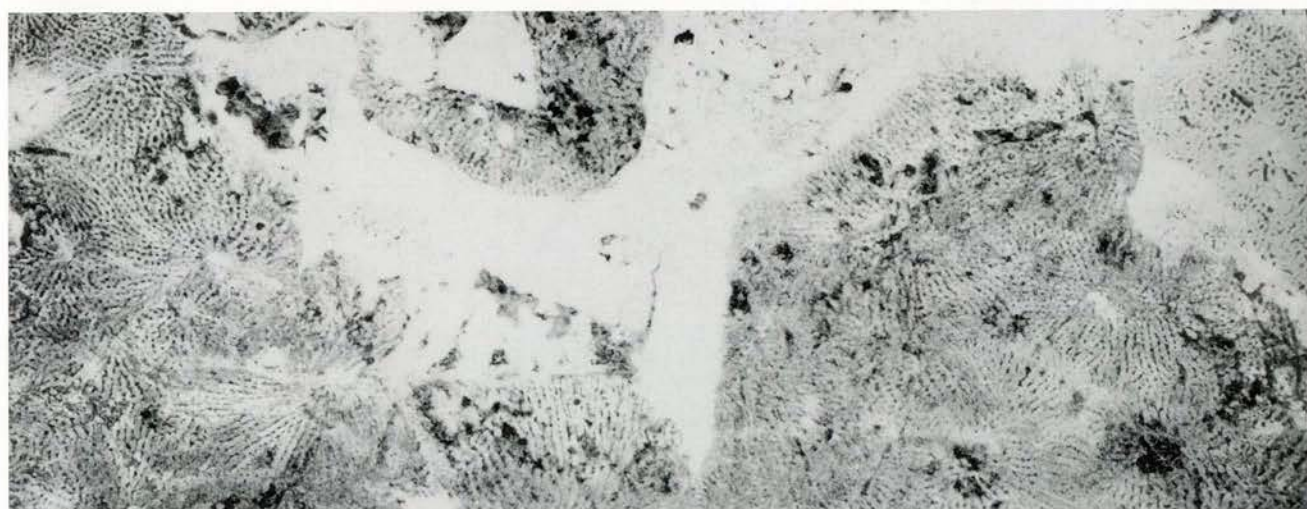
D: detail from C, x 8.
 E: microstructure, medium-sized to thick trabeculae; P-375a, x 40.



A



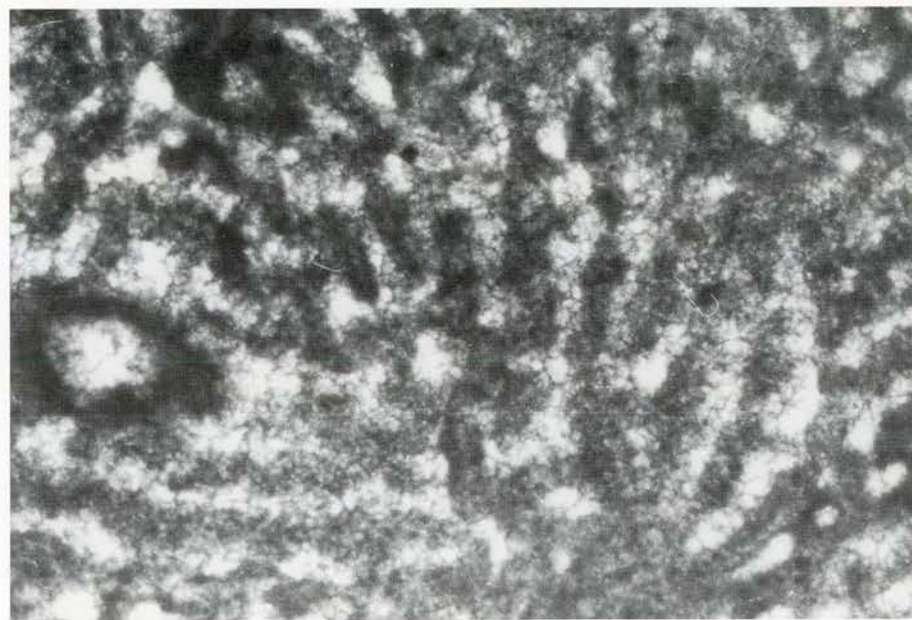
B



C



D



E

Microsolena distefanoi (Prever) 1909

- 1909 *Microsarea distefanoi* n. f. PREVER, 171, Pl. 2, figs. 9-a.
 1964 *Microsolena distefanoi* (Prever). MORYCOWA, 86-87, Pl. 25, fig. 2, Pl. 26, figs. 1-2.
 1966 *Microsolena distefanoi* (Prever). MORYCOWA & LEFELD, 536, Pl. 32, fig. 7.
 1968 ? *Microsolena* aff. *distefanoi* (Prever). TURNŠEK, 360, Pl. 10, fig. 1.
 1974 *Microsolena distefanoi* (Prever). TURNŠEK & BUSER, 101-102, 117, Pl. 11, fig. 2.
 1976 *Microsolena distefanoi* (Prever). TURNŠEK & BUSER, 58, 81, Pl. 17, figs. 1-4.
 1979b *Microsolena distefanoi* (Prever). SIHARULIDZE, 303.
 1980 *Microsolena distefanoi* Prever. KUSMICHEVA, 103, Pl. 38, figs. 1ab.
 1984 *Microsolena distefanoi* (Prever). SCOTT, 342, Pl. 2, figs. 9-10.
 1985 *Microsolena distefanoi* (Prever). SIHARULIDZE, 48-49, Pl. 22, figs. 3ab.
 1985 *Microsolena distefanoi* (Prever). GEYER & ROSENDAHL, 167.
 1988 *Microsolena distefanoi* (Prever). KUSMICHEVA & ALIEV, 171-172, Pl. 6, figs. 3ab.
 1992 *Microsolena distefanoi* (Prever). TURNŠEK et al., 217, Pl. 6, figs. 4-6.
 1995 *Microsolena* cf. *distefanoi* (Prever). LÖSER & RAEDER, 52.
 1996 *Microsolena distefanoi* (Prever). BARON-SZABO & STEUBER, 22, Pl. 14, fig. 6.
 1996 *Microsolena distefanoi* (Prever). CSÁSZÁR & TURNŠEK, 434, fig. 8/11.
 1997 *Microsolena distefanoi* (Prever). BARON-SZABO, 82-83, Pl. 13, fig. 5.

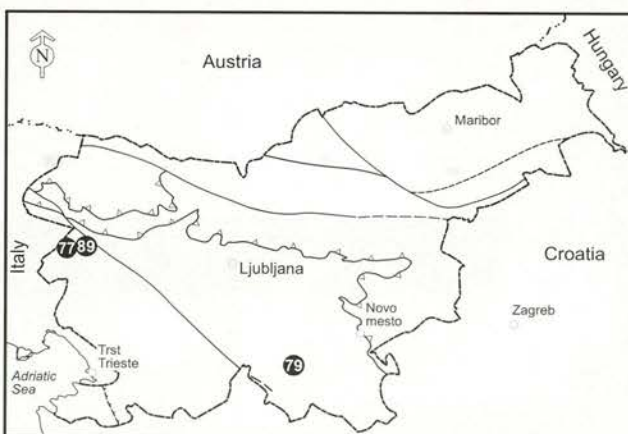
Description: Massive encrusting thamnasterioid colony, irregularly spaced corallites. Septa confluent, regularly perforated, pennulated, spongy columella, synapticalae, microstructure trabecular. cc = 3-7 mm, s = 25-45.

Localities: 77 Osojnica (P-664), 89 Kanalski Lom, reworked in breccia (P-543, P-567), 79 Slovenski vrh (D/1, D/2); Italy, Germany, Poland, Hungary, E Carpathians, Greece, Caucasus, Azerbajdzhan, Turkestan, Texas.

Age: K: Barremian-Aptian, Senonian breccia; K: Berriasian-Hauterivian-Barremian-Aptian, Albion, Cenomanian.

Paleoenvironment: Reef flat at the edge of the Dinaric Carbonate Platform, Urgonian facies, and outer slope with reef limestone resedimented in breccia.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
	Lower		Cenomanian	
			Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	

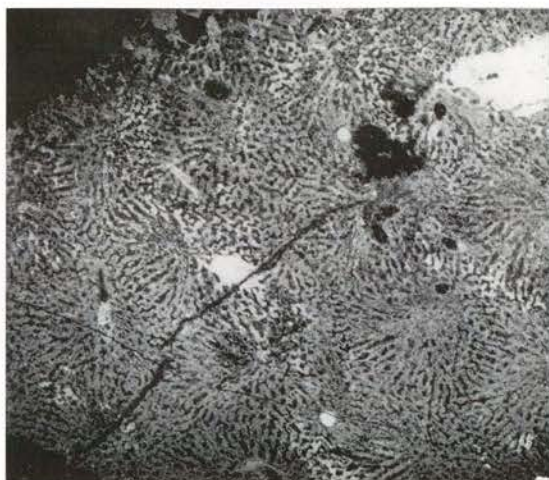


- A: surface from above; Sv-D/1, x 1.
 B: transverse section: P-567a, x 4.
 C: longitudinal section; P-567b, x 4.
 D: transverse, partly longitudinal section; Sv-D/1a, x 4.

- E: longitudinal section; Sv-D/1b, x 8.
 F: detail from B, x 8.
 G: microstructure, ?medium-sized polycentric trabeculae; P-567a, x 40.



A



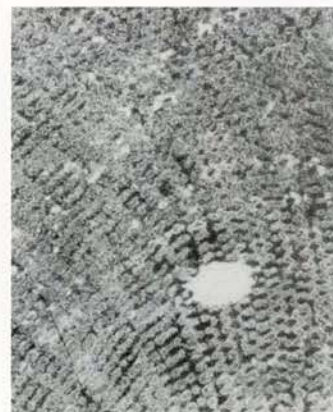
B



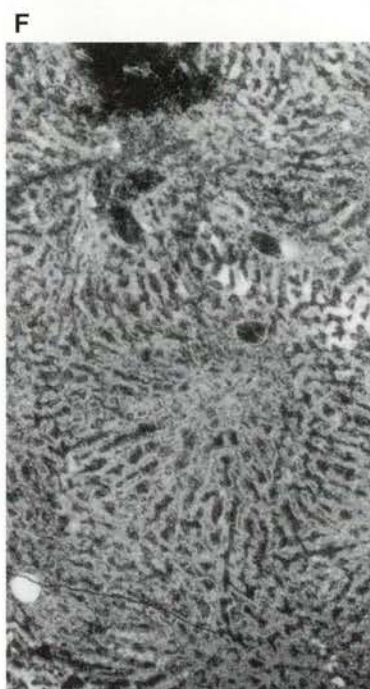
C



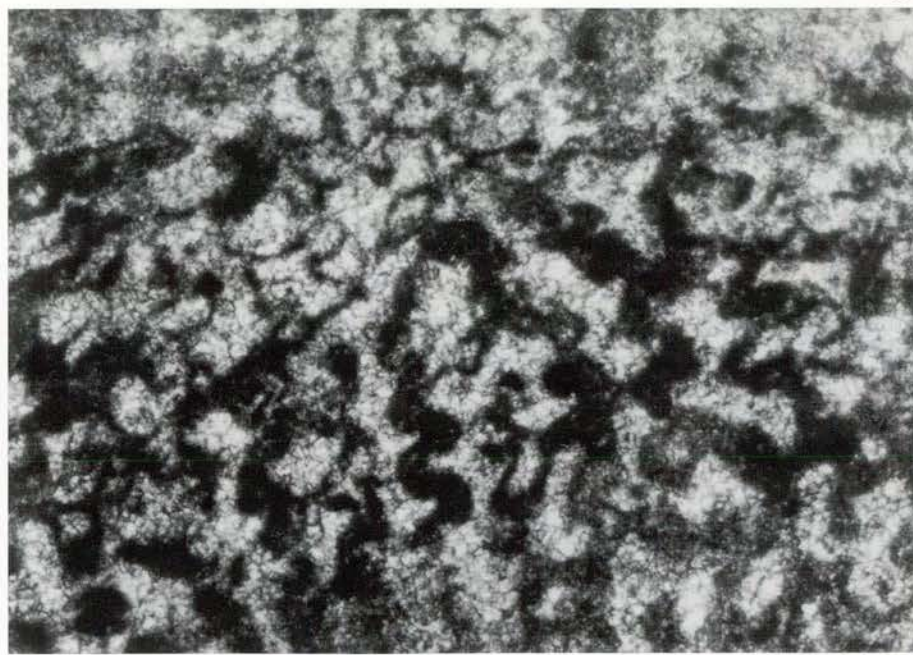
D



E



F



G

Microsolena guttata Koby 1897

1897 *Microsolena guttata* Koby. Koby, 83-84, Pl. 21, figs. 1-2.
1961 *Microsolena guttata* Koby. BENDUKIDZE, 31-32, Pl. 3, figs. 6ab.
1974 *Microsolena guttata* Koby. TURNŠEK & BUSER, 101, 117, Pl. 11, fig. 1.
1981 *Microsolena guttata* Koby. TURNŠEK & MIHAJLOVIĆ, 35, Pl. 41, figs. 1-5.
1984 *Microsolena guttata* Koby. SCOTT, 342, 344, Pl. 2, fig. 11.
1985 *Microsolena guttata* Koby. SIHARULIDZE, 47-48, Pl. 22, fig. 2.
1988 *Microsolena guttata* Koby. KUSMICHEVA & ALIEV, 172, Pl. 7, figs. 1ab.
1996 *Microsolena guttata* Koby. CSÁSZÁR & TURNŠEK, 434, fig. 7/2.

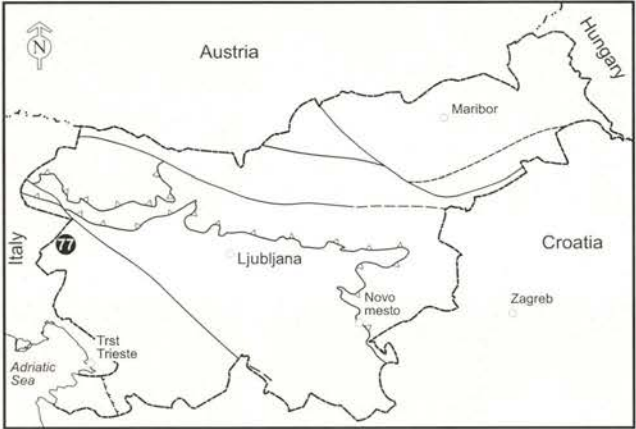
Description: Massive encrusting colony with thamnasterioid concentrically spaced corallites. Septa confluent, regularly perforated, laterally pennulated, no wall, columella spongy, microstructure trabecular. cc = 4-6 mm, s = ca 40 (6-7/ 2 mm).

Localities: 77 Osojnica (P-515); Switzerland, Hungary, Crimea, Georgia, Azerbajdzhan, Serbia, Mexico.

Age: K: Barremian-Aptian; K: Valanginian, Barremian-Aptian.

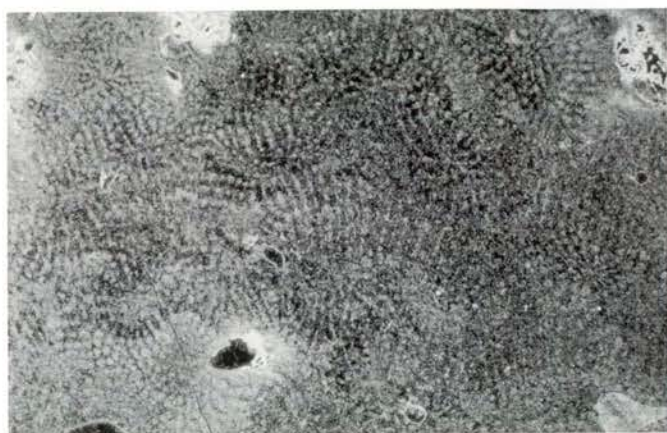
Paleoenvironment: Reef flat at the edge of the Dinaric Carbonate Platform. Urgonian facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
		Turonian	Turonian	
			Cenomanian	
	Lower	Albian		
		Aptian		
		Barremian		
		Hauterivian		
		Valanginian		
		Berriasian		

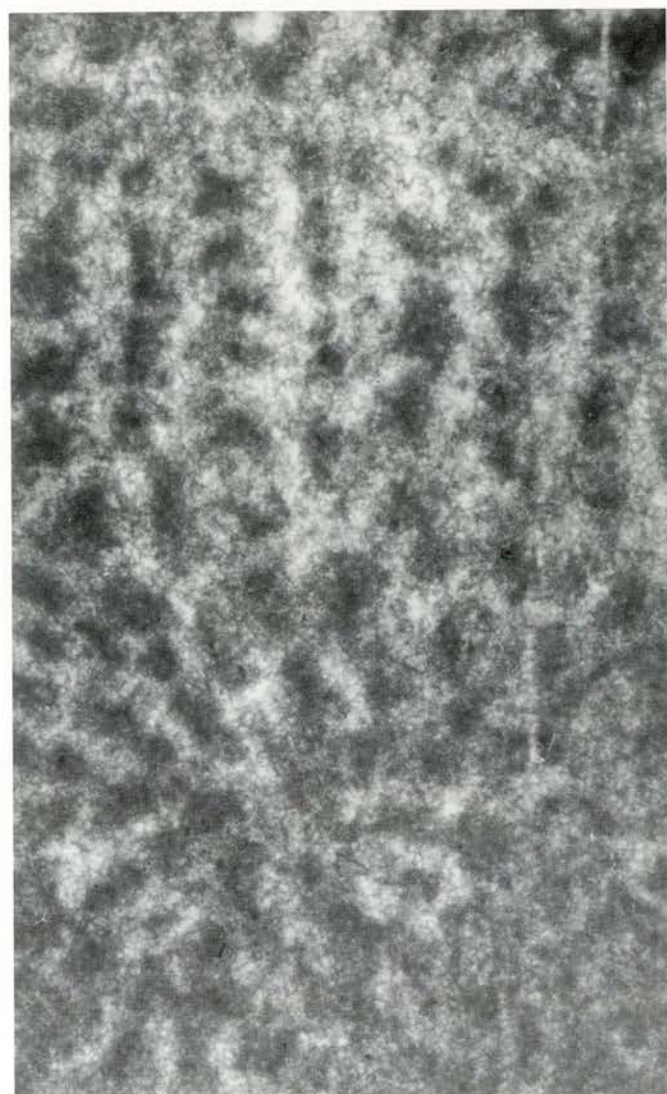


A: transverse section; P-515a, x 4.
B: the same as A, x 8.

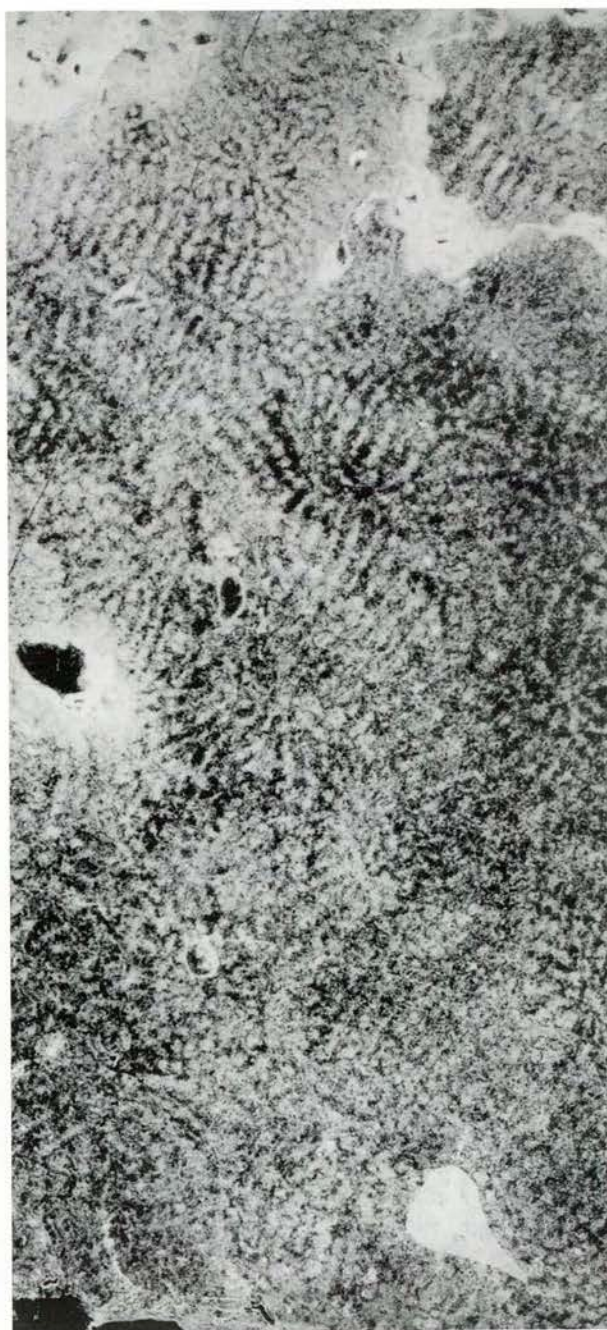
C: microstructure, ?medium-sized polycentric trabeculae; P-515a, x 40.



A



C



B

Microsolena ornata Koby 1887

- 1887 *Microsolena ornata* Koby. Koby, 399, Pl. 107, figs. 1-2.
 1966 *Microsolena ornata* Koby. BEAUVAIS, 1016, Pl. 13, fig. 3, Pl. 14, fig. 4.
 1972 *Microsolena ornata* Koby. TURNŠEK, 192, Pl. 28, figs. 3-4.
 1982 *Microsolena ornata* Koby. BENDUKIDZE, 102-103, Pl. 29, figs. 3ab.
 1985 *Microsolena ornata* Koby. ROSENDAHL, 56, Pl. 6, fig. 4.

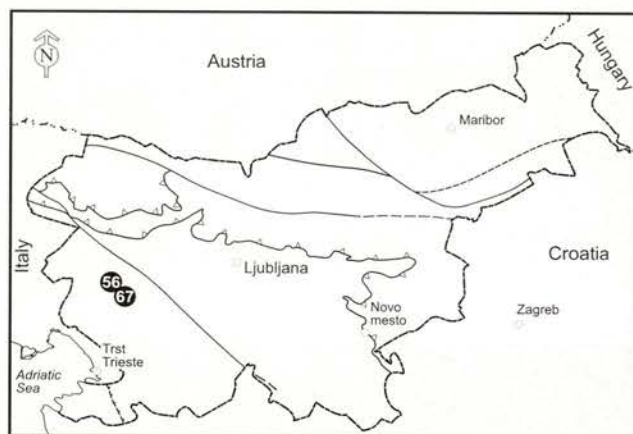
Description: Mushroom shaped colony, with corallites far apart, surrounded by a synapticular inner ring. Septa confluent, perforated lateral pennulae, columella parietal, microstructure trabecular. c-c = 4-4.5 mm, s = 26-30 (20-25/5 mm).

Localities: 56 Ojstrovca (P-449), 67 Otlica (P-415); Switzerland, Georgia, Portugal.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian.

Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-449a, x 4.

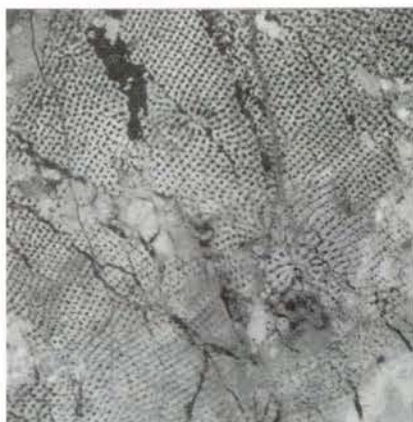
B: longitudinal section; P-449b, x 4.

C: detail from A, x 8.

D: transverse section; P-415a, x 4.

E: detail from B, x 8.

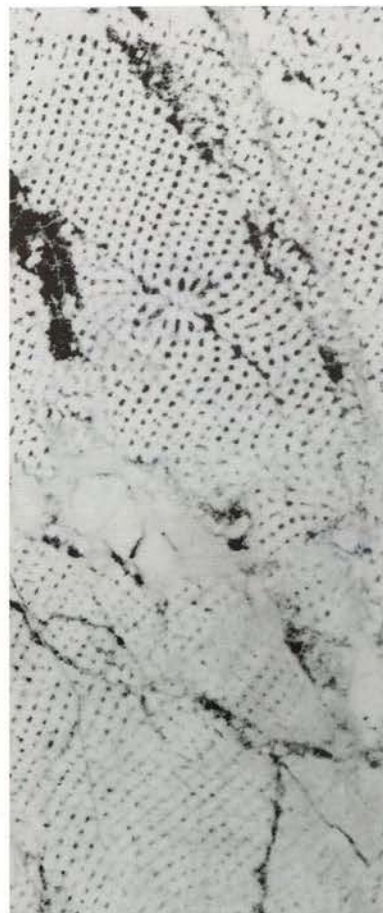
F: microstructure, ?medium-sized to thick trabeculae, hardly seen; P-449a, x 40.



A



B

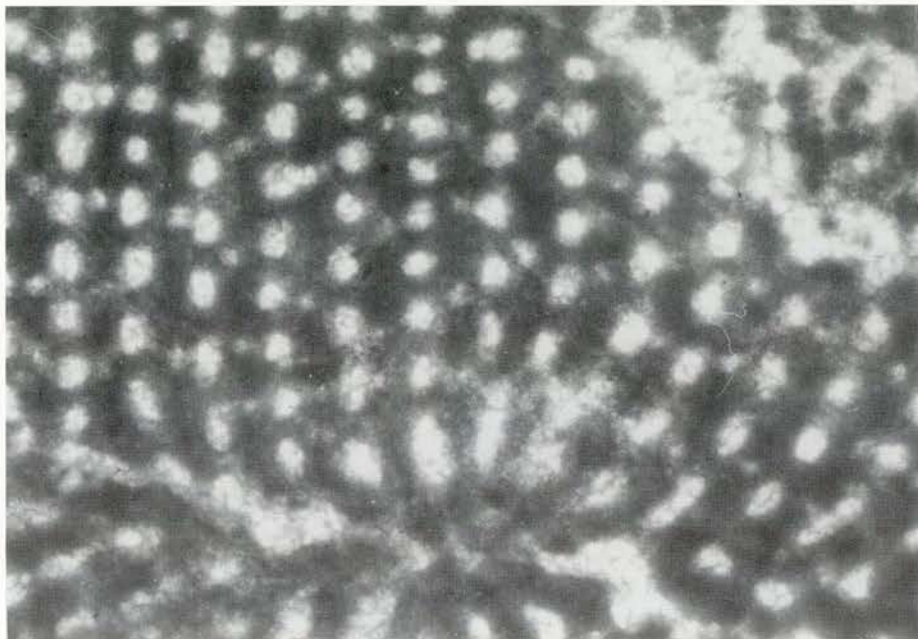
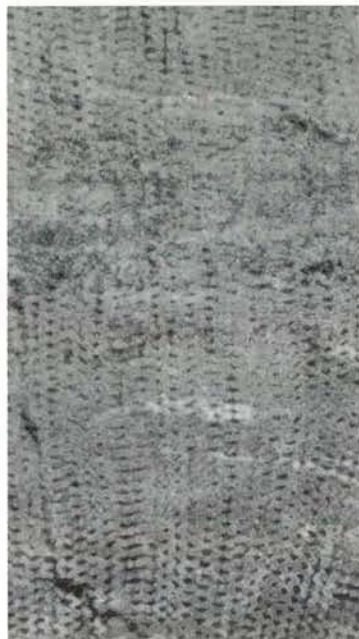


C



D

E



F

Microsolena thurmanni Koby 1887

- 1887 *Microsolena thurmanni* Koby. Koby, 396-397, Pl. 106, figs. 4-5.
 1964 *Microsolena thurmanni* Koby. Beauvais, 232, Pl. 29, fig. 4, Pl. 30, fig. 2.
 1966 *Microsolena thurmanni* Koby. Roniewicz, 228-229, Pl. 17, fig. 3, Textfig. 16.
 1972 *Microsolena thurmanni* Koby. Turnšek, 191-192, Pl. 28, fig. 2.
 1973 *Microsolena thurmanni* Koby. Turnšek & Mihajlović, 100, Pl. 5, figs. 2-3.
 1976 *Microsolena thurmanni* Koby. Roniewicz, 106, pl. 33, figs. 5ab.
 1979 *Microsolena thurmanni* Koby. Negus & Beauvais, 227.
 1982 *Microsolena thurmanni* Koby. Bendukidze, 104, Pl. 29, figs. 2ab.
 1987 *Microsolena thurmanni* Koby. Husanov, 72, Pl. 14, fig. 1.
 1991 *Microsolena thurmanni* Koby. Errenst, 29-30, Pl. 20, figs. 2a-c.
 1995 *Microsolena thurmanni* Koby. Löser & Raeder, 53.

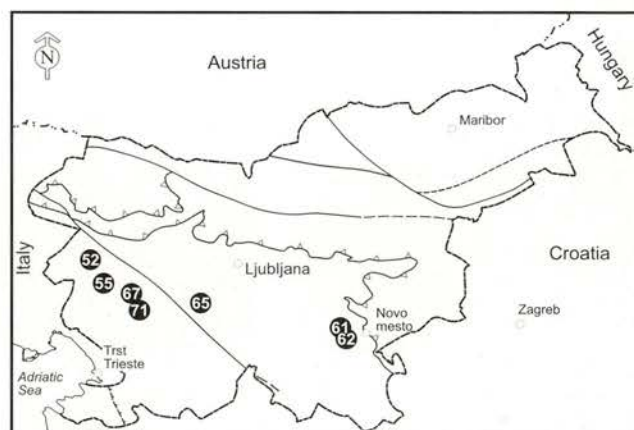
Description: Massive colony with large corallites of polygonal appearance. Septa confluent, uneven, porous, with pennulae. No wall, many synapticalae, rare thin dissepiments, parietal columella, microstructure trabecular. c-c = 7-8 mm, s = ca. 50 (14-15/ 5 mm).

Localities: 55 Mrzovec (P-266), 67 Otlica (P-425), 71 Col (P-305, P-306), 61 Frata (P-354), 62 Frata-Mali vrh (P-400), 52 Kal nad Kanalom (P-654, P-655), 65 Logaška planota (P-941); Switzerland, France, Poland, Romania, Serbia, Greece, Caucasus, Georgia, Uzbeki-stan, England, Spain, ?Tibet (see Errenst 1991, 29).

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian, K: Aptian-Albian.

Paleoenvironment: Outer and inner (sheltered) barrier reef on the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
	Lias	Toarcian	
		Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-354a, x 4.

B: longitudinal oblique section; P-354b, x 4.

C: longitudinal section; P-415, x 4.

D: detail from A, x 8.

E: microstructure, ?medium-sized to thick trabeculae; P-354a, x 40.



A



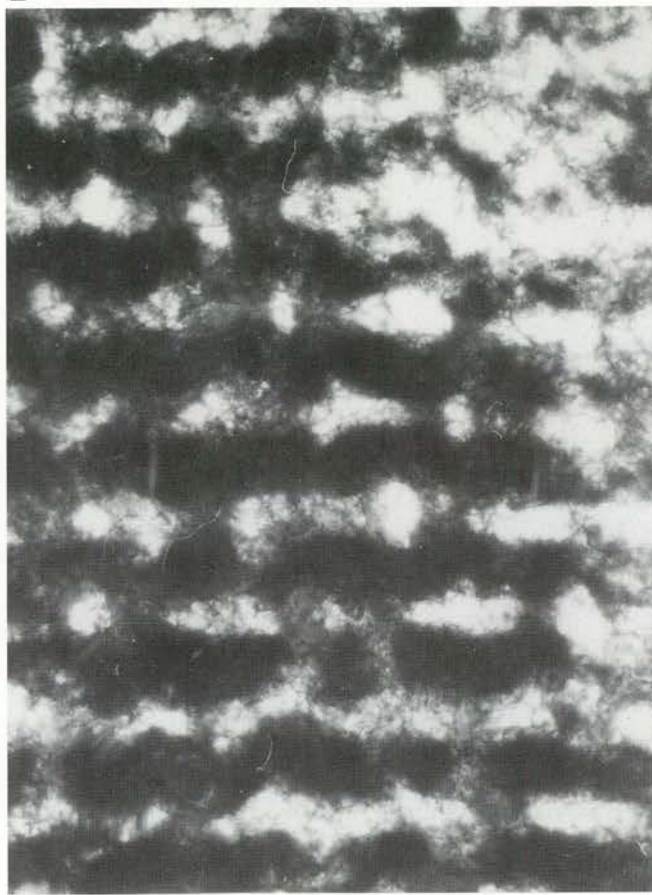
C



B

D

E



Mitrodendron ogilvieae Geyer 1955

- 1955a *Mitrodendron ogilvieae* n. sp. GEYER, 188, Pl. 22, fig. 1, Pl. 26, fig. 7.
 1966 *Mitrodendron ogilvieae* Geyer. RONIEWICZ, 225-227, Pl. 16, fig. 2, Textfig. 15.
 1972 *Mitrodendron ogilvieae* Geyer. TURNŠEK, 188-189, Pl. 25, fig. 5, Pl. 26, figs. 1-3.
 1975 *Mitrodendron ogilvieae* Geyer. ELIÁŠOVÁ, 13.
 1976 *Mitrodendron* sp. TURNŠEK & BUSER, 52, 76, Pl. 6, figs. 1-2.
 1983 *Mitrodendron ogilvieae* Geyer. ILYINA, 21, Textfigs. 6d, e.
 1985 *Mitrodendron ogilvieae* Geyer. ROSENDAHL, 52, Pl. 5, figs. 6, 10.

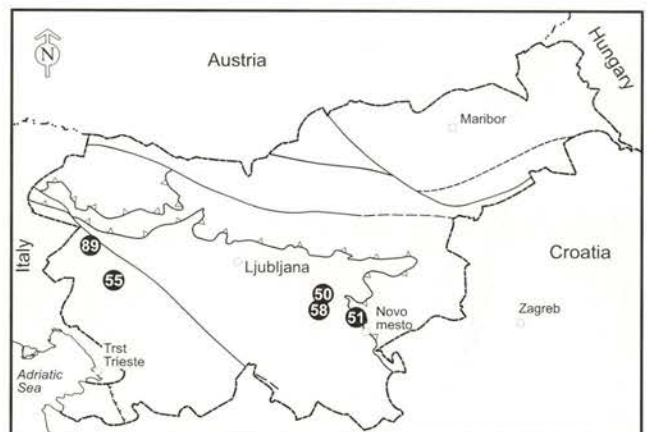
Description: Phaceloid colony with round corallites, budding in pockets or "Taschenknospung". Septal structure bilateral, long main septum reaching axial part of corallite, another septa in 2-3 irregular cycles, rare lateral granulae. Septotheca thick, outer side looks smooth like epitheca, no columella, dissepiments tabulate and large, microstructure fibrous. $d = 6-16$ mm, $s = 22-26$.

Localities: **51** Ivanja vas (P-308, P-311, P-319, P-320), **58** Sela (P-340), **50** Gaber (P-345), **55** Mrzovec (P-464, P-470), **89** Kanalski Lom (P-605, P-610) reworked; Czech R. (Štramberk), Poland, Portugal.

Age: J: Upper Oxfordian-Kimmeridgian and Senonian breccia; J: Oxfordian-Kimmeridgian-Tithonian.

Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform, and outer slope where reef is resedimented in breccia.

CRETACEOUS	Upper	Senonian	■
		Turonian	
		Cenomanian	
	Lower	Albian	
		Aptian	
		Barremian	
		Hauterivian	
		Valanginian	
		Berriasian	
JURA-SSIC	Malm	Tithonian	
		Kimmeridgian	■
		Oxfordian	



A: transverse section; P-311a, x 4.
 B: transverse section; P-311c, x 4.
 C: longitudinal section; P-311b, x 4.

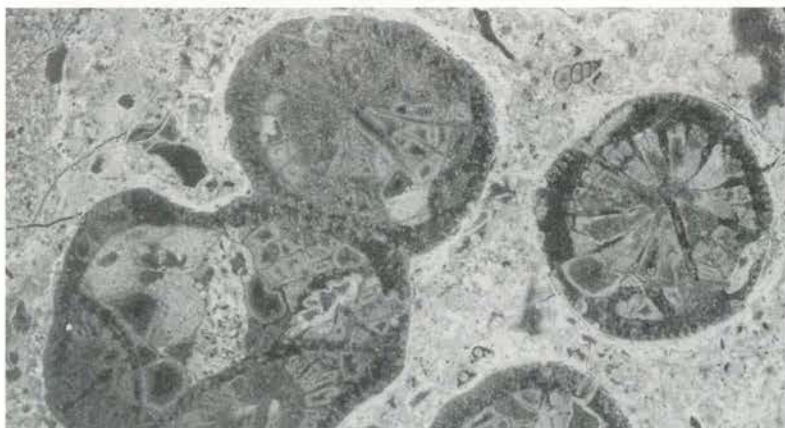
D: transverse section of one corallite; P-340a, x 4.
 E: microstructure, ?fibres, recrystallized; P-311a, x 40.
 F: longitudinal section; P-320b, x 4.



A



C



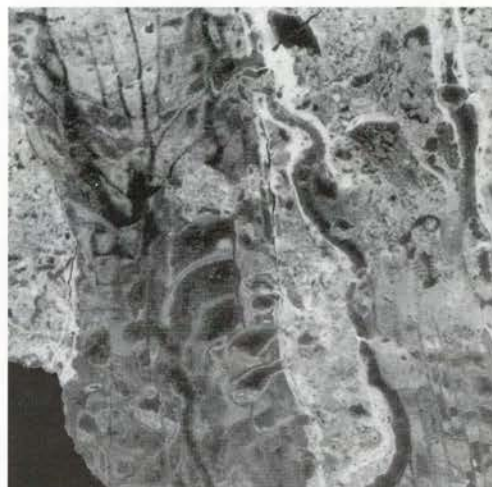
B



D



E



F

Mixastraea danubica Roniewicz 1976

1976 *Mixastraea danubica* sp. n. RONIEWICZ, 98, Pl. 28, figs. 2ab,3,4.

1993 *Mixastraea danubica* Roniewicz. LÖSER, 104, Pl. 1, fig. 1.

Description: Massive bulbous colony, confluent to partly subphaceloid (or ?subcerioid) corallites, round to prolonged in cross section, budding intratentacular. Septa thin, densely spaced of equal thickness, subcompact, porous in axial and peripheral part, mainly confluent, partly subconfluent, very long and laterally strongly pennulated. Incomplete septo-synapticulotheca, parietal columella, thin dissepiments. cc = ca 10 mm, s = ca 80 (7-8/2 mm).

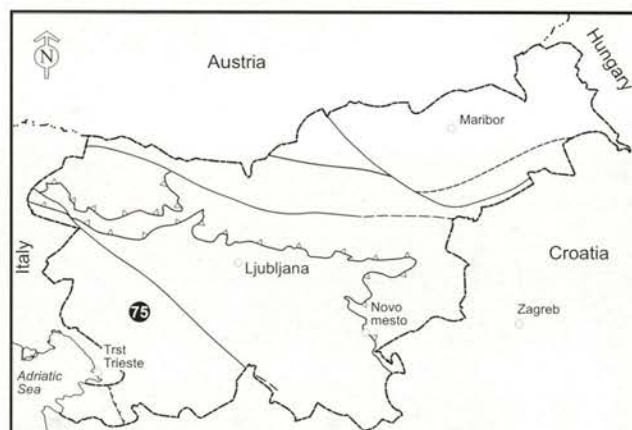
Remarks: Diagnosis of the genus emended by LÖSER (1993).

Localities: 75 Nanos (, P-1025, P-1034, P-1035); Romania (Dobrogea).

Age: J: Upper Oxfordian-Kimmeridgian; J: Upper Oxfordian-Lower Kimmeridgian.

Paleoenvironment: Patch reef in the back reef area on the Dinaric Carbonate Platform.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	

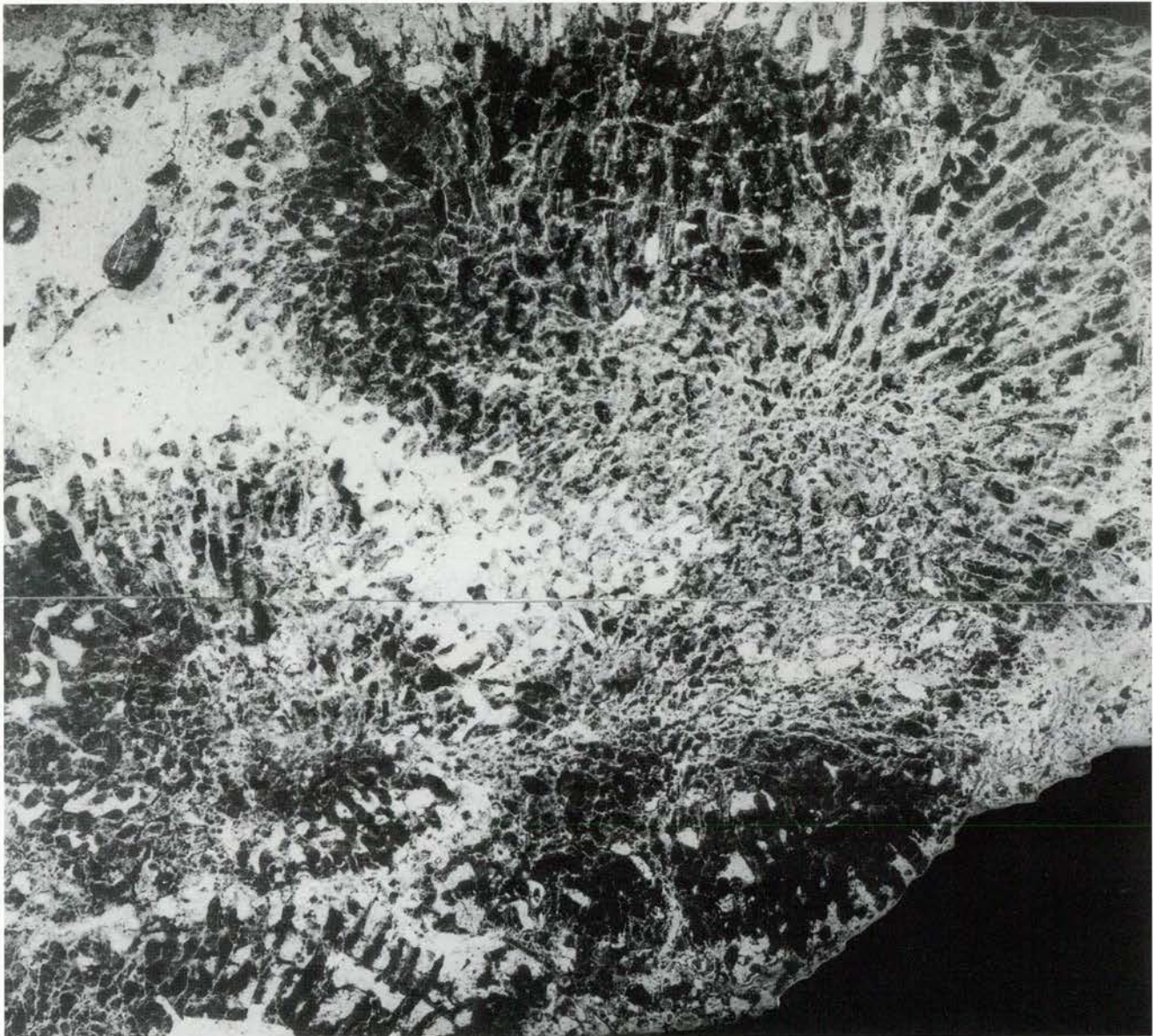


A: transverse section; P-1025a, x 4.

B: detail from A, x 8.



A



B

Montlivaltia champlittensis Fromentel 1861

- 1861 *Montlivaultia champlittensis* de Fromentel. FROMENTEL, 111.
 1876 *Montlivaultia champlittensis* Fromentel. MILASCHEWITSCH, 201-202, Pl. 48, fig. 1.
 1954 *Montlivaltia champlittensis* Fromentel. GEYER, 178-179.
 1972 *Montlivaltia champlittensis* Fromentel. TURNŠEK, 173-174, Pl. 12, fig. 1.
 1975 *Montlivaltia champlittensis* Fromentel. TURNŠEK, 11, Pl. 4, fig. 3.

Description: Turbinate corallum, oval calice. Septa in 5 complete cycles, in axial part freely end in prolonged fossula. Septoparatheca, large bent dissepiments, no columella, microstructure montlivaltiid. d = 25-50 mm, s = ca 100.

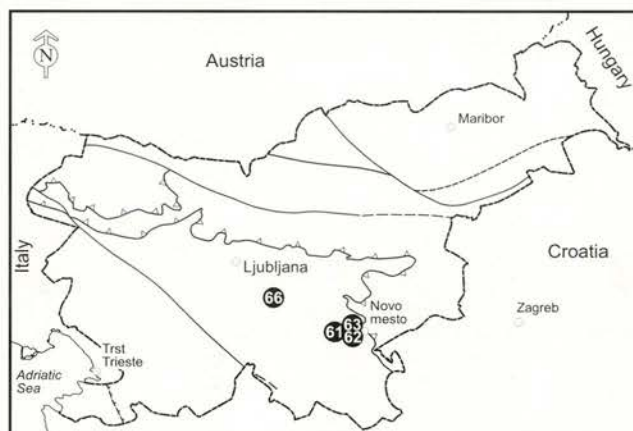
Remarks: The revision and microstructure of *Montlivaltia* was given by GILL (1970).

Localities: 61 Frata (P-370), 66 Luče (P-377), 62 Frata-Brezova reber (P-388), 63 Frata-Mali vrh (P-401, P-407); France, Germany, Croatia.

Age: J: Upper Oxfordian-Kimmeridgian; J: Upper Oxfordian-Kimmeridgian.

Paleoenvironment: Inner (sheltered) barrier reef on the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
	Lias	Toarcian	
		Pliensbachian	
		Sinemurian	
		Hettangian	



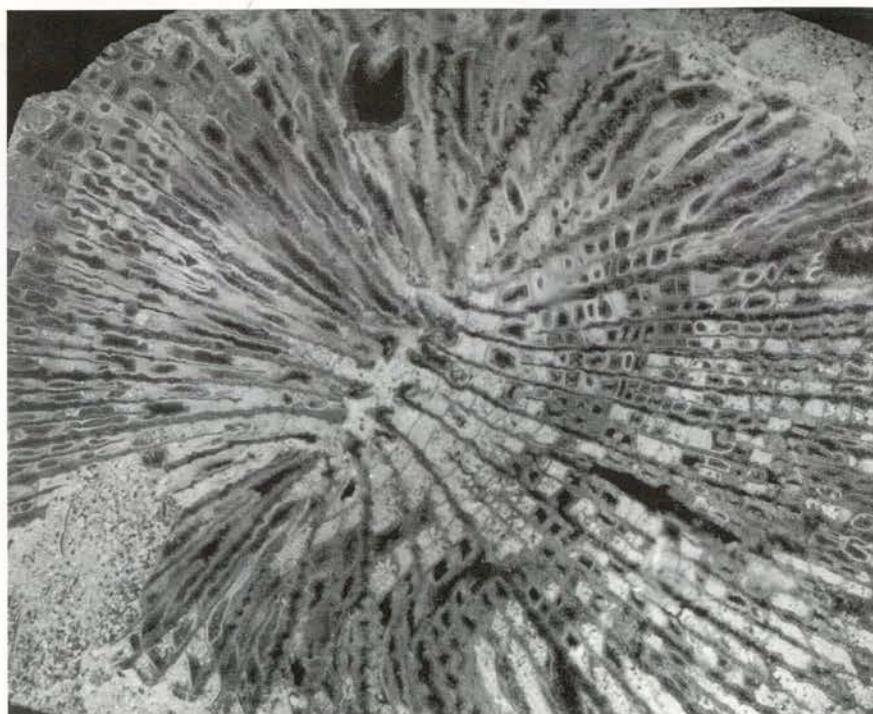
A: transverse section; P-407a, x 4.

B: longitudinal oblique section; P-407b, x 4.

C: transverse section of axial part of the corallum; P-377a. x 4.

D: longitudinal section; P-377b, x 8.

E: microstructure, monoaxial montlivaltiid trabeculae; P-407a, x 40.



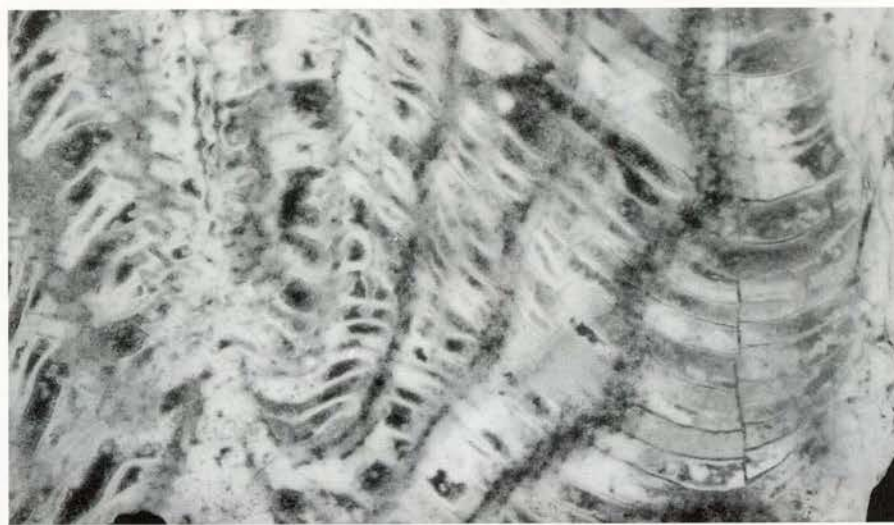
A



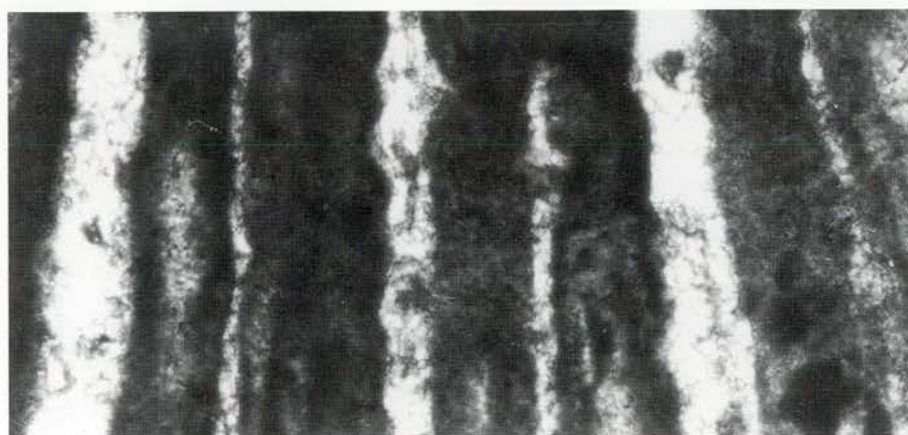
B



C



D



E

Montlivaltia renevieri Koby 1883

- 1883 *Montlivaultia renevieri* Koby. Koby, 144-145, Pl. 32, fig. 6.
 1897 *Montlivaltia renevieri* Koby. OGILVIE, 197-198, Pl. 13, fig. 2.
 1954 *Montlivaltia renevieri* Koby. GEYER, 180, Pl. 14, fig. 12.
 1955a *Montlivaltia renevieri* Koby. GEYER, 198.
 1955b *Montlivaltia renevieri* Koby. GEYER, 344.
 1965 *Montlivaltia renevieri* Koby. GEYER, 236.
 1972 *Montlivaltia renevieri* Koby. TURNŠEK, 174, Pl. 12, fig. 2.
 1982 *Montlivaltia renevieri* Koby. BENDUKIDZE, 38-39.
 1985 *Montlivaltia renevieri* Koby. ROSENDAHL, 46.
 1996 *Montlivaltia renevieri* Koby. BARON-SZABO & STEUBER, 13, Pl. 5, figs. 2, 4.

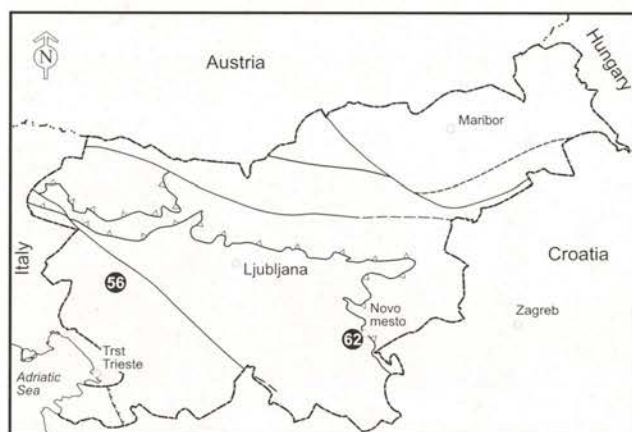
Description: Solitary corallum longiconiform and bent, calice oval. Septa straight, laterally granulated, in axial part become thin and bent geniculate, in 4 cycles, prolonged fossula. Septoparatheca, tabuloid dissepiments, no columella, microstructure trabecular with median line and thickenings. $d = 15-25 \text{ mm}$, $s = \text{ca } 100$.

Localities: 62 Frata-Brezova reber (P-396), 56 Ojstrovca (P-440); Switzerland, Germany, Portugal, Czech R. (Štramberk), Spain, Greece, Georgia.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian-Tithonian, K: Aptian-Albian.

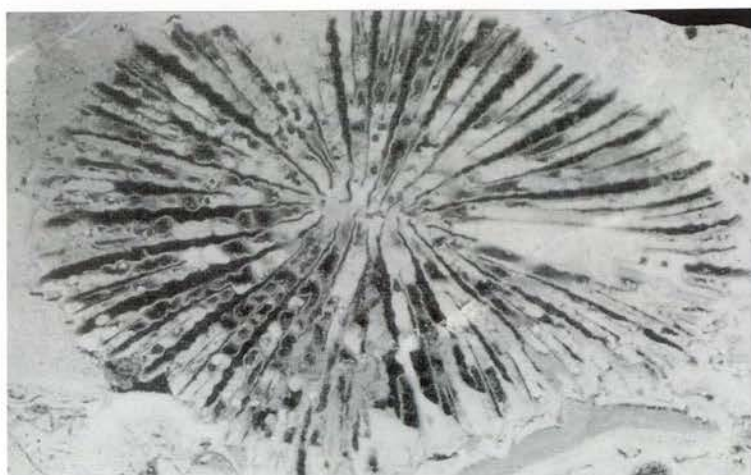
Paleoenvironment: Outer and inner (sheltered) barrier reef on the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	

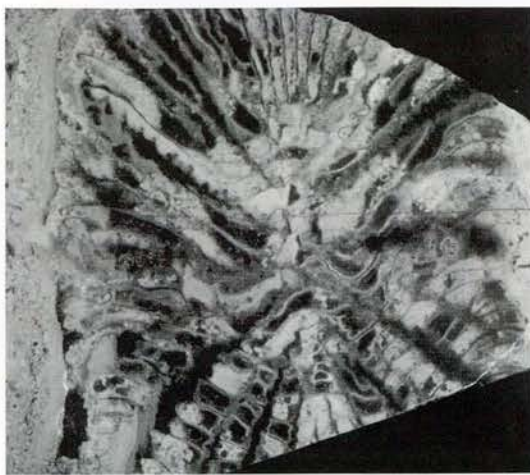


- A: transverse section; P-396a, x 4.
 B: longitudinal section; P-396b, x 4.
 C: detail from A, x 8.

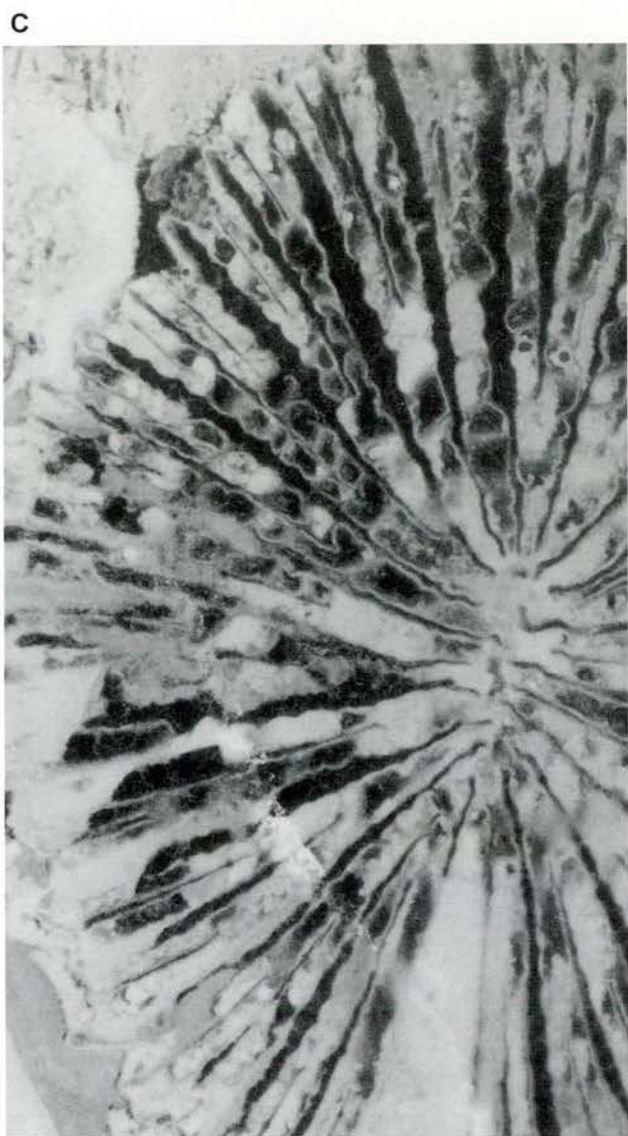
D: microstructure, ?monoaxial, medium-sized trabeculae, somewhere midseptal line; P-396a, x 40.



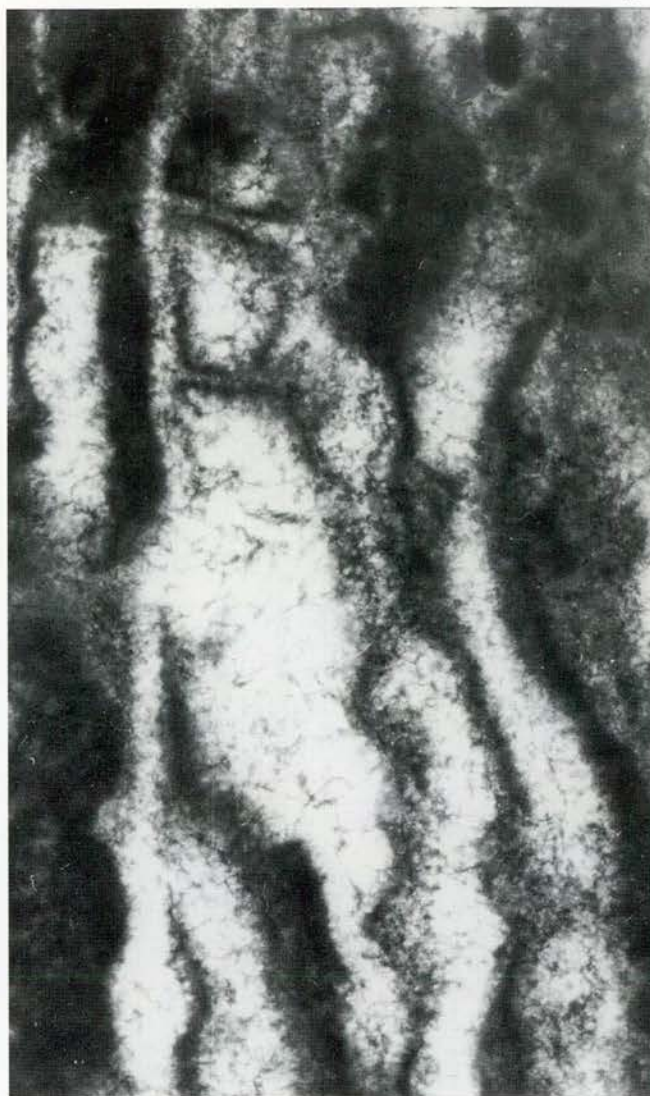
A



B



C



D

Myriophyllia angustata (d'Orbigny) 1850

- 1850 *Meandrina angustata*. D'ORBIGNY, 39.
 1880 *Dendrogyra angustata* d'Orbigny. Koby, 58-59, Pl. 9, fig. 2, Pl. 10, fig. 1.
 1955 *Myriophyllia angustata* (d'Orbigny). GEYER, 342.
 1964 *Myriophyllia angustata* (d'Orbigny). BEAUVAIS, 152-153, Pl. 14, fig. 4.
 1965 *Myriophyllia angustata* (d'Orbigny). GEYER, 232.
 1972 *Myriophyllia angustata* (d'Orbigny). TURNSEK, 172-173, 233, Pl. 11, fig. 5

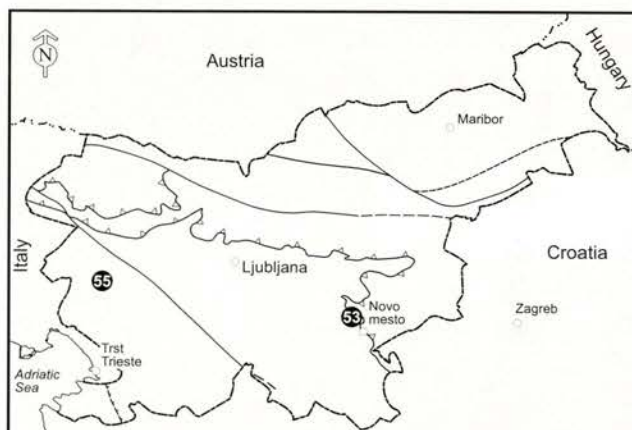
Description: Massive meandroid colony of semicircular shape, corallites in long seires separated with colinae. Septa compact, thick, axially claviform, in two cycles, laterally granulated. Septotheca, styliform columella, thin vesicular dissepiments, microstructure recrystalized. d (ser) = 2.2-3 mm, s = 3-4/2 mm.

Localities: 55 Mrzovec (P-260, P-280, P-281), 53 Karteljevo (P-282); France, Switzerland, Portugal, Spain.

Age: J: Upper Oxfordian-Kimmeridgian; J: Upper Oxfordian-Kimmeridgian.

Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-260a, x 4.

B: longitudinal oblique section; P-260b, x 4.

C: transverse section; P-282a, x 4.

D: longitudinal section; P-282b, x 4.

E: detail from A, x 8.

F: microstructure, ?thick trabeculae, very recrystalized; P-260a, x 40.



A

B



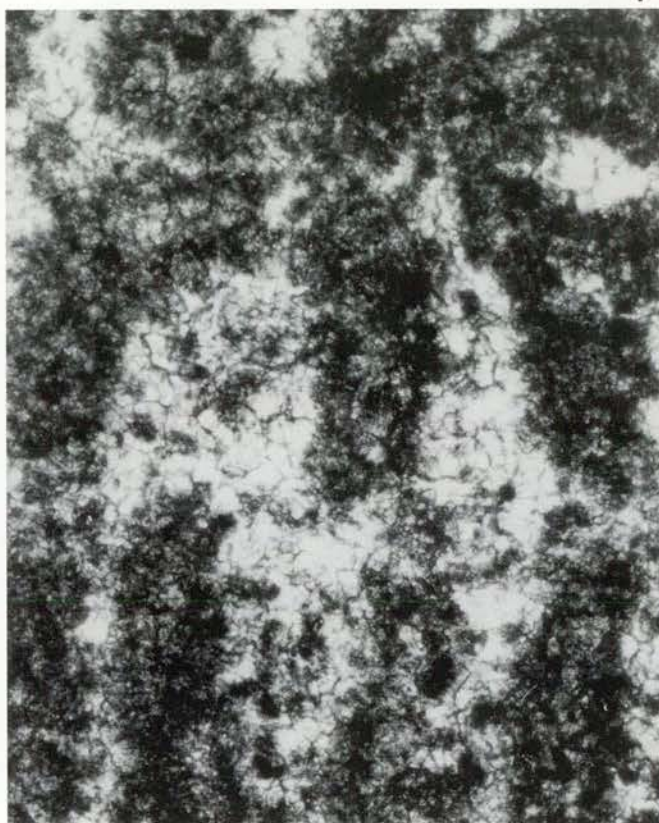
C



D



E



F

Myriophyllum badioticum (Volz) 1896

- 1875 *Montlivaultia badiotica* Loretz, specimen labelled, nomen nudum, n. v.
 1896 *Myriophyllia badiotica* Loretz. VOLZ, 75-76, Pl. 9, fig. 9, Textfigs. 41-42.
 1975 *Myriophyllum badioticum* (Volz). CUIF, 61-65, Pl. 4, fig. 1, Textfig. 5.
 1982 *Myriophyllum badioticum* (Volz). TURNŠEK et al., 73-74, Pl. 7, figs. 5-6.
 1989 *Myriophyllum badioticum* (Volz). TURNŠEK & BUSER, 87, Pl. 7, fig. 4.

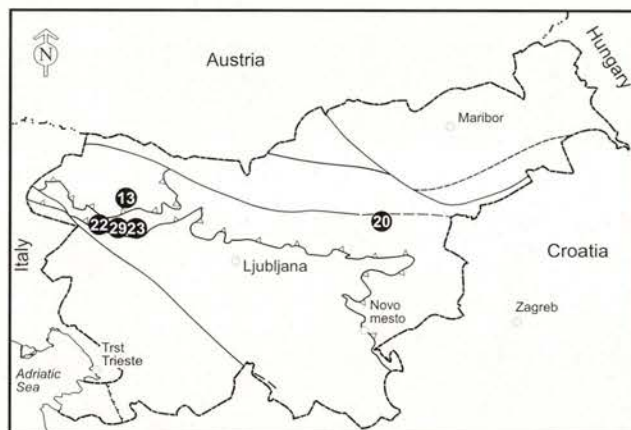
Description: Large solitary coral, round calice. Septa numerous, very thin and densely spaced, laterally ornamented with pennulae, tabulate dissepiments, ?parietal columella, microstructure not preserved. d = 20-40 mm, s = ca 150.

Localities: **22** Hudajužna (P-704, P-762), **23** Jesenica (P-1001), **29** Zakojca (P-1023, P-1024), **13** Pokljuka (P-817, P-833), **20** Celje (P-990); Italy (Dolomites).

Age: T: Upper Ladinian, Carnian (Cordevolian, Julian); T: Carnian (Cassian Beds).

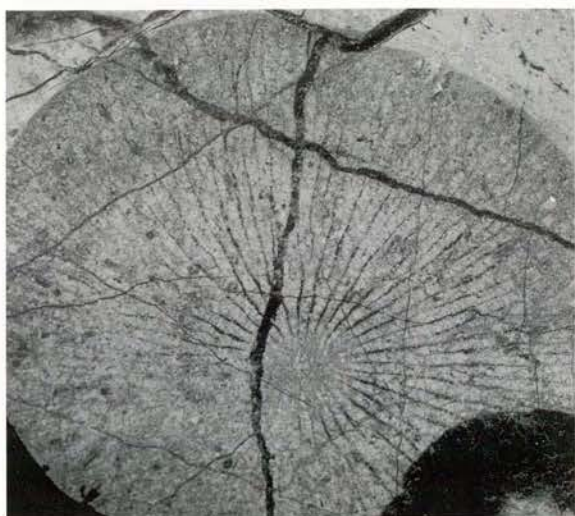
Paleoenvironment: Reef complex on the Julian Carbonate Platform, and reef mound in the Slovenian Basin.

TRIASSIC	Upper	Rhaetian		
		Norian		
		Carnian	Tuvalian	
			Julian	
			Cordevolian	
	Middle	Ladinian		
		Anisian		
	Lower	Scythian		

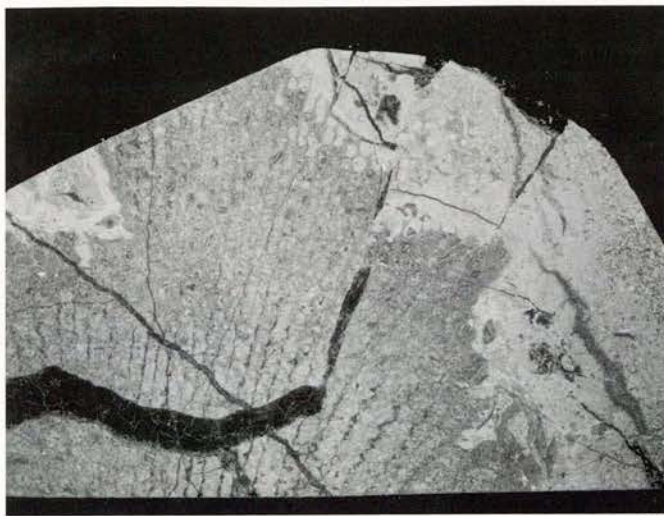


A: transverse section; P-833a, x 4.
 B: longitudinal section; P-833b, x 4.

C: detail from A, x 8.
 D: transverse section; P-762a, x 4.



A



B



C



D

Myriophyllum gracilis (Volz) 1896

- 1896 *Myriophyllia gracilis* Laube. Volz, 76-77, Pl. 9, figs. 10-15.
 1975 *Myriophyllum* n. g. (= *Myriophyllia volz* 1896). CUIF, 61.
 1984 *Myriophyllum gracilis* (Volz). RAMOVŠ & TURNŠEK, 177-178, Pl. 4, figs. 3-4.

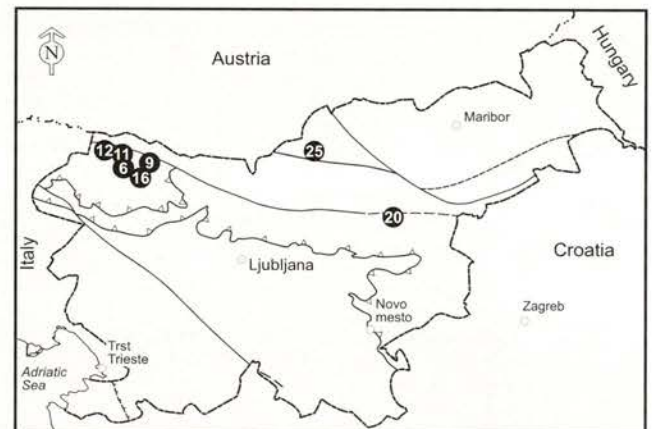
Description: Solitary coral, oval polycentric corallum. Septa numerous, thin, laterally granulated. ?Epithecæ, rare synapticalae, no columella, microstructure poorly preserved. d = 8-10 mm, s = ca 150.

Localities: 9 Mežakla-Kisovec (SJA-6/2), 16 Radovna (SJA-14/1a), 6 Krma (SJA-21/1), 11 Mojstrana (SJA-43/2a), 12 Njivice (SJA-48/2c), 20 Celje (P-989, P-991), 25 Mežica-Hlevnik (P-1014); Italy (Dolomites).

Age: T: Upper Ladinian, Carnian (Cordevolian, Julian); T: Carnian (Cassian beds).

Paleoenvironment: Reef complex on the Julian Carbonate Platform and reef mound in the Slovenian Basin.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
			Scythian	
	Lower			



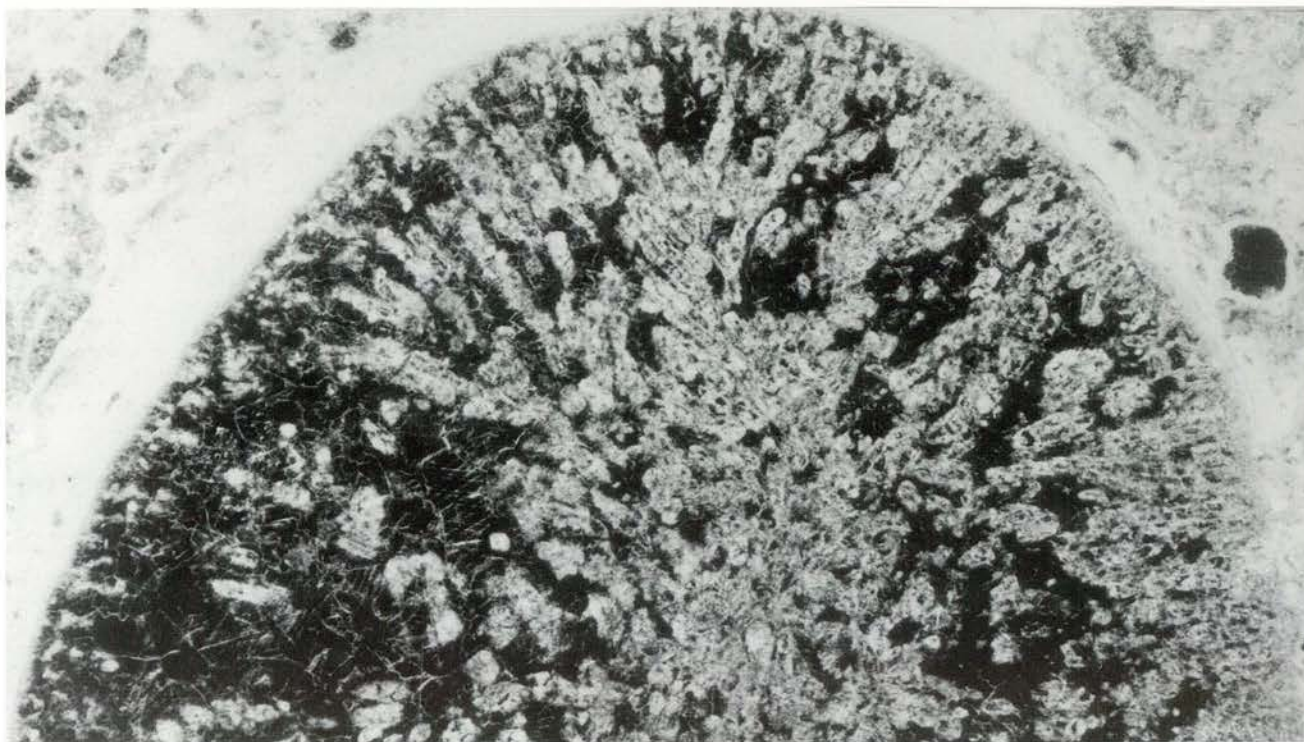
- A: transverse section; P-989a, x 4.
 B: transverse section; SJA-48a, x 5.
 C: transverse section; SJA-14a, x 20.



A



B



C

Neocaeniopsis corollaris (Reuss) 1854

- 1854 *Astraea corollaris* m. REUSS, 9, figs. 7-8.
 1903 *Phyllocoenia corollaris* REUSS. FELIX, 287-289, Pl. 25, fig. 5, Textfig. 46.
 1905 *Phyllocoenia corollaris* (REUSS). ANGELIS D'OSSAT, 206-208, Pl. 14, fig. 9.
 1937 *Heliastrea corollaris* REUSS. BATALLER, 128.
 1982 *Neocaeniopsis corollaris* (REUSS). BEAUVAIS, II, 107-109, Pl. 36, fig. 4.
 1994 *Neocaeniopsis corollaris* (REUSS). TURNŠEK, 13, Pl. 7, figs. 1-5.
 1997 *Neocaeniopsis corollaris* (REUSS). BARON-SZABO, 78, Pl. 10, fig. 2.

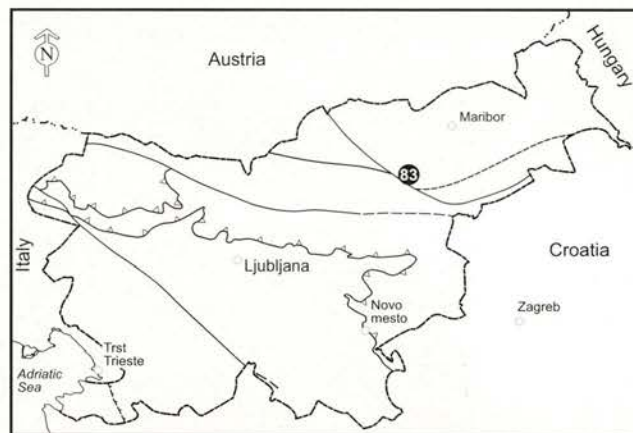
Description: Plocoid colony, round corallites and costate dotted peritheca. Septa subcompact, well expressed lateral granulae and axial dents. Parasynapticulotheca, vesicular dissepiments, rare synapticulae, columella partly lamellar partly parietal, microstructure not recognizable. $d = 3-5(8)$ mm, $cc = 5-7(9)$ mm, $s = ca\ 30-36$.

Localities: 83 Stranice-quarry (1/21, 3/2, 3/4); Germany, Austria (Gosau region), Spain.

Age: K: Santonian-Campanian; K: ?Aptian, Santonian.

Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian		
			Campanian		
			Santonian		
			Coniacian		
		Turonian			
		Cenomanian			
	Lower	Albian			
		Aptian			
		Barremian			
		Hauterivian			
		Valanginian			
		Berriasian			



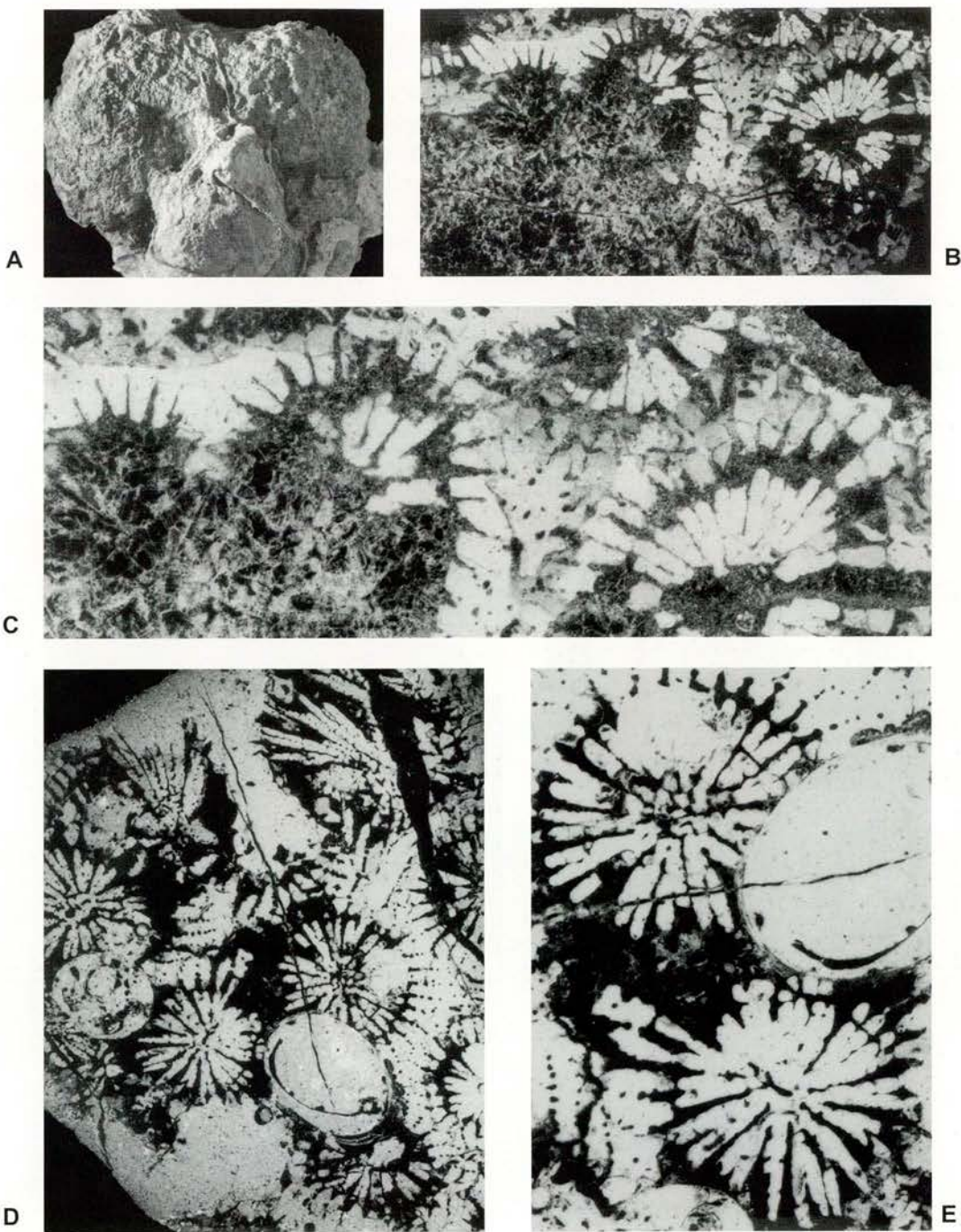
A: surface from above; St-1/21, x 1.

B: transverse section; St-1/21a, x 4.

C: detail from B, x 8.

D: transverse and partly oblique section; St-3/2a, x 4.

E: detail from D, x 8.



Neocaeniopsis excelsa (Fromentel) 1867

- 1867 *Phyllocoenia excelsa*. FROMENTEL, 550, Pl. 152, fig. 3, Pl. 154, fig. 1.
 1957 *Neocaeniopsis excelsa* Fromentel. ALLOITEAU, 127.
 1982 *Neocaeniopsis excelsa* (Fromentel). BEAUVAIS, 103.
 1994 *Neocaeniopsis excelsa* (Fromentel). TURNŠEK, 12-13, Pl. 6, figs. 4-6.

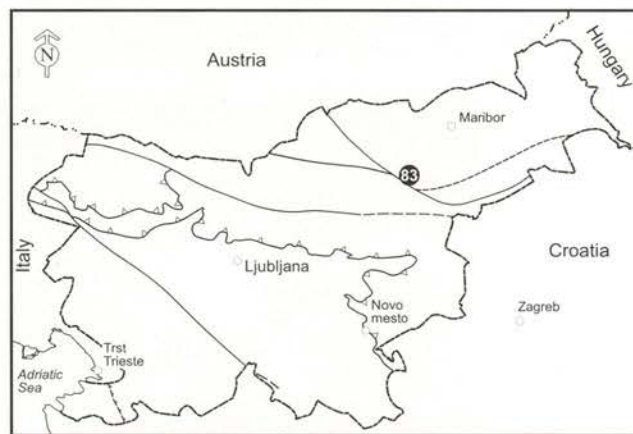
Description: Massive colony with plocoid round to polygonal corallites and narrow costate peritheca. Septa subcompact, in irregular hexameral system, laterally granulated. Para-septo-synapticulotheca, indefinite (?styliiform or parietal or papillose) columella, thin dissepiments, rare synapticalae, microstructure recrystallized. d = 3-4(5) mm, cc = 4-6 mm, s = ca 20-24.

Localities: 83 Stranice-quarry (1/17); Austria (Gosau), France.

Age: K: Santonian-Campanian; K: Santonian.

Paleoenvironment: Austro-Alpine shoal, Gosau facies.

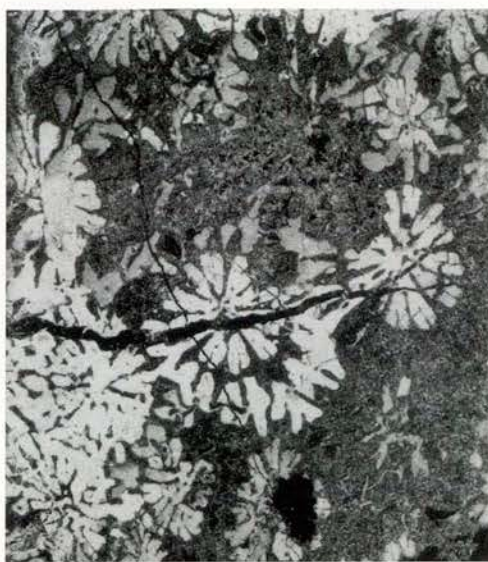
CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



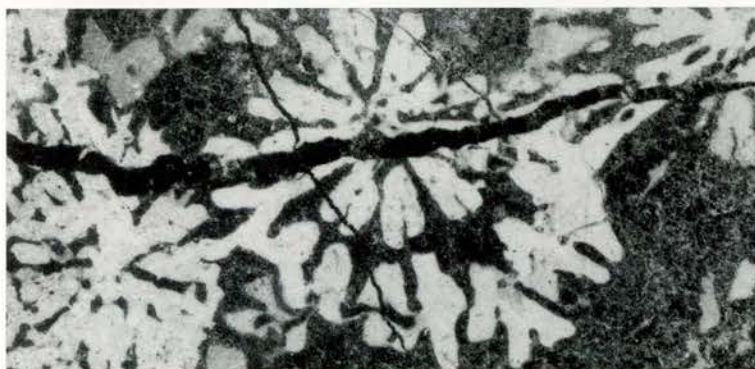
- A: surface from above; St-1/17, x 1.
 B: transverse section; St-1/17a, x 4.
 C: detail from B, x 8.



A



B



C

Omphalophyllia boletiformis (Münster) 1841

- 1841 *Montlivaltia boletiformis*. MÜNSTER, n. v.
 1896 *Omphalophyllia boletiformis* Münster. VOLZ, 68-69, Pl. 8, figs. 1-8.
 1935 *Omphalophyllia boletiformis* (Münster). KÜHN, 120-121.
 1967 *Omphalophyllia boletiformis* Münster. LEONARDI, 299.
 1968 *Conophyllia boletiformis* (Münster). MELNIKOVA, 7.
 1975 *Omphalophyllia boletiformis* (Münster). CUIF, 65-68, Pl. 5, figs. 1-2, Textfig. 6.
 1982 *Omphalophyllia boletiformis* (Münster). TURNŠEK et al. 72-73, Pl. 7, figs. 1-3.

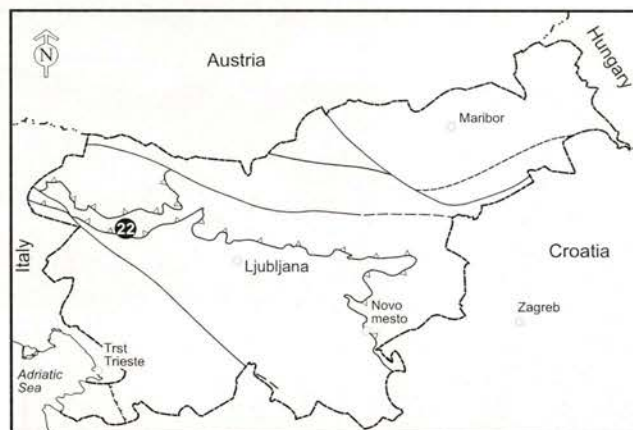
Description: Solitary cylindrical coral, round calice. Septa dense, thin in 5-6 cycles, rare lateral granulae. Paratheca, short tabulate dissepiments, large styliiform columella. d = ca 20 mm, s = 96+s6.

Localities: 22 Hudajužna (P-716, P-754); Italy (Dolomites), Pamir.

Age: T: Carnian (Cordevolian, Julian); T: Carnian (Cassian beds).

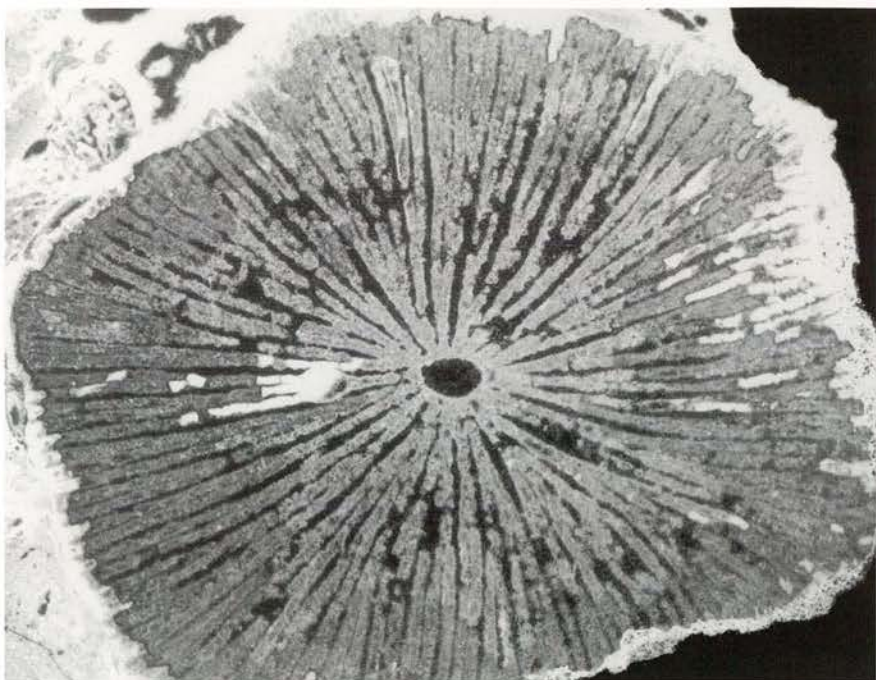
Paleoenvironment: Reef mound within the clastic beds in the Slovenian Basin.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	

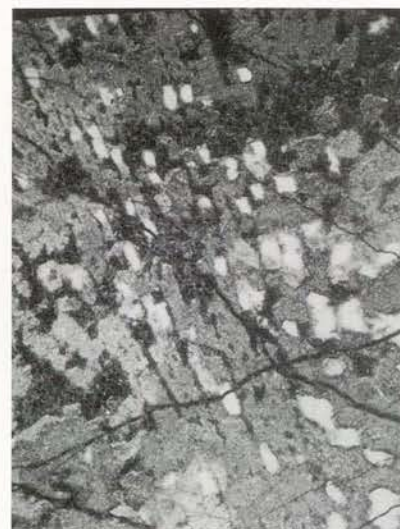


A: transverse section; P-716a, x 4.
 B: longitudinal section; P-754b, x 4.
 C: detail from A, x 8.

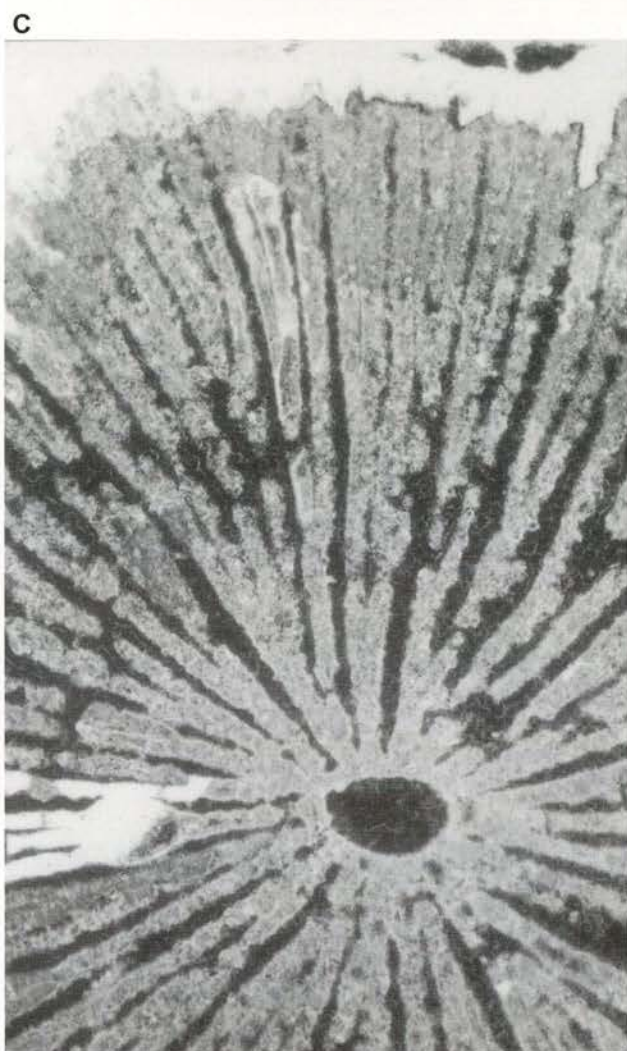
D: microstructure, recrystallized, somewhere midseptal line; P-716a, x 40.



A



B



C



D

Omphalophyllia radiformis (Klipstein) 1843

- 1843 *Cyathophyllum radiformis*. KLIPSTEIN, n. v.
 1896 *Omphalophyllia radiformis* Klipstein. VOLZ, 69, Pl. 8, figs. 27-33, Textfigs. 14ab.
 1935 *Omphalophyllia radiformis* (Klipstein) Volz. KÜHN, 121-122, Pl. 1, figs. 10a-c.
 1966a *Conophyllia radiformis*. KOLOSVÁRY, 132.
 1967b *Conophyllia* cf. *radiformis* (Klipstein) Volz. KOLOSVÁRY, 105, Pl. 7, fig. 4, (non Pl. 9, fig. 12).
 1973 *Conophyllia radiformis* (Klipstein). MONTANARO GALLITELLI et al. Table 1.
 1975 *Omphalophyllia radiformis* (Klipstein). CUIF, 71, Pl. 6, figs. 5-6.
 1982 *Omphalophyllia radiformis* (Klipstein). TURNŠEK et al. 73, Pl. 7, fig. 4.

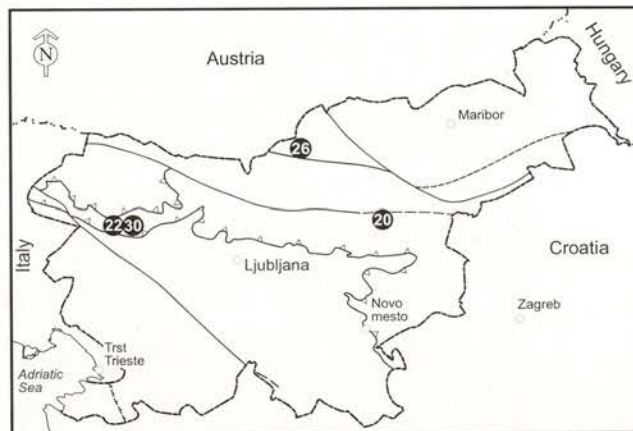
Description: Solitary cylindrical coral, round calice. Septa dense, thin, laterally granulated. Paratheca, short tabulate dissepiments, strong styliform columella, microstructure poorly preserved. d = ca 10 mm, s = 80.

Localities: **22** Hudajužna (P-717, P-735, P-748, P-758), **30** Zakriž (P-764), **26** Mežica-Pristava (P-1015, P-1016, P-1017), **20** Celje (P-992); Italy (Dolomites), Czech R. (Male Tatry), Hungary (Bükk, Bakony), Roumania (Brasov).

Age: T: Upper Ladinian, Carnian (Cordevolian, Julian); T: Carnian (Cassian Beds).

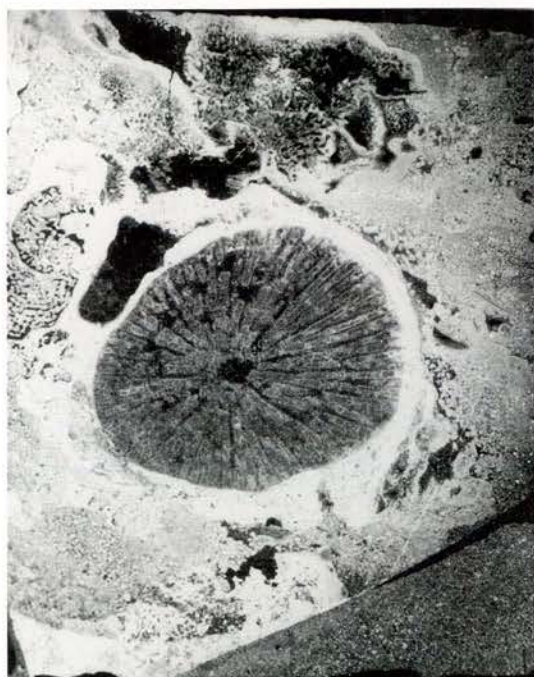
Paleoenvironment: Reef mound within the clastic beds in the Slovenian Basin.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	

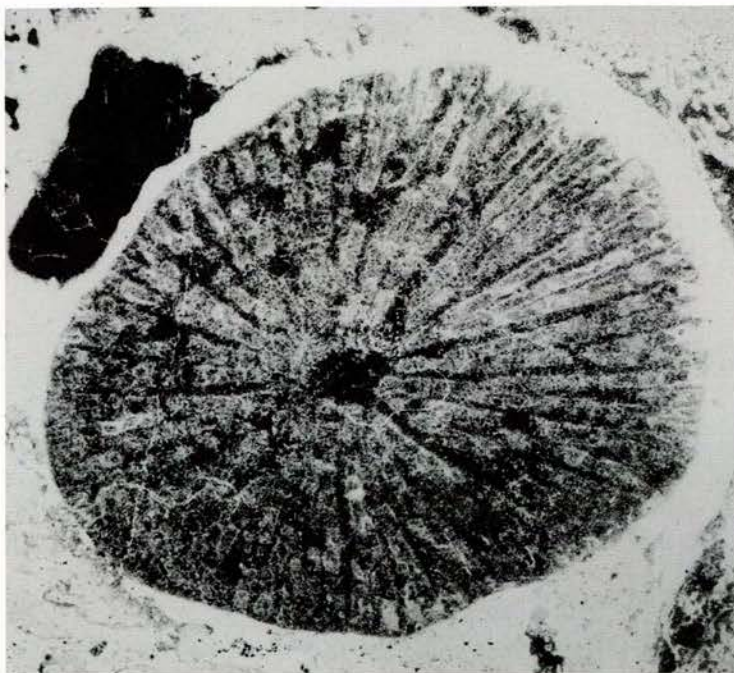


A: transverse section; P-735a, x 4.
 B: the same as A, x 8.

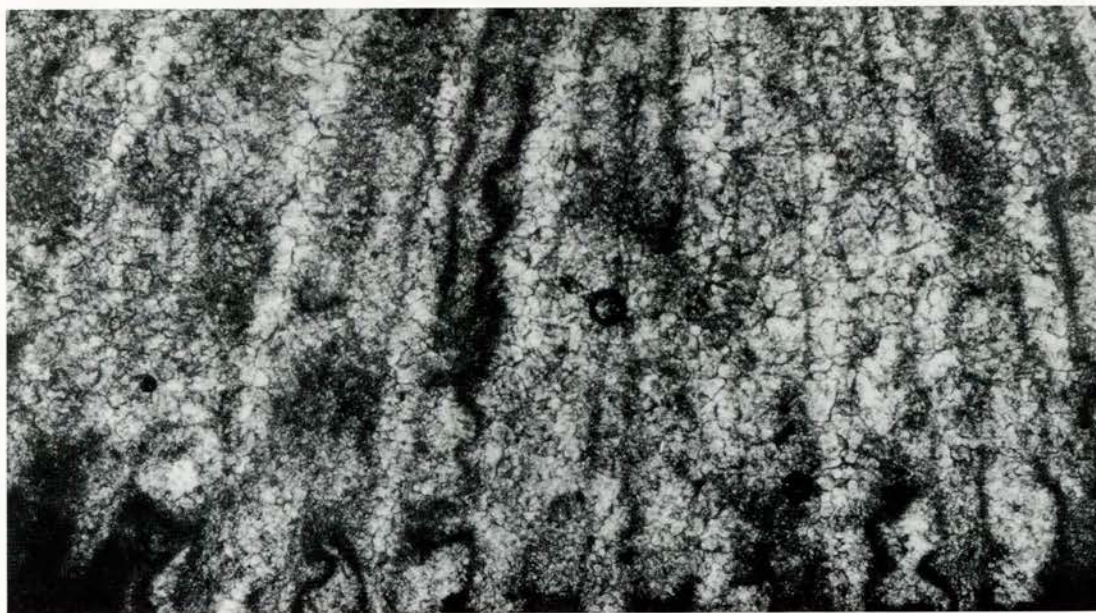
C: microstructure, ?medium-sized trabeculae, midseptal line; P-735a, x 40.



A



B



C

Orbignygyra daedalea (Reuss) 1854

- 1854 *Pachygyra daedalea* m. REUSS, 94, Pl. 1, figs. 3-4.
 1858 *Pachygyra daedalea* Reuss. FROMENTEL, 157.
 1903 *Pachygyra daedalea* Reuss. FELIX, 311.
 1930 *Pachygyra daedalea* Reuss. OPPENHEIM, 449.
 1937 *Pachygyra daedalea* Reuss. BATALLER, 301.
 1982 *Orbignygyra daedalea* (Reuss). BEAUVAIS, I, 203-204, Pl. 6, fig. 5, Pl. 8, fig. 6.
 1994 *Orbignygyra daedalea* (Reuss). TURNŠEK, 12, Pl. 6, figs. 1-3.

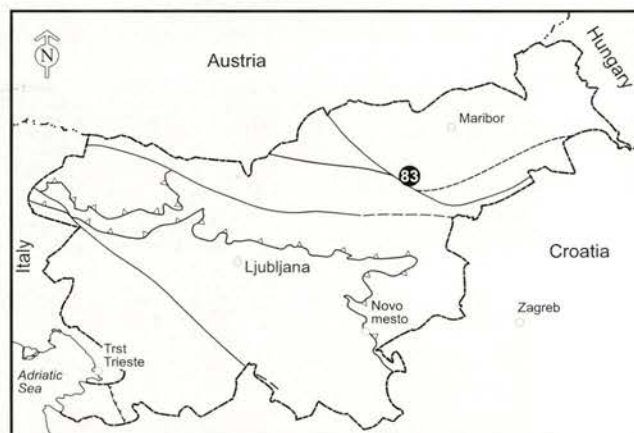
Description: Meandroid colony, corallites in series separated by ambulacral peritheca. Septa compact, costate, laterally granulated, axially thickened in form T. Paraseptotheca, thin lamellar rarely interrupted columella, rare thin tabulate dissepiments, microstructure trabecular. d(series) = 2.5 mm, cc = 3-5 mm, s = 20/10 mm.

Localities: 83 Stranice-quarry (1/25); Austria (Gosau), France (Corbières), Spain.

Age: K: Santonian-Campanian; K: Santonian.

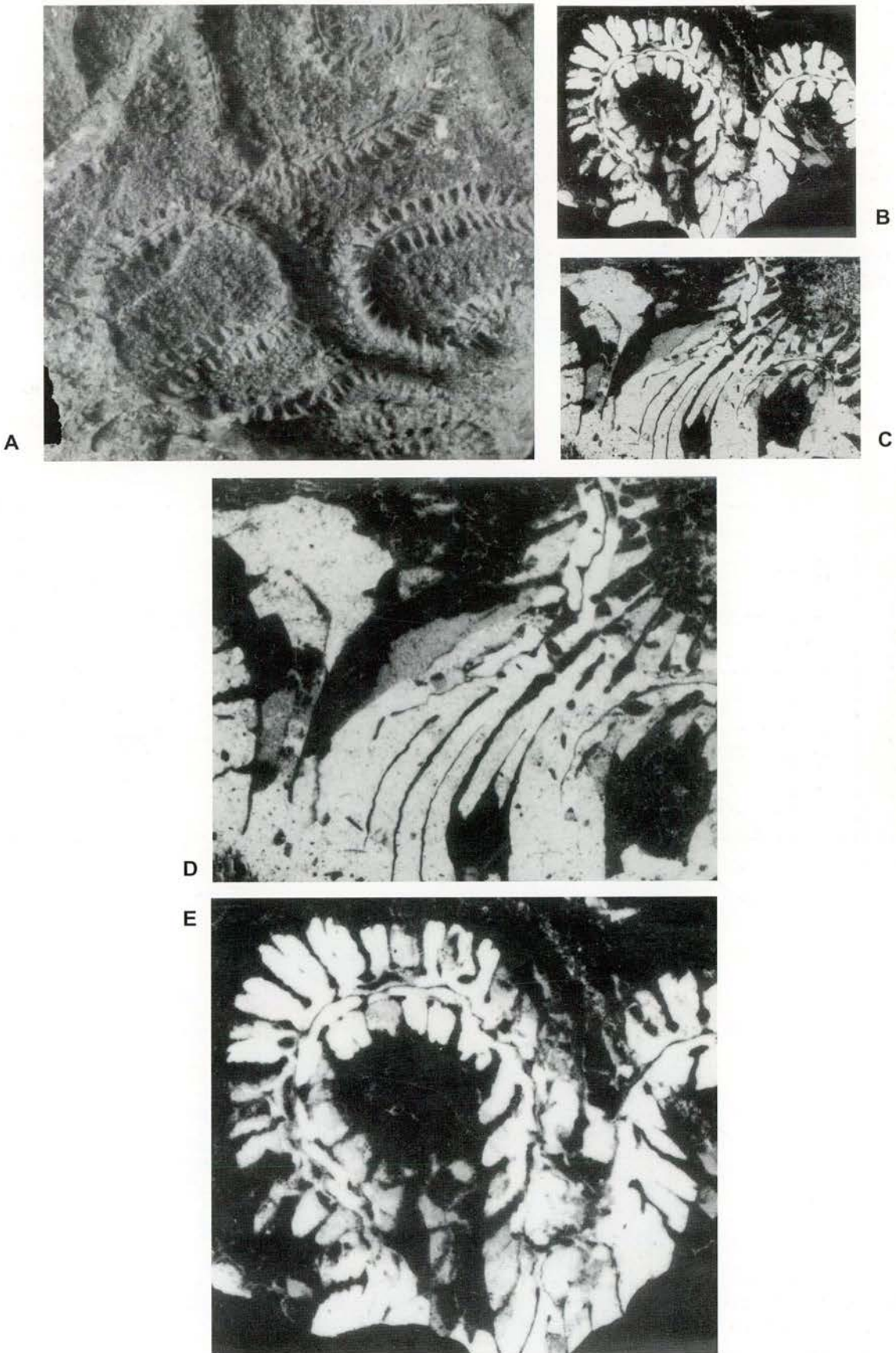
Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
		Cenomanian		
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



- A: surface from above; St-1/25, x 4.
 B: transverse section; St-1/25a, x 4.
 C: longitudinal oblique section; St-1/25b, x 4.

- D: detail from C, x 8.
 E: detail from B, x 8.



Ovalastraea lobata (Koby) 1884

- 1884 *Favia lobata* Koby. Koby, 210-211, Pl. 62, figs. 2-4.
 1905 *Favia lobata* Koby. Koby, 93-94, Pl. 10, figs. 7-8.
 1955b *Ovalastraea lobata* (Koby). GEYER, 333.
 1972 *Ovalastraea lobata* (Koby). TURNŠEK, 198-199, Pl. 31, fig. 5.
 1985 *Ovalastraea lobata* (Koby). ROSENDAHL, 59. Pl. 2, fig. 3.
 1991 *Ovalastraea lobata* (Koby). ERRENST, 23-24, Pl. 18, fig. 7.

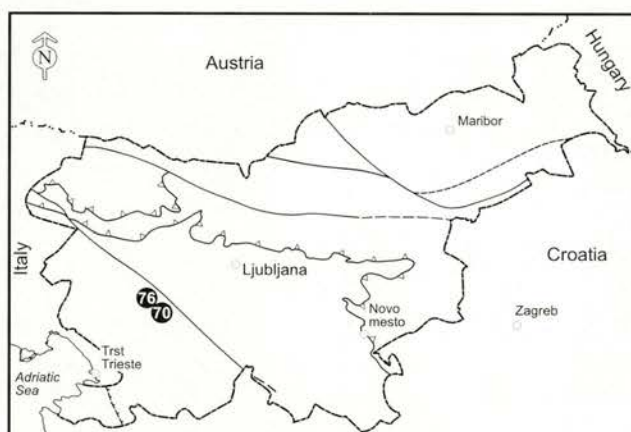
Description: Plocoid colony, round corallites in costate peritheca, budding extracalicular. Septa subporous, laterally granulated. Synapticuloseptotheca, parietal columella, tabulate and vesicular dissepiments, microstructure trabecular. d = 4-7 mm, c-c = 5-7.5 mm, s = 8-10/3 mm.

Localities: 76 Vodice (P-290), 70 Bukovje (P-294); Switzerland, Portugal, Spain.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian.

Paleoenvironment: Patch reef in the back reef area on the Dinaric Carbonate Platform.

JURASSIC	Malm	<i>Tithonian</i>	
		<i>Kimmeridgian</i>	
		<i>Oxfordian</i>	
	Dogger	<i>Callovian</i>	
		<i>Bathonian</i>	
		<i>Bajocian</i>	
		<i>Aalenian</i>	
		<i>Toarcian</i>	
	Lias	<i>Pliensbachian</i>	
		<i>Sinemurian</i>	
		<i>Hettangian</i>	



A: transverse section; P-294a, x 4.

B: longitudinal oblique section; P-294b, x 4.

C: detail from A, x 8.

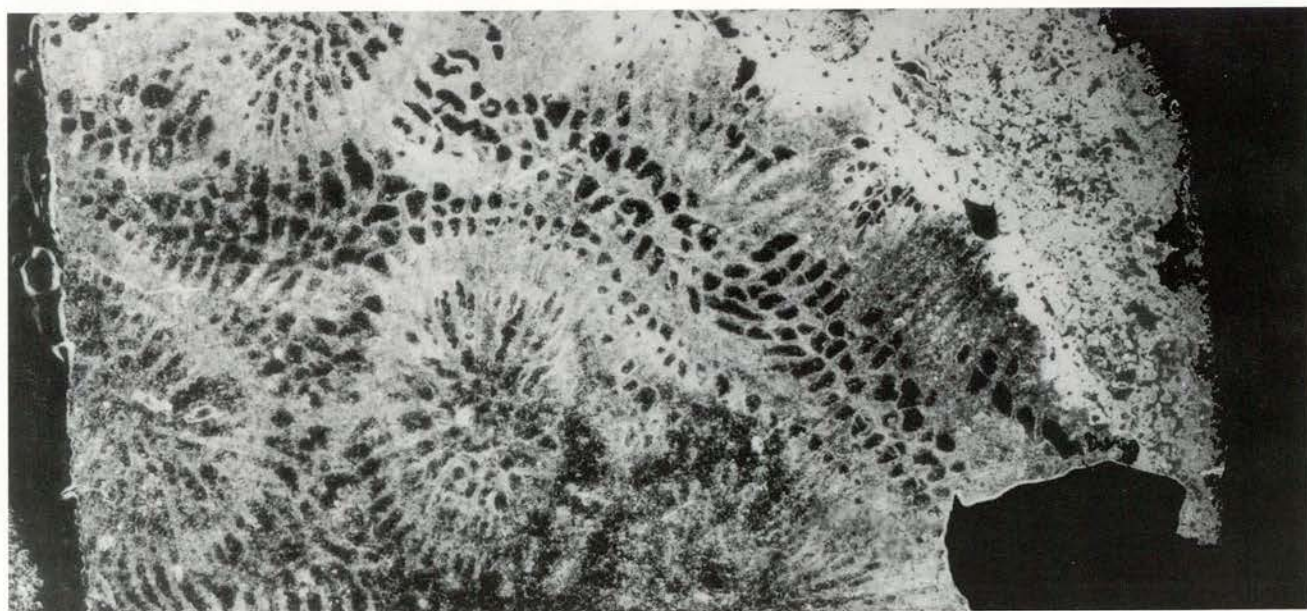
D: microstructure, ?medium-sized trabeculae; P-294a, x 40.



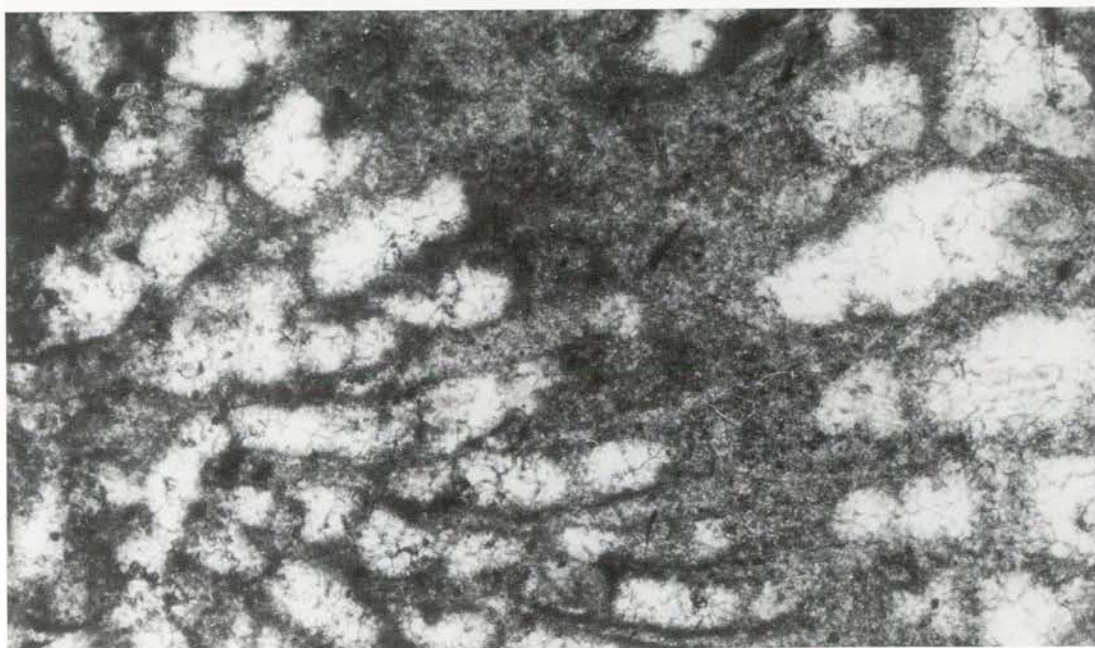
A



B



C



D

Pachydendron microthallos Cuif 1975

- 1975 *Pachydendron microthallos* n. sp. CUIF, 172, Textfigs. 7abc.
 1977 *Pachydendron microthallos* Cuif. CUIF, 32, 37, Pl. 9, figs. 3-6, Pl. 10, fig. 3.
 1983 *Pachydendron microthallos* Cuif. ILYINA, 18-19, Textfigs. 3ab, 4a.
 1987 *Pachydendron microthallos* Cuif. TURNŠEK & RAMOVŠ, 37, Pl. 7, figs. 1-2.

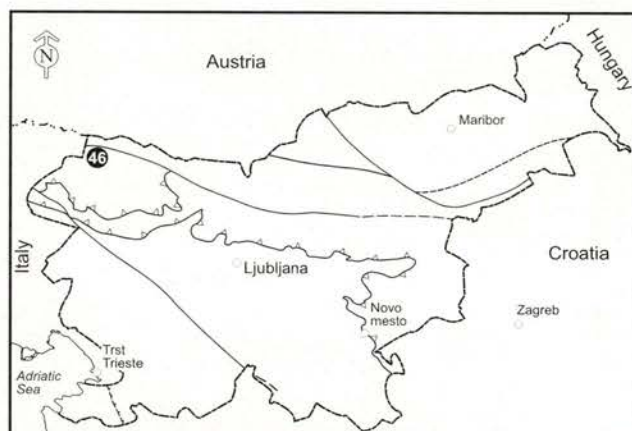
Description: Branched phaceloid colony, round corallites. Septa in irregular cycles, first septum larger, another 4-5 septa of first cycle equal, lateral granulae. Thick epitheca, tabulate dissepiments, no columella, microstructure of wall lamellar, of septa trabecular. $d = 2-4$ mm, $s = ca$ 10-12.

Localities: 46 Šplevta (25/85-5); Turkey.

Age: T: Upper Norian -Rhaetian; T: Norian.

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	



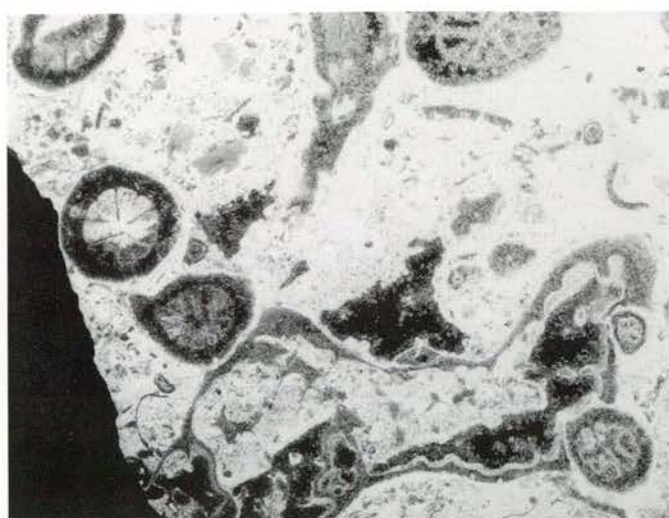
A: transverse and longitudinal sections; 25/85-5a, x 4.

B: transverse section; 25/85-5b, x 4.

C: detail from A, x 8.

D: another detail from A, x 8.

E: microstructure, fibres in wall, minitrabeculae in septa; 25/85-5a, x 40.



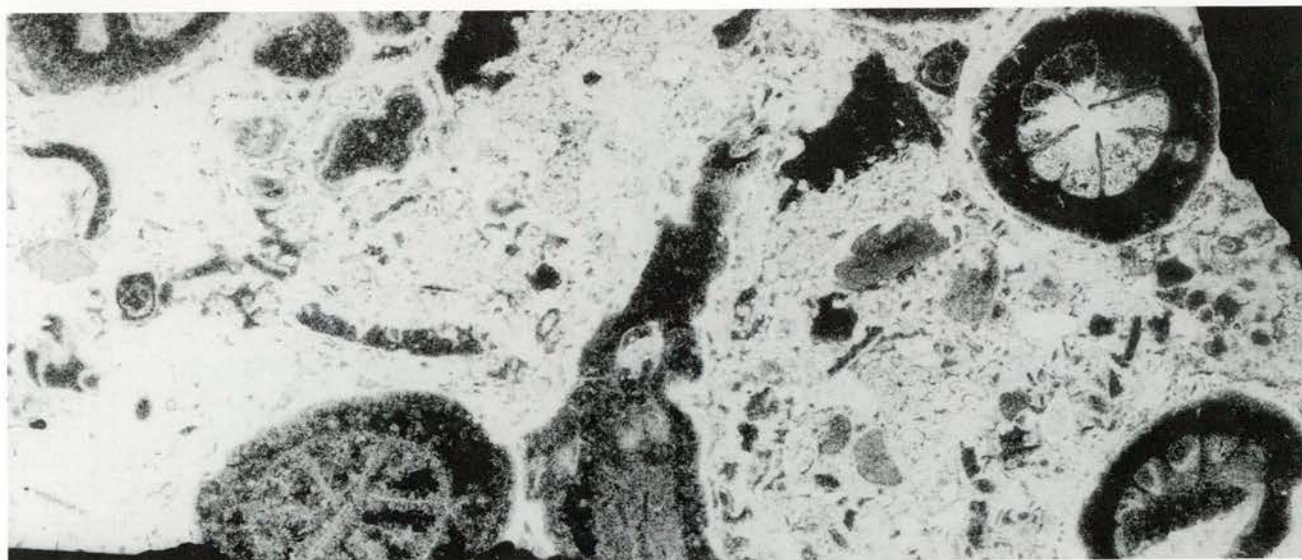
A



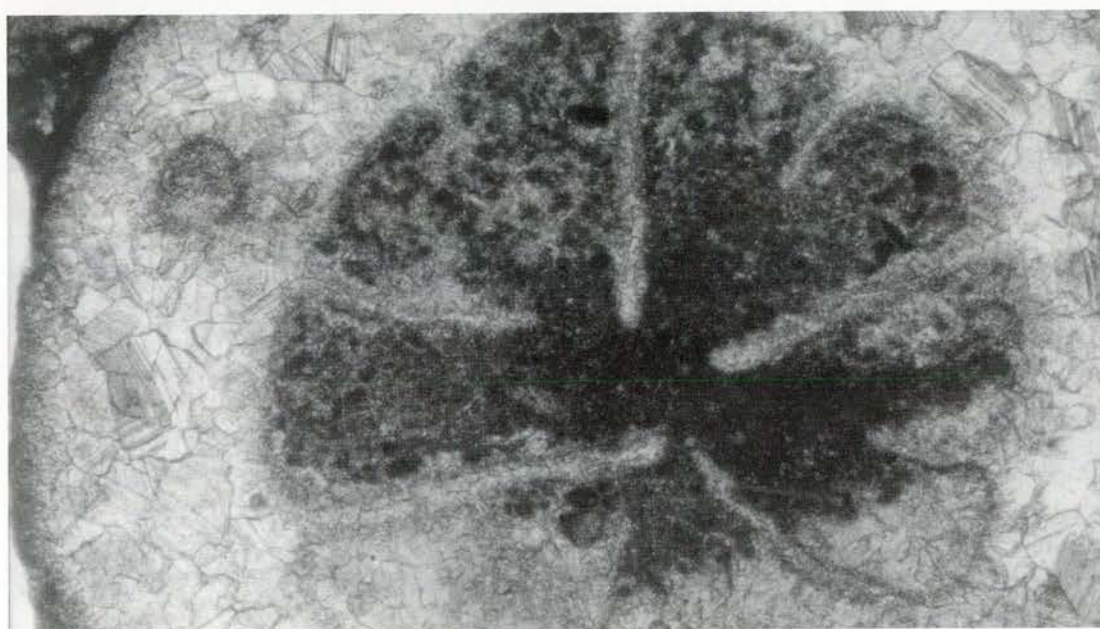
B



C



D



E

Palaeastraea grandissima (Frech) 1890

- 1890 *Phyllocoenia grandissima* n. sp. FRECH, 31, Pl. 3, figs. 1-11, Pl. 9, figs. 2, 4, 6, 7 (non 1, 2, 3).
 1936 *Palaeastraea grandistellata* n. sp. KÜHN, 27, Pl. 1, fig. 2.
 1989 *Palaeastraea grandissima* (Frech). RONIEWICZ, 68-70, Pl. 16, fig. 1, Pl. 17, fig. 2.
 1991 *Palaeastraea grandissima* (Frech). TURNŠEK & BUSER, 229, Pl. 4, figs. 3-4.

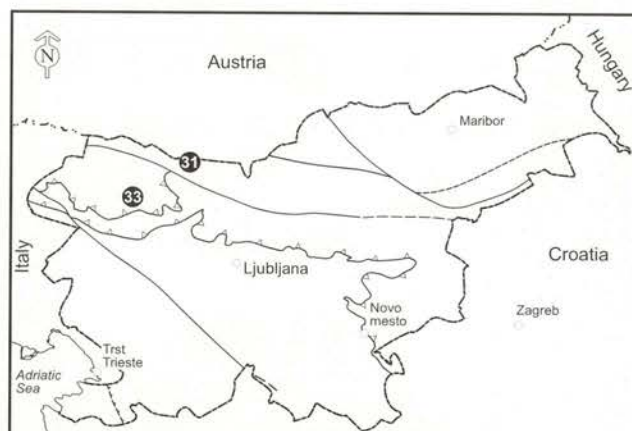
Description: Massive colony of astreoid type, calices round to polygonal separated by narrow depression. Septa thick, lonsdaleoid, subconfluent, in 3-4 cycles, laterally granulated. Wall lacking, vesicular dissepiments, no columella, microstructure trabecular with zigzag line (see RONIEWICZ 1989). d = 14-18(22) mm, s = 24+s.

Localities: 33 Bohinj-Bitnje (P-874, P-880), 31 Begunjsči-ca (P-981); Austria.

Age: T: Upper Norian-Rhaetian; T: Rhaetian.

Paleoenvironment: Reef body at the southern edge of the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	

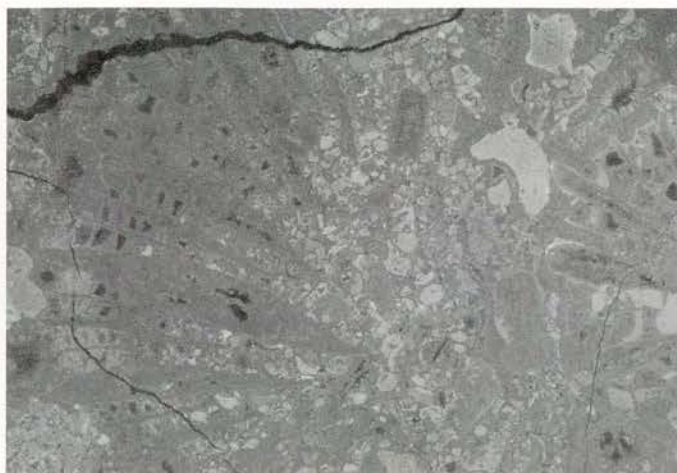


A: transverse section; P-874a, x 4.
 B: transverse section; P-880a, x 4.
 C: the same as A, x 8.

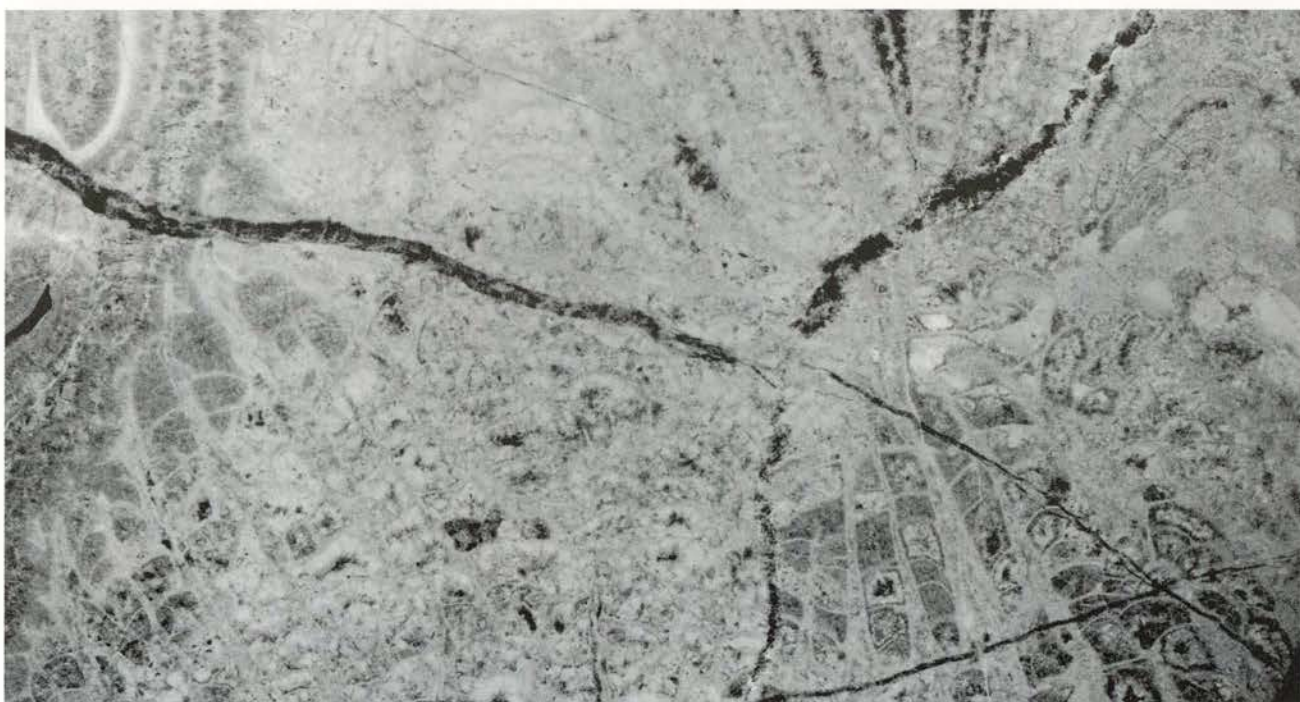
D: microstructure, monoaxial trabeculae, ?zigzag midseptal line; P-874a, x 40.



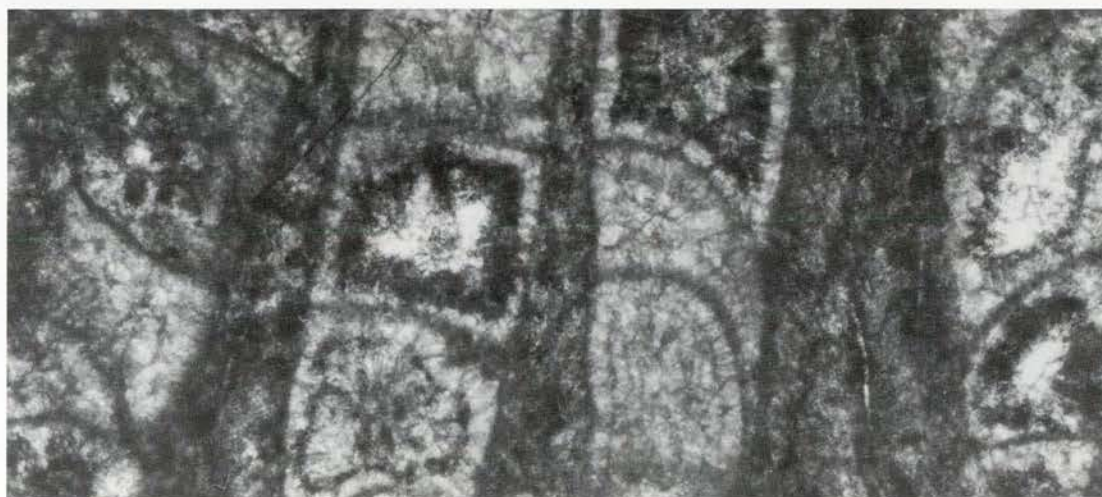
A



B



C



D

Pamiroseris zitteli (Wöhrmann) 1889

1889 *Thamnastraea Zitteli* n. sp. WÖHRMANN, 189, Pl. 15, figs. 4, 4a.

1987 *Pamiroseris zitteli* (Wöhrmann). TURNŠEK et al. 44, Pl. 1, fig. 5.

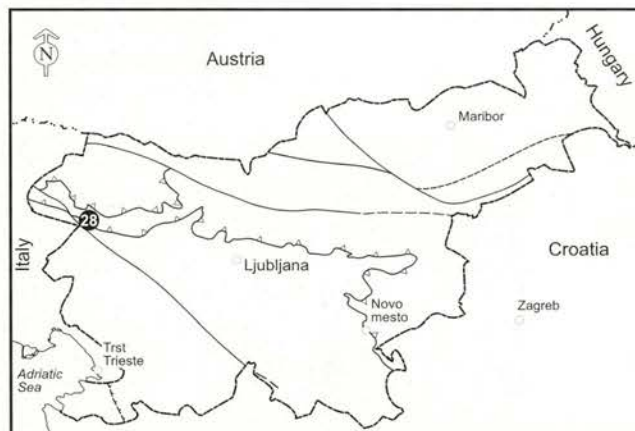
Description: Encrusting colony with thamnasterioid irregularly spaced corallites. Septa confluent, lateral granulae. No wall, many synapticalae, vesicular dissepiments, columella parietal, microstructure trabecular. cc = 3.5-5 mm, s = 24-28.

Localities: 28 Perbla (P-787); Austria (Salzberg).

Age: T: Carnian (Tuvalian); T: Carnian (Upper).

Paleoenvironment: Reef mound within the clastic beds in the Slovenian Basin.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	



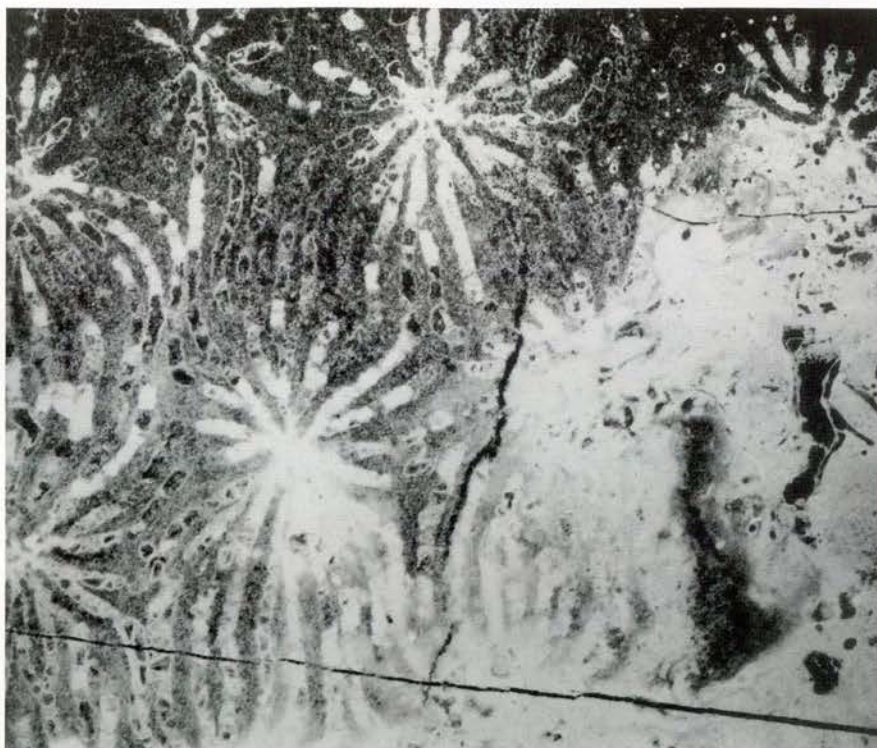
A: transverse section; P-787a, x 4.

B: the same as A, x 8.

C: microstructure, ?medium-sized to thick trabeculae; P-787a, x 40.

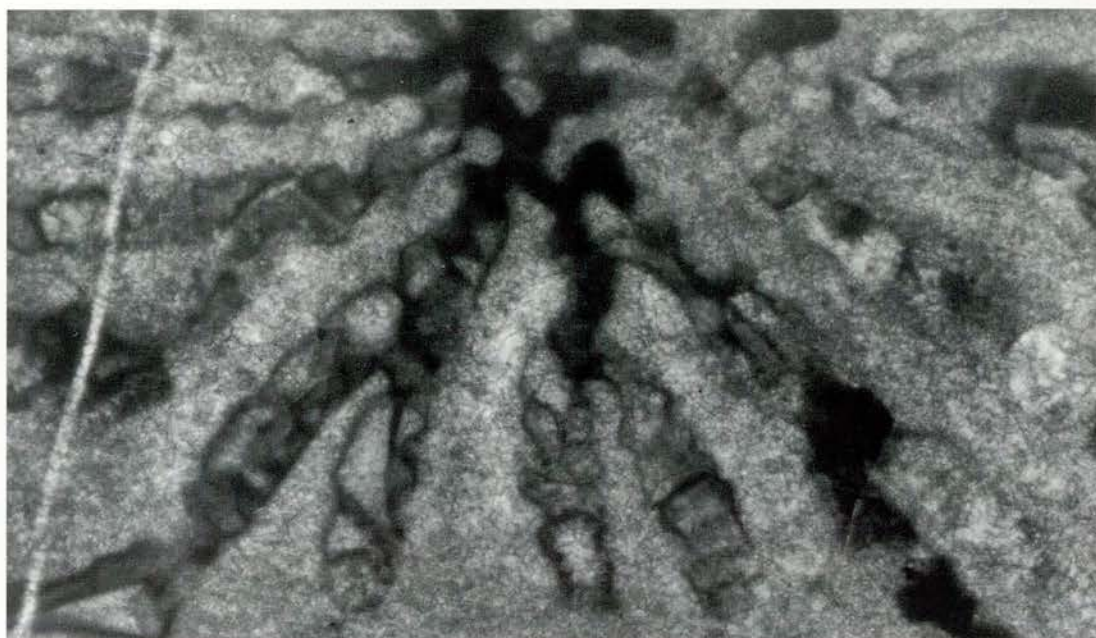


A



B

C



Parathecospilia langobardica (Stoppani) 1857

- 1857 *Prionastraea langobardica* Stoppani. STOPPANI, n. v.
 1865 *Prionastraea langobardica* Stoppani. STOPPANI, 105, Pl. 23, figs. 1-5.
 1987 *Parathecospilia langobardica* (Stoppani). TURNŠEK & RAMOVŠ, 38, Pl. 8, figs. 1-2.
 1991 *Parathecospilia langobardica* (Stoppani). TURNŠEK & BUSER, 229, Pl. 4, figs. 1-2.

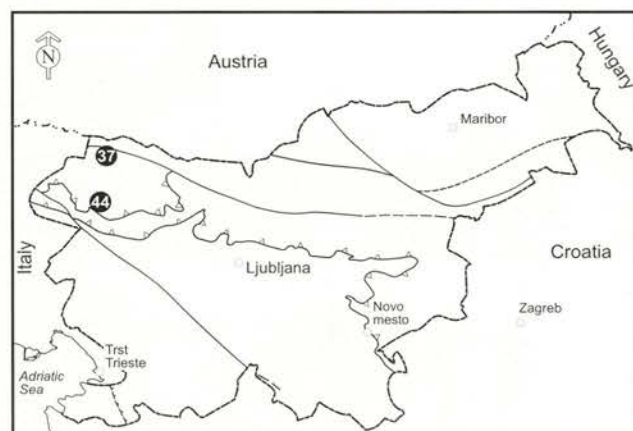
Description: Phaceloid colony, round corallites, budding extracalicular. Septa compact in 4-5 cycles, equally thick, differ in length, granulated. Incomplete paratheca, somewhere epitheca, no colummela, dissepiments condensed in levels, microstructure trabecular. $d = 6-7$ mm, $s = 40-70$.

Localities: 37 Dovški križ (59/81-3), 44 Rdeči rob (P-908, P-914); Italy (Lombardia).

Age: T: Norian-Rhaetian; T: Rhaetian.

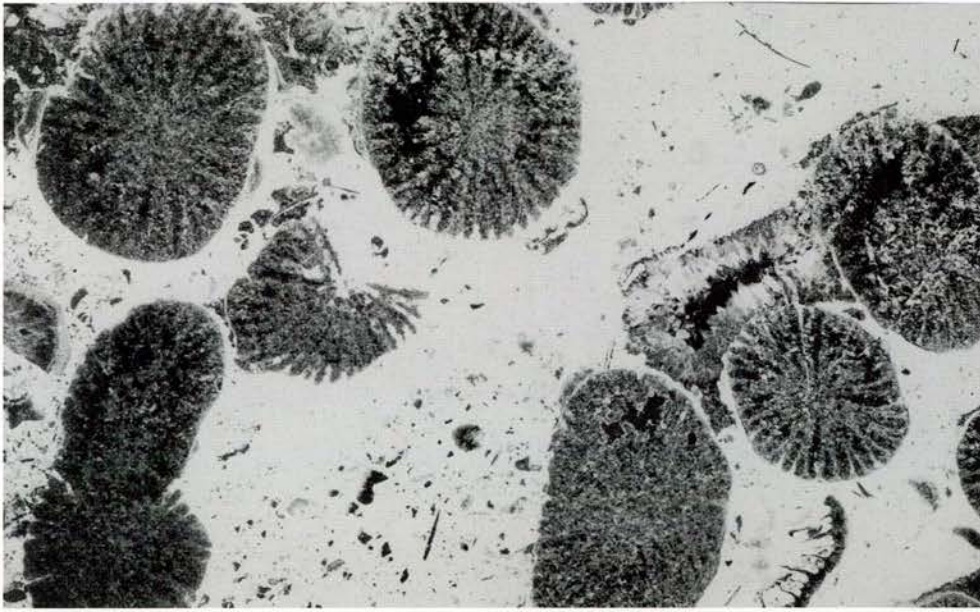
Paleoenvironment: Reef complex on the Julian Carbonate Platform and on its southern edge. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	

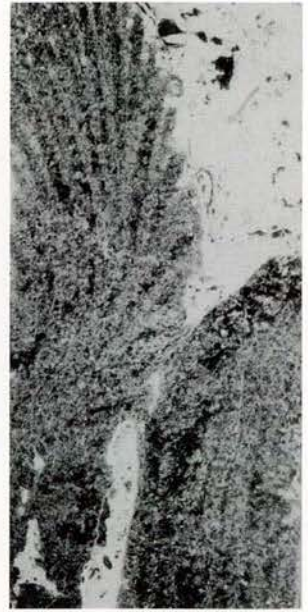


- A: transverse section; P-908a, x 4.
 B: longitudinal section; P-908b, x 4.
 C: transverse section; P-914a, x 4.
 D: transverse section; 59/81-3a, x 8.

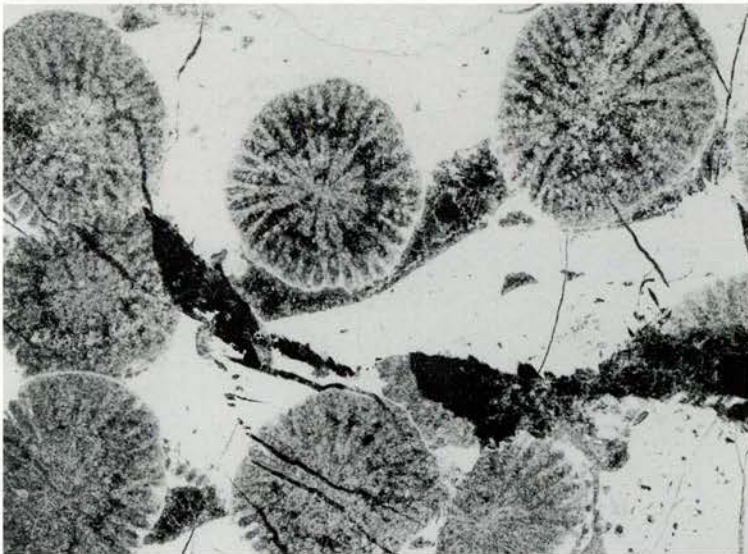
- E: detail from B, x 8.
 F: microstructure, mini or medium-sized ?or thic trabeculae, midseptal line; P-914a, x 40.



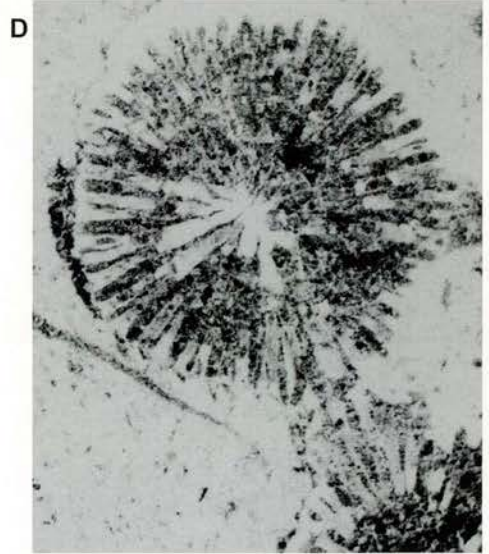
A



B

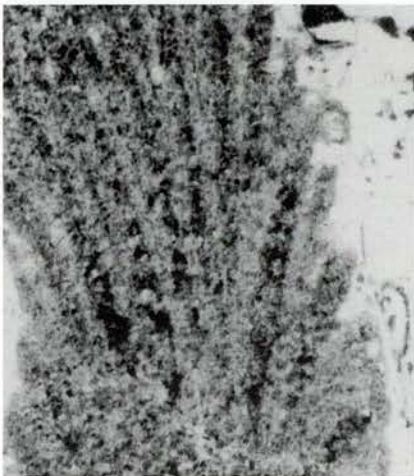


C

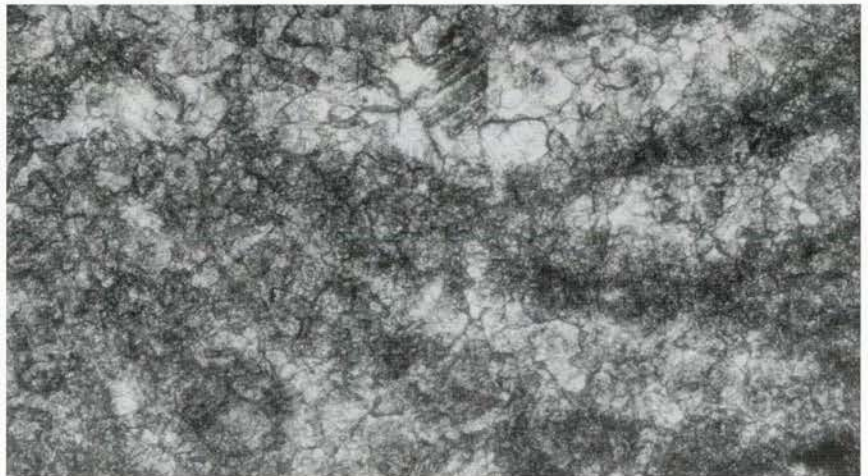


D

E



F



Parathecospilia sellae (Stoppani) 1862

- 1862 *Rhabdophyllia sellae* Stoppani. STOPPANI, 107, Pl. 25.
 1890 *Thecosmilia sellae* Stoppani. FRECH, 17, Pl. 4, fig. 12.
 1974 *Parathecospilia sellae* (Stoppani). RONIEWICZ, 110-111, Pl. 6, figs. 1-3, Pl. 7, figs. 1-2, Textfigs. 9-10.
 1987 *Parathecospilia sellae* (Stoppani). TURNŠEK & RAMOVŠ, 38, Pl. 8, figs. 3-5.

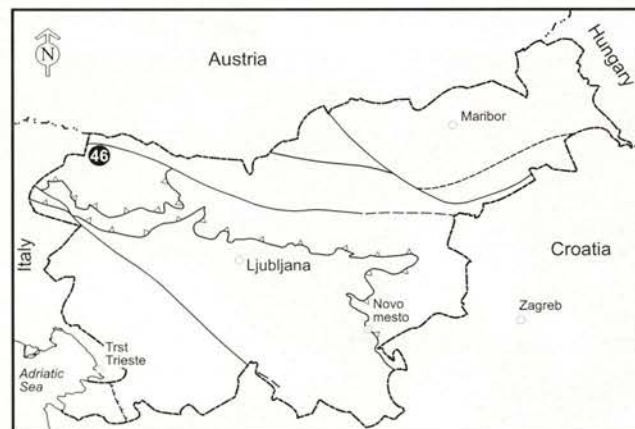
Description: Phaceloid colony, many round regular corallites. Septa compact in 4 cycles, granulated. Incomplete paratheca, sometimes epitheca, tabulate and vesicular dissepiments, microstructure trabecular, poorly preserved. d = 3-4 mm, s = 48.

Localities: 46 Šplevta (25/85-2a, 7a, A2ab); Austria, Poland (Tatre).

Age: T: Upper Norian-Rhaetian; T: Rhaetian.

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	

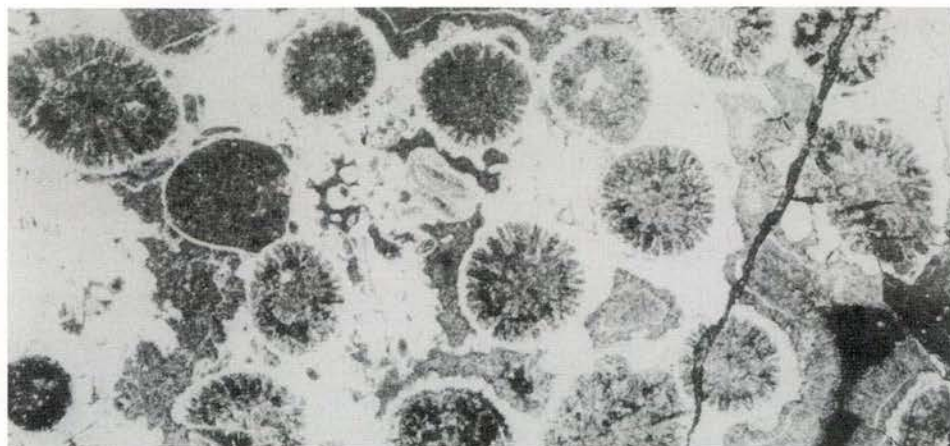


- A: surface from above; 25/85-A2, x1.
 B: transverse section; 25/85-A2a, x 4.
 C: transverse and longitudinal section; 25/85-A2b, x 4.
 D: detail from B, x 8.

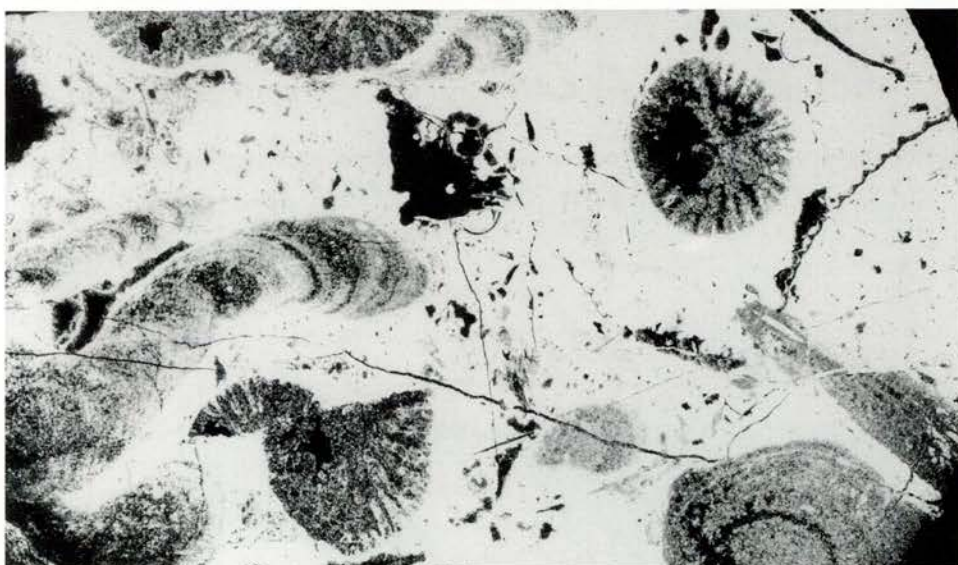
- E: detail from C showing longitudinal section; x 8.
 F: microstructure, ?minitrabeculae or thick trabeculae; 25/85-A2a, x 40.



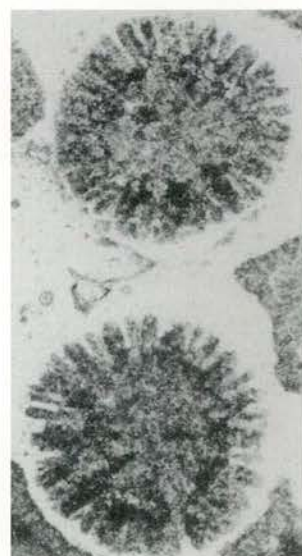
A



B

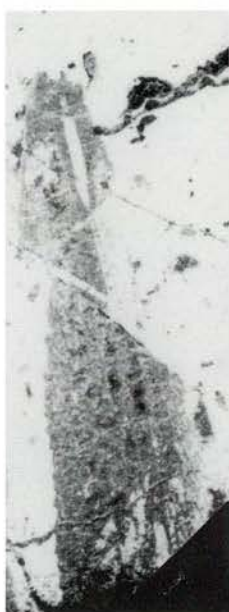


C

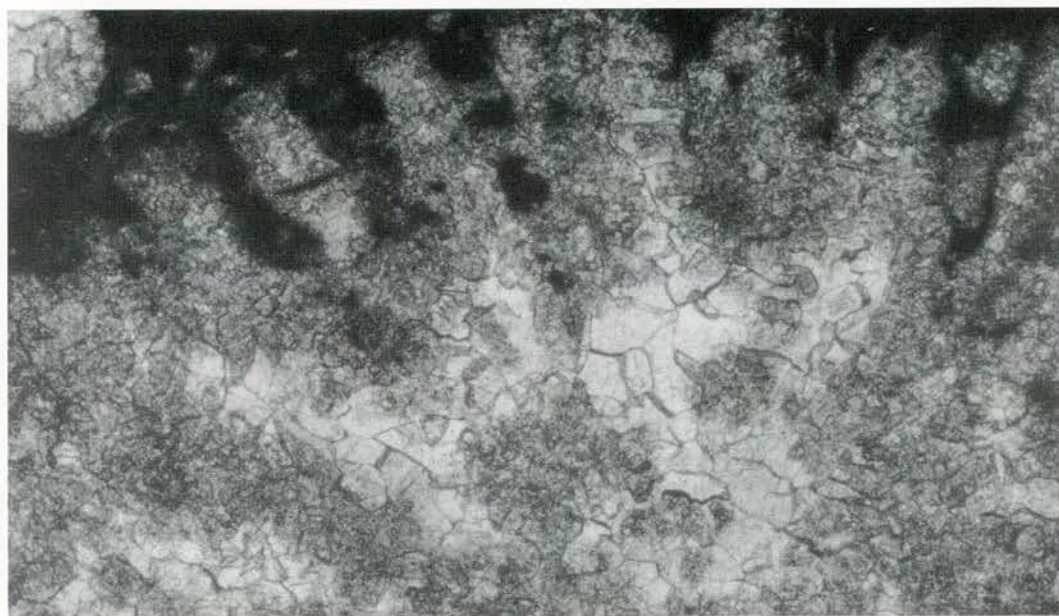


D

E



F



Peplosmilia fromenteli (Angelis d'Ossat) 1905

- 1905 *Peplosmilia Fromenteli* n. sp. ANGELIS D'OSSAT, 242-243, Pl. 17, fig. 6.
 1937 *Peplosmilia fromenteli* (Angelis d'Ossat). BATALLER, 261-262, 4 Textfigs.
 1951 *Peplosmilia fromenteli* (Angelis d'Ossat). MARKOVIĆ, 192, Pl. 4, fig. 4.
 1974 *Axosmilia fromenteli* (Angelis d'Ossat). TURNŠEK & BUSER, 99, Pl. 10, fig. 1.
 1981 *Peplosmilia fromenteli* Angelis d'Ossat. TURNŠEK & MIHAJLOVIĆ, 23, Pl. 21, figs. 1-6.
 1987 *Peplosmilia fromenteli* de Angelis. KUSMICHEVA, 231, Pl. 2, fig. 4.
 1992 *Peplosmilia fromenteli* Angelis d'Ossat. TURNŠEK et al., 213, Pl. 6, figs. 1-3.
 1994 *Peplosmilia fromenteli* de Angelis. LIAO & XIA, 165-166, Pl. 61, figs. 9-11.
 1995 *Peplosmilia fromenteli* Angelis d'Ossat. ABDEL-GAWAD & GAMEIL, 15, Pl. 14, fig. 25.
 1996 *Peplosmilia fromenteli* Angelis d'Ossat. BARON-SZABO & STEUBER, 14, Pl. 7, fig. 4.

Description: Solitary coral, elliptical calice. Septa compact, in 4-5 cycles, lateral sharp granulae. Lamellar columella, thin long bent dissepiments, ?septotheca. Microstructure trabecular, with median line. $d = 20-25$ mm, $l\ col = 2$ mm, $s = ca\ 90$.

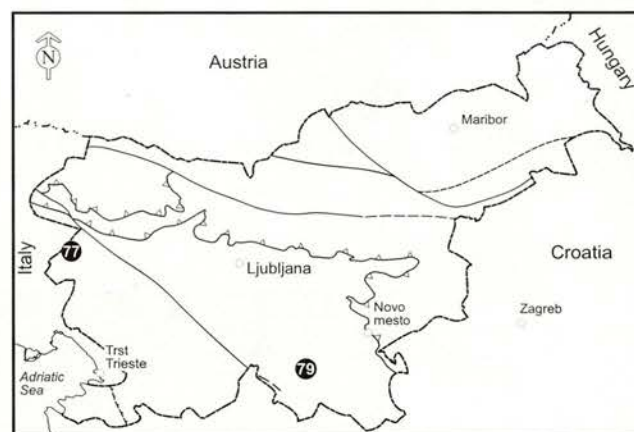
Remarks: *Peplosmilia* is here recognized again because of the lateral ornamentation of the septa. *P. fromenteli* of BARON-SZABO (1997) resembles *Aulosmilia*.

Localities: 77 Osojnica (P-667), 79 Slovenski vrh (D/2abc); Spain, Serbia, Greece, Small Balkan, China (Xizang).

Age: K: Barremian-Aptian; K: Barremian-Aptian.

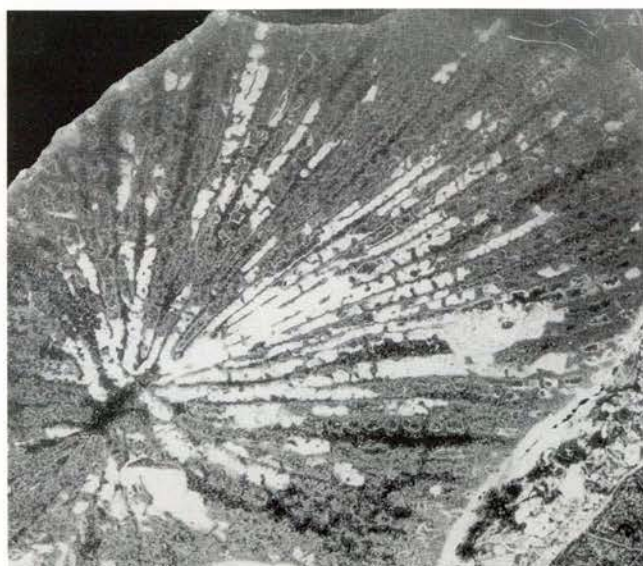
Paleoenvironment: Reef flat at the edge of the Dinaric Carbonate Platform and patch reef in the back reef area. Urgonian facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
		Turonian		
	Cenomanian			
	Lower	Albian		
		Aptian		
		Barremian		
		Hauterivian		
		Valanginian		
		Berriasian		

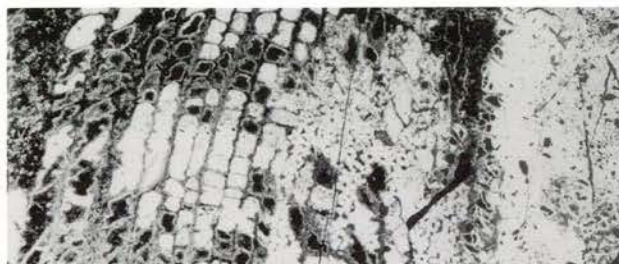


- A: transverse oblique section; P-667a, x 4.
 B: transverse section; Sv-D/2a, x 4.
 C: longitudinal peripheral section; Sv-D/2b, x 4.
 D: longitudinal axial section; Sv-D/2c, x 4.

- E: detail from A, x 8.
 F: microstructure, mini to medium-sized trabeculae, midseptal line; P-667a, x 40.



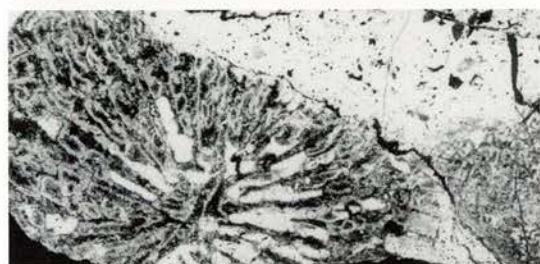
A



C

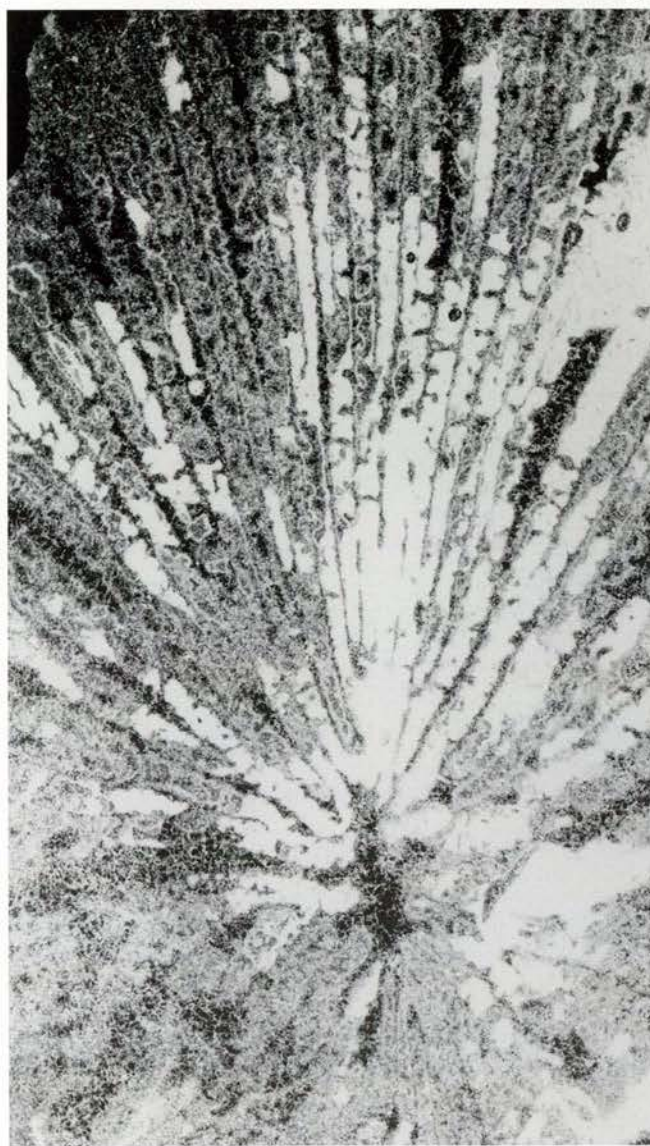
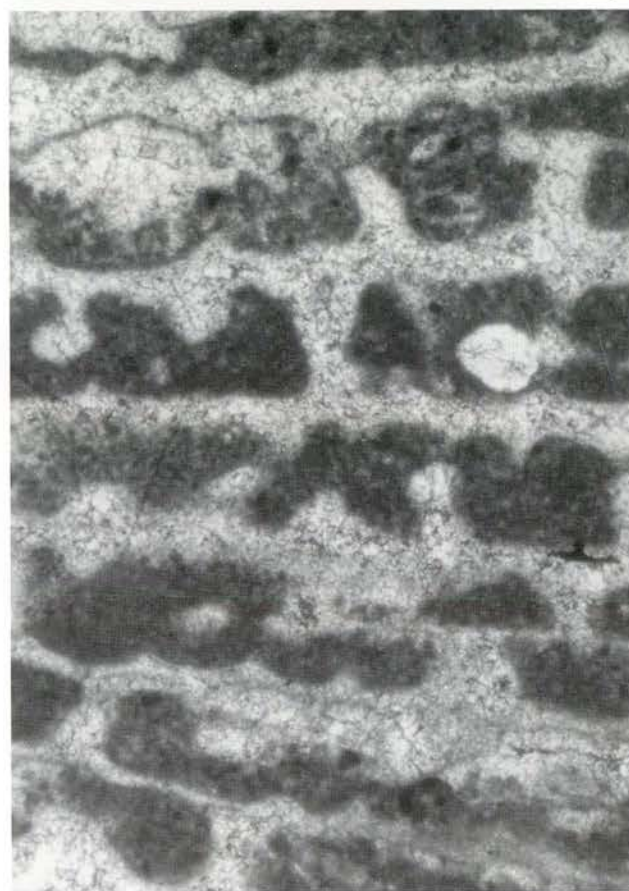


D



B

F



E

Phyllocoenia cotteau Fromentel 1857

- 1857 *Phyllocoenia Cotteau* Fromentel. FROMENTEL, 49, Pl. 7, figs. 1-2.
 1957 *Phyllocaenia cotteau* de Fromentel. ALLOITEAU, 121-122.
 1974 *Phyllocoenia cotteau* Fromentel. TURNŠEK & BUSER, 99-100, 116, Pl. 6, fig. 4.

Description: Massive plocoid colony, corallites round, peritheca costate and dissepimental. Septa in three cycles anastomosing axially, laterally granulated. Septoparatheca, tabulate dissepiments, spongy columella, microstructure not preserved. $d = 4 \text{ mm}$, $cc = 4-6 \text{ mm}$, $s = 32$.

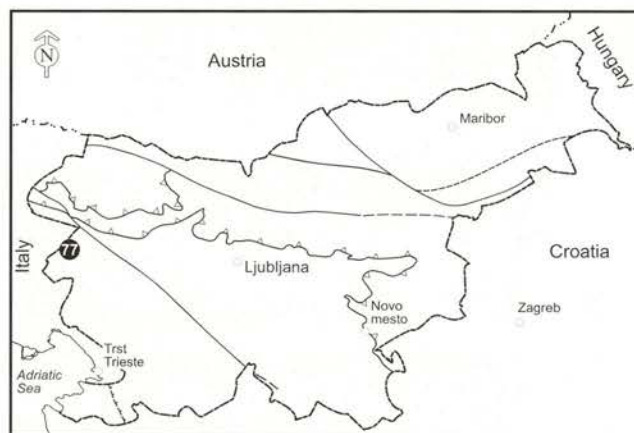
Localities: 77 Osojnica (P-663); France.

Age: K: Barremian-Aptian; K: Aptian.

Remarks: Hauterivian age after FROMENTEL (1857) is the same as Aptian age after ALLOITEAU (1957, 121).

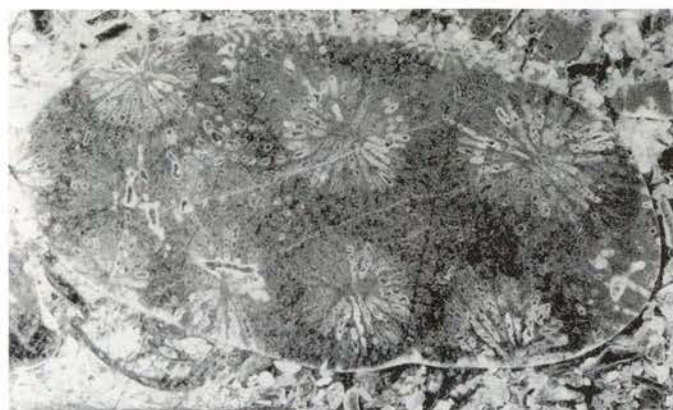
Paleoenvironment: Reef flat at the edge of the Dinaric Carbonate Platform. Urgonian facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
		Turonian	Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	

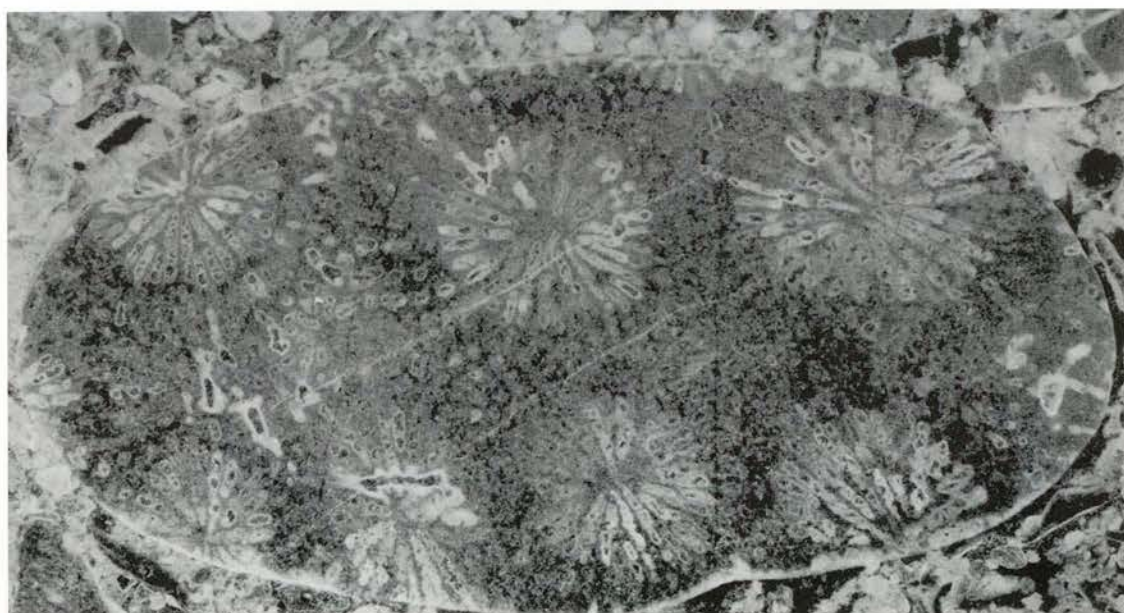


A: transverse section; P-663a, x 4.
 B: the same as A, x 8.

C: microstructure, mini or medum-sized trabeculae hardly seen; P-663a, x 40.



A



B



C

Placophyllia curvata Turnšek 1974

- 1974 *Placophyllia curvata* n. sp. TURNŠEK & BUSER, 98, 115, Pl. 8, figs. 1-2, Pl. 9, figs. 1-2.
 1980 *Placophyllia curvata* Turnšek. KUSMICHEVA, 96-97, Pl. 35, figs. 4ab.
 1981 *Placophyllia curvata* Turnšek. TURNŠEK & MIHAJLOVIĆ, 20, Pl. 16, figs. 3-5.
 1993 *Placophyllia curvata* Turnšek. BARON-SZABO, 159, Pl. 4, fig. 1.
 1996 *Placophyllia curvata* Turnšek. CSÁSZÁR & TURNŠEK, 434, fig. 9/18.

Description: Phaceloid colony, parallel curving corallites, round in transverse section, budding extracalicular at wide angle. Septa in 2-4 cycles, laterally rather smooth. Paraseptotheca, lamellar columella, tabulate and long dissepiments. microstructure trabecular with central line. d = 6-8 mm, s = 20-30 (5-6/5 mm).

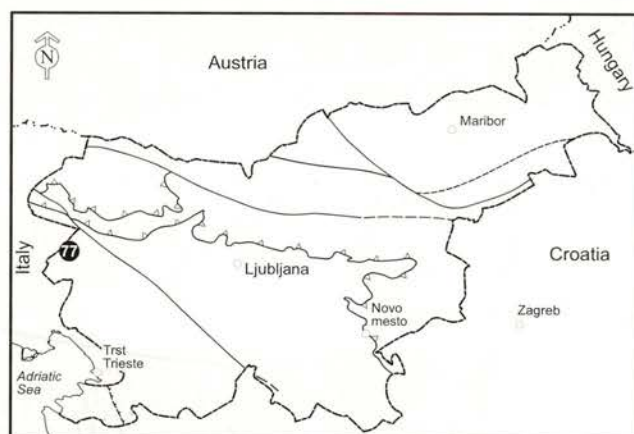
Remarks: In diagnosis (TURNŠEK & BUSER, 1974, 98, 115) by mistake plocoid, it is phaceloid.

Localities: 77 Osojnica (P-505, P-514, P-527); Hungary, Serbia, East Carpathians.

Age: K: Barremian-Aptian; K: Barremian-Aptian.

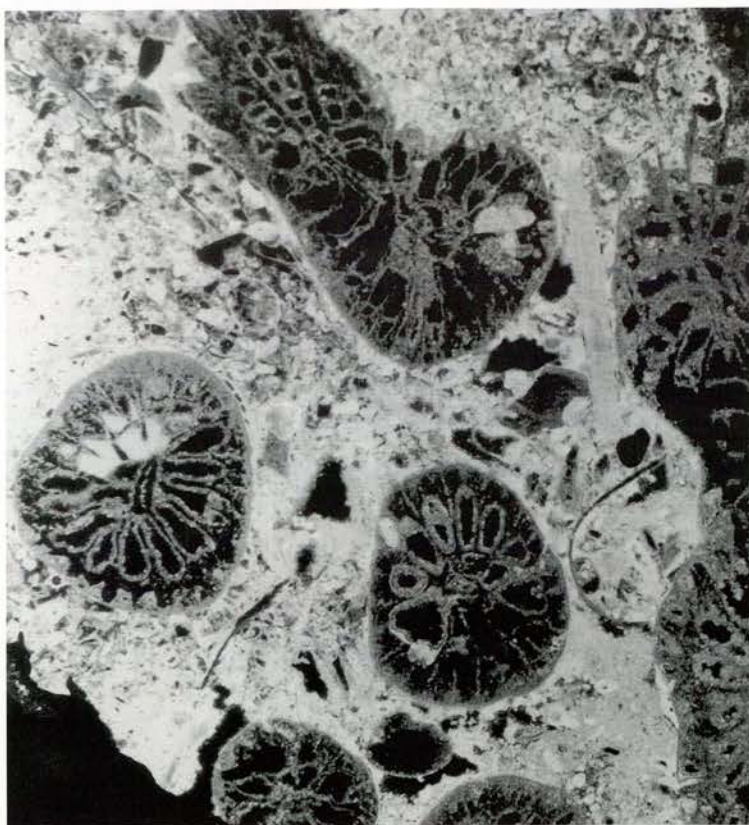
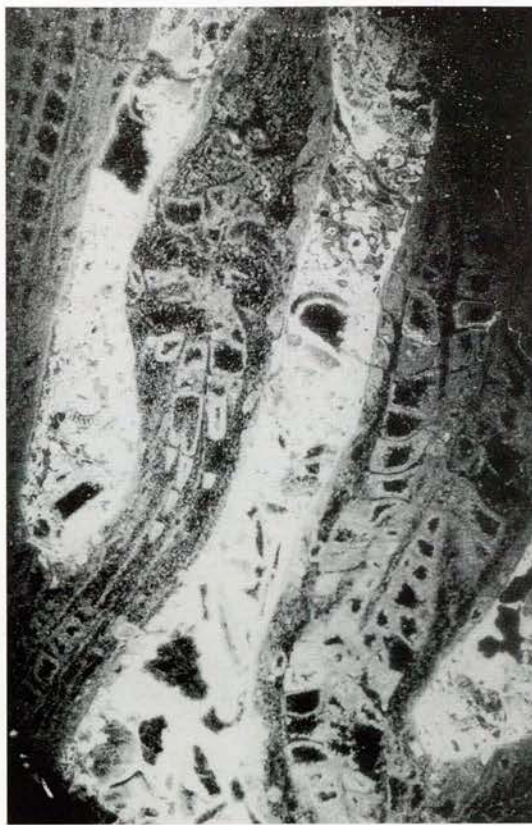
Paleoenvironment: Reef flat at the edge of the Dinaric Carbonate Platform. Urgonian facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
	Lower		Turonian	
			Cenomanian	
			Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: transverse section; P-514a, x 4.
 B: longitudinal section; P-514b, x 4.
 C: detail from A, x 8.

D: microstructure, ?thick trabeculae in wall, medium-sized or minitraculae in septa; P-514a, x 40.

A
CB
D

Placophyllia rugosa Becker 1875

- 1875 *Placophyllia rugosa* Becker. BECKER, 140-141, Pl. 3, fig. 9.
 1897 *Stylosmilia rugosa* Becker. OGILVIE, 117-118, Pl. 15, figs. 4-5.
 1912 *Placophyllia rugosa* Becker. SPEYER, 203-204, Pl. 21, fig. 2.
 1954 *Placophyllia rugosa* Becker. GEYER, 193-194, Pl. 16, fig. 3.
 1955a *Pleurophyllia rugosa* (Becker). GEYER, 193.
 1966 *Placophyllia rugosa* Becker). RONIEWICZ, 220-221, Pl. 12, fig. 1, Textfig. 12.
 1972 *Placophyllia rugosa* Becker. TURNŠEK, 184, Pl. 24, figs. 1-2.
 1975 *Placophyllia rugosa* Becker. TURNŠEK, 12, Pl. 5, figs. 1-3.
 1976 *Placophyllia rugosa* Becker. ELIÁŠOVÁ, 338, Pl. 1, figs. 1-2.
 1985 *Placophyllia rugosa* Becker. ROSENDAHL, 49, Pl. 5, fig. 1.

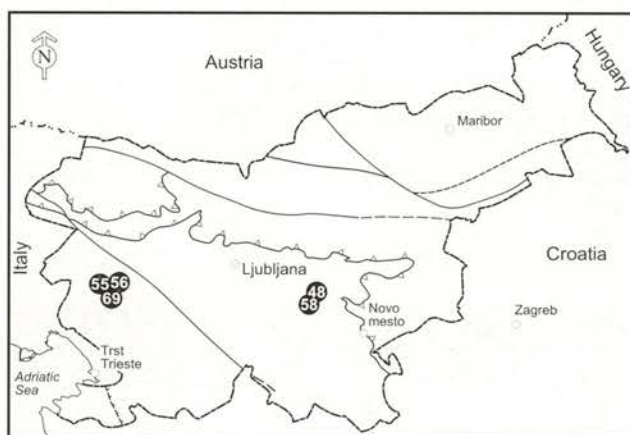
Description: Phaceloid colony, long parallel round corallites, budding extracalicianl. Septa compact, in 3-4 cycles, laterally granulated. Septoparatheca, columella parietal forming massive axial structure, large bent dissepiments, microstructure poorly preserved. d = 4-8 mm, s = 24+s.

Localities: 58 Sela (P-338), 48 Bič (P-323, P-332), 56 Ojstrovca (P-438), 55 Mrzovec (P-472, P-476, P-478), 69 Selovec (P-971); Germany, Portugal, Poland, Czech R. (Štramberk), Croatia.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian-Tithonian.

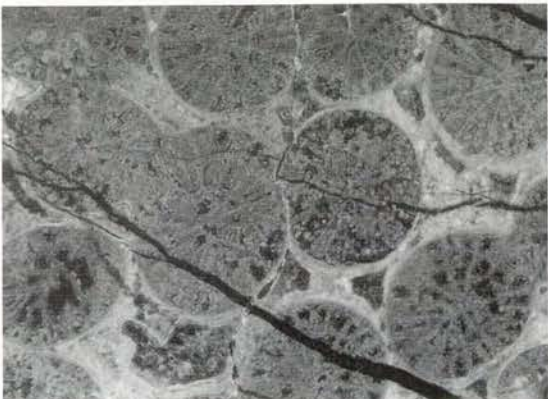
Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	

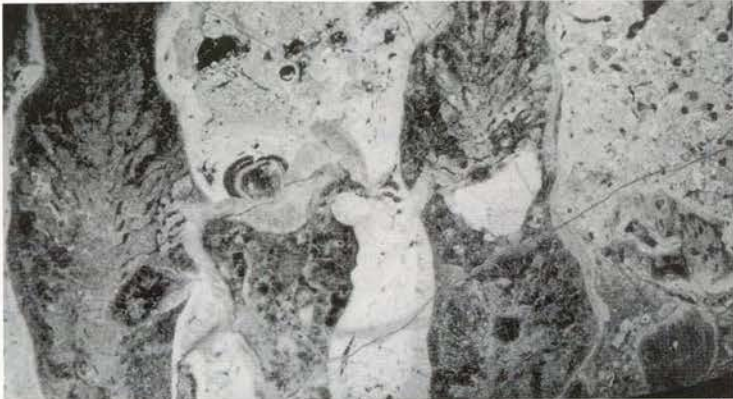


A: transverse section; P-338a, x 4.
 B: longitudinal section; P-338b, x 4.
 C: transverse section; P-478a, x 4.

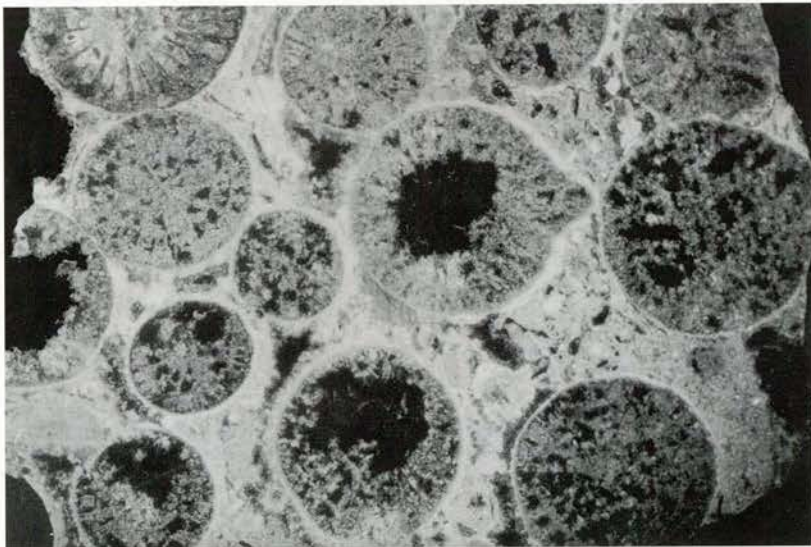
D: longitudinal section; P-478b, x 4.
 E: microstructure, ?medium-sized trabeculae; P-338a, x 40.



A



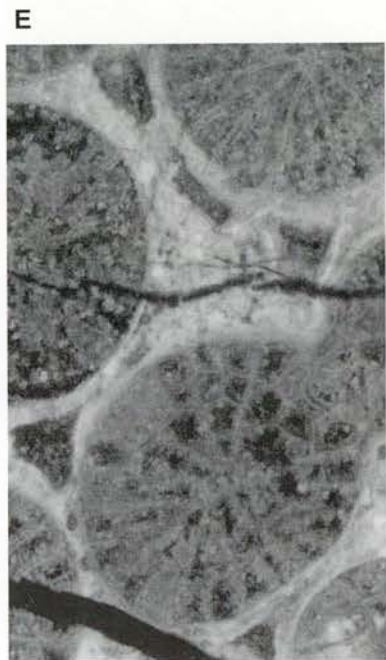
B



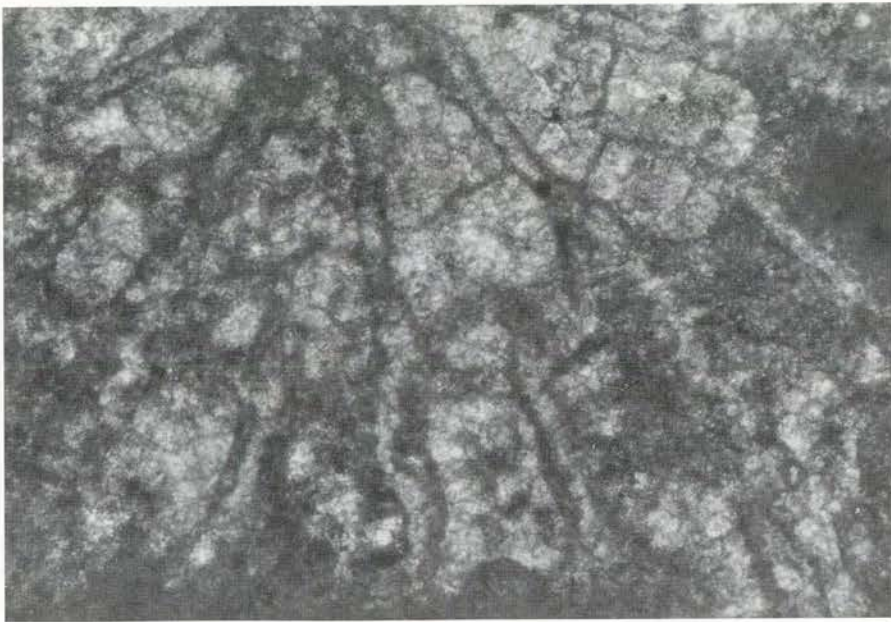
C



D



E



F

Placosmilia gracilis (FELIX) 1903

- 1903 *Lasmogyra gracilis* nov. sp. FELIX, 246-247, Pl. 21, figs. 4, 4ab.
1930 *Lasmogyra gracilis* Felix. OPPENHEIM, 301-302, Pl. 32, figs. 4-4A, 13.
1937 *Lasmogyra gracilis* Felix. BATALLER, 119.
1982 *Placosmilia gracilis* (Felix). BEAUVAIS, I, 66-68, Pl. 4, figs. 2-3, Pl. 59, fig. 7.
1994 *Placosmilia gracilis* (Felix). TURNŠEK, 11, Pl. 3, figs. 5-8.

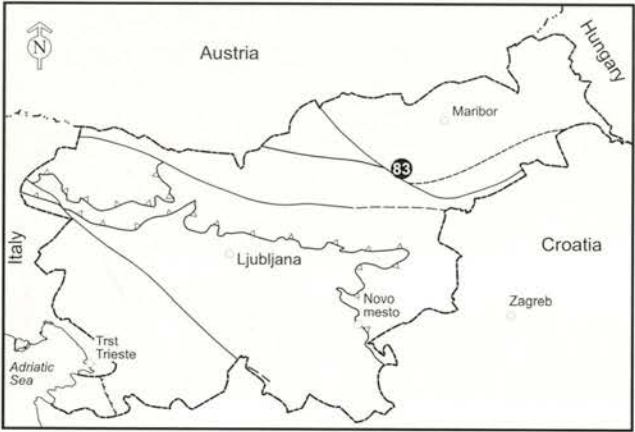
Description: Flabelo-meandroid uniserial colony. Septa compact, costate, in 2-3 cycles, axially thickened, laterally spiniform granulae. Paratheca to septotheca, large and tabulate dissepiments, thin lamellar columella, microstructure recrystallized. l of colony = 30-60 mm, d of series = 5-10 mm, s = 12-15/10 mm.

Localities: 83 Stranice-quarry (1/13, 1/B); Austria (Gosau), France (Provence, Corbières), Spain.

Age: K: Santonian-Campanian; K: Coniacian-Santonian.

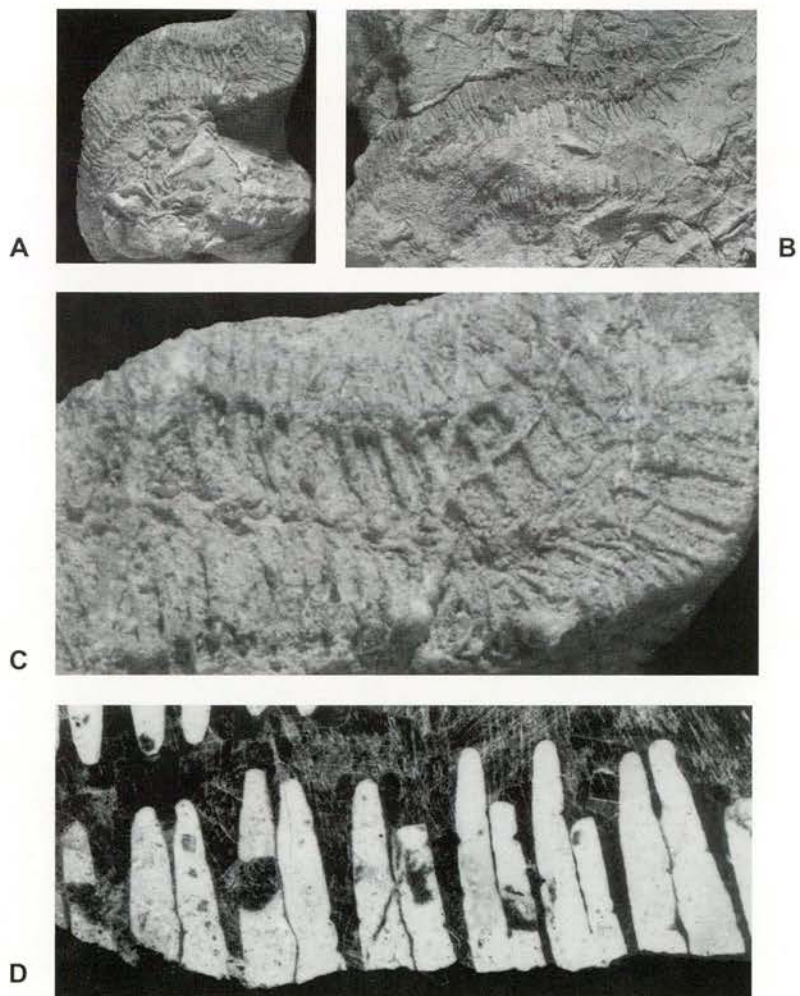
Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
		Lower	Turonian	
	Cenomanian			
	Albian			
	Aptian			
	Barremian			
	Hauterivian			
	Valanginian			
	Berriasian			



A: surface from above; St-1/13, x 1.
B: surface from above; St-1/B, x 1.

C: the same as A, x 4.
D: transverse section; St-1/13a, x 4.



Plesiosmilia compressa (Koby) 1880

- 1880 *Pleurosmilia compressa* Koby. Koby, 39, Pl. 4, fig. 4.
1964 *Plesiosmilia compressa* (Koby). Beauvais, 185, Pl. 3, fig. 4.
1993 *Plesiosmilia compressa* (Koby). Dozet & Turnšek, 69, Pl. 2, fig. 1.

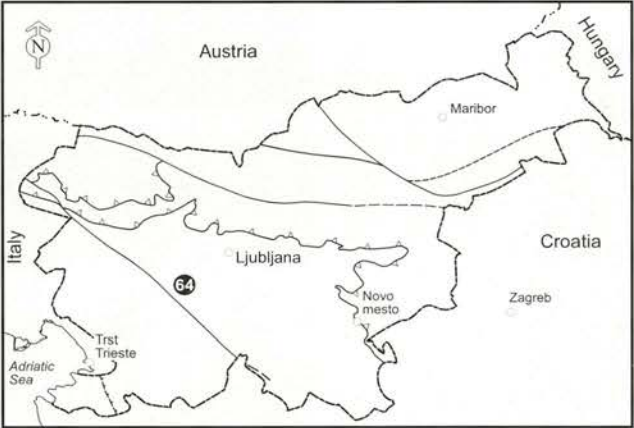
Description: Solitary cylindrical coral, round calice. Septa thick, in 4 cycles, laterally granulated, axially thickened. ?Septotheca poorly preserved, no columella, vesicular dissepiments, lamellar microstructure. d = ca 20 mm, s = 48.

Localities: 64 Logaška planota (P-932); Switzerland.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian.

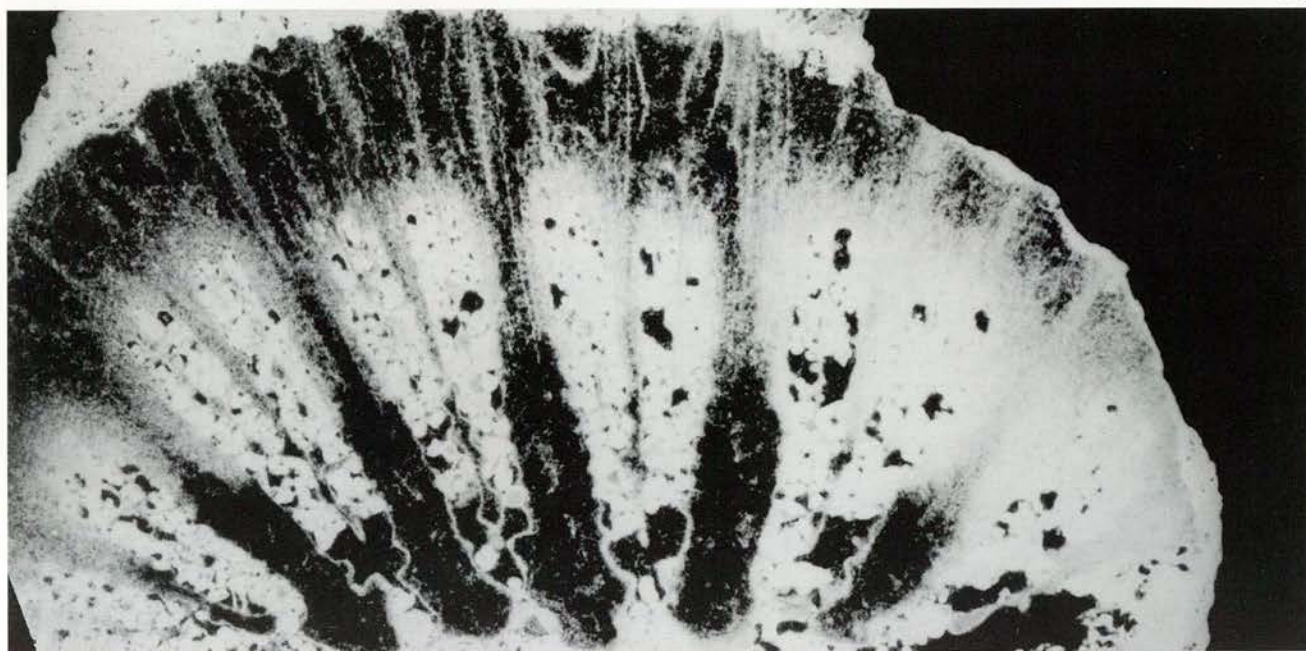
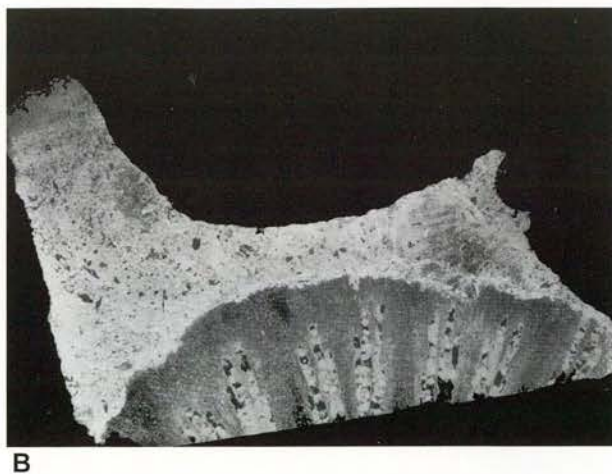
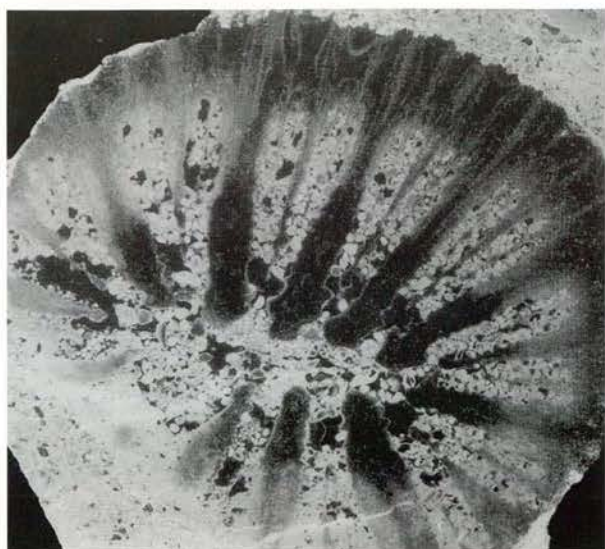
Paleoenvironment: Inner barrier reef on the Dinaric Carbonate Platform.

JURASSIC	Malm	<i>Tithonian</i>	
		<i>Kimmeridgian</i>	
		<i>Oxfordian</i>	
	Dogger	<i>Callovian</i>	
		<i>Bathonian</i>	
		<i>Bajocian</i>	
		<i>Aalenian</i>	
		<i>Toarcian</i>	
	Lias	<i>Pliensbachian</i>	
		<i>Sinemurian</i>	
		<i>Hettangian</i>	



A: transverse section; P-932a, x 4.
B: oblique transverse section; P-932b, x 4.

C: detail from A, x 8.
D: microstructure, bundles of fibres; P-932a, x 40.



D



Pokljukosmia tuvalica Turnšek 1989

1989 *Pokljukosmia tuvalica* nov. gen. n. sp. TURNŠEK & BUSER, 85-86, Pl. 5, figs. 1-5. Pl. 6, figs. 1-3.

1991 *Pokljukosmia tuvalica* Turnšek. RAMOVŠ & TURNŠEK, 185, Pl. 7, figs. 3-4.

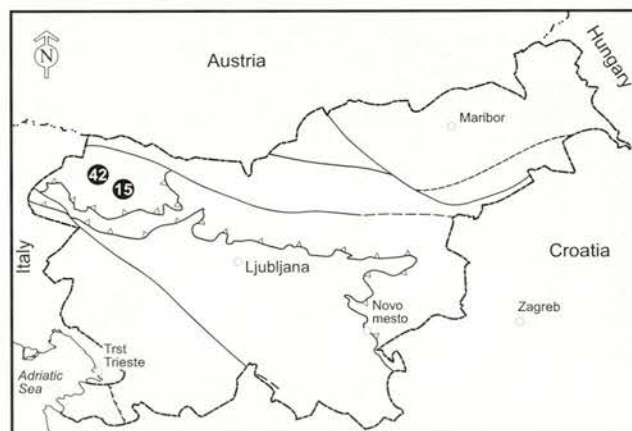
Description: Phaceloid colony, round to oval corallites, budding intracalicular. Septa radial, all cycles of the same thickness, laterally rarely granulated. No wall, no columella, vesicular dissepiments, microstructure of small trabeculae with median line. $d = 5-6$ mm, $cc = 7-10$ mm, $s = 48-60$.

Localities: 15 Pokljuka (P-854 holotype, P-852), 42 Planja (11/86-36).

Age: T: Carnian (Tuvalian), Lowermost Norian.

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
			Scythian	
	Lower			

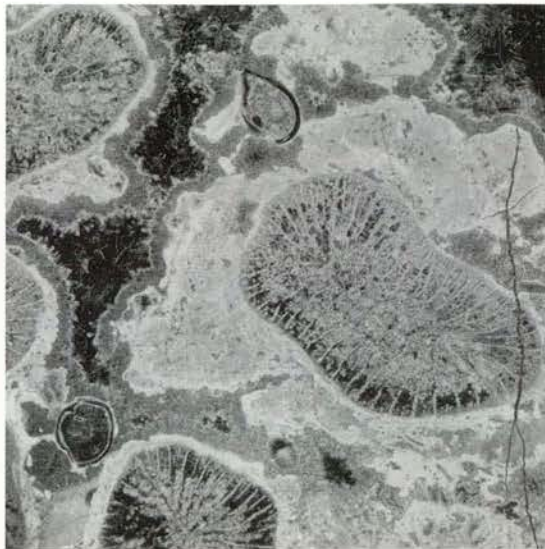


A: surface from above; P-854, x 1.
 B: transverse section; P-854a, x 4.
 C: transverse section; P-852a, x 4.
 D: longitudinal section; P-852b, x 4.
 E: transverse section of another corallite; P-854a, x 8.

F: detail from C, x 8.
 G: detail from D, x 8.
 H: detail from B, x 15.
 I: detail from H showing minitrabecular microstructure; x 30.



A



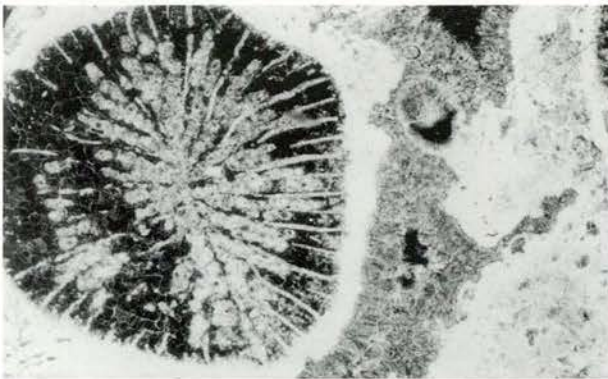
B



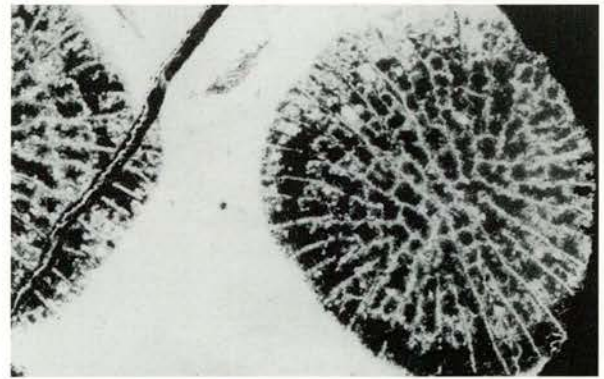
C



D



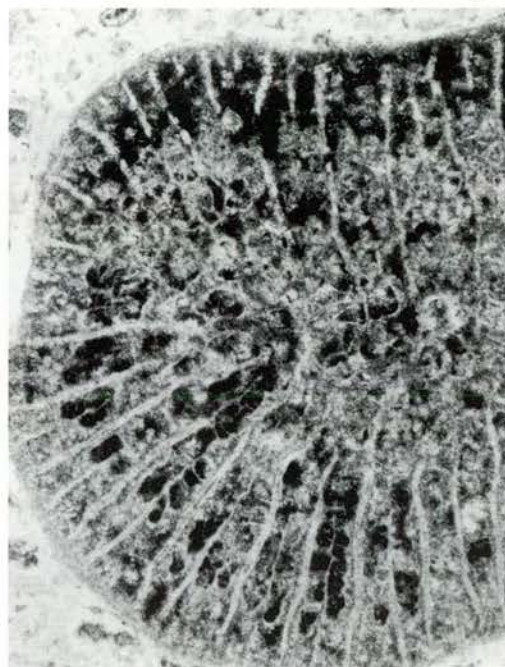
E



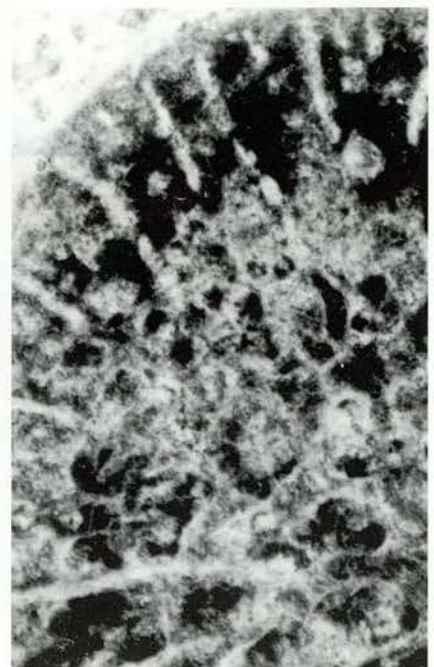
F



G



H



I

Polyphylloseris convexa Fromentel 1850

- 1850 *Polyphyllostraea convexa* d'Orbigny. ORBIGNY, II, 94.
 1857 *Polyphylloseris convexa* n. sp. FROMENTEL, 68-69, Pl. 10, figs. 11-12.
 1974 *Ovalastraea turbinata* (Fromentel). TURNŠEK & BUSER, 102, 117, Pl. 11, fig. 3.
 1976 *Ovalastraea turbinata* (Fromentel). TURNŠEK & BUSER, 60, 81, Pl. 17, figs. 3-4.
 1979b *Polyphylloseris convexa* d'Orbigny. SIHARULIDZE, 303.
 1981 *Polyphylloseris convexa* Fromentel. TURNŠEK & MIHAJLOVIĆ, 36, Pl. 42, figs. 1-4.
 1985 *Polyphylloseris convexa* (Orbigny 1850). SIHARULIDZE, 46, Pl. 20, fig. 4, Pl. 21, fig. 1.
 1988 *Polyphylloseris convexa* Orbigny. KUSMICHEVA & ALIEV, 173, Pl. 2, fig. 2.
 1995 *Polyphylloseris convexa* Fromentel. ABDEL-GAWAD & GAMEIL, 25, Pl. 12, figs. 1-2.
 1996 *Polyphylloseris convexa* Fromentel. CSÁSZÁR & TURNŠEK, 434, fig. 8/12.

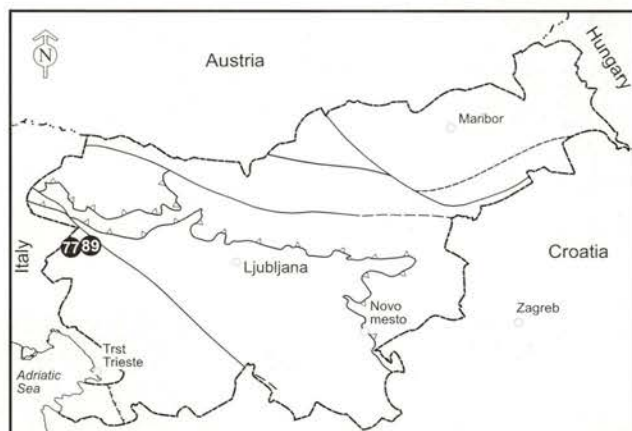
Description: Bulbous subplocoid to thamnasterioid colony with mammelonian elevations of corallites, separated with peritheca. Septa confluent, perforated, laterally pennulated. Wall inner parathecal ring, peripheral region between corallites consists of denser confluent septa, vesicular dissepiments and synapticalae numerous, columella parietal, microstructure trabecular. d = 6-10 mm, s = ca 80.

Localities: 77 Osojnica (P-504), 89 Kanalski Lom (P-612); France, Serbia, Romania, Greece, Crimea, Caucasus, Georgia, Azerbajdzhan.

Age: K: Barremian-Aptian, Senonian breccia; K: Valanginian-Hauterivian-Barremian-Aptian, Albian.

Paleoenvironment: Reef flat at the edge of the Dinaric Carbonate Platform. Urgonian facies, and resedimented in breccia.

CRETACEOUS	Upper	Senonian	Maastrichtian		
			Campanian		
			Santonian		
			Coniacian		
	Lower				



- A: transverse section; P-612a, x 4.
 B: longitudinal section; P-612b, x 4.
 C: transverse section; P-504a, x 4.
 D: the same as C, x 8.

- E: detail from B, x 8.
 F: microstructure, polycentric trabeculae, very poorly preserved; P-504a, x 40.



A

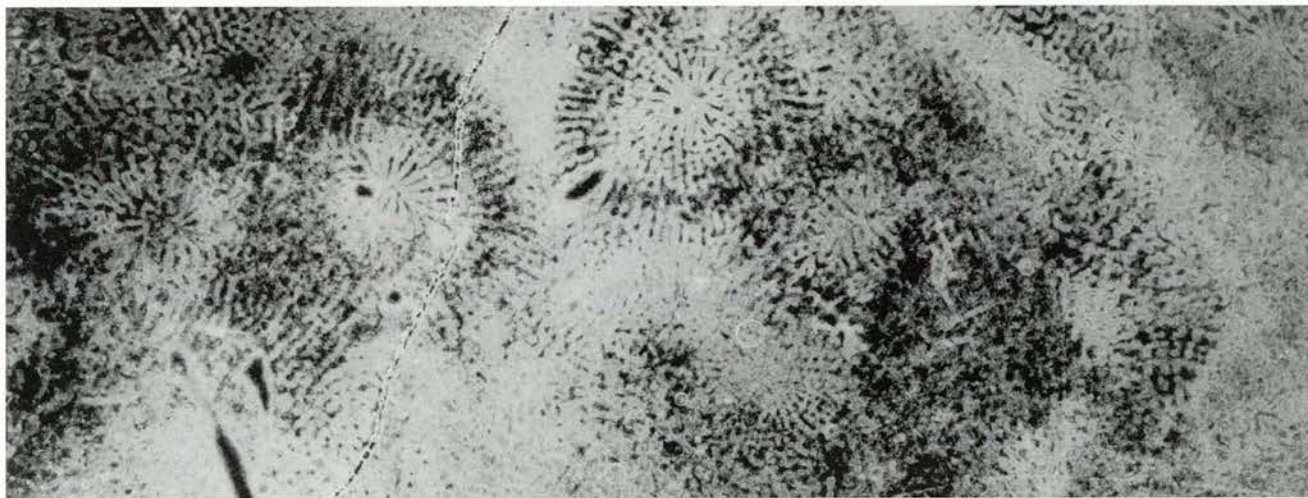


B



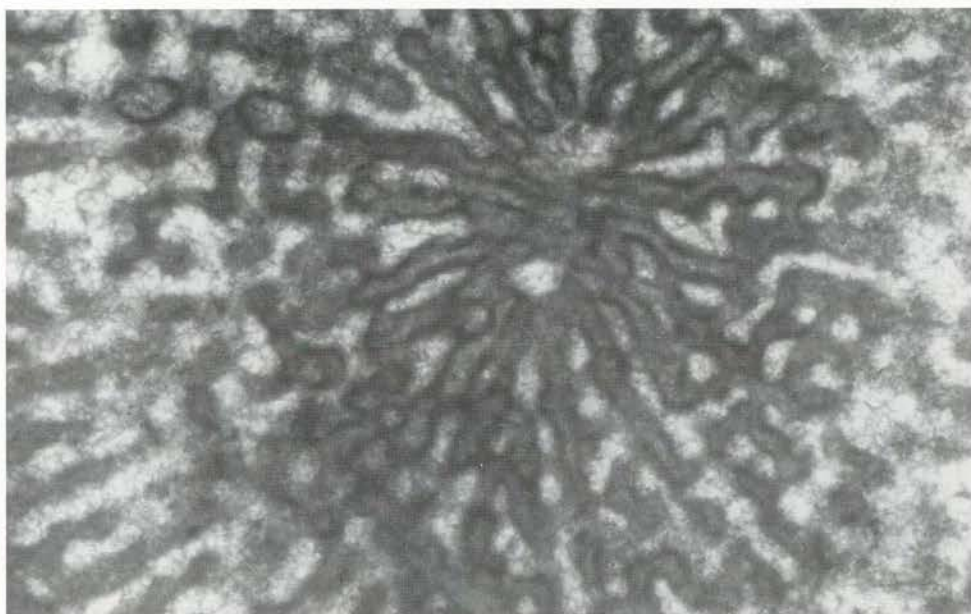
C

D



E

F



Proaplophyllia sexradiata (Roniewicz) 1966

- 1966 *Aplophyllia sexradiata* n. sp. RONIEWICZ, 190-191, Pl. 7, fig. 4, Textfig. 8,
 1972 *Aplophyllia sexradiata* Roniewicz TURNŠEK, 172, Pl. 11, fig. 4.
 1975 *Aplophyllia sexradiata* Roniewicz. TURNŠEK, 10-11, Pl. 3, figs. 6-7.
 1976 *Proaplophyllia sexradiata* (Roniewicz). RONIEWICZ, 46-47, Pl. 4, fig. 2, Pl. 26, fig. 4.
 1985 *Proaplophyllia sexradiata* (Roniewicz). ROSENDAHL, 37, Pl. 3, fig. 6.

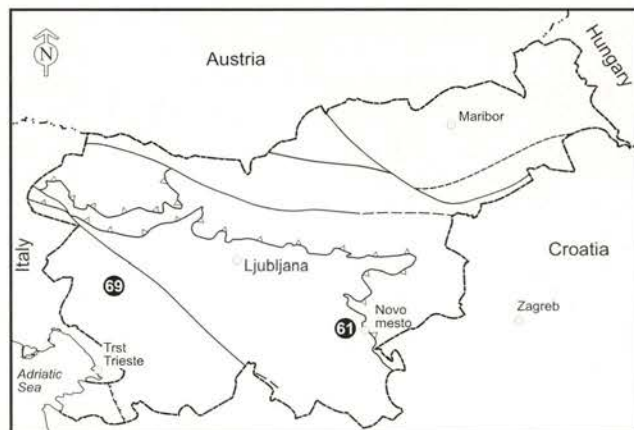
Description: Phaceloid dendroid colony, round corallites, budding marginal. Septa regular, hexameral in 2-3 cycles, with axial prolongations and lateral granulae. Septotheca, no columela, tabuloid dissepiments, microstructure not preserved. d = 2.5-3 mm, s = 12+.

Localities: 61 Frata (P-361, P-362), 69 Selovec (P-486); Poland, Croatia, Romania, Portugal.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian.

Paleoenvironment: Central and inner (sheltered) barrier reef on the Dinaric Carbonate Platform. Reef limestone.

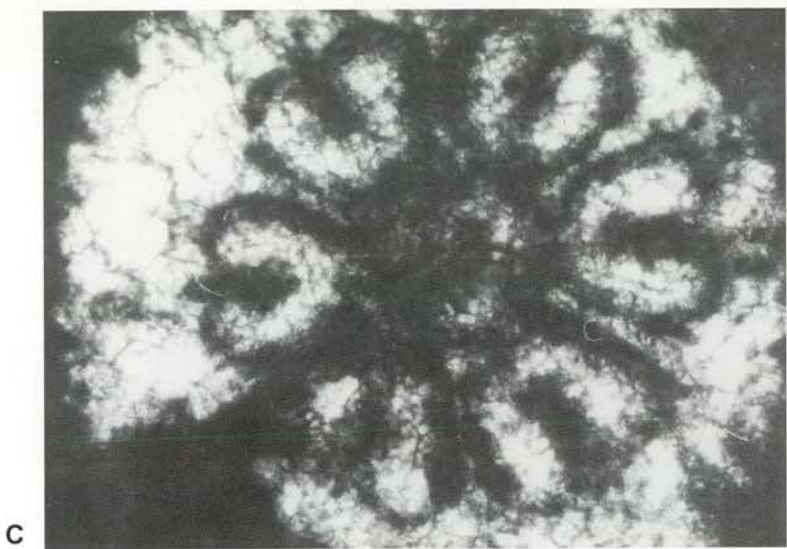
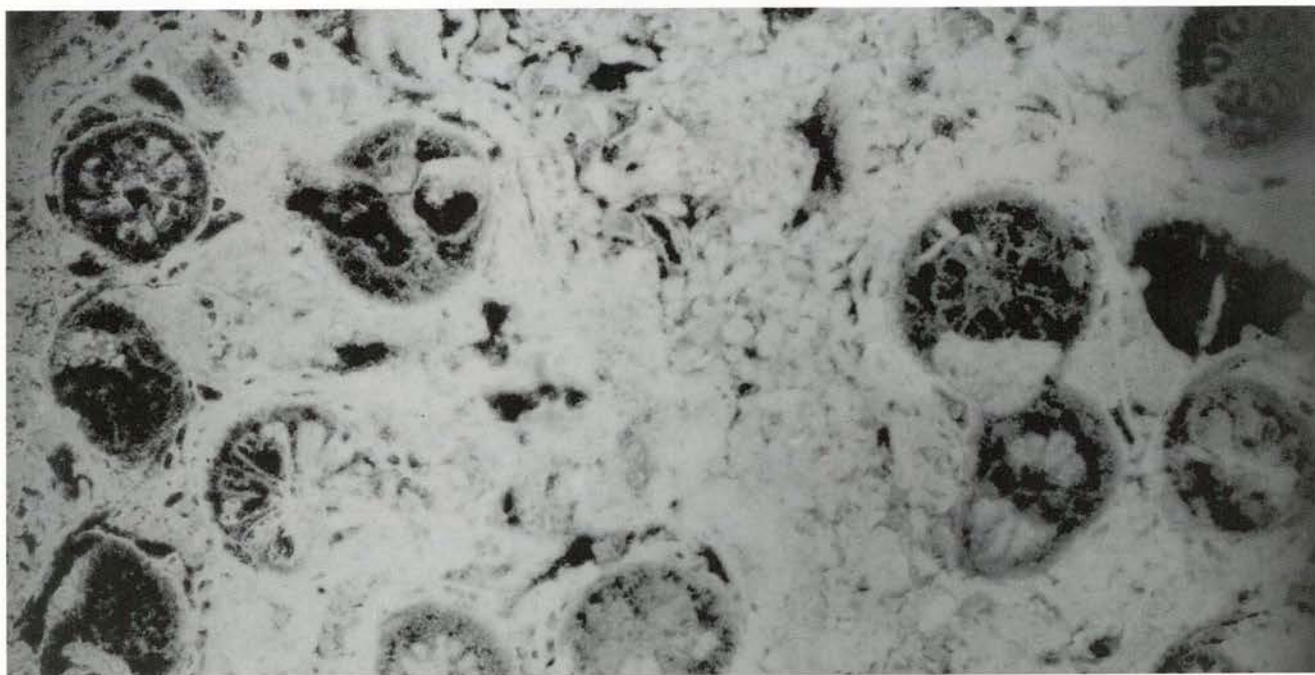
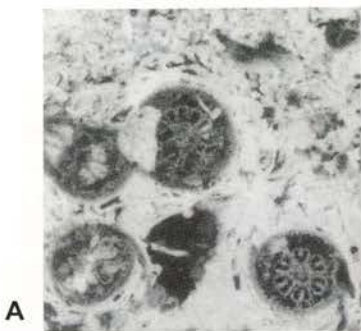
JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-361a, x 4.

B: transverse section of additional corallites; P-361a, x 8.

C: microstructure, medium-sized to thick trabeculae; P-361a, x 40.



Procladocora kocevjsensis Turnšek 1992

1992 *Procladocora kocevjsensis* n. sp. TURNŠEK et al., 214, Pl. 7, figs. 1-5, Pl. 8, figs. 1-3, Pl. 9, figs. 1-2.

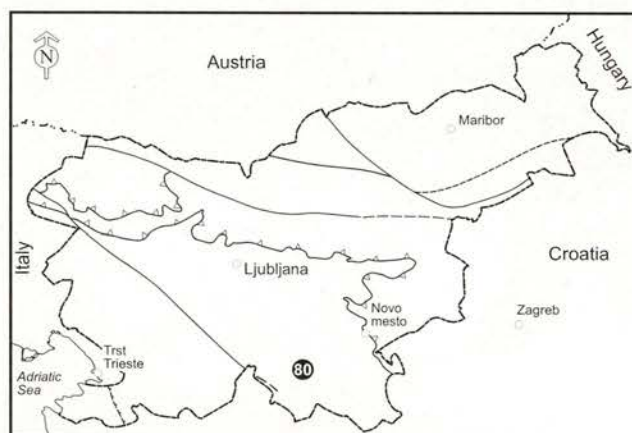
Description: Phaceloid colony with irregularly branched round corallites, budding extracalicular at acute angle. Septa compact, costate, laterally rarely granulated or smooth. Septotheca or incomplete epitheca, axial paliform lobes, look like subporous septa, papillose to spongy columella, long dissepiments, microstructure trabecular. $d = 8-9$ mm, $s = ca 48$.

Locality: 80 Slovenski vrh (E/1a, E/5ab, E/8abcd holotype).

Age: K: Albian.

Paleoenvironment: Patch reef in the back reef area on the Dinaric Carbonate Platform. Urgonian facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
		Lower		Turonian
				Cenomanian
			Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: surface from side; Sv-E/8, x 1.

B: transverse section; Sv-E/8a, x 4.

C: longitudinal peripheral section; Sv-E/8c, x 4.

D: longitudinal axial section; Sv-E/8d, x 4.

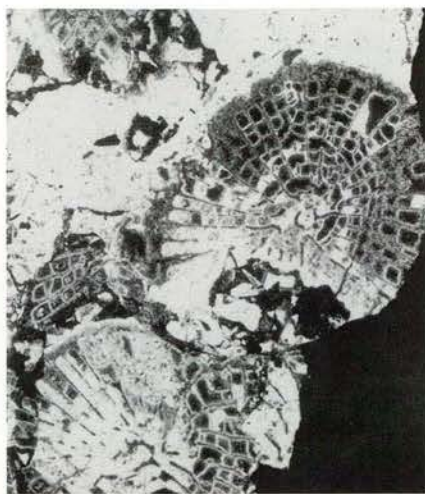
E: transverse section; Sv-E/8b, x 8.

F: the same section as D, x 8.

G: detail from E showing minitrabeculae and midseptal line, x 20.



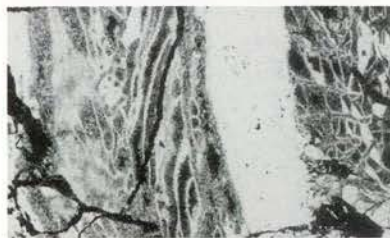
A



B



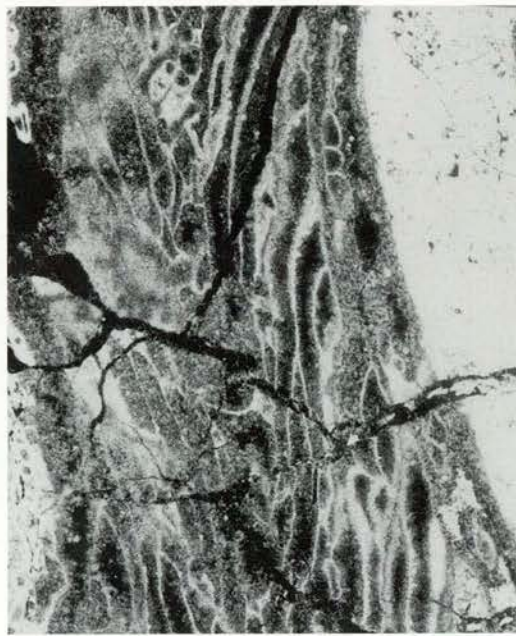
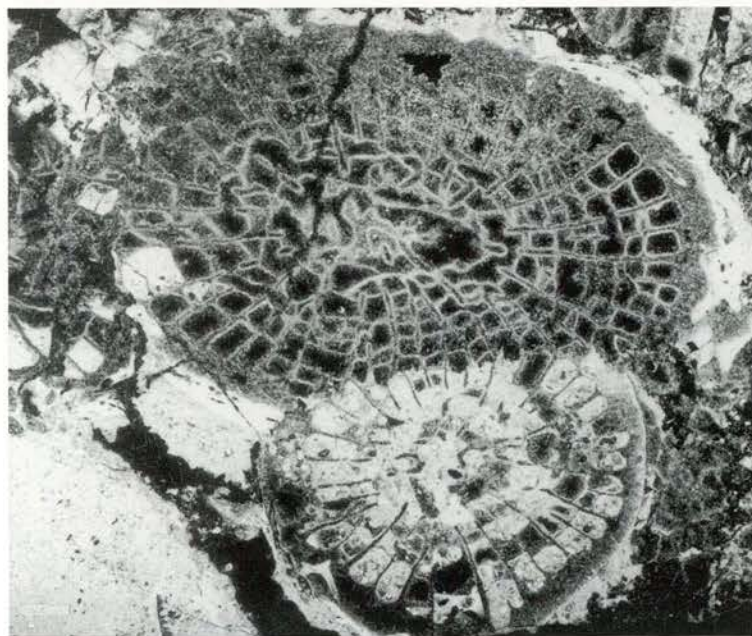
C



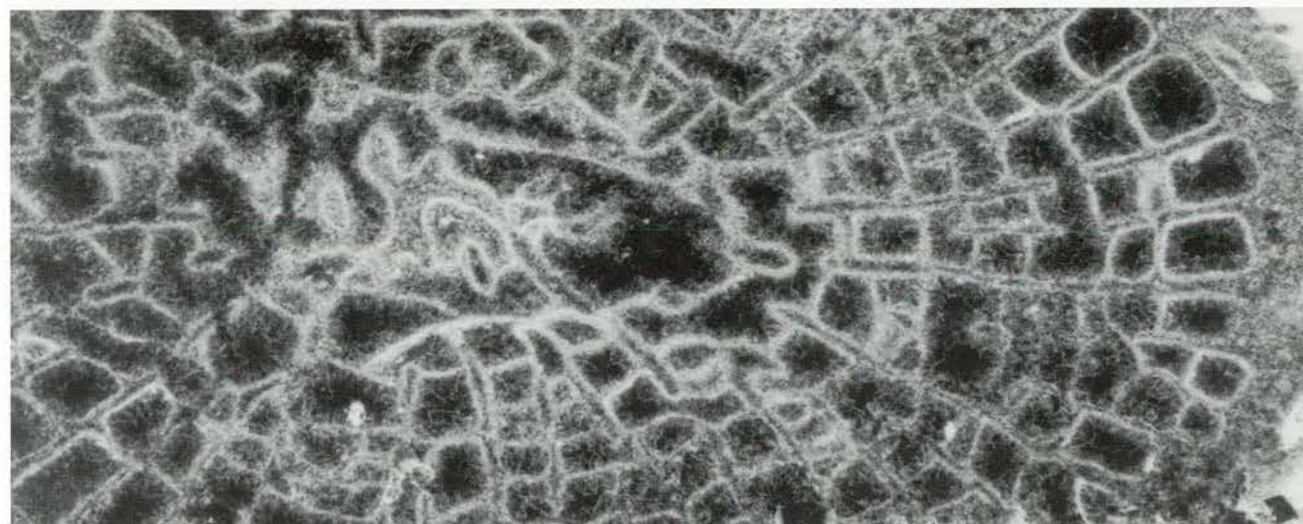
D

E

F



G



Procladocora simonyi (Reuss) 1854

- 1854 *Cladocora Simonyi* m. REUSS, 112, Pl. 12, figs. 5-7.
 1903 *Cladocora simonyi* REUSS. FELIX, 266-267, Textfigs. 5-7.
 1914 *Cladocora simonyi*. FELIX, 171.
 1930 *Cladocora simonyi* REUSS. OPPENHEIM, 360.
 1976 *Procladocora* cf. *simonyi* (REUSS). TURNŠEK & BUSER, 56, 79, Pl. 12, figs. 3-4.
 1978 *Procladocora simonyi* (REUSS). TURNŠEK & POLŠAK, 171, Pl. 7, figs. 1-7.
 1982 *Calamophylliopsis simonyi* (REUSS). BEAUVAIS, II, 233-234, Pl. 44, fig. 2.
 1994 *Procladocora simonyi* (REUSS). TURNŠEK, 10, Pl. 3, figs. 1-2.

Description: Phaceloid colony with round and deformed corallites, budding extracalicular. Septa in 4-5-6 cycles, compact, uneven, axially prolonged into trabecular columella, laterally granulated. Septoparatheca, tabulate and long dissepiments, microstructure not preserved. $d = 6-9$ mm, $s = ca (36-60)$, density of dissepiments = $6-9/5$ mm.

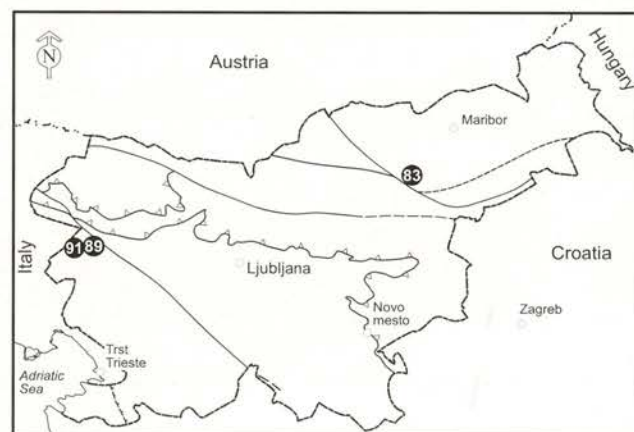
Remarks: *Calamophylliopsis* differs in more porous septa.

Localities: 83 Stranice-quarry (1/22), 91 Mešnjak (P-692, P-693), 89 Kanalski Lom (P-589); Austria (Gosau),

Age: K: Santonian-Campanian, Senonian breccia; K: Santonian-Campanian.

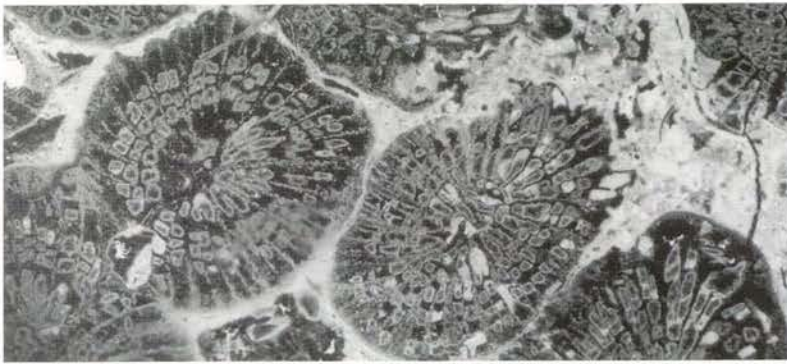
Paleoenvironment: Outer slope of the Dinaric Carbonate Platform and Austro-Alpine shoal.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
	Lower		Cenomanian	
			Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



- A: transverse section; P-692a, x 4.
 B: longitudinal section; P-692b, x 4.
 C: detail from A, x 8.
 D: longitudinal section; P-693b, x 4.

- E: detail from B, x 8.
 F: microstructure, ?mini or medium-sized trabeculae, ?midseptal line; P-692a, x 40.



A

C

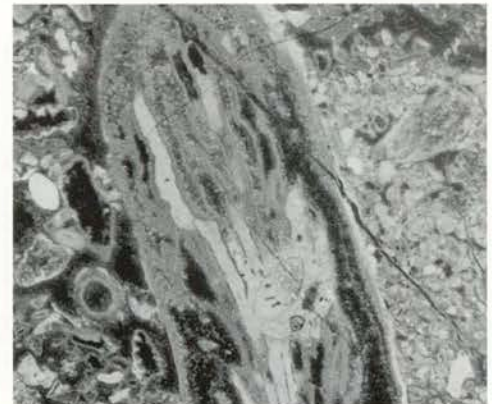


E

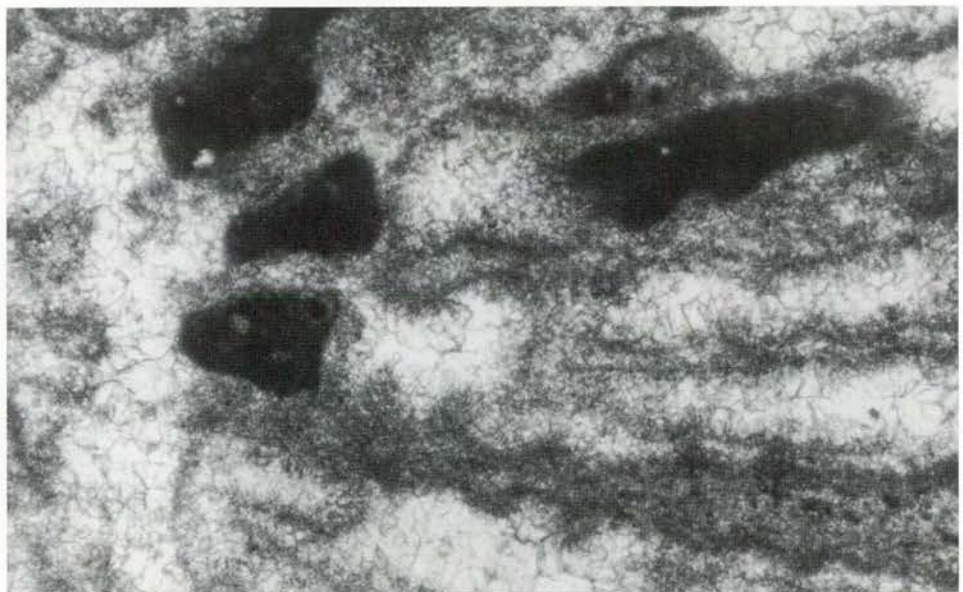
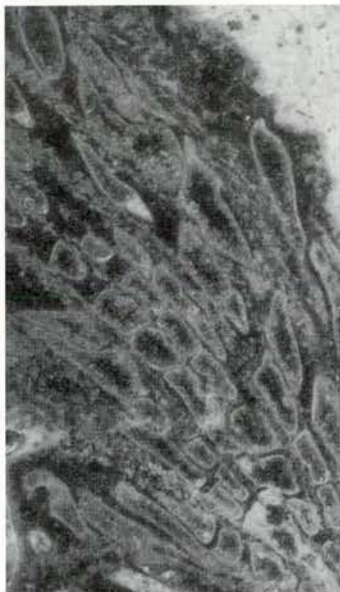


B

D



F



Procladocora tenuis (Reuss 1854)

- 1854 *Cladocora tenuis* m. REUSS, 112, Pl. 6, figs. 24-25.
 1903 *Cladocora tenuis* Reuss. FELIX, 265-266.
 1974 *Procladocora tenuis* (Reuss). BEAUVAIS & BEAUVAIS, 485.
 1978 *Procladocora tenuis* (Reuss). TURNŠEK & POLŠAK, 151-152, 171, Pl. 8, Figs. 1-9.
 1985 *Procladocora tenuis* (Reuss). HÖFLING, 98.
 1994 *Procladocora tenuis* (Reuss). TURNŠEK, 10.

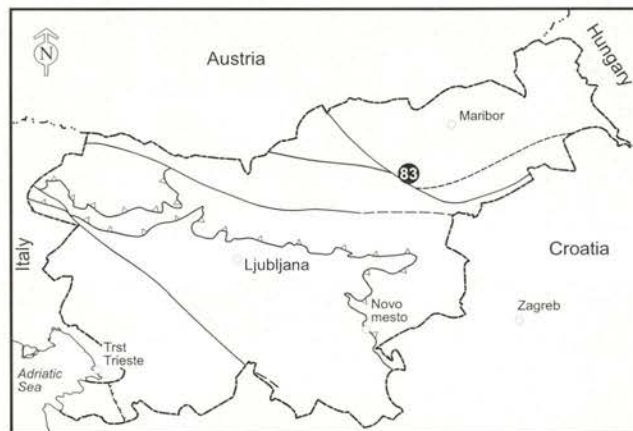
Description: Phaceloid-dendroid colony, with round to oval corallites, budding at an acute angle. Septa compact, in 3-4 cycles, uneven, thickened at axial ends, laterally granulated. Septoparatheca, tabulate and long dissepiments, trabecular columella. Microstructure not preserved. d = 3-5 mm, s = 24-48.

Localities: 83 Stranice-quarry (35, 1/28); Austria (Gosau), south France.

Age: K: Santonian-Campanian; K: Santonian.

Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
	Lower		Cenomanian	
			Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: transverse section; St-35a, x 4.

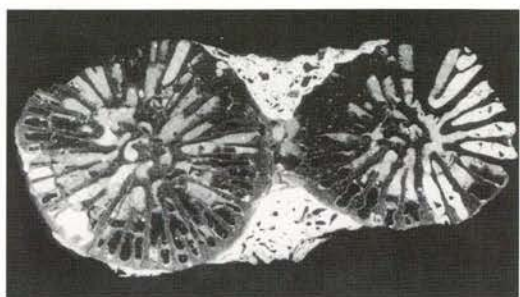
B: longitudinal section of one corallite; St-35b, x 4.

C,D: the same as A, x 8.

E: the same as B, x 8.

F: transverse section of another corallites; St-35c, x 8.

G: longitudinal section of another corallite; St-35d, x 8.

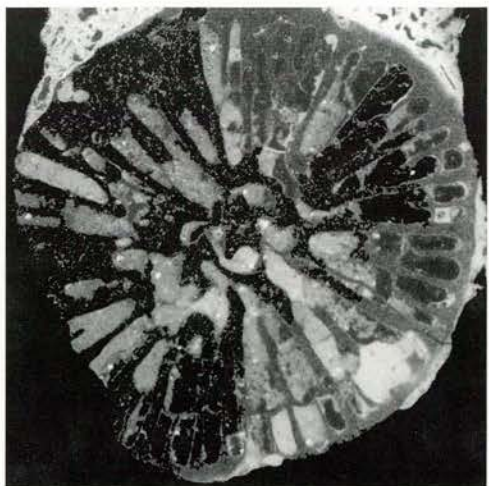


A

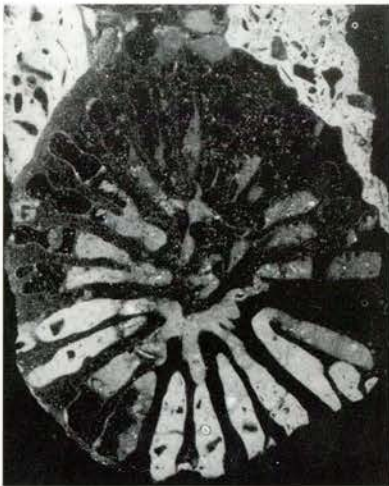
B



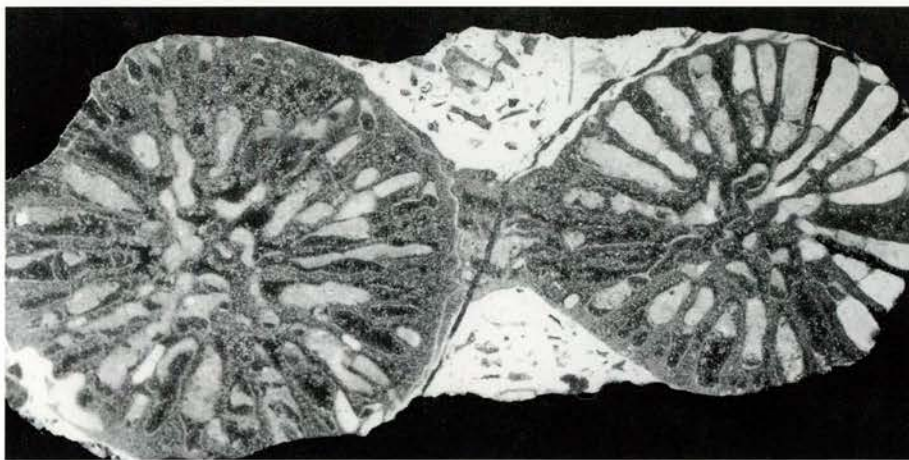
E



C



D



F



G

Procycololites triadicus Frech 1890

- 1890 *Procycololites triadicus* nov. sp. FRECH, 64-65, Pl. 18, figs. 1-16.
 1975 *Procycololites triadicus* Frech. CUIF, 85-91, Pls. 9-10, Textfig. 11.
 1979 *Procycololites triadicus* Frech. SCHÄFER, 49.
 1980 *Procycololites triadicus* Frech. CUIF, 366-367, Fig. 5.
 1984 *Procycololites triadicus* Frech. MATZNER, 9, Pl. 10, fig. 7.
 1987 *Procycololites triadicus* Frech. TURNŠEK & RAMOVŠ, 39-40, Pl. 9, figs. 4-5.
 1989 *Procycololites triadicus* Frech. RONIEWICZ, 85-86, Pl. 23, figs. 1-3, Pl. 24, figs. 1-2.
 1994 *Procycololites* cf. *triadicus*. LIAO & XIA, 61-62, Pl. 42, fig. 8.
 1996 *Procycololites triadicus* Frech. BERNECKER, 54.

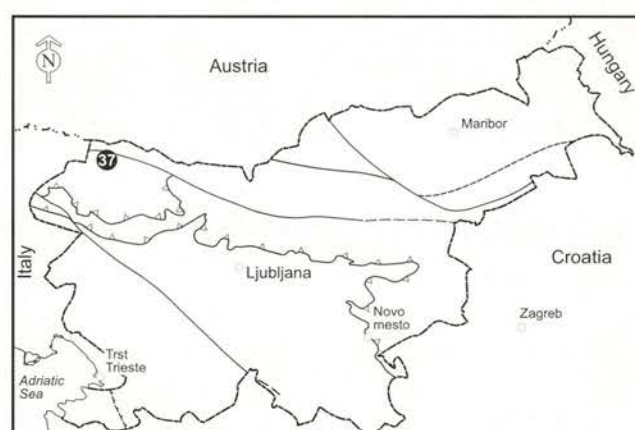
Description: Solitary corallum, round calice. Septa thin, numerous, porous in younger cycles, laterally strongly pennulated. Wall unknown, large dissepiments, columella parietal, microstructure trabecular. d = ca 50 mm, s = 120.

Localities: 37 Dovški križ (59/81-1); Austria (Alps), Oman, China (Xizang).

Age: T: Rhaetian; T: Norian-Rhaetian.

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	

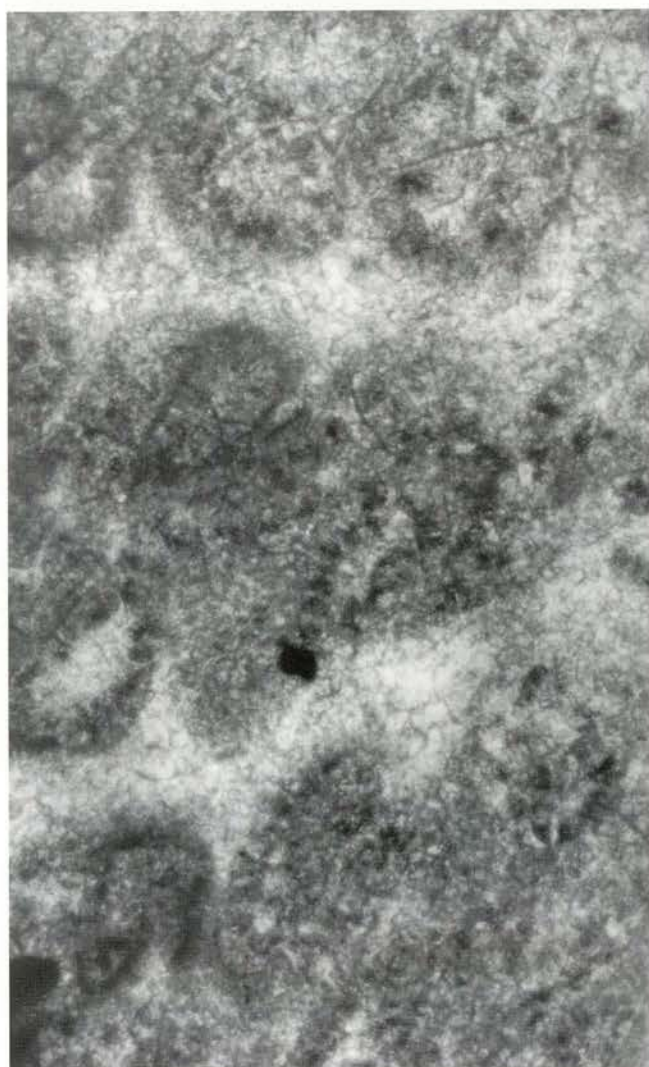


A: transverse section of a part of corallite; 59/81-1a, x 4.
 B: the same section as A, x 8.

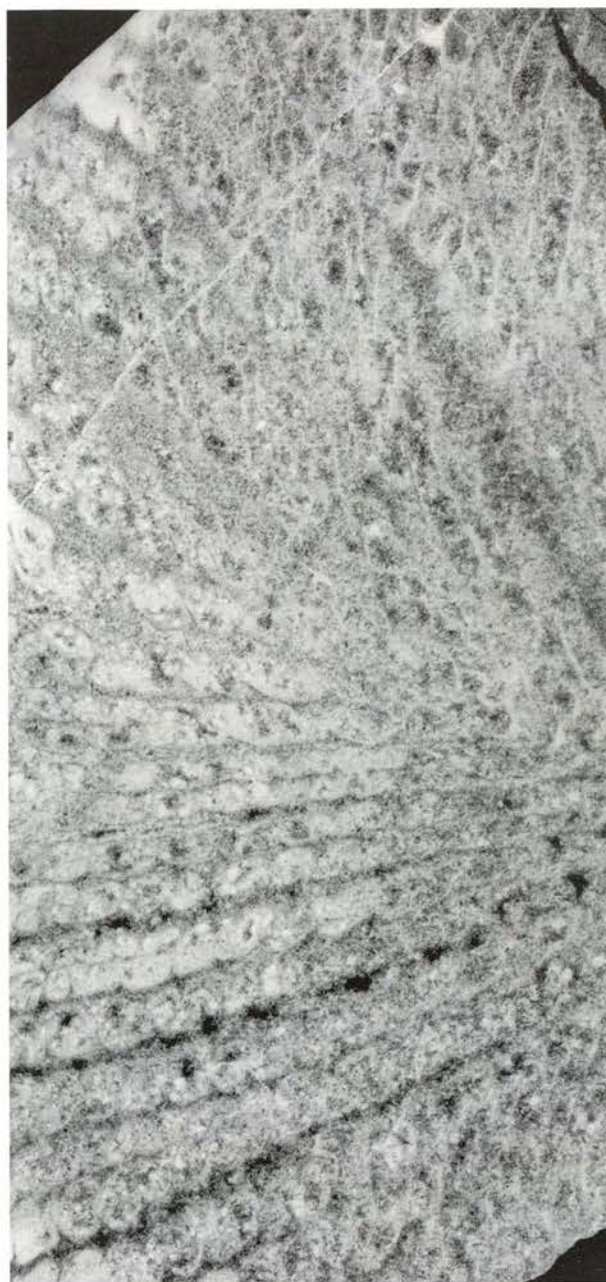
C: microstructure, ?medium-sized trabeculae, poorly preserved; 59/81-1a, x 40.



A



C



B

Protoheterastraea hudajuznensis Turnšek 1982

1982 *Protoheterastraea hudajuznensis* n. sp. TURNŠEK
et al., 71-72, Pl. 5, figs. 1-4, Pl. 6, figs. 1-3.

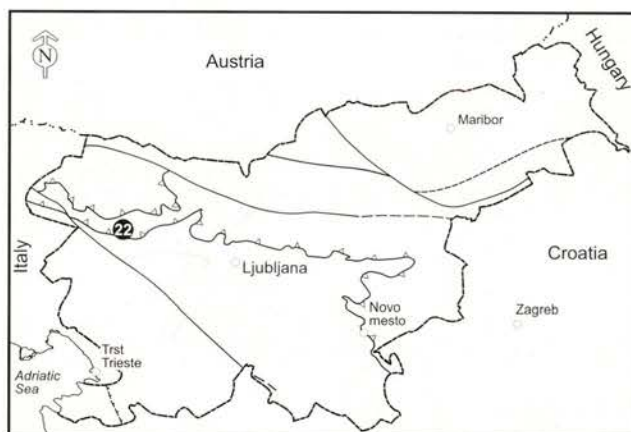
Description: Phaceloid colony with round corallites, budding extracalicular, lateral. Septa irregular hexameral, in 3-4 cycles, axially end in fossula, lateral rare granulae. Main septum exposed, bilateral symmetry. Thick epitheca, tabulate and long dissepiments, microstructure of lamellar fibres. $d = 4-6$ mm, $s = 30-48$.

Locality: 22 Hudajužna (P-761 holotype, P-746).

Age: T: Carnian (Cordevolian, Julian).

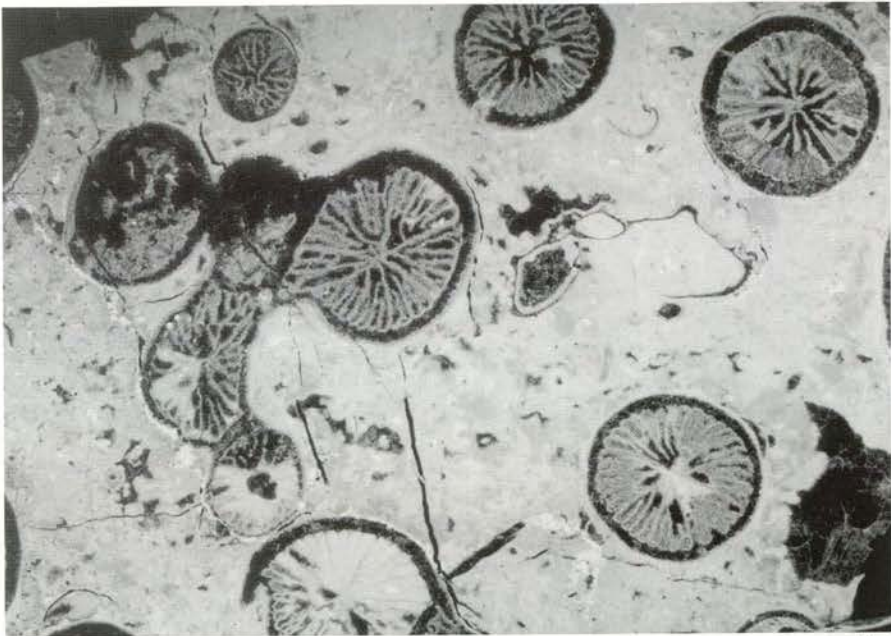
Paleoenvironment: Reef mound within the clastic beds in the Slovenian Basin.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
			Scythian	
	Lower			

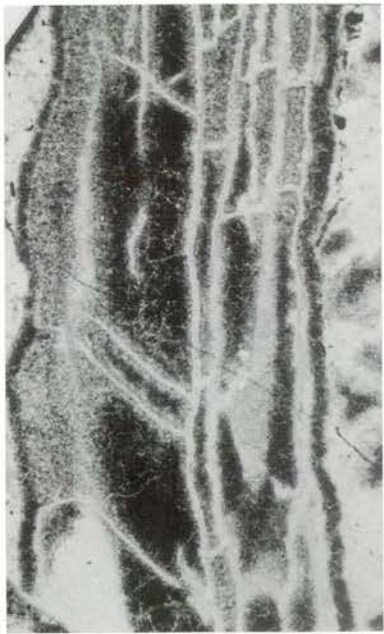


A: transverse section; P-761a, x 4.
B: longitudinal section; P-761b, x 8.
C,D: two details from A, x 8.

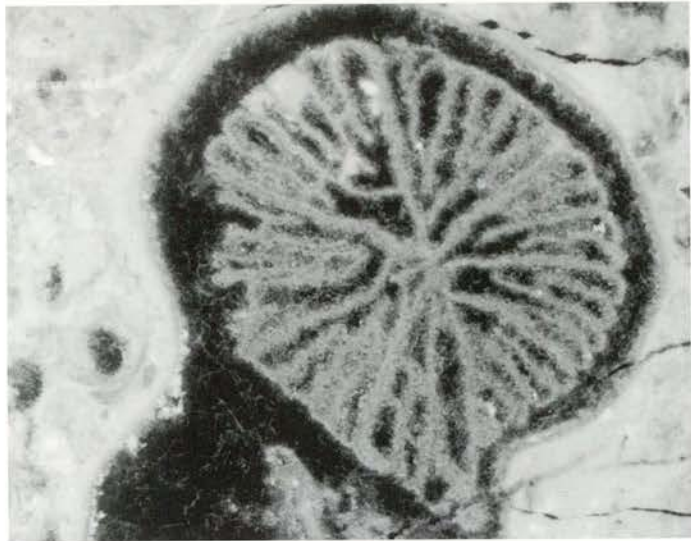
E: microstructure, minitrabeculae and midseptal line in septa, fibres in wall; P-761a, x 20.



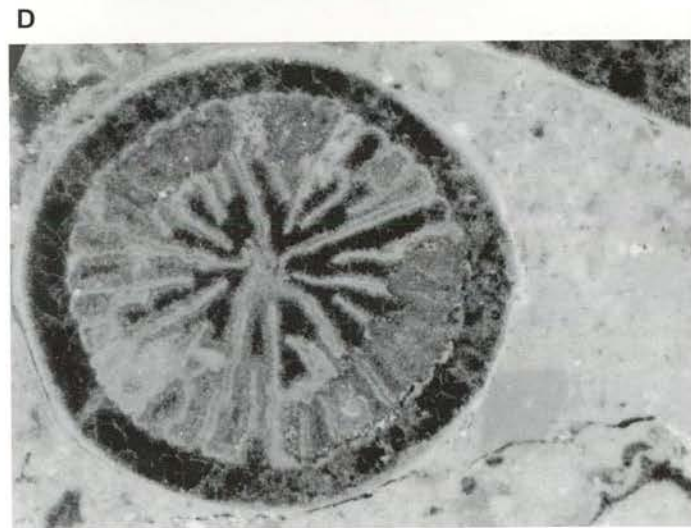
A



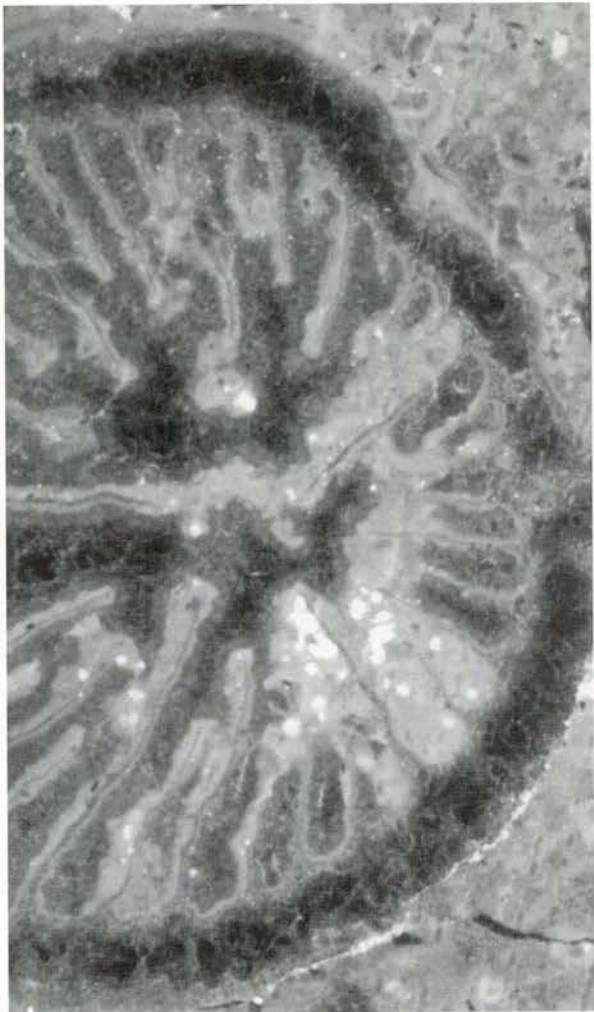
B



C



D



E

Protoheterastraea minor Turnšek 1989

- 1982 *Protoheterastraea* sp. TURNŠEK et al., 72, Pl. 4, figs. 4-5.
 1989 *Protoheterastraea minor* n. sp., TURNŠEK & BUSER, 83-84, Pl. 1, figs. 1-5.
 1994 *Protoheterastraea minor* Turnšek. TURNŠEK & SENOWBARI-DARYAN, 479, Pl. 1, figs. 3-4.

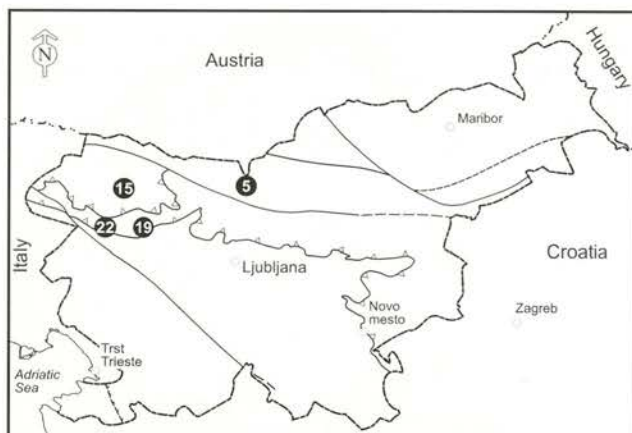
Description: Phaceloid colony, round corallites, budding extracalicular lateral. Septa hexameral, slightly bilateral, in 2-3 cycles. Thick epitheca, thin vesicular dissepiments, no columella, micro-structure lamellar fibrous. $d = 2-2.5(3)$ mm, $cc = 2.5-7$ mm, $s = 20-24$.

Localities: 15 Pokljuka (P-849 holotype), 5 Kamniško sedlo (P-899), 19 Blegoš (P-900), 22 Hudajužna (P-750); Greece (Hydra).

Age: T: Carnian (Julian, Tuvanian).

Paleoenvironment: Reef complex on the Julian Carbonate Platform, and reef mound in the Slovenian Basin.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvanian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	

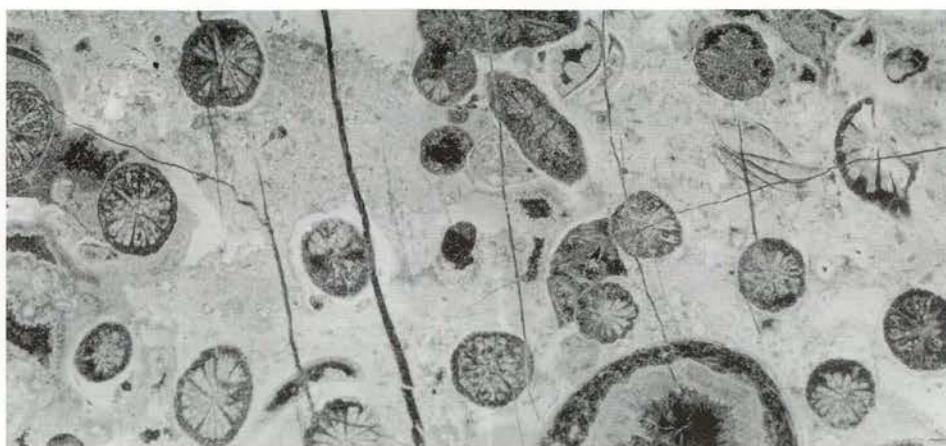


A: surface from above; P-849, x 1.
 B: transverse section; P-849a, x 4.
 C,D: two details from B, x 8

E: longitudinal section; P-849b, x 4.
 F: detail from D, x 15.
 G: transverse section of one corallite; P-849a, x 15.



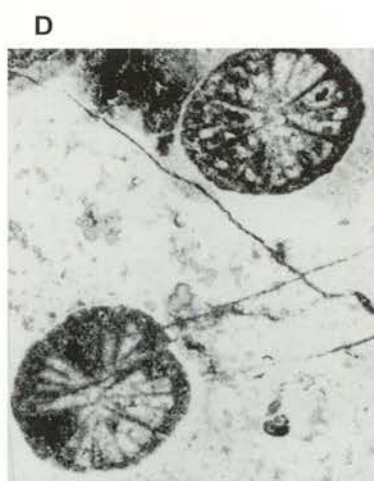
A



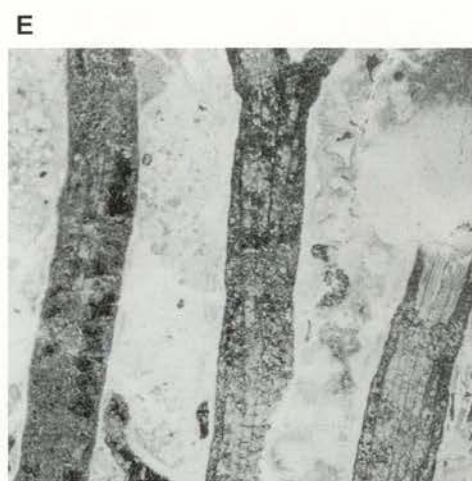
B



C



D



E



F



G

»*Protoheterastraea*« *razorensis* Turnšek 1991

1991 *Protoheterastraea razorensis* n. sp. RAMOVŠ & TURNŠEK, 182, Pl. 2, figs. 1-3, Pl. 3, figs. 1-2.

Description: Phaceloid colony, round corallites, budding extracalicular, lateral. Septa in irregular hexameral system, in 2-3 cycles, laterally granulated, axially joint with »traverses« forming fossula. Thick epitheca (or septotheca?), vesicular and tabulate dissepiments, no columella, microstructure recrystallized. d (with wall) = 3-4 mm, d (inside the wall) = 2-2.7 mm, wall = 0.4-0.8 mm, s = 20-24.

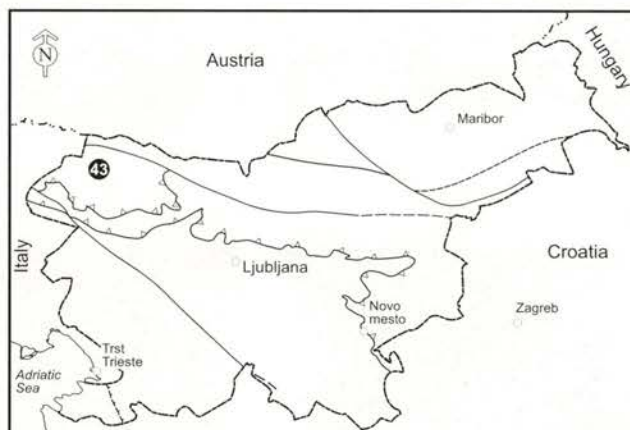
Remarks: RONEWICZ (personal comm.) is of the opinion that this species could belong to some other genus. It is very similar to *Smilostylia* Roniewicz 1996 from the Jurassic.

Locality: 43 Razor (R-18=899 holotype).

Age: T: Lowermost Norian.

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	■
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	



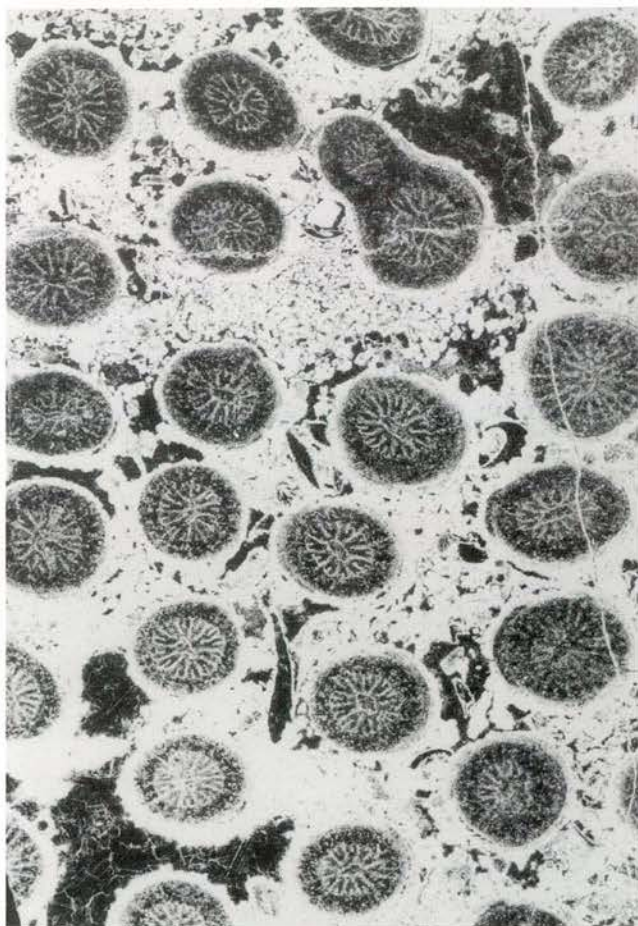
A: transverse section; R-18a, x 4.

B: detail from A, x 8.

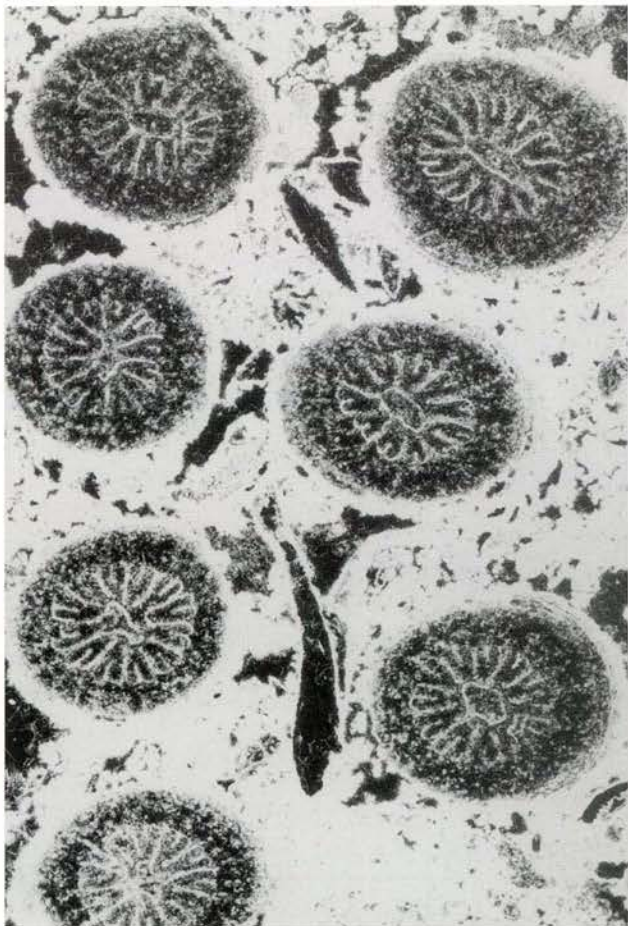
C: detail from B, x 15.

D: transverse section of another corallite, ?fibres in thick wall poorly preserved; R-18a, positive, x 15.

E: longitudinal section; R-18b, positive, x 15.



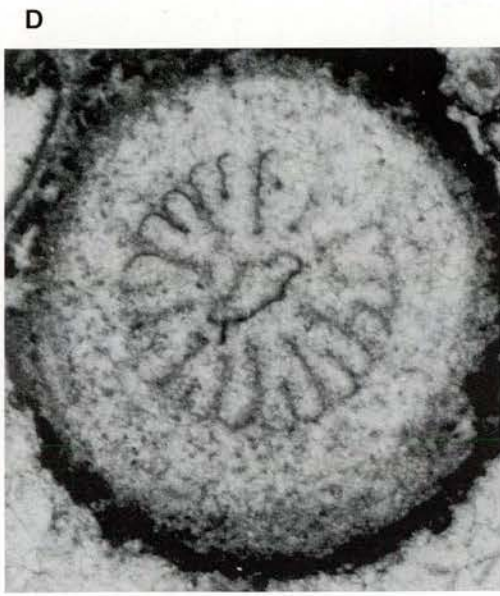
A



B



C



D



E

Pruvostastraea labyrinthiformis Alloiteau 1957

- 1957 *Pruvostastraea labyrinthiformis* nov. sp., ALLOITEAU, 281, Figs. 195-197, Pl. 13, fig. 11, Pl. 17, fig. 1.
 1964 *Pruvostastraea labyrinthiformis* Alloiteau. BEAUVAIS, 202-203.
 1973 *Pruvostastraea labyrinthiformis* Alloiteau. ELIÁŠOVÁ, 276, Pl. 4, figs. 1-3.
 1985 *Pruvostastraea labyrinthiformis* Alloiteau. ROSENDAHL, 72, Pl. 8, fig. 3.

Description: Meandroid cerioid colony, corallites in series, not distinct, budding intracalicular. Septa compact, in 3 cycles, first two very thick, the third very thin, axially rhopaloid (ending in the form of letter T), laterally rare granulated. Septotheca incomplete irregular, columella lamellar, continuous, vesicular and tabulate dissepiments. d ser = ca 10 mm, s = 6-7/5 mm. Similar to *Tskhanarella crassisepta* Siharulidze 1979, 24, which is smaller with scarcer septa (d = 6-7 mm, s = 4-5/5 mm).

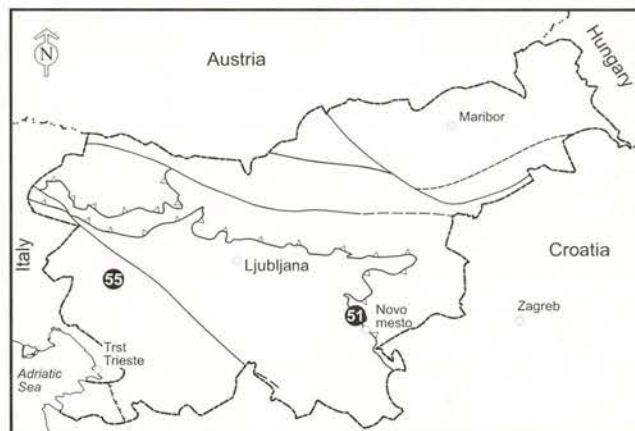
Remarks: The different appearance of specimens depends on their preservation.

Localities: 55 Mrzovec (P-244), 51 Ivanja vas (P-313); France (Ain), Czech R. (Štramberk), Portugal.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian, Tithonian.

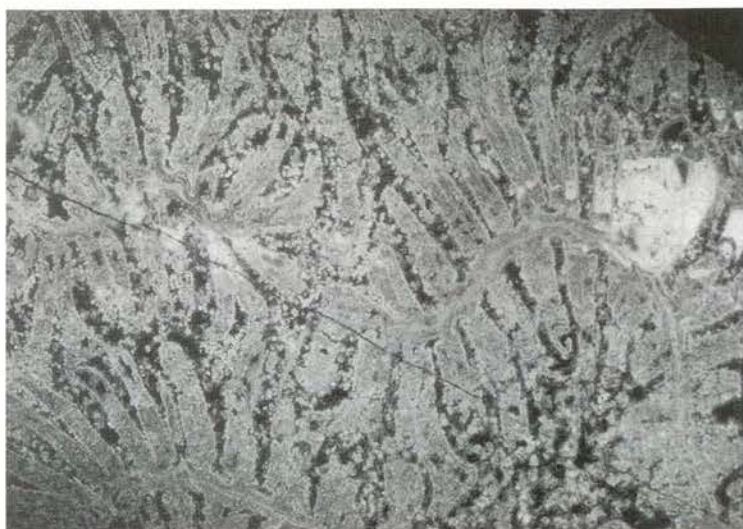
Paleoenvironment: Outer barrier reef of the Dinaric Carbonate Platform.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



- A: transverse section; P-244a, x 4.
 B: longitudinal section; P-244b, x 4.
 C: transverse section; P-313a, x 4.
 D: longitudinal section; P-313b, x 4.

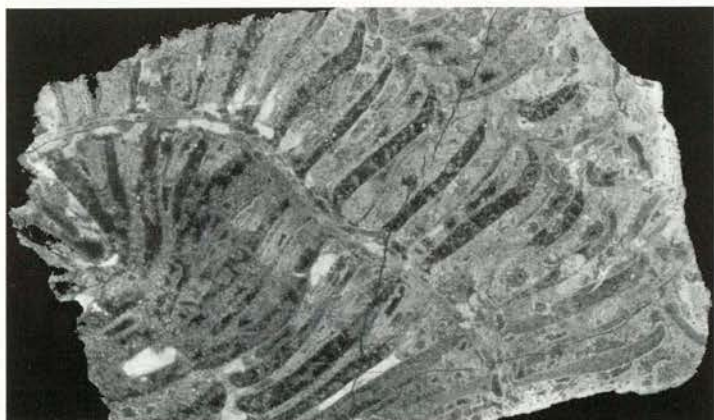
- E: detail from A, x 8.
 F: microstructure, ?medium-sized to thick trabeculae; P-313a, x 40.



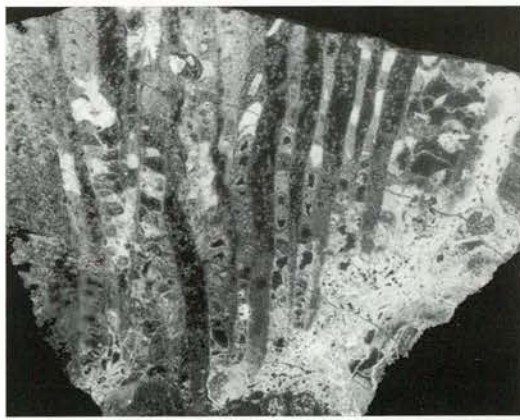
A



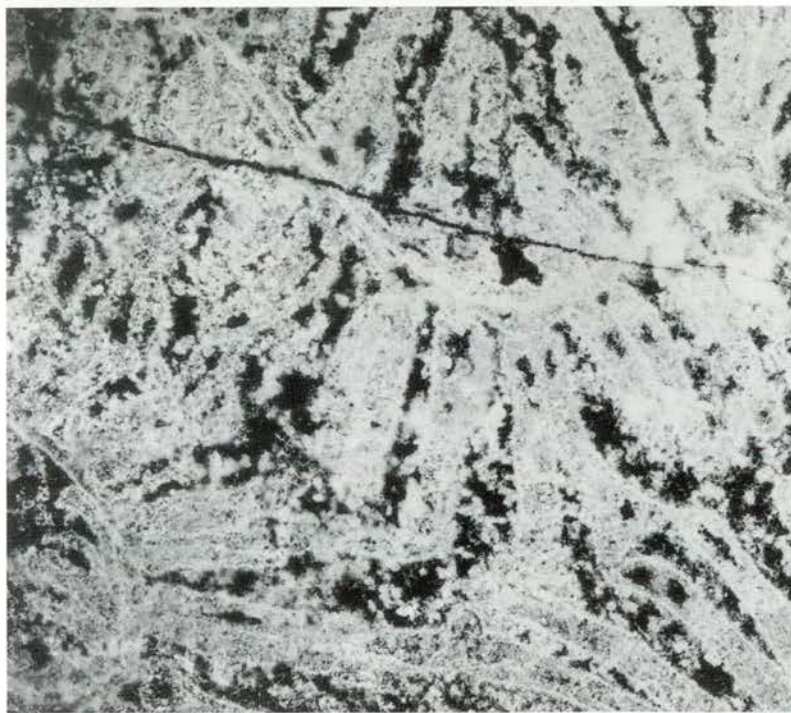
B



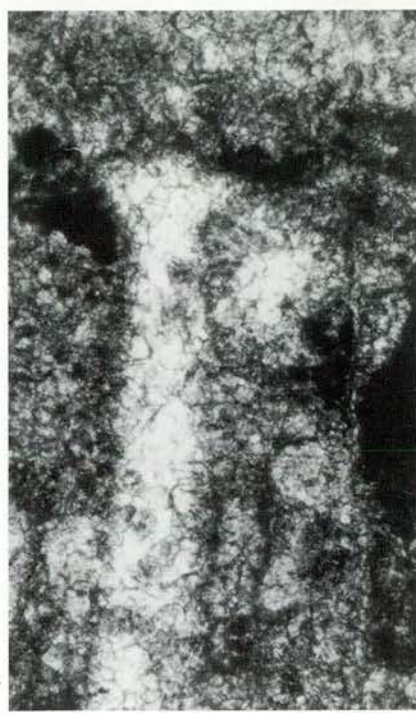
C



D



E



F

Pseudocoenia baltovensis Roniewicz 1966

- 1966 *Pseudocoenia baltovensis* n. sp. RONIEWICZ, 186-187, Pl. 4, fig. 3.
1972 *Pseudocoenia baltovensis* Roniewicz. TURNŠEK, 164-165, Pl. 6, figs. 1-2.

Description: Plocoid colony with round corallites and wide costate perithec, extratentacular budding. Septa octomeral in two irregular cycles, laterally granulated. Septoparatheca, tabulate dissepiments, no columella, microstructure not preserved. $d = 3.5-4$ mm, $c-c = 6-7$ mm, $s = 14-16$.

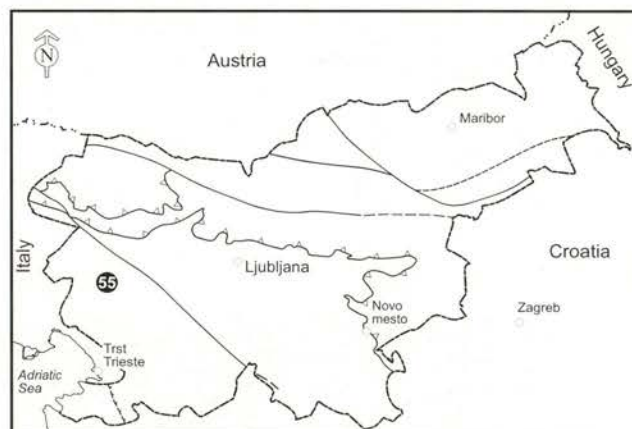
Remarks: RONIEWICZ (1966) put *Cryptocoenia decipiens* as a synonymus into *P. baltovensis*, but ERRENST (1990, 171) recognized it as an independent species. The relationship of *Pseudocoenia* to *Convexastraea* was given by MORSCH (1966).

Localities: 55 Mrzovec (P-477); Poland.

Age: J: Upper Oxfordian-Kimmeridgian; J: Upper Oxfordian.

Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	

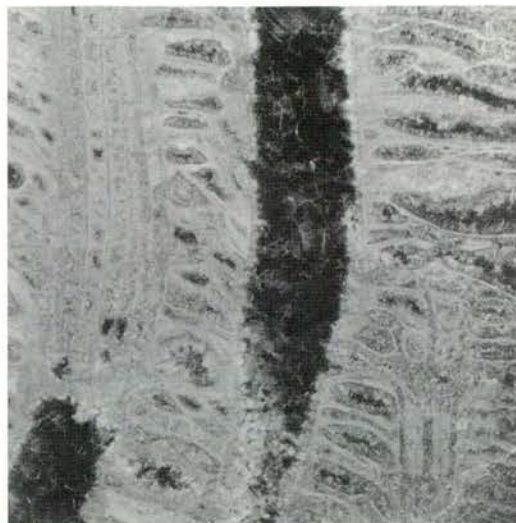


A: transverse section; P-477a, x 4.
B: longitudinal section; P-477b, x 4.
C: the same as A, x 8.

D: microstructure, ?medium-sized trabeculae, somewhere midseptal line; P-477a, x 40.

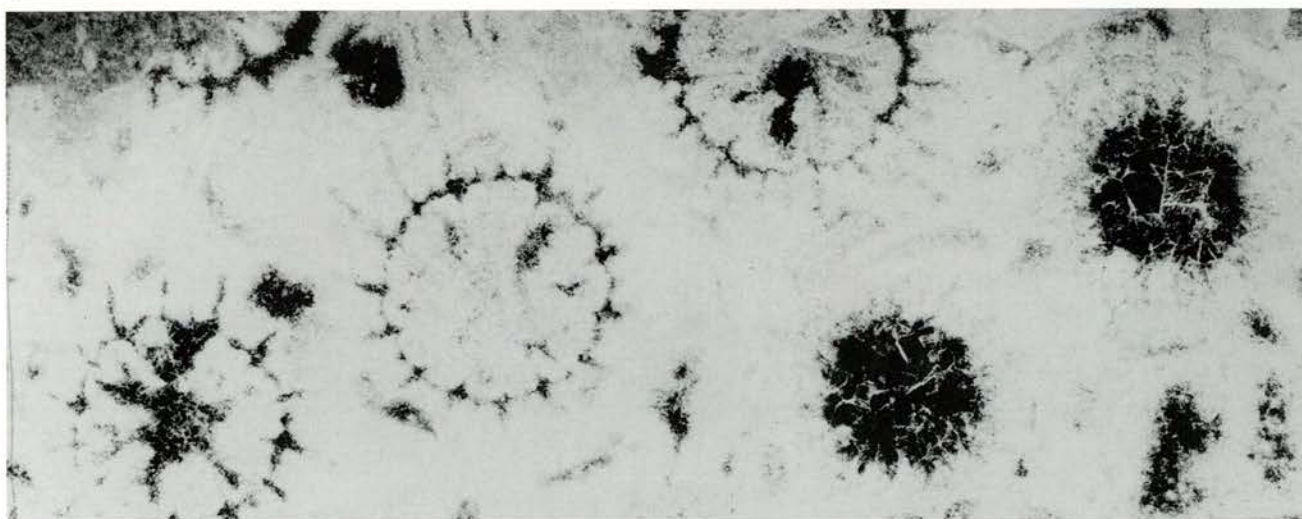


A



B

C



D



Pseudocoenia hexaphyllia (d'Orbigny) 1850

- 1850 *Cryptocoenia hexaphyllia* d'Orbigny. D'ORBIGNY, 33.
 1931 *Cryptocoenia hexaphyllia* d'Orbigny. COTTREAU, 155, Pl. 61, fig. 2.
 1964 *Cryptocoenia hexaphyllia* d'Orbigny. BEAUVAIS, 126, Pl. 6, fig. 7.
 1966 *Pseudocoenia hexaphyllia* (d'Orbigny). RONIEWICZ, 182-183, Pl. 2, figs. 1-2.
 1972 *Pseudocoenia hexaphyllia* (d'Orbigny). TURNŠEK, 162-163, Pl. 3, figs. 1-2, non fig. 3.
 1973 *Pseudocoenia* cf. *hexaphyllia* (d'Orbigny). TURNŠEK & MIHAJLOVIĆ, 96, Pl. 1, figs. 1-2.
 1976 *Pseudocoenia hexaphyllia* (d'Orbigny). RONIEWICZ, 50, Pl. 4, fig. 3.
 1981 *Pseudocoenia hexaphyllia* (d'Orbigny). TURNŠEK & MIHAJLOVIĆ, 15-16, Pl. 10, figs. 3-4.
 1985 *Pseudocoenia hexaphyllia* (d'Orbigny). ROSENDAHL, 34, Pl. 4, fig. 5.
 1985 *Pseudocoenia hexaphyllia* (d'Orbigny). LIAO & XIA, 137, Pl. 4, fig. 4.
 1990 *Pseudocoenia hexaphyllia* (Orbigny). ERRENST, 169-170, Pl. 3, figs. 4a-b.
 1993 *Pseudocoenia hexaphyllia* (d'Orbigny). LIAO & XIA, 138-139, Pl. 36, figs. 1, 2, 6, 7.

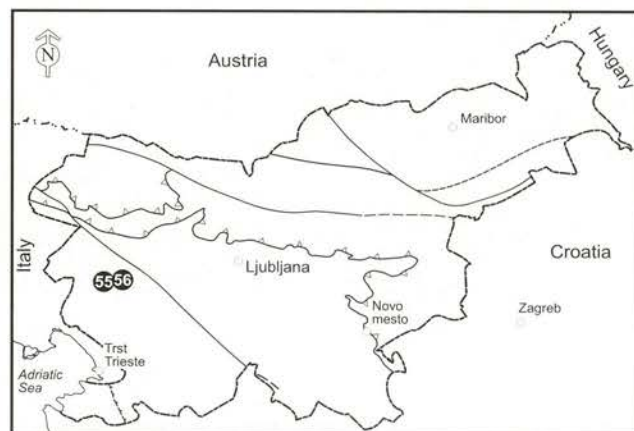
Description: Plocoid colony with round calices, costate peritheca, extratentacular budding. Septa hexameral in 2-3 cycles. Septoparatheca, tabulate dissepiments, no columella. Microstructure poorly preserved, ?trabecular. d=4-6 mm, c-c = 5-7 mm, s = 12+s.

Localities: 56 Ojstrovca (P-443), 55 Mrzovec (P-458, P-462, P-479); Serbia, Poland, France, Romania, Portugal, China (Xizang).

Age: J: Upper Oxfordian-Kimmeridgian; J: Malm.

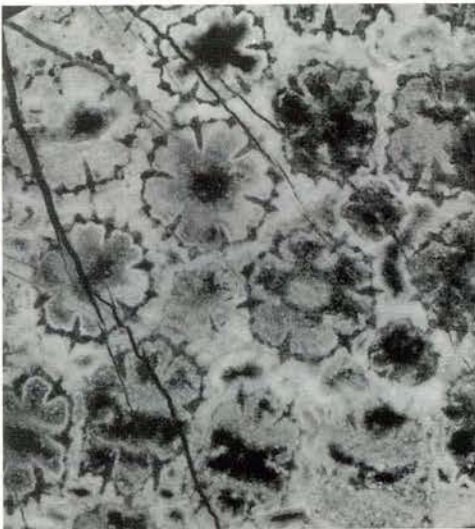
Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	■
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	

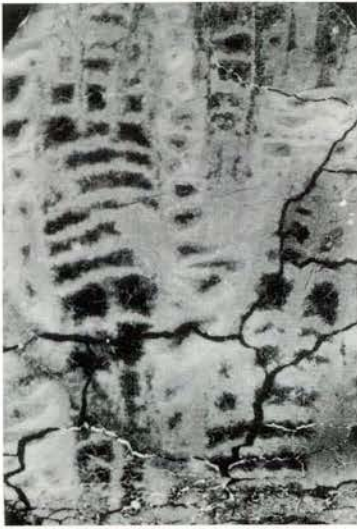


A: transverse section; P-458a, x 4.
 B: longitudinal section; P-458b, x 4.
 C: detail from A, x 8.
 D: transverse section; P-462a, x 4.

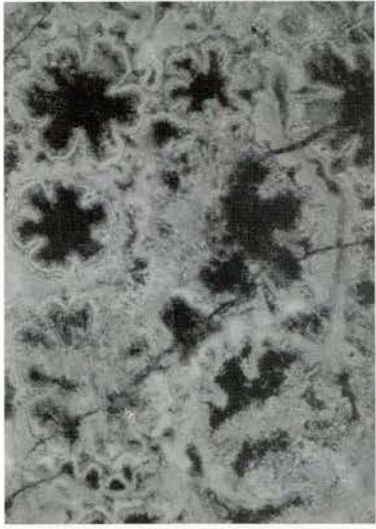
E: longitudinal section; P-462b, x 4.
 F: longitudinal section of another corallites; P-458b, x 8.
 G: microstructure, ?medium-sized or thick trabeculae; P-458a, x 40.



A



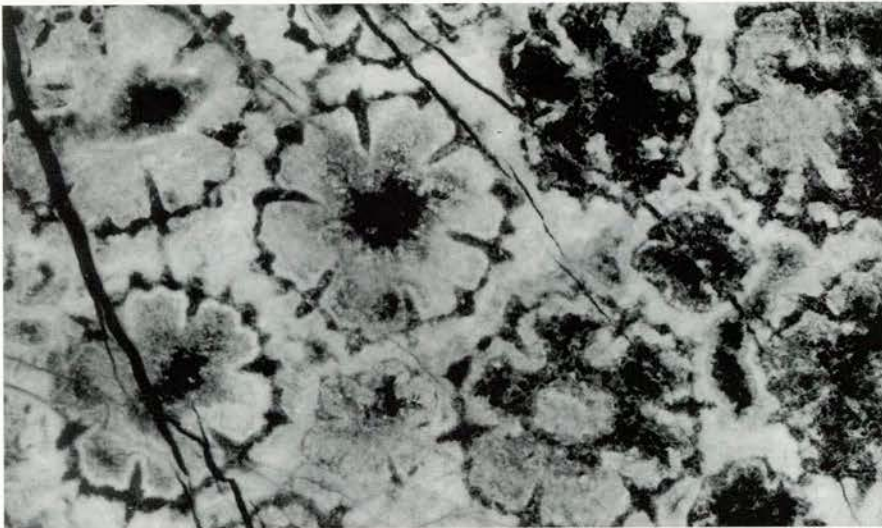
B



C

D

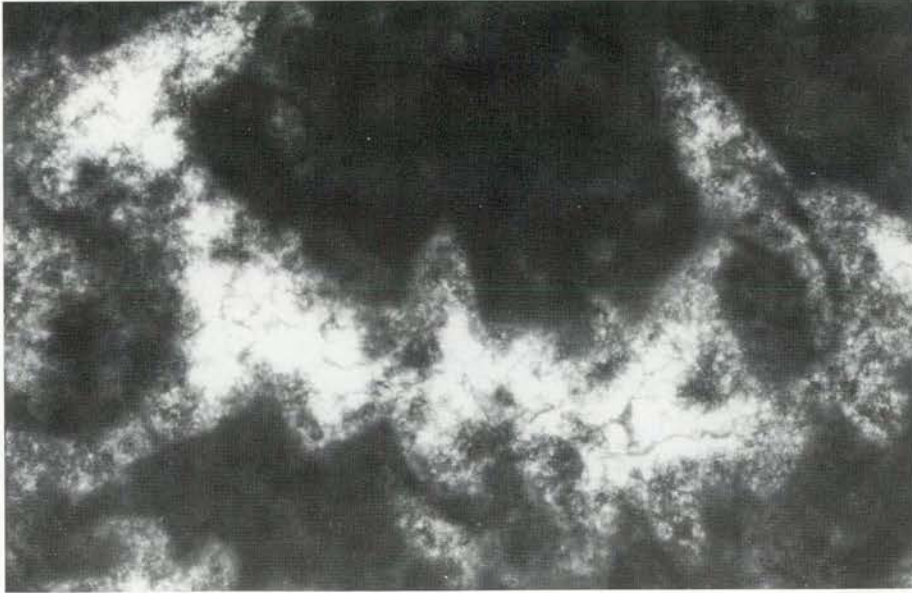
E



F



G



Pseudocoenia limbata (Goldfuss) 1826

- 1829 *Astrea limbata*. GOLDFUSS, 110-111, Pl. 38, fig. 7.
 1875 *Stylina limbata* Goldfuss. BECKER, 144.
 1881 *Cryptocoenia limbata* Goldfuss. KOPY, 94, Pl. 21, figs. 1-5.
 1954 *Stylina limbata* (Goldfuss). GEYER, 132.
 1955a *Stylina limbata* (Goldfuss). GEYER, 323.
 1964 *Stylina limbata* (Goldfuss). BEAUVAIS, 133, Pl. 6, fig. 5.
 1966 *Pseudocoenia limbata* (Goldfuss). RONIEWICZ, 183, Pl. 3, figs. 1a-d.
 1976 *Pseudocoenia limbata* (Goldfuss). RONIEWICZ, 51, Pl. 6, figs. 1a-c, 2.
 1982 *Cryptocoenia limbata* (Goldfuss). BENDUKIDZE, 12-13, Pl. 2, figs. 2a-c, Pl. 6, fig. 6.
 1985 *Pseudocoenia limbata* (Goldfuss). ROSENDAHL, 35.
 1990 *Pseudocoenia limbata* (Goldfuss). ERRENST, 170-171, Pl. 3, fig. 6.
 1993 *Pseudocoenia limbata* (Goldfuss). DOZET & TURNŠEK, 69, Pl. 1, fig. 3 (not fig. 4).

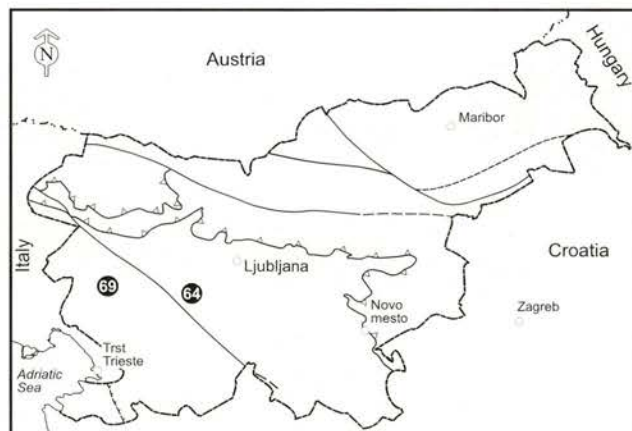
Description: Plocoid colony has branching form, round corallites, costate peritheca. Septa in octomeral system in 2 cycles. Septoparatheca, no columella, tabulate and vesicular dissepiments. $d = 1.8-2.2$ mm, $cc = 3-4$, $s = 16+s$.

Localities: 64 Logaška planota (P-952, P-967), 69 Selovec (P-973); Spain, Portugal, Switzerland, France, Poland, Germany, Romania, Crimea, Caucasus.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian.

Paleoenvironment: Inner barrier reef of the Dinaric Carbonate Platform.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse and longitudinal sections; P-952a, x 4.

B: detail from A, x 8.

C: longitudinal and partly transverse oblique section; P-967a, x 4.

D: longitudinal section; P-967b, x 4.

E: microstructure, ?thick trabeculae in periphery and minitraculae with line in septa; P-967a, x 40.



A

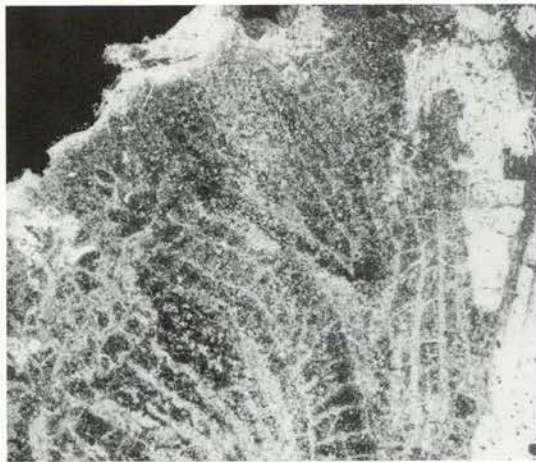


B

C



D



E



Pseudocoenia radisensis (d'Orbigny) 1850

- 1850 *Pseudocoenia radisensis* d'Orbigny. D'ORBIGNY, 33.
 1931 *Cryptocoenia radisensis* d'Orbigny. COTTREAU, 157, Pl. 61, fig. 5.
 1966 *Pseudocoenia* cf. *radisensis* (d'Orbigny). RONIEWICZ, 182.
 1972 *Pseudocoenia radisensis* (d'Orbigny). TURNSEK, 163, Pl. 3, figs. 3-5.
 1976 *Pseudocoenia radisensis* (d'Orbigny). RONIEWICZ, 49, Pl. 4, figs. 4ab.
 1982 *Cryptocoenia radisensis* d'Orbigny. BENDUKIDZE, 11-12, Pl. 2, figs. 1ab.
 1990 *Pseudocoenia radisensis* (d'Orbigny). ERRENST, 169, Pl. 3, figs. 3ab.

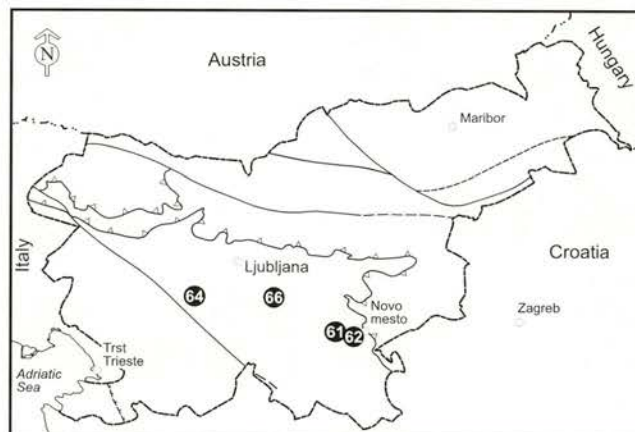
Description: Plocoid colony with round corallites and costate peritheca, extratentacular budding. Septa hexameral, in 2-3 cycles, laterally granulated. Septoparatheca, tabulate dissepiments, no columella, microstructure not preserved. $d = 2.5-3$ mm, $c-c = 2.8-4$ mm, $s = 12+s$.

Localities: **61** Frata (P-366, P-405), **62** Frata-Brezova reber (P-393), **66** Luče (P-371, P-372, P-383), **64** Logaška planota (P-934); France, Poland, Romania, Crimea, Spain.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian.

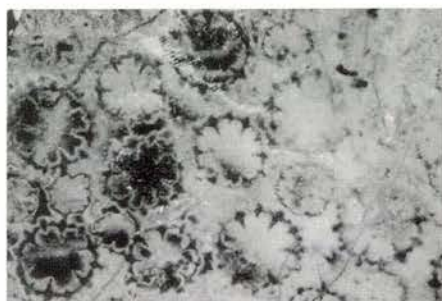
Paleoenvironment: Inner (sheltered) barrier reef on the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-405a, x 4.
 B: longitudinal section; P-405b, x 4.
 C: the same as A, x 8.
 D: transverse section; P-383a, x 4.

E: oblique longitudinal section; P-383b, x 4.
 F: detail from B, x 8.
 G: microstructure, ?medium-sized or thick trabeculae; P-405a, x 40.



A



B



C



D



E



F



G

Pseudocoenia slovenica Turnšek 1972

- 1972 *Pseudocoenia slovenica* n. sp. TURNŠEK, 164, Pls. 4-5.
 1976 *Pseudocoenia slovenica* Turnšek. RONIEWICZ, 48-49, Pl. 5, fig. 5.
 1981 *Pseudocoenia slovenica* Turnšek. ELIÁŠOVÁ, 125, Pl. 8, figs. 3-4.
 1985 *Pseudocoenia slovenica* Turnšek. ROSENDAHL, 34, Pl. 3, fig. 2.
 1990 *Pseudocoenia slovenica* Turnšek. ERRENST, 168, Pl. 3, fig. 1.

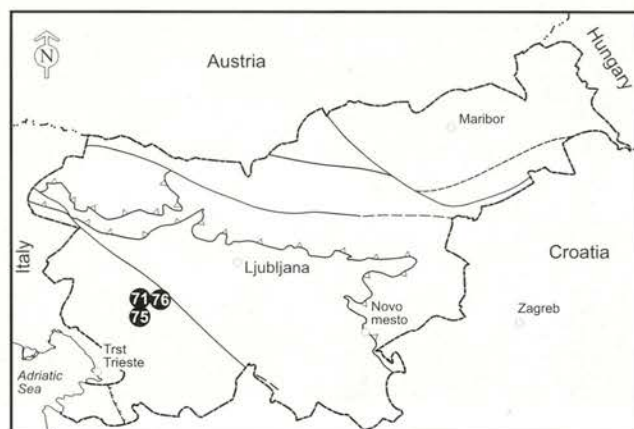
Description: Plocoid colony with round corallites and costate peritheca, extratentacular budding. Septa hexameral in two regular cycles, small lateral granulae. Septotheca, tabulate dissepiments, microstructure of centrated trabeculae. $d = 0.8-1.3$ mm, $c-c = 1-1.5$ mm, $s = 12$.

Localities: 71 Col (P-304 holotype), 76 Vodice (P-286), 75 Nanos (P-958, P-959); Romania, Czech R. (Štramberk), Portugal, Spain.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian-Tithonian.

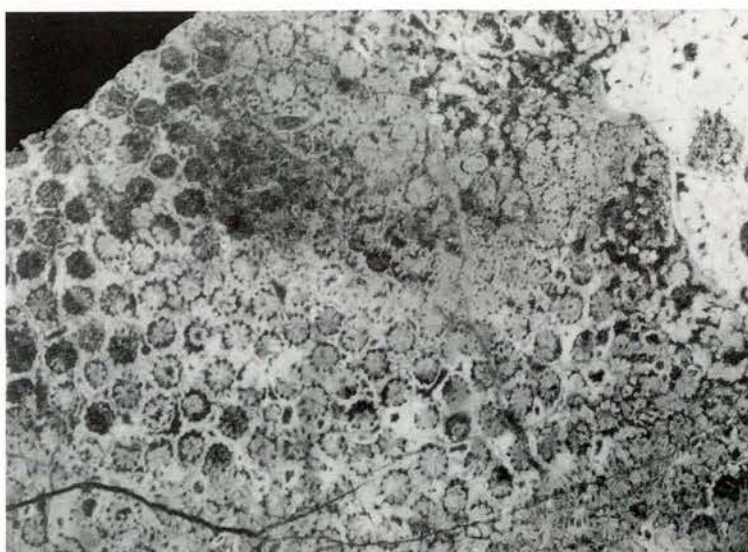
Paleoenvironment: Patch reefs in the back reef area on the Dinaric Carbonate Platform.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-304a, x 4.
 B: longitudinal section; P-304b, x 4.
 C: detail from A, x 8.
 D: detail from B, x 8.

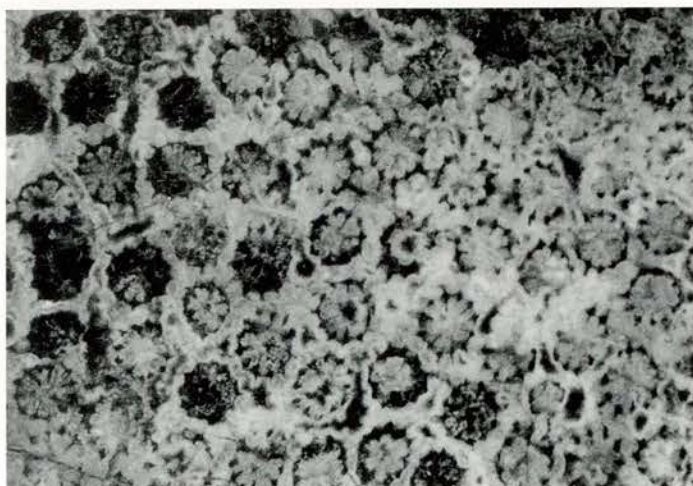
E: microstructure in transverse section, ?medium-sized or thick trabeculae; P-304a, x 40.
 F: microstructure in longitudinal section, not recognizable; P-304b, x 40.



A



B

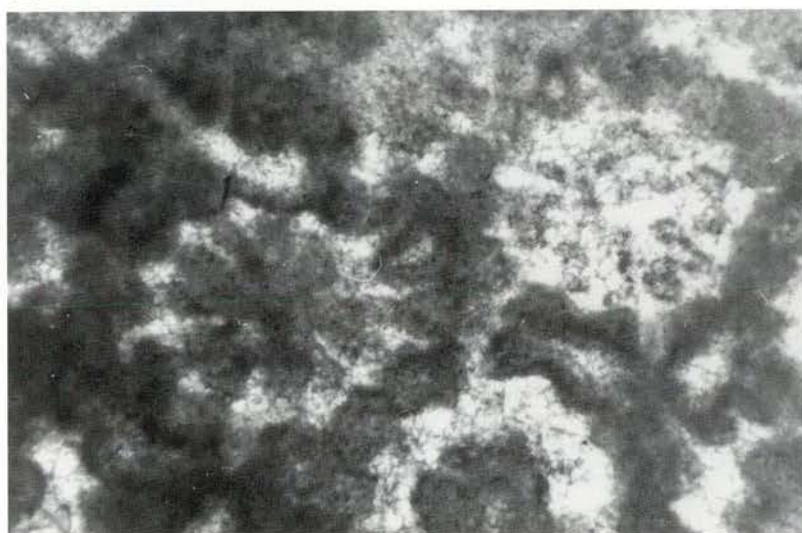


C



D

E



F



Pseudocoeniopsis jurassica (Turnšek) 1972

- 1972 *Columnocoenia jurassica* n. sp. TURNŠEK, 183, Pl. 22, figs. 1-2, Pl. 23, figs. 1-4.
 1976 *Pseudocoeniopsis jurassica* (Turnšek). RONIEWICZ, 54, pl. 7, fig. 3.

Description: Plocoid colony, with round corallites in costate peritheca, budding extratentacular. Septa decamer in two cycles, laterally granulated, axial prolongations form parietal columella. Septoparatheca, tabulo-vesicular dissepiments. $d = 4 \text{ mm}$, $s = 20$.

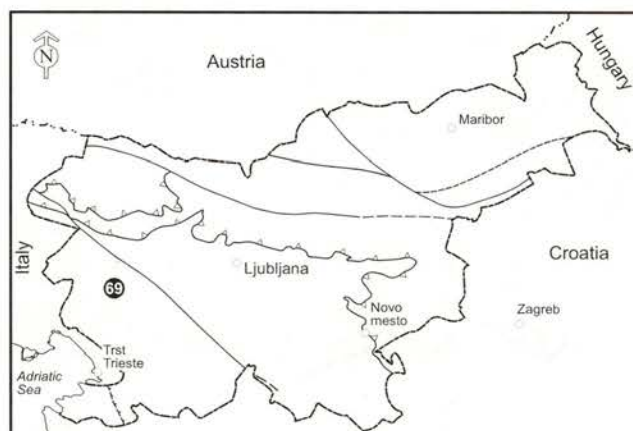
Remarks: *Pseudocoeniopsis* differs from *Columnocoenia* in its parietal columella and in endothea. I agree with the revision of RONIEWICZ (1976).

Localities: 69 Selovec (P-484); Romania (Topalu), Serbia (Skuvija).

Age: J: Upper Oxfordian-Kimmeridgian; J: Kimmeridgian, ?Lower Cretaceous.

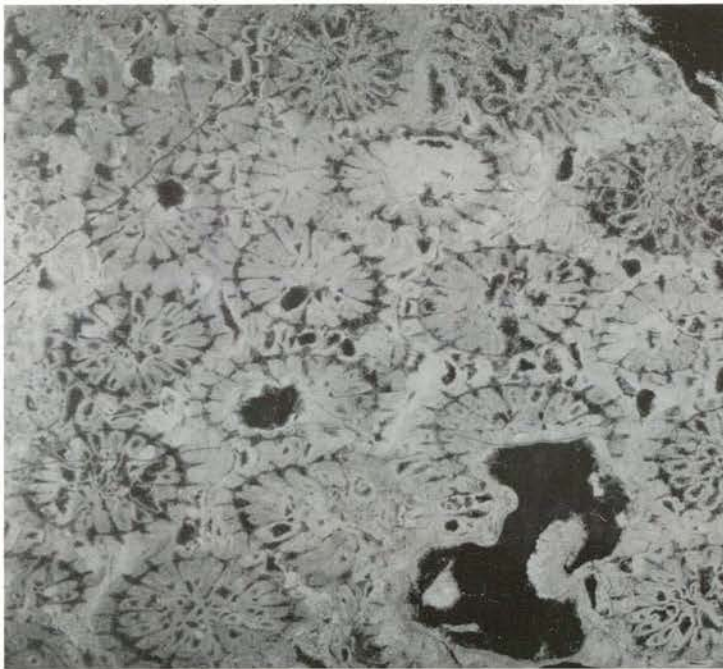
Paleoenvironment: Central barrier reef on the Dinaric Carbonate Platform.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	

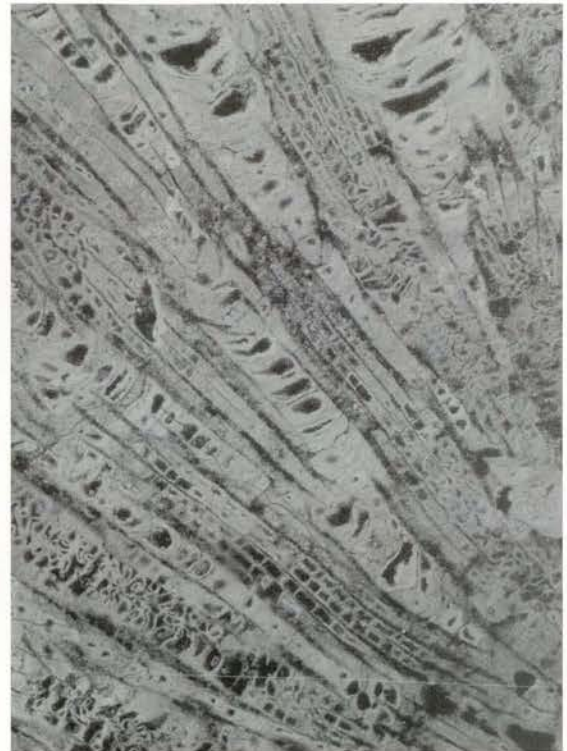


A: transverse section; P-484a, x 4.
 B: longitudinal section; P-484b, x 4.
 C: detail from A, x 8.

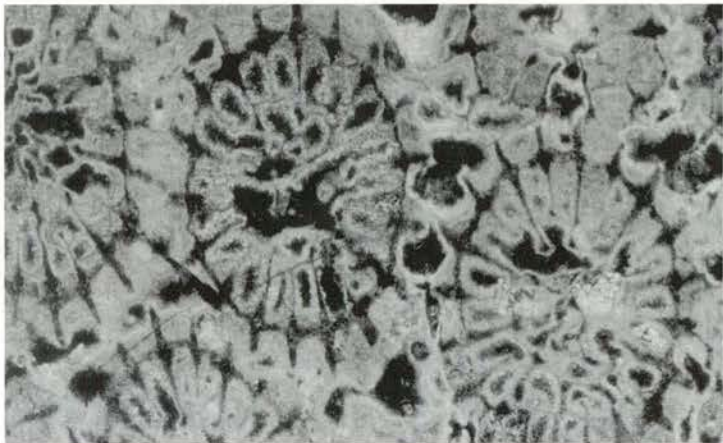
D: detail from B, x 8.
 E: microstructure in transverse section; P-484a, x 40.
 F: microstructure in longitudinal section; P-484b, x 40.



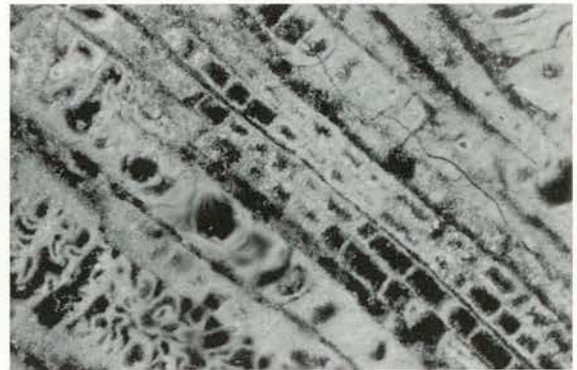
A



B



C



D



E



F

Pseudocoeniopsis longiseptata (Roniewicz) 1966

- 1966 *Pseudocoenia longiseptata* n. sp. RONIEWICZ, 189-190, Pl. 6, fig. 1.
 1972 *Pseudocoenia* aff. *longiseptata* Roniewicz. TURNŠEK, 165, Pl. 6, figs. 3-4.
 1976 *Pseudocoeniopsis longiseptata* (Roniewicz). RONIEWICZ, 52.
 1990 *Pseudocoenia longiseptata* Roniewicz. ERRENST, 173, Pl. 4, fig. 4.
 1993 *Pseudocoenia longiseptata* Roniewicz. DOZET & TURNŠEK, 69, Pl. 1, fig. 4 (not fig. 3).

Description: Plocoid colony with round corallites connected with large costate peritheca, extratentacular budding. Septa of decamerall system in two cycles, laterally granulated. Paratheca, tabulate dissepiments, parietal columella built of axial septal prolongations. Microstructure trabecular, poorly preserved. $d = 2.5-5$ mm, $c-c = 3.5-6$ mm, $s = 20$.

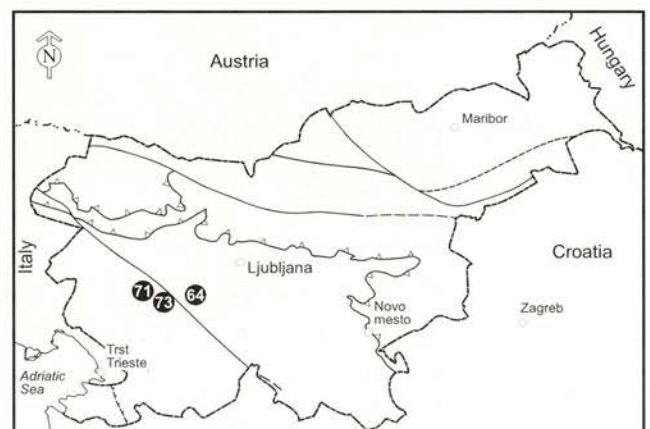
Remarks: RONIEWICZ (1976) revised *Pseudocoenia longiseptata* to her new genus *Pseudocoeniopsis*, ERRENST again to *Pseudocoenia* without explanation. I recognize RONIEWICZ's revision because she worked on original material.

Localities: 71 Col (P-307), 73 Hrušica (P-966), 64 Logaška planota (P-933); Poland, Spain.

Age: J: Upper Oxfordian-Kimmeridgian; J: Upper Oxfordian, Kimmeridgian.

Paleoenvironment: Patch reef in the back reef area and inner reef on the Dinaric Carbonate Platform.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovia	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	

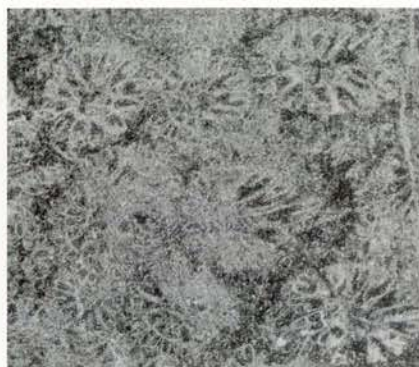


A: transverse section; P-307a, x 4.
 B: longitudinal section; P-307b, x 4.
 C: transverse section; P-966a, x 4.

D: longitudinal section; P-966b, x 4.
 E: microstructure, medium-sized and minitrabeculae, midseptal line; P-307a, x 40.



A

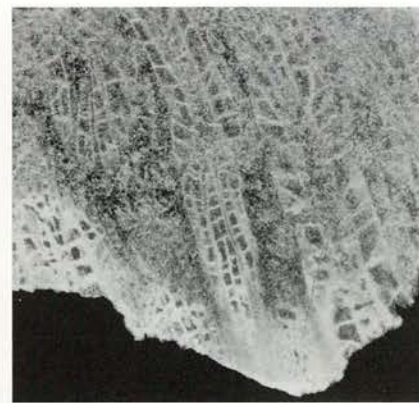


C

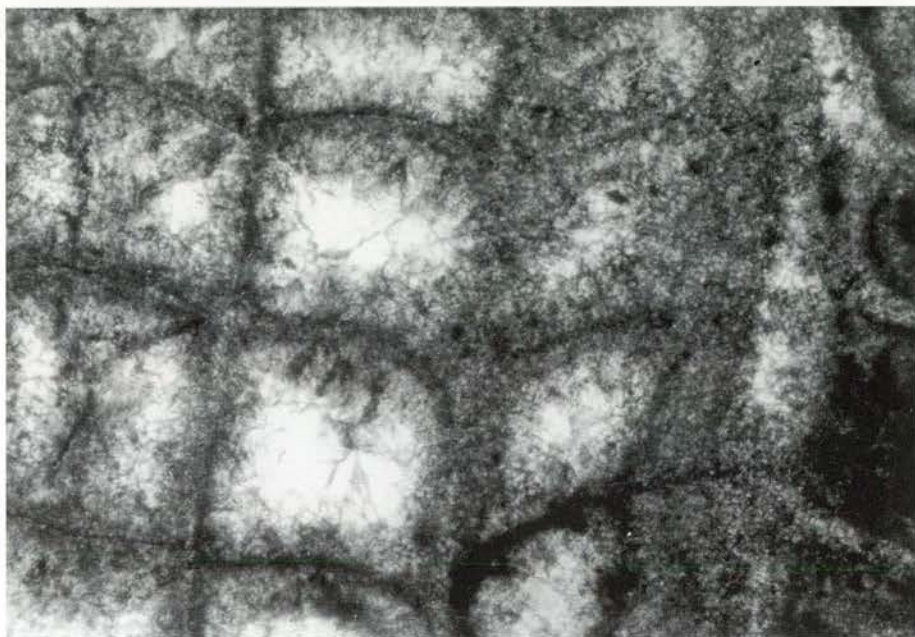
B



D



E



Pseudofavia grandiflora (Reuss) 1854

- 1854 *Parastraea grandiflora* n. sp. REUSS: 120, Pl. 16, fig. 10.
 1903 *Parastraea grandiflora* REUSS. FELIX, 181-182, Textfig. 7.
 1914 *Parastraea grandiflora*. FELIX, 242.
 1930 *Pseudofavia grandiflora* REUSS. OPPENHEIM, 65-66, Pl. 40, figs. 5-7.
 1976 *Pseudofavia grandiflora* (Reuss). TURNŠEK & BUSER, 60-61, 81-82, Pl. 18, figs. 1-3.

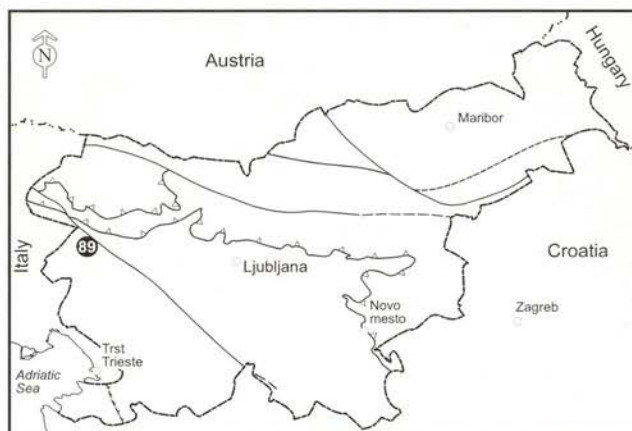
Description: Plocoid colony, corallites round to oval, peritheca narrow. Septa compact in 4-5 cycles, tabulate and vesicular dissepiments, spongy columella. d = 9-12 mm, s = 36-44.

Localities: 89 Kanalski Lom (P-590); Austria (Gosau).

Age: K: Senonian breccia; K: Santonian-Campanian.

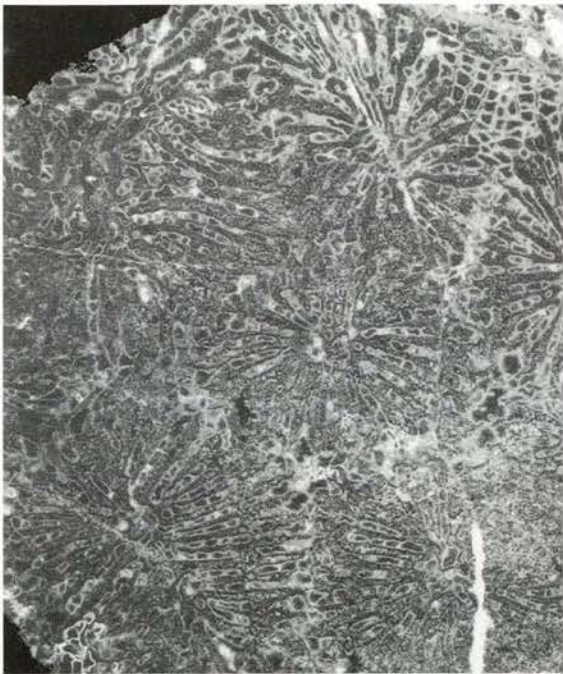
Paleoenvironment: Outer slope of the Dinaric Carbonate Platform. Reef limestone resedimented in breccia.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
		Cenomanian		
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: transverse section; P-590a, x 4.
 B: longitudinal section; P-590b, x 4.
 C: transverse section of another corallites; P-590c, x 4.

D: the same as C, x 8.
 E: microstructure, medium-sized monoaxial and polyaxial trabeculae; P-590c, x 40.



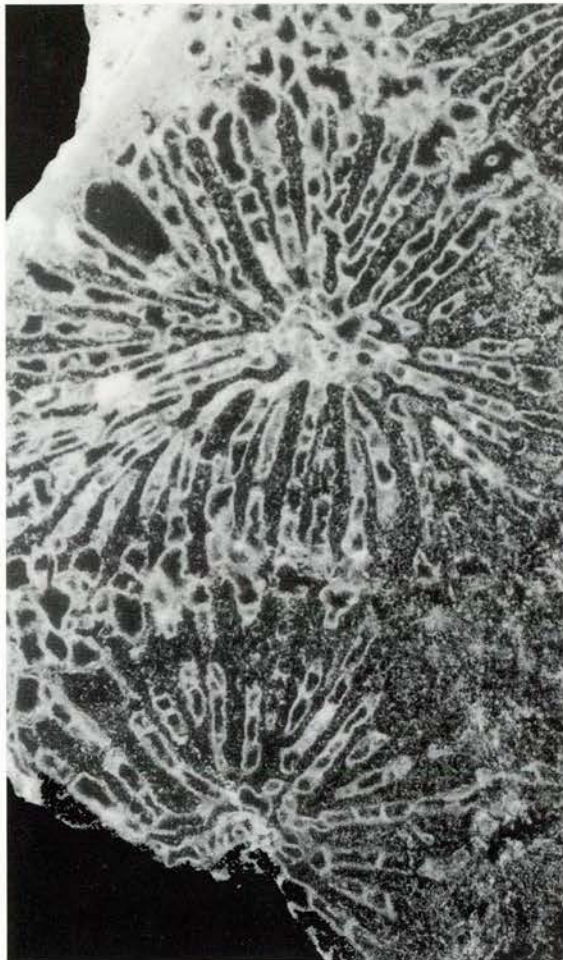
A



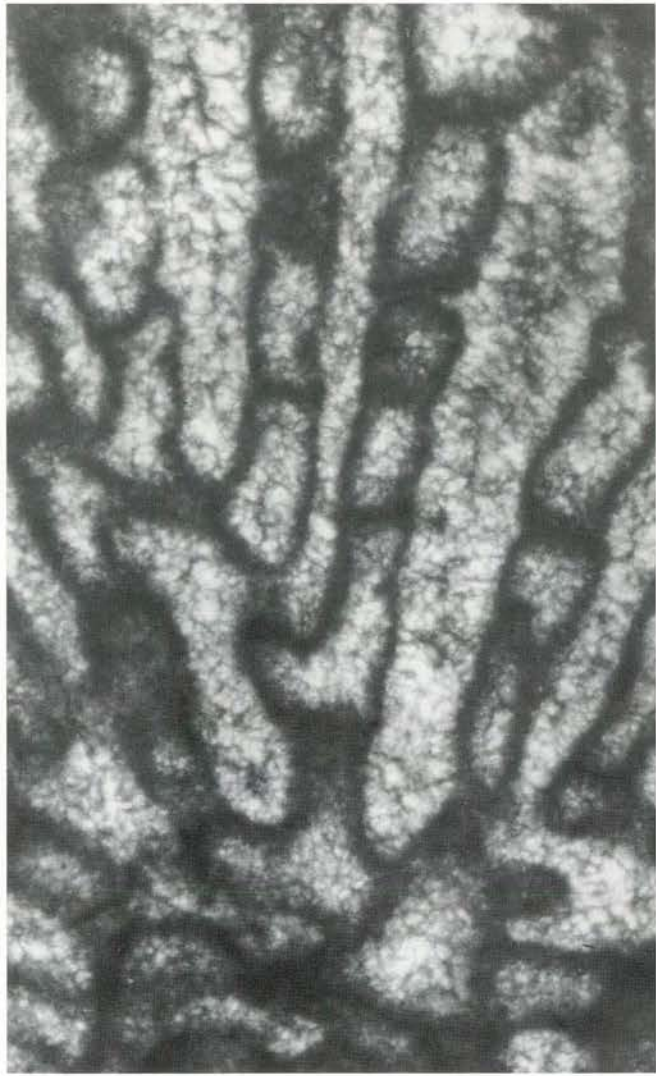
B



C



D



E

Pseudopistophyllum quinqueseptatum Turnšek 1976

- 1976 *Pseudopistophyllum quinqueseptatum* n. sp.
TURNŠEK & BUSER, 53, 77, Pls. 7-9.
1987 *Pseudopistophyllum quinqueseptatum* Turnšek.
REITNER, Pl. 23, figs. 8-9.
1995 *Pseudopistophyllum quinqueseptatum* Turnšek.
LÖSER & RAEDER, 46.

Description: Phaceloid colony with bilateral mitro-dendronid corallites. Septa are 5 and reach almost to the opposite edge of the corallite where they end into an oblong fossula, lateral very rare sharp granulae. Septoparatheca, tabulate and vesicular dissepiments, microstructure ?fibrous, poorly preserved. $d = 3-6$ mm, $s = 5$, density of dissepiments = $2-3/2$ mm.

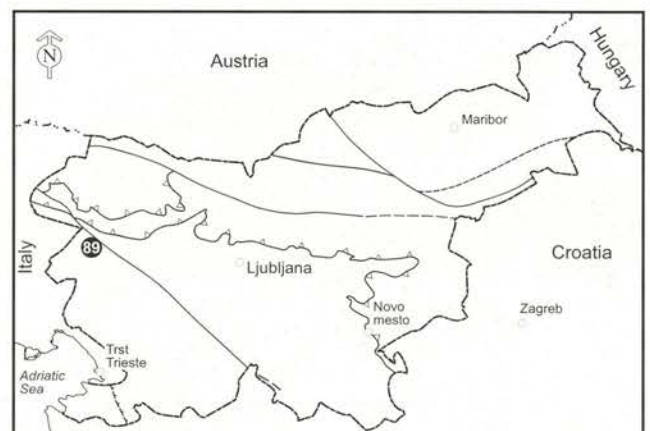
Localities: 89 Kanalski Lom (P-549 holotype, P-548); Spain (Cantabria), Greece.

Age: K: Senonian breccia; K: Aptian-Albian, Cenomanian.

Remarks: The age of the type species is not known. It was found reworked in Senonian breccia; REITNER (1987) found the same species in Albian or Cenomanian beds.

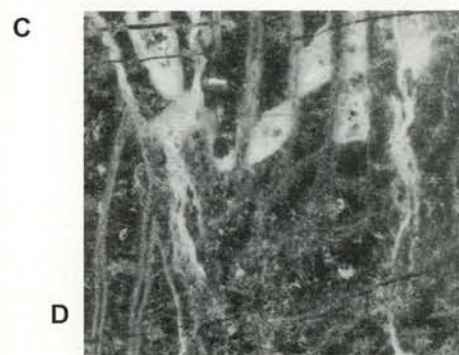
Paleoenvironment: Outer slope of the Dinaric Carbonate Platform. Reef limestone resedimented in breccia.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: transverse section; P-549a, x 4.
B: longitudinal section; P-549b, x 4.
C: detail from A, x 8.

D,E: two details from B, x 8.
F: microstructure, ?fibres, poorly preserved; P-549a, x 40.



Pseudopolytremacis spinoseptata Morycowa 1971

- 1971 *Pseudopolytremacis spinoseptata* n. sp. MORYCOWA, 140-141, Pl. 39, fig. 1, Pl. 40, fig. 2, Textfig. 42.
 1974 *Pseudopolytremacis spinoseptata* Morycowa. TURNŠEK & BUSER, 105, 118-119, Pl. 14, fig. 3.
 1977 *Pseudopolytremacis spinoseptata* Morycowa. MORYCOWA, 20, Pl. 3, fig. 5, Pl. 4, figs. 6-8.
 1993 *Pseudopolytremacis spinoseptata* Morycowa. LÖSER, 213, Textfigs. 2/3, 4/2, 4/4, 4/6.
 1994 *Pseudopolytremacis spinoseptata* Morycowa. LÖSER, 76, Pl. 9, fig. 6. Textfigs. 62, 63.

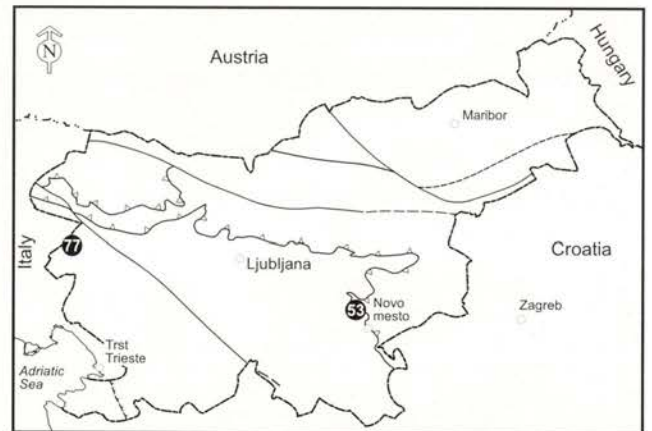
Description: Small massive plocoid colony formed mainly of vermiculate exoskeleton (=peritheca). Corallites are round tubes with reduced septa, which have axial thorns. These are circled by ring. Endotheca is of subtabulate dissepiments or plates. $d = 0.35-0.60$ mm, $cc = 1-2$ mm, $s = 14-17$.

Localities: 77 Osojnica (P-668), 53 Karteljevo (P-283); Romania, Germany.

Age: J: Upper Oxfordian-Lower Kimmeridgian, K: Barremian-Aptian; K: Lower Aptian, Cenomanian.

Paleoenvironment: Reef flat and outer reef at the edge of the Dinaric Carbonate Platform.

CRETACEOUS	Upper	Senonian
		Turonian
		Cenomanian
	Lower	Albian
		Aptian
		Barremian
		Hauterivian
		Valanginian
		Berriasian
Malm	Tithonian	
	Kimmeridgian	
	Oxfordian	

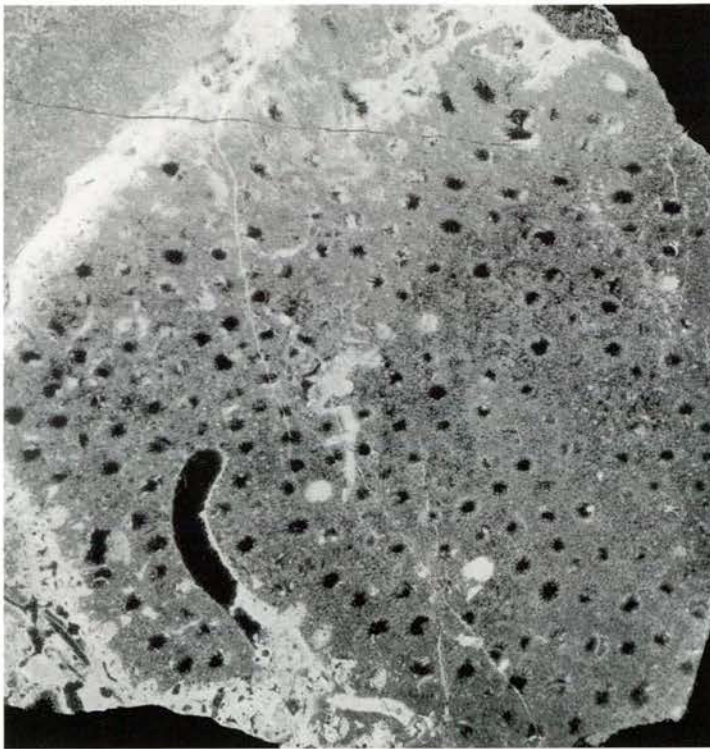


A: transverse section; P-668a, x 4.

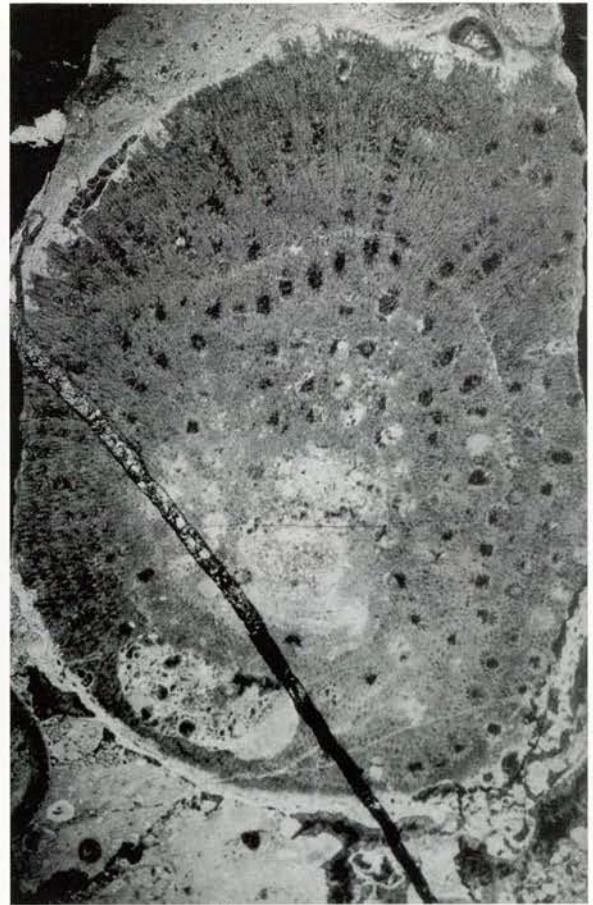
B: transverse and longitudinal radial section; P-283a, x 4.

C: detail from A, x 8.

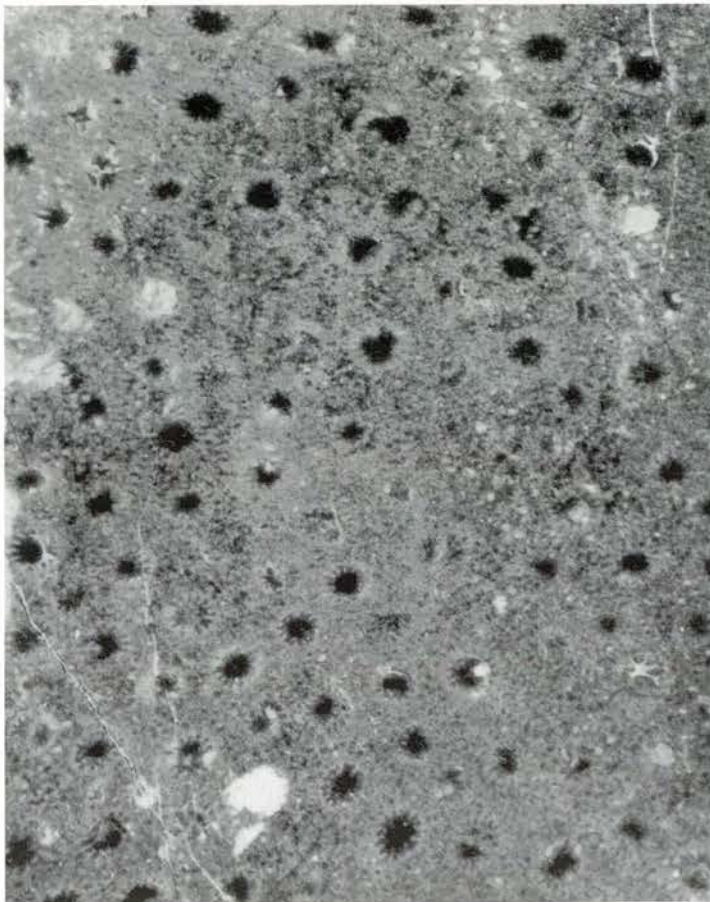
D: detail from B, x 8.



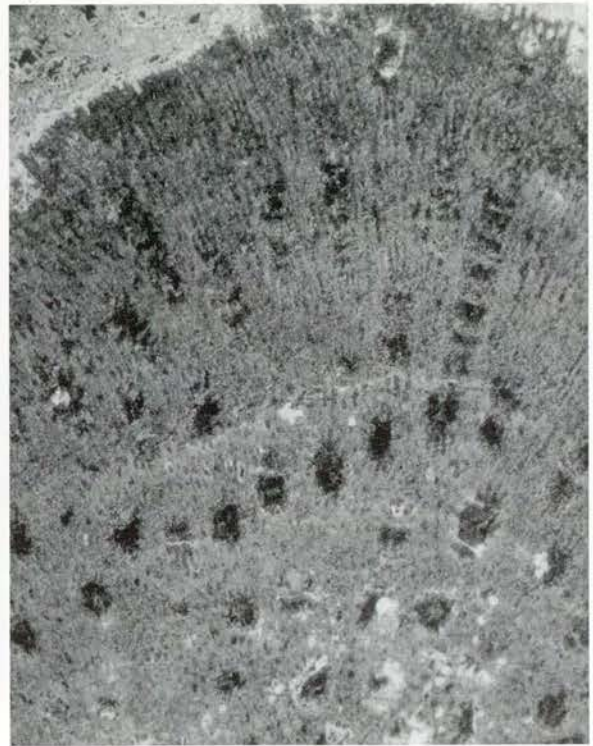
A



B



C



D

Rennensismilia subinduta (Reuss) 1854

- 1854 *Trochosmilia subinduta* n. sp. REUSS, 87, Pl. 5, figs. 15-16.
1903 *Trochosmilia subinduta* Reuss. FELIX, 335-336.
1930 *Trochosmilia subinduta* Reuss. OPPENHEIM, 497-499.
1954 *Trochosmilia subinduta* Reuss. KOLOSVÁRY, 101-102, Pl. 9, figs. 14-16, Pl. 10, figs. 1-2.
1978 *Rennensismilia subinduta* (Reuss). TURNŠEK, 78-79, 110, Pl. 9, figs. 1-8.
1982 *Phyllosmilia subinduta* (Reuss). BEAUVAIS, I, 149-150, Pl. 12, fig. 4.

Description: Solitary flabellate, compressed corallum widens rapidly towards the top, calice oval, inclined, slightly asymmetric. Septa compact, twisted, in 5-6 cycles, laterally rarely granulated. Septotheca, peripheral vesicular dissepiments, no columella, microstructure trabecular, ?fibrolamellar, poorly preserved. h = 20-30 mm, d = 30-45 x 20 mm, s = ca 180.

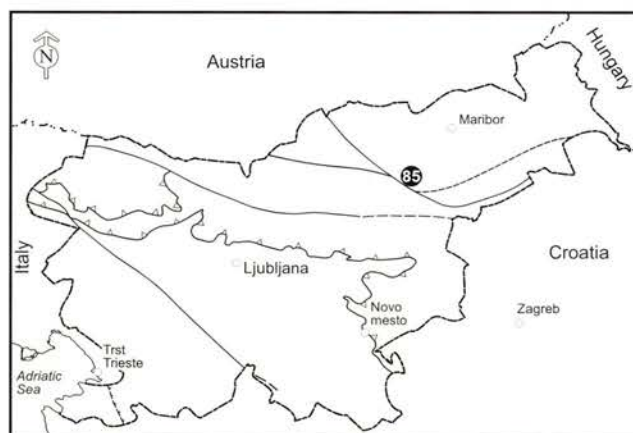
Remarks: Our specimen has no columella, and belongs to the *Rennensismilia*.

Localities: 85 Stranice-Radana vas (W-11); Austria (Gosau), Hungary, Croatia (Medvednica).

Age: K: Santonian-Campanian; K: Santonian-Campanian.

Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: surface from side, W-11, x 1.
B: surface from above, W-11, x 1.

C: the same as A, x 2.
D: the same as B, x 2.



A



B



C



D

Retiophyllia clathrata (Emmrich) 1853

- 1853 *Lithodendron clathratum*. EMMRICH, n. v.
1890 *Thecosmilia clathrata* Emmrich. FRECH, 15-16, Pl. 4, figs. 1-5, 7-11.
1966a *Thecosmilia clathrata* (Emmrich). KOLOSVÁRY, 128.
1966b *Thecosmilia clathrata* (Emmrich). KOLOSVÁRY, 183.
1969 *Thecosmilia clathrata* (Emmrich) forma B. ZANKL, 29, Pl. 9, fig. 1, Textfig. 18.
1974 *Retiophyllia clathrata* (Emmrich). RONIEWICZ, 108, Pl. 4, fig. 1, Pl. 5, fig. 3, Textfig. 7.
1975 *Paradistichophyllum clathratum* (Emmrich). MELNIKOVA, 94-95, Pl. 17, fig. 3.
?1979 *Thecosmilia clathrata* (Emmrich) form B. SCHÄFER, 43-44, Pl. 9, fig. 2.
1980 *Thecosmilia clathrata* (Emmrich). KRISTAN-TOLLMANN et al., 174, Pl. 6, figs. 5-6.
1980 "*Thecosmilia*" *clathrata* (Emmrich) Form B. SENOWBARI-DARYAN, 34, Pl. 1, fig. 1.
?1982 "*Thecosmilia*" *clathrata* (Emmrich) Form B. SENOWBARI-DARYAN et al., 169, Pl. 22, fig. 1.
1987 *Retiophyllia clathrata* (Emmrich). TURNŠEK & RAMOVŠ, 40, Pl. 10, figs. 1-5.
1991 *Retiophyllia clathrata* (Emmrich). RIEDEL, Pl. 26, fig. 5.

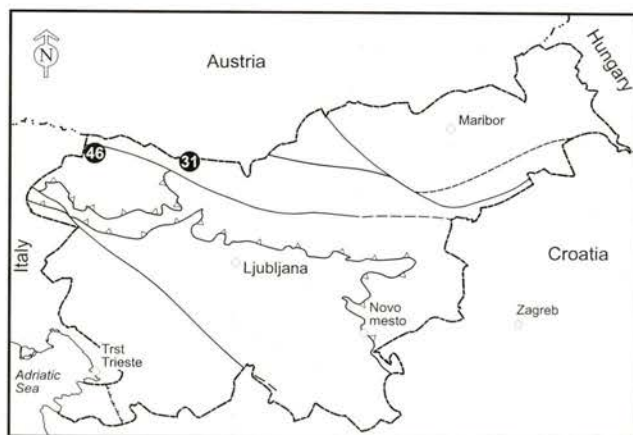
Description: Large phaceloid colonies, with many round to slightly oval corallites. Septa compact, in 4-5 cycles, laterally granulated. Septotheca, vesicular dissepiments, no columella, microstructure trabecular with median line (modern detailed description see at RONIEWICZ 1974). d = 5-8 mm, s = 50-70.

Localities: 46 Šplevta (64/81-1,2, 25/85-8,9,10,A3), 31 Begunjščica (P-982, P-983); Austria, Hungary, Tatre Mt., Iran, Pamir.

Age: T: Upper Norian-Rhaetian; T: Norian-Rhaetian.

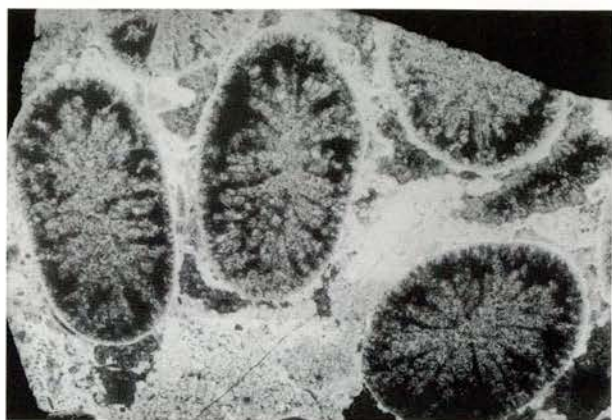
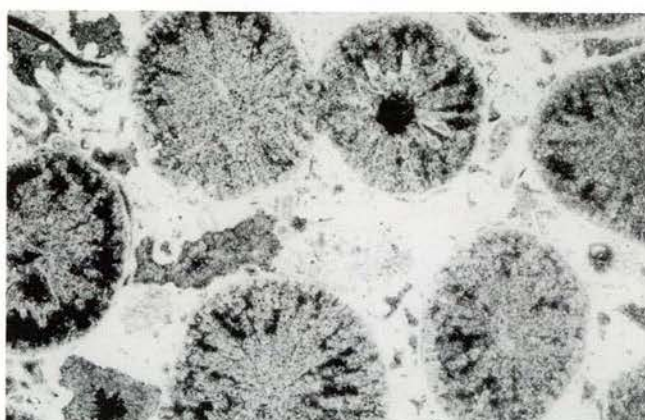
Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
			Scythian	
	Lower			

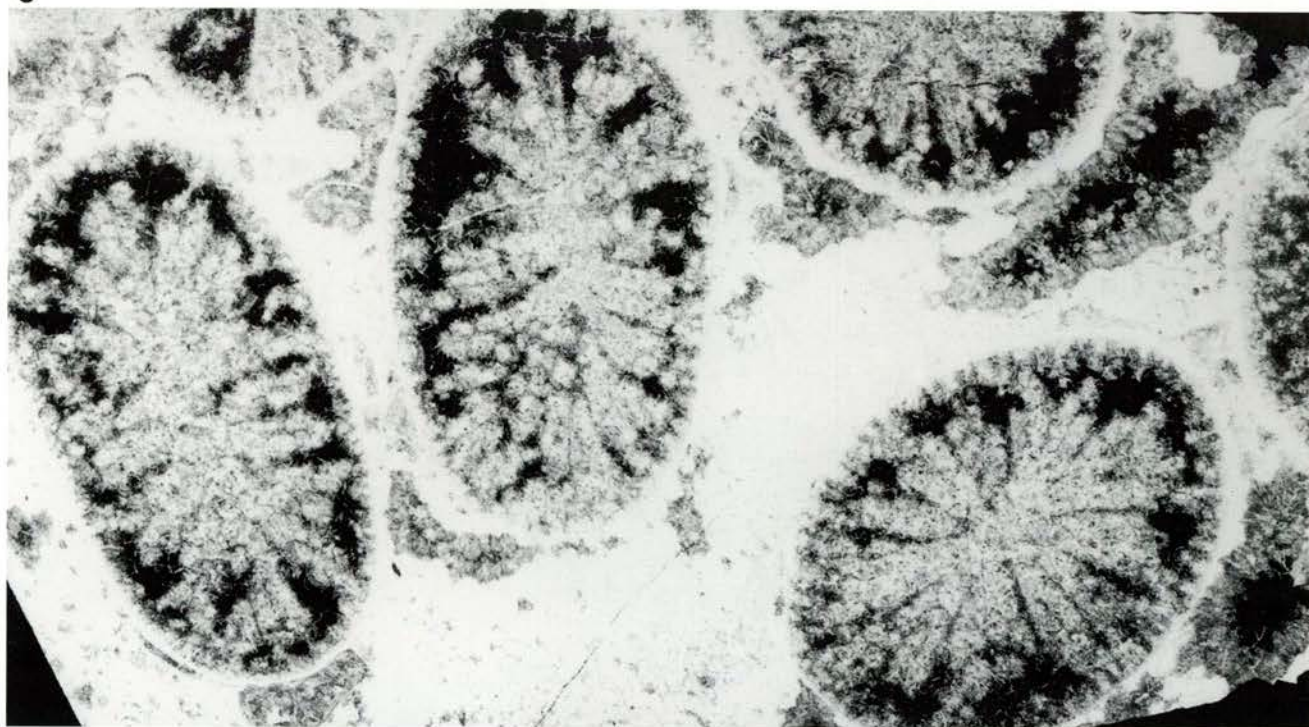


A: transverse section; 25/85-8a, x 4.
B: transverse section; 25/85-10a, x 4.
C: the same as A, x 8.

D: longitudinal oblique section; 64/81-2b, x 4.
E: microstructure, ?thick monoaxial trabeculae, midseptal line in some septa; 25/85-10a, x40.

A
C

B



D

E



Retiophyllia defilippi (Stoppani) 1865

- 1865 *Rhabdophyllia De-Filippi* Stoppani. STOPPANI, 106, Pl. 24, figs. 5-7.
 1890 *Thecosmilia De Filippi* Stoppani. FRECH, 14, Pl. 4, figs. 13-15.
 1966a *Thecosmilia defilippi* Stoppani. KOLOSVÁRY, 127.
 ?1980 *Thecosmilia cf. defilippi* Stoppani. DULLO, 63, Pl. 9, fig. 1.
 1987 *Retiophyllia defilippi* (Stoppani). TURNŠEK & RAMOVŠ, 40-41, Pl. 11, figs. 1-3.

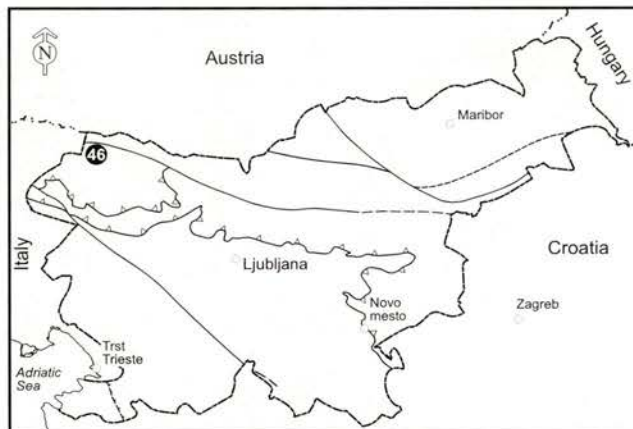
Description: Large phaceloid colony with irregularly branched corallites, in transverse sections triangular, polygonal or irregularly prolonged. Septa compact, in 4-5 cycles, laterally granulated. Septotheca, vesicular dissepiments, no columella, microstructure trabecular. d = 7-9 mm, s = 40-60.

Localities: 46 Šplevta (25/85-2, 5, A5, A6); Italy, Austria, Hungary.

Age: T: Upper Norian-Rhaetian; T: Norian-Rhaetian.

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	

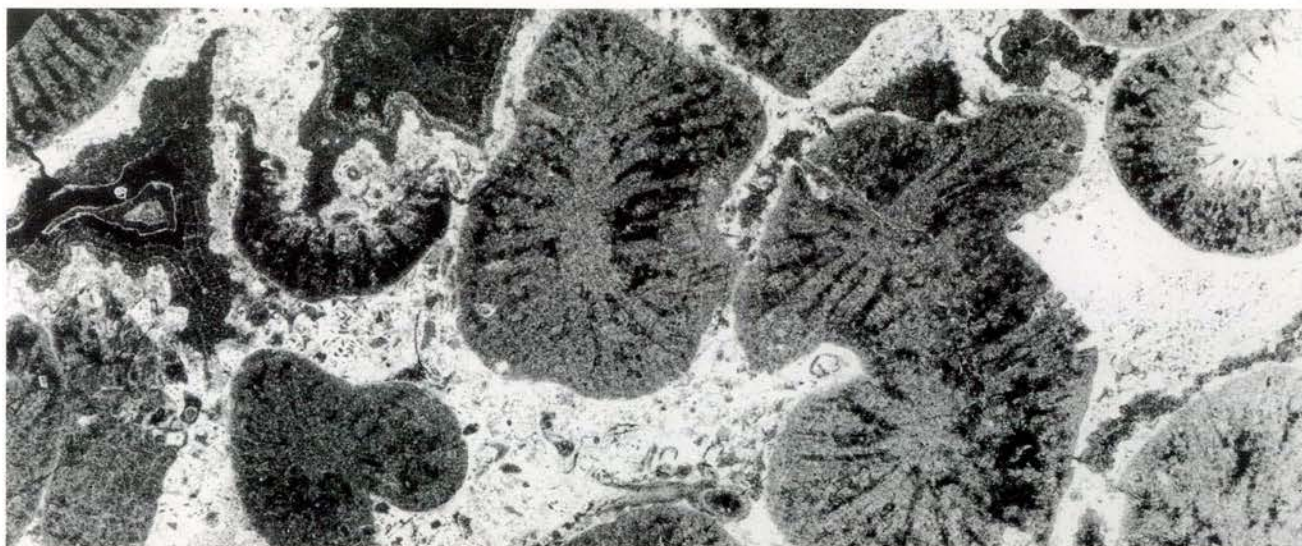


A: transverse section; 25/85-A5a, x 4.

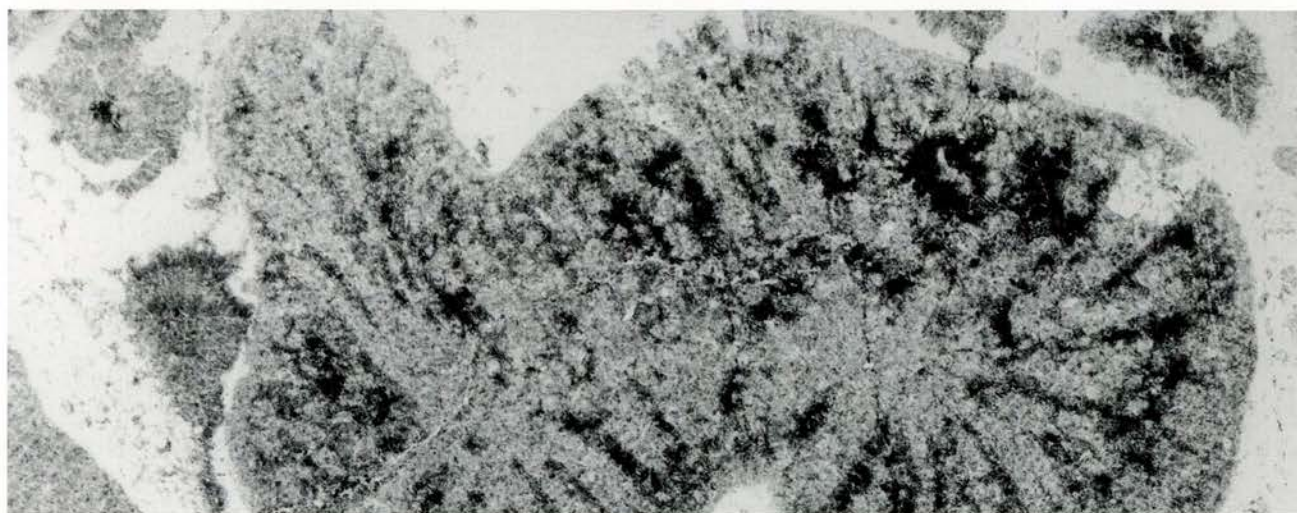
B: detail from A, x 8.

C: transverse section; 25/85-A6a, x 8.

D: microstructure, ?thick trabeculae, recrystallized; 25/85-A5a, x 40.

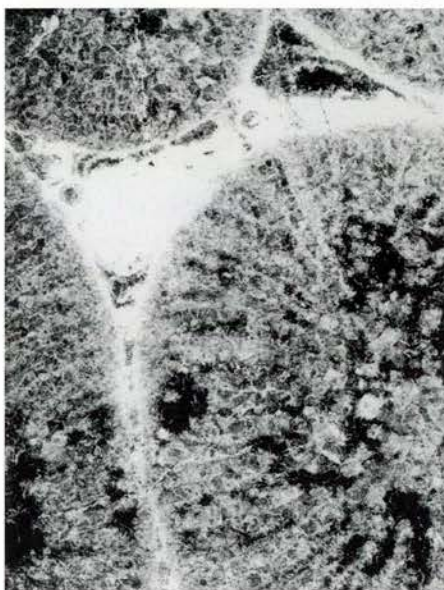


A

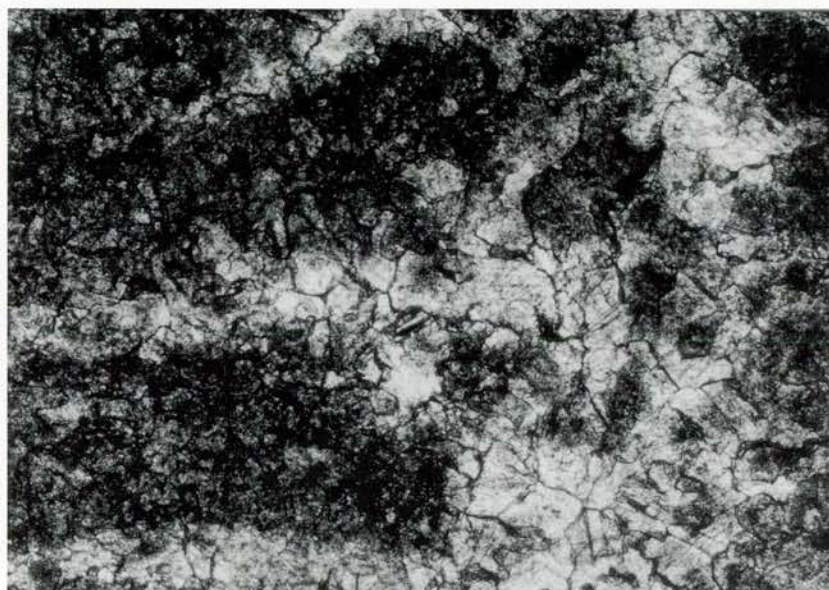


B

C



D



Retiophyllia fenestrata (Reuss) 1854

- 1854 *Calamophyllia fenestrata* n. sp. REUSS, 105, Pl. 5, fig. 20.
 1890 *Thecosmilia fenestrata* REUSS. FRECH, 9-10, Pl. 2, figs. 12, 12a.
 1966 *Retiophyllia fenestrata* (Reuss). CUIF, 125. 130-131, Pl. 4, fig. 4, Textfig. 4.
 ?1972 *Archaeophyllia fenestrata* (Reuss). BEAUVAIS, 311, Pl. 6, figs. 8-10.
 1974 *Retiophyllia fenestrata* (Reuss). CUIF, 369-375, Textfigs. 33-35.
 ?1979 "*Thecosmilia*" *fenestrata* REUSS. STANLEY, 32, Pl. 3, fig. 1.
 1986 *Retiophyllia fenestrata* (Reuss). MATZNER, 9, Pl. 9, fig. 5, Pl. 10, fig. 4.
 1987 *Retiophyllia fenestrata* (Reuss). TURNŠEK & RAMOVŠ, 41, Pl. 11, figs. 4-5.
 1987 *Paradistichophyllum* sp. TURNŠEK & RAMOVŠ, 38, Pl. 7, fig. 5.
 1989 *Retiophyllia fenestrata* (Reuss). RONIEWICZ, 59-61, Pl. 9, fig. 6, Pl. 10, fig. 1, Pl. 13, fig. 1. Synonymy.
 1991 *Retiophyllia fenestrata* (Reuss). TURNŠEK & BUSER, 228, Pl. 3, fig. 1.

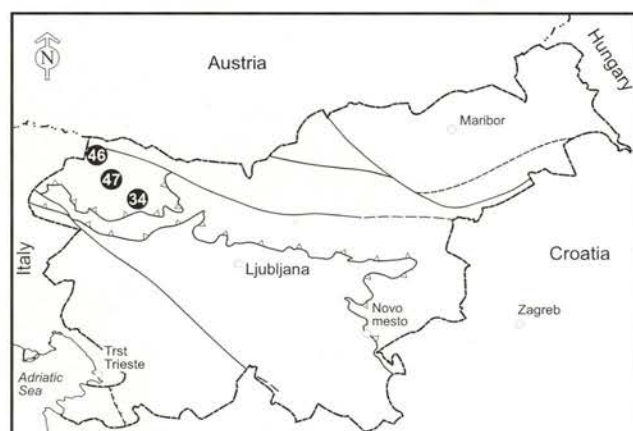
Description: Branched colony with rare round corallites. Septa compact, in 3-4 cycles, laterally granulated. Septotheca, numerous peripheral dissepiments, no columella, microstructure trabecular with irregularly undulate median line. $d = 5-12$, $s = ca 48+s$. Modern description and revision see by RONIEWICZ (1989), where she changed also synonymy a lot.

Localities: 47 Tominškova pot (33/82-1), 46 Šplevta (25/85-1, A3), 34 Bohinj-Boltarje (P-889); Austria.

Age: T: Norian-Rhaetian; T: Norian-Rhaetian.

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
			Scythian	
	Lower			



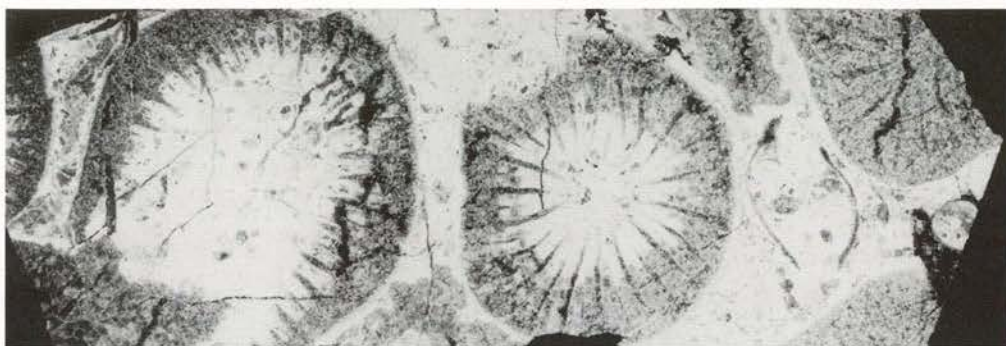
A: transverse section; 25/85-1a, x 4.

B: transverse section of one corallite; 33/82-1a, x 4.

C: transverse section; P-889a, x 4.

D: the same as B, x 8.

E: microstructure, ?medium-sized trabeculae, midseptal line in younger cycles; 25/85-1a, x 40.



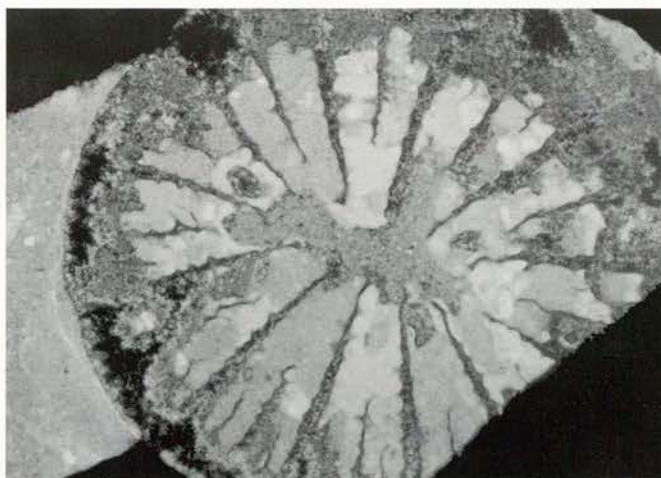
A



B



C



D



E

Retiophyllia gosaviensis Roniewicz 1989

1989 *Retiophyllia gosaviensis* sp. n. RONIEWICZ, 55-56, Pl. 9, fig. 1., Pl. 11, figs. 4-5.

1991 *Retiophyllia gosaviensis* Roniewicz. TURNŠEK & BUSER, 228, Pl. 3, figs. 2-3.

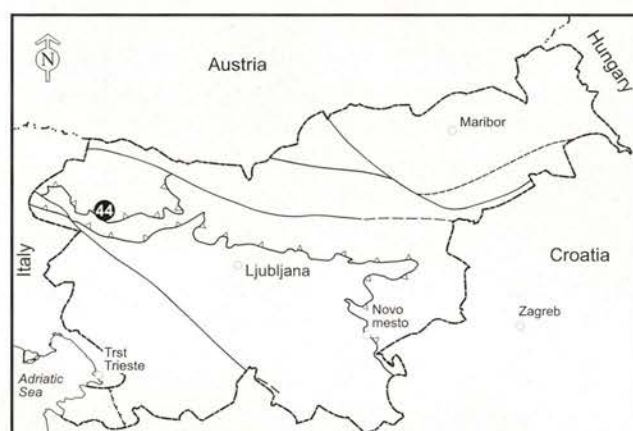
Description: Phaceloid colony with dense round corallites. Septa compact, fusiform, dense, in 4-5 cycles, first axially thickened reach the axis. Septotheca, long dissepiments, no columella, microstructure trabecular. $d = 9-10$ mm, $s = ca 110$ (12/3 mm).

Localities: 44 Rdeči rob (P-907); Austria (Zlambach)

Age: T: Norian-Rhaetian; T: Rhaetian.

Paleoenvironment: Reef body at the southern edge of the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	

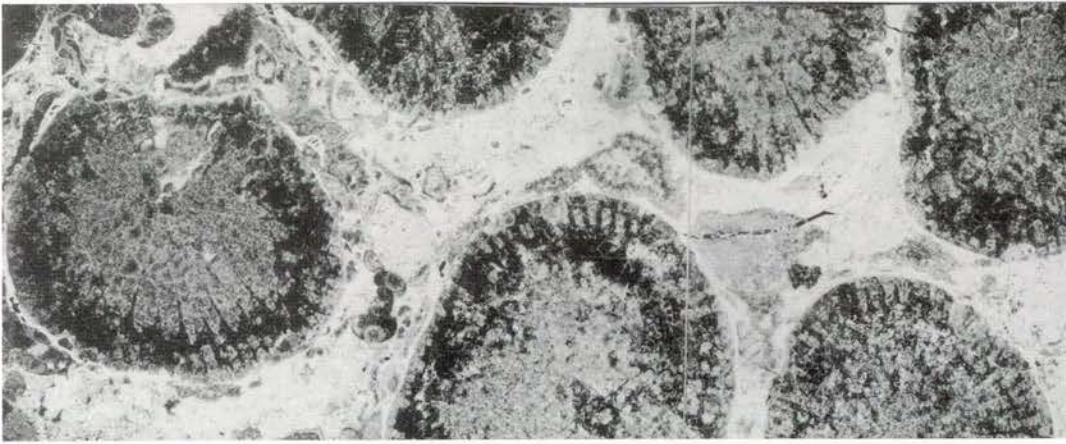


A: transverse section; P-907a, x 4.

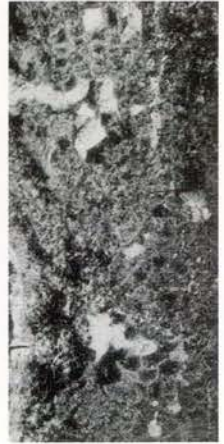
B: longitudinal section; P-907b, x 4.

C: detail from A, x 8.

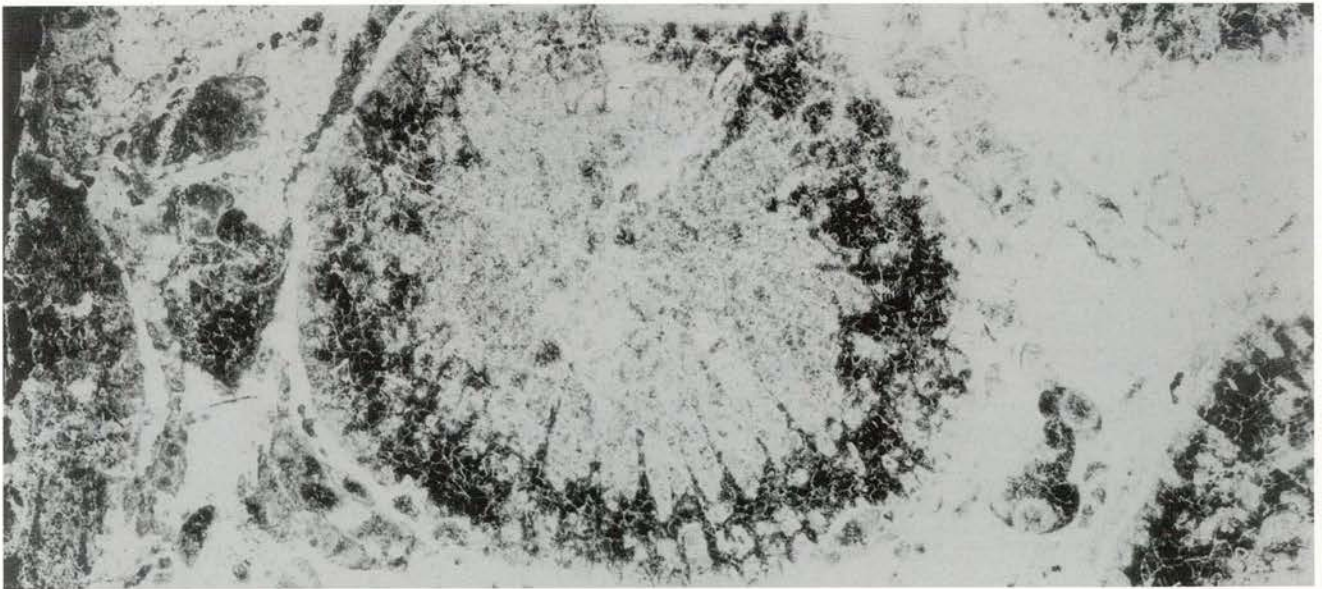
D: microstructure, ?medium-sized to thick trabeculae; P-907a, x40.



A



B



C



D

Retiophyllia norica (Frech) 1890

- 1890 *Thecosmilia norica* nov. sp. FRECH, 9, Pl. 1, figs. 14-24, non. Pl. 10, fig. 6.
 1909 *Thecosmilia norica* Frech. HAAS, 144.
 1915 *Thecosmilia norica* Frech. VINASSA DE REGNY, 87, Pl. 21, fig. 18.
 non 1975 *Paradistichophyllum noricum* (Frech). MELNIKOVA, 90-91, Pl. 15, fig. 3-4.
 1979 »*Thecosmilia*« *norica* Frech. STANLEY, 13, 32, 38.
 1980 *Thecosmilia norica* Frech. KRISTAN-TOLLMANN et al., 174, Pl. 4, figs. 2, 4.
 1980 »*Thecosmilia*« *norica* Frech. SENOWBARI-DARYAN, 35.
 1987 *Paradistichophyllum noricum* (Frech). TURNŠEK & RAMOVŠ, 37-38, Pl. 7, figs. 3-4.
 1989 *Retiophyllia norica* (Frech). RONIEWICZ, 52-54, Pl. 8, figs. 5-8, Pl. 9, fig. 2, Pl. 14, figs. 1-2.
 1994 *Retiophyllia norica* (Frech). STANLEY et al., 12-14, Textfigs. 10/1-2.
 1996 *Retiophyllia norica* (Frech). BERNECKER, 52.

Description: Phaceloid colony, round corallites. Compact septa in 4-5 cycles, lateral granulae rare. Paratheca, numerous vesicular and long dissepiments, no columella, microstructure trabecular. $d = 8-13$ mm, $s = ca\ 40+s$.

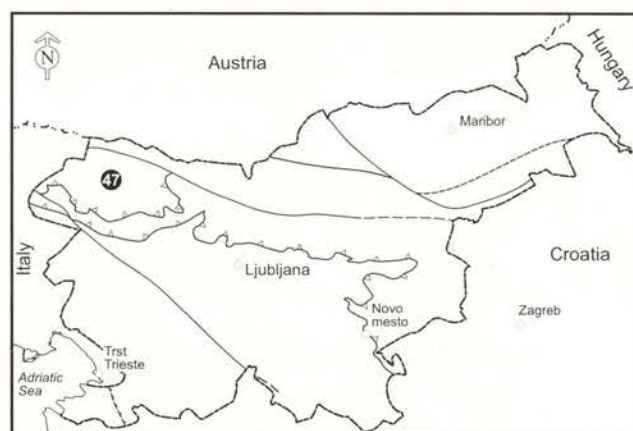
Remarks: Revision and emendation and comparison with *Paradistichophyllum noricum* (MELNIKOVA, 1975) was made by RONIEWICZ (1989) on the basis of Frech's original material, so I follow this revision.

Localities: 47 Tominškova pot (14/85); Austria, Oman, Pamir, Timor, Iran, NW America, Mexico.

Age: T: Lower Norian; T: Norian-Rhaetian.

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	■
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	



A: transverse section of one corallite; 14/85a, x 4.

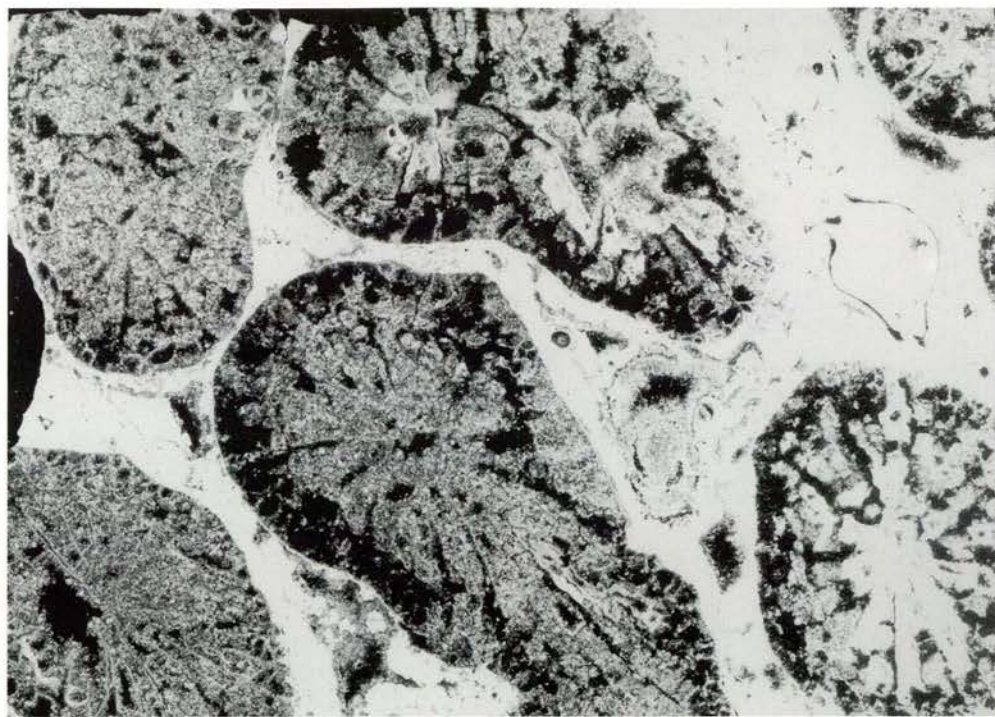
B: transverse section; 14/85b, x 4.

C: detail from A, x 8.

D: microstructure, medium-sized to thick trabeculae, recrystallized; 14/85a, x 40.



A



B



C



D

Retiophyllia paraclathrata Roniewicz 1974

- 1969 *Thecosmilia clathrata* Emmrich forma A. ZANKL, 28, Textfig. 17.
 1974 *Retiophyllia paraclathrata* sp. n. RONIEWICZ, 108-109, Pl. 4, fig. 2, Pl. 5, figs. 1-2, Textfig. 8.
 ?1980 »*Thecosmilia*« *clathrata* Emmrich Typ A/Zankl. SENOWBARI-DARYAN, 34.
 1987 *Retiophyllia paraclathrata* Roniewicz. TURNŠEK & RAMOVŠ, 41, Pl. 10, figs. 6-7.
 1987 *Paradistichophyllum* sp. TURNŠEK & RAMOVŠ, 38, Pl. 7, fig. 5.
 1989 *Retiophyllia paraclathrata* Roniewicz. RONIEWICZ, 42.
 1991 *Retiophyllia paraclathrata* Roniewicz. TURNŠEK & BUSER, 228, Pl. 3, figs. 4-5.
 1991 *Retiophyllia* sp. RAMOVŠ & TURNŠEK, 185, Pl. 7, figs. 1-2.
 1991 *Retiophyllia paraclathrata* Roniewicz. RIEDEL, Pl. 26/4.

Description: Phaceloid colony, budding intratentacular at acute angle, corallites bifurcate. Septa compact costosepta, in 4-5 cycles, lateral granulae. Septotheca, small and larger dissepiments, no columella, microstructure not preserved. $d = (3)4-4.5$ mm, $s = 48-60$. ?

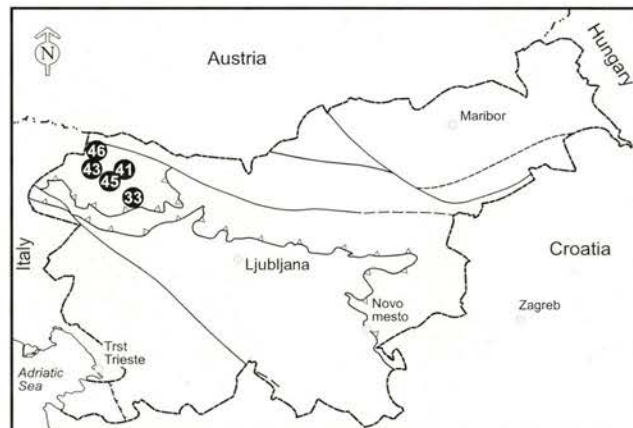
Remarks: RONIEWICZ (1989) gave a very precise description and among other things speaks of pellicular wall, i. e. some kind of epitheca, which is not the case in our specimens.

Localities: 46 Šplevta (25/85-3,-6), 33 Bohinj-Bitnje (P-867, P-871, P-882, P-883, P-884), 43 Razor (27/85-3), 41 Kot (24/82-2), 45 Rušnata Mlinarica (15/82-9, 16/82-2); Austria (Northern Calcareous Alps), Poland (Tatre Mts).

Age: T: Norian-Rhaetian; T: Rhaetian.

Paleoenvironment: Reef complex on the Julian Carbonate Platform and on its southern edge. Reef limestone.

TRIASSIC	Upper		<i>Rhaetian</i>	
			<i>Norian</i>	
		<i>Carnian</i>	<i>Tuvalian</i>	
			<i>Julian</i>	
			<i>Cordevolian</i>	
	Middle		<i>Ladinian</i>	
			<i>Anisian</i>	
	Lower		<i>Scythian</i>	



- A: surface from above; P-867, x 1.
 B: transverse section; P-867a, x 4.
 B: longitudinal section; P-867b, x 4.
 D: transverse section; P-884a, x 8.

- E: transverse section; 27/85-3a, x 4.
 F: detail from E, x 8.
 G: detail from C, x 8.
 H: microstructure, not preserved; P-867a, x 40.



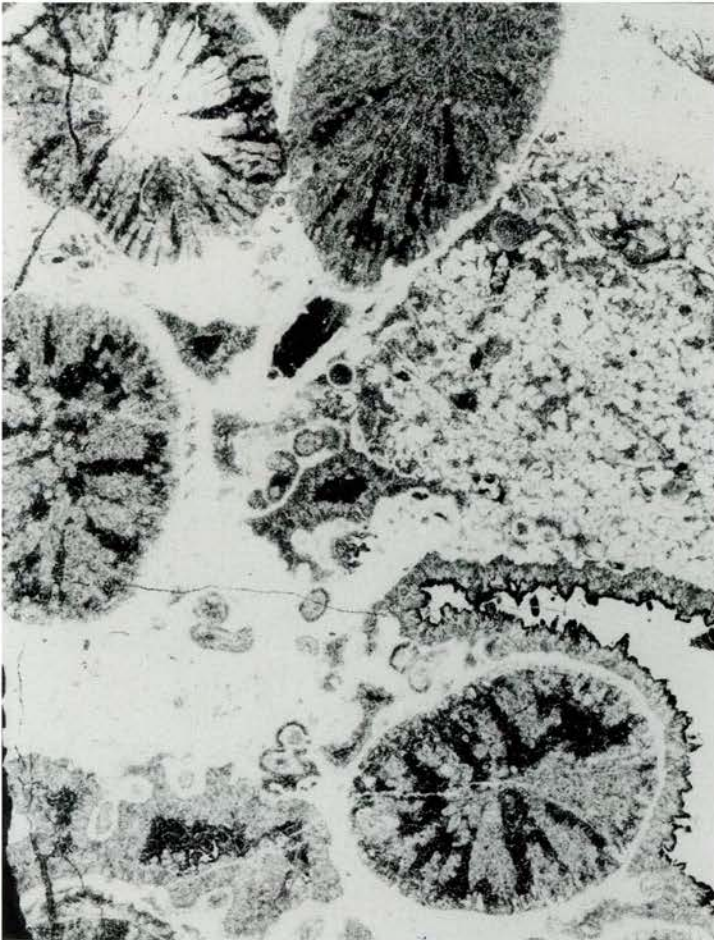
A



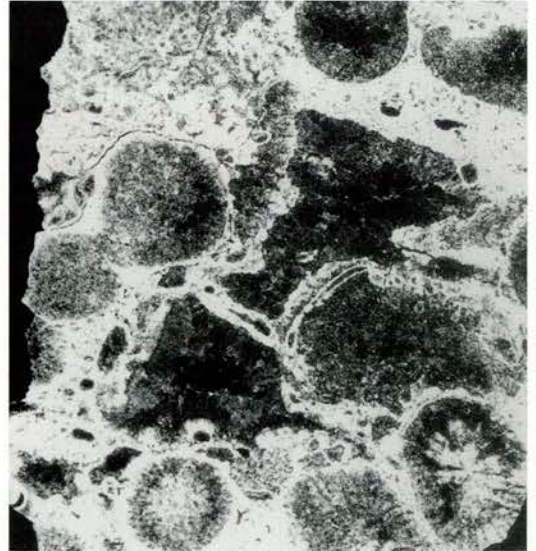
B



C



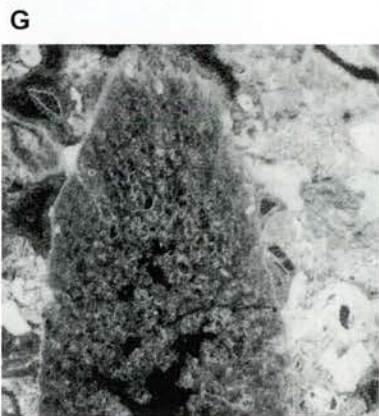
D



E



F



G



H

Retiophyllia tolminensis Turnšek 1987

- 1974 *Retiophyllia* type II. CUIF, 383-391, Fig. 37d, 40-41.
 1987 *Retiophyllia tolminensis* n. sp. TURNŠEK et al. 44-45, Pl. 2, figs. 1-6, Pl. 3, figs. 1-2.

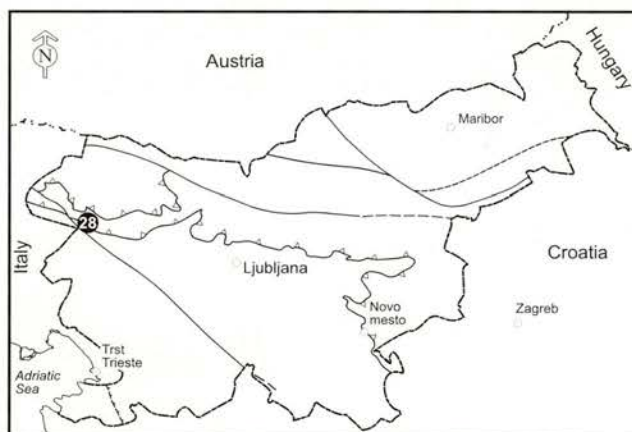
Description: Phaceloid colony with rare branching, round corallites, budding extracalicular, lateral. Septa costate in periphery thick, toward axial part very thin, laterally strongly granulated. Septoparatheca in more layers, vesicular dissepiments, no columella, but in deeper parts septa reach in the very centrum; microstructure trabecular. $d = 6-8$ (10), $s = 48-60$.

Localities: 28 Perbla (P-785 holotype, P-781, P-792, P-793, P-797); Turkey.

Age: T: Upper Carnian (?Julian, Tuvanian); T: Upper Carnian.

Paleoenvironment: Reef mound within the clastic beds in the Slovenian Basin.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvanian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	



- A: transverse section; P-785a, x 4.
 B: longitudinal section; P-785b, x 4.
 C: transverse section; P-792a, x 4.
 D: the same as A, x 8.

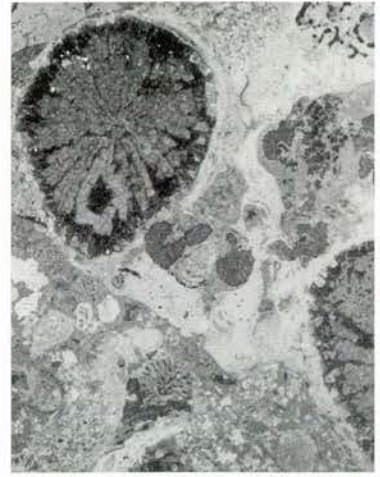
- E: detail from C, x 8.
 F: detail from B, x 8.
 G: microstructure, ?mini to medium-sized trabeculae, midseptal line; P-785a, x 20.



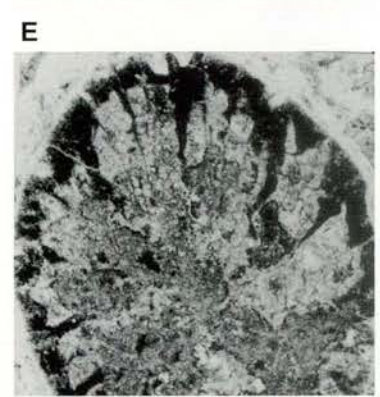
A



B



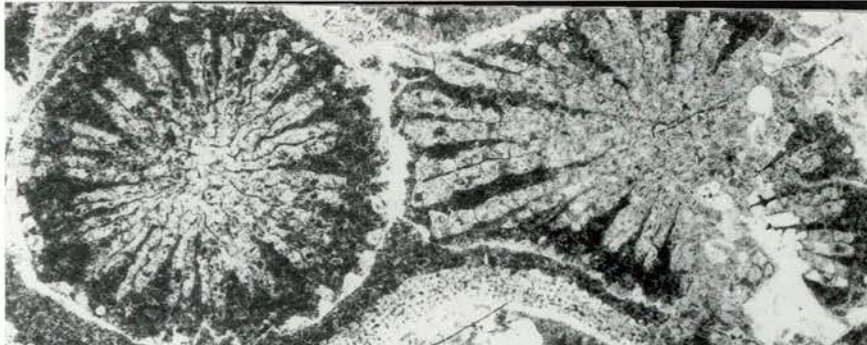
C



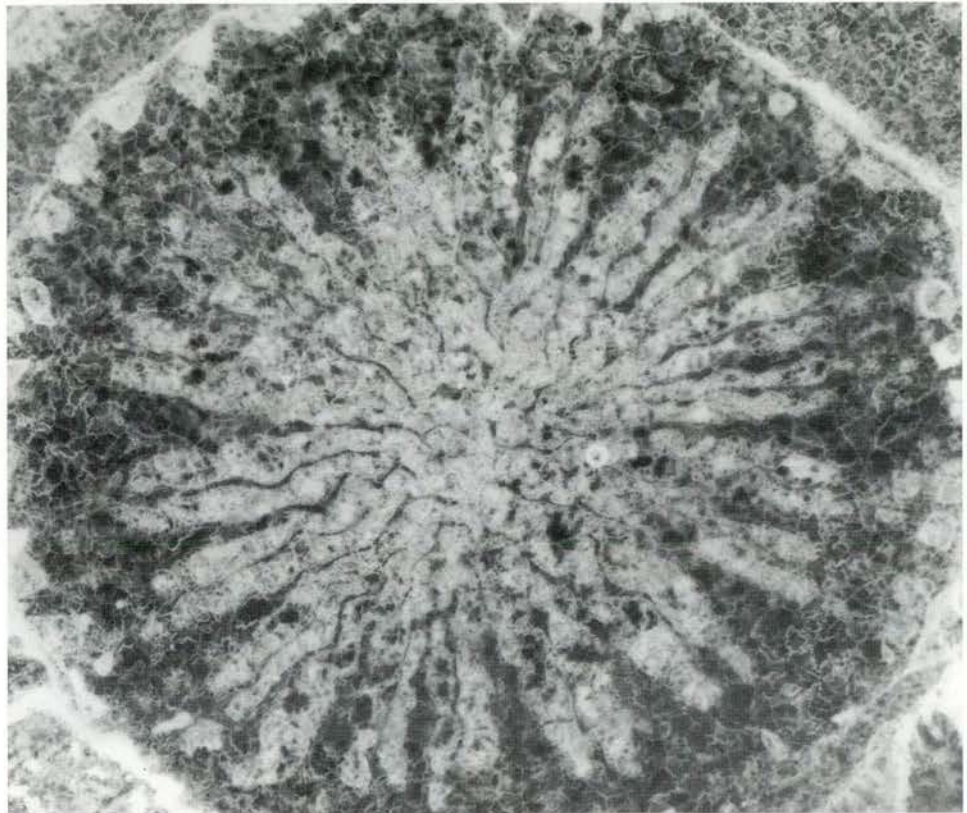
D



E



F



G

Rhopalodendron juliensis Turnšek 1989

- 1989 *Rhopalodendron* nov. gen. n. sp. TURNŠEK & BUSER, 87-88, Pl. 8, figs. 1-6.
 1991 *Rhopalodendron juliensis* Turnšek. RAMOVŠ & TURNŠEK, 186, Pl. 8, figs. 1-3.
 1994 *Rhopalodendron juliensis* Turnšek. TURNŠEK & SENOWBARI-DARYAN, 483, Pl. 6, figs. 5-6.
 1996 *Rhopalodendron juliensis* Turnšek. BERNECKER, 54, Pl. 13, fig. 5.

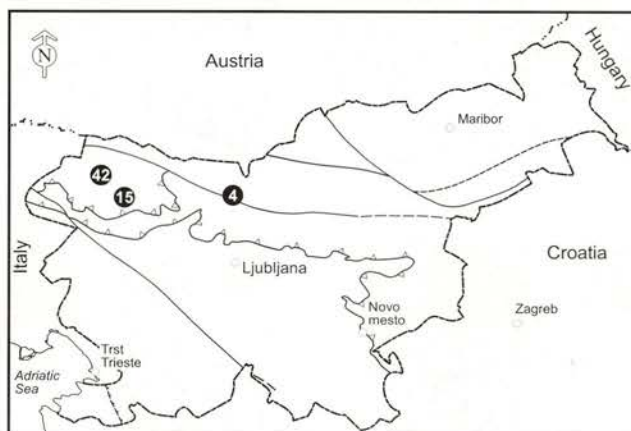
Description: Phaceloid colony, densely spaced round corallites, bud laterally and quickly become free. Septa thin of equal thickness, in 3-4-5 cycles, axially anastomosing, lateral granulae (?pennulae). Uncomplete septotheca or epitheca, rare tabulate dissepiments, small styliform columella not preserved in all corallites, microstructure of small trabeculae. $d = 2.5-3.5(4)$ mm, $cc = 4-5$ mm, $s = 40-50$.

Localities: **15** Pokljuka (P-845 holotype), **4** Kamnik Alps, road to Krvavec (P-901, P-902), **42** Planja (10/86-35); Greece (Hydra), Oman .

Age: T: Carnian (Tuvalian)-Lowermost Norian; T: Carnian.

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
			Scythian	
	Lower			

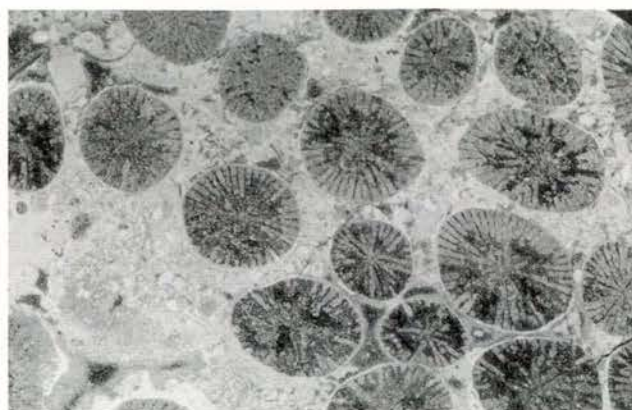


A: surface from above; P-845, x 1.
 B: transverse section; P-845a, x 4.
 C: longitudinal section; P-845b, x 4.
 D: detail from A, x 8.

E: detail from D, x 15.
 F: detail from C, x 8.
 G: microstructure, mini to medium-sized trabeculae; P-845a, x 30.



A



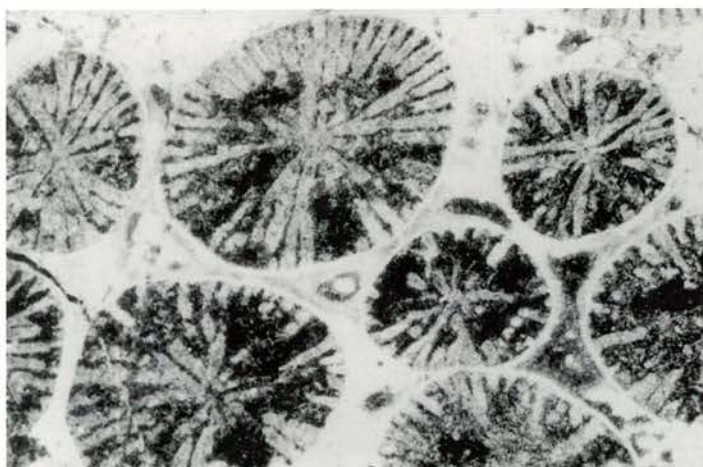
B



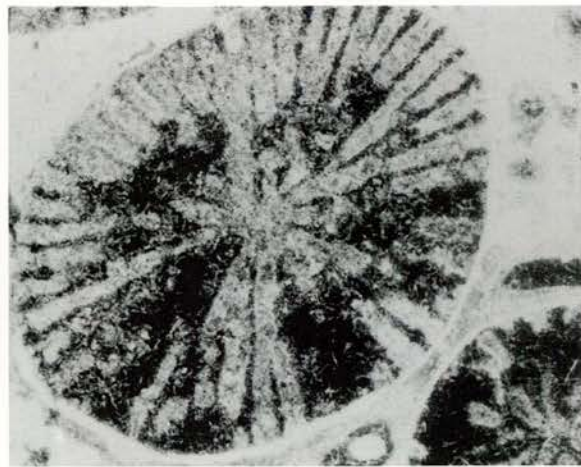
C

D

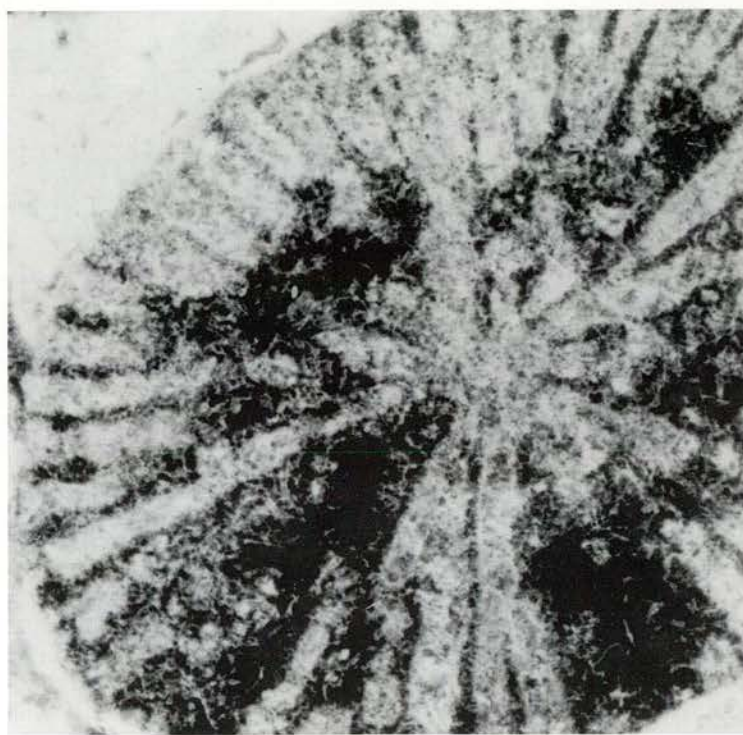
E



F



G



Siderastraea senecta Morycowa 1971

- 1971 *Siderastraea ?senecta* n. sp. MORYCOWA, 116-118, Pl. 30, fig. 1, Pl. 31, fig. 4.
 1974 *Siderastraea senecta* Morycowa. TURNŠEK & BUSER, 104, 118, Pl. 14, figs. 1-2.

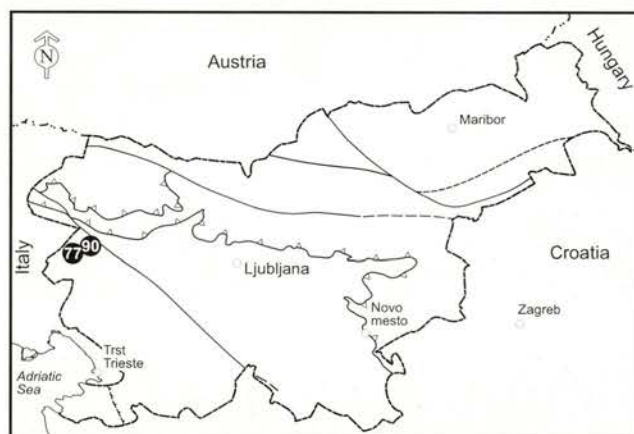
Description: Massive subcerioid colony with round to polygonal corallites. Septa subconfluent, perforated, in 2-3 cycles, laterally pennulated. Septotheca thick, thin vesicular dissepiments and numerous synapticalae, columella papillose, microstructure not preserved. d (calice)= 1.8-2 mm, cc = 2-3 mm, s = 6/2 mm.

Localities: 77 Osojnica (P-533), 90 Levpa (P-676); Romania.

Age: K: Barremian-Aptian, Senonian breccia; K: Lower Aptian.

Paleoenvironment: Reef flat at the edge of the Dinaric Carbonate Platform. Urgonian facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
	Lower		Cenomanian	
			Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: transverse section; P-533a, x 4.

B: the same as A, x 8.

C: transverse section; P-676a, x 4.

D: detail from C, x 8.

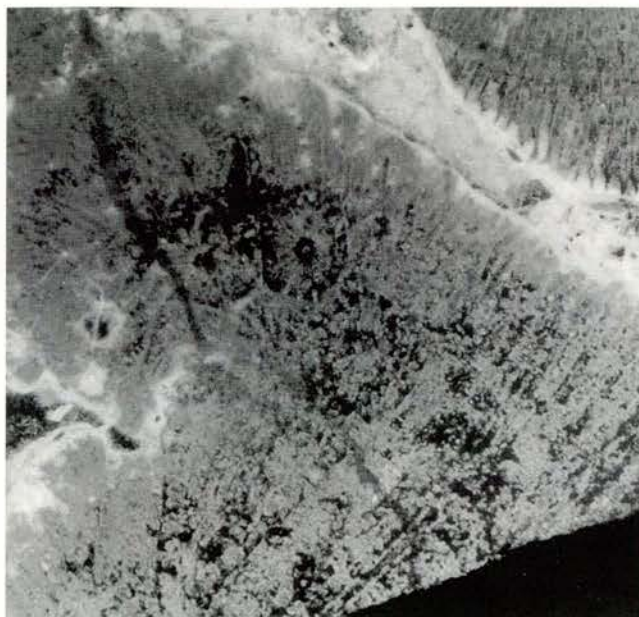
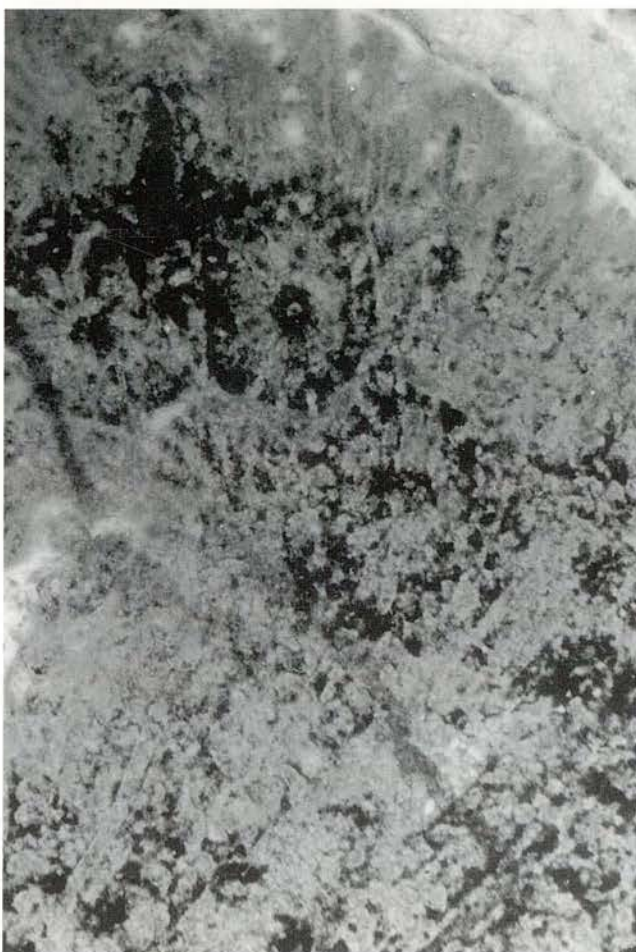
E: microstructure, ?trabeculae hardly seen; P-676a, x 40.



A
B



D



C
E



Solenocoenia gracilis (Roniewicz) 1976

1972 *Convexastraea intricata* (Fromentel). TURNŠEK, 167, 229, Pl. 14, fig. 4, Pl. 15, figs. 1-2.

1976 *Solenocoenia gracilis* sp. n. RONIEWICZ, 114, Pl. 14, fig. 4, Pl. 15, figs. 1ab, 2.

Description: Plocoid colony, round corallites, costate peritheca with confluent chanals, extracalicular budding. Septa hexameral in 2 cycles, subconfluent coste, lateral sharp granulae, Paratheca, no columella, horizontal and vesicular dissepiments, microstructure trabecular. $d = 1-1.5$ mm, $c-c = 2(2.5)$ mm, $s = 12$.

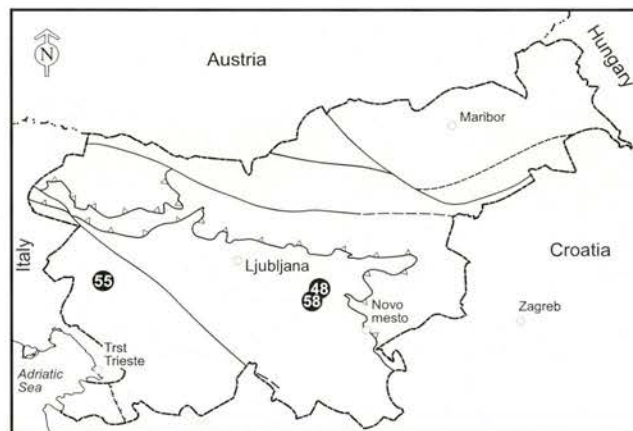
Remarks: Specimens which I identified as *Convexastraea intricata* (TURNŠEK, 1972) RONIEWICZ (1976) placed in her new genus and species *Solenocoenia gracilis*, because of their intercorallite canals. I follow RONIEWICZ's revision.

Localities: 58 Sela (P-377), 48 Bič (P-328), 55 Mrzovec (P-241, P-248, P-249, P-267, P-439, P-446, P-461, P-473); France, Romania

Age: J: Upper Oxfordian-Kimmeridgian; J: Kimmeridgian.

Paleoenvironment: Outer barrier reef on the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-249a, x 4.
B: longitudinal section; P-249b, x 4.
C: transverse section; P-248a, x 4.
D: longitudinal section; P-248b, x 4.

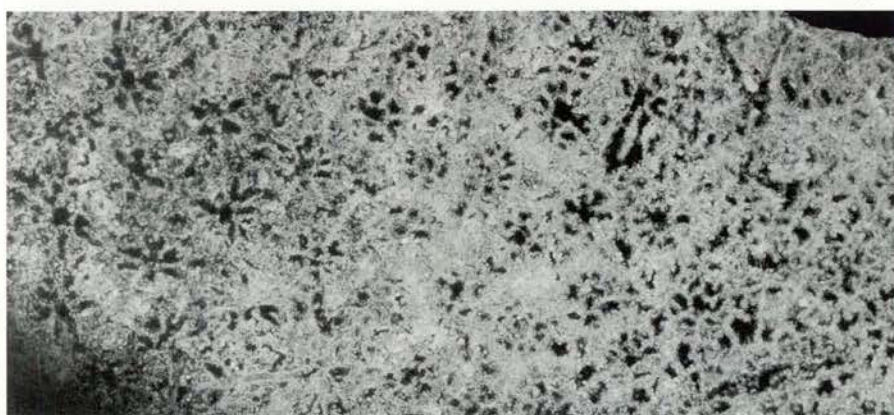
E: detail from A, x 8.
F: microstructure, ?medium-sized to thick trabeculae; P-249a, x 40.



A



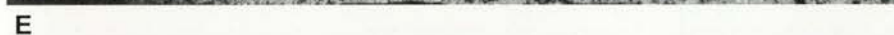
B



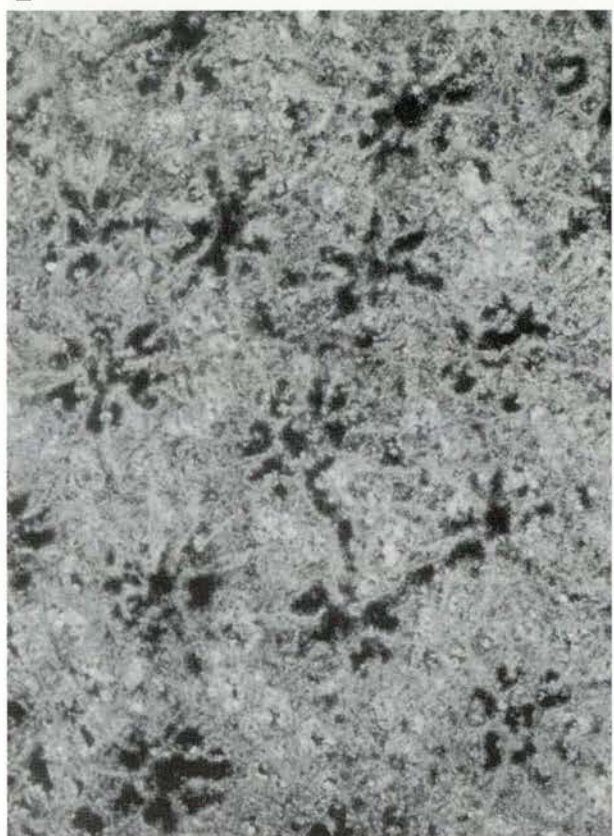
C



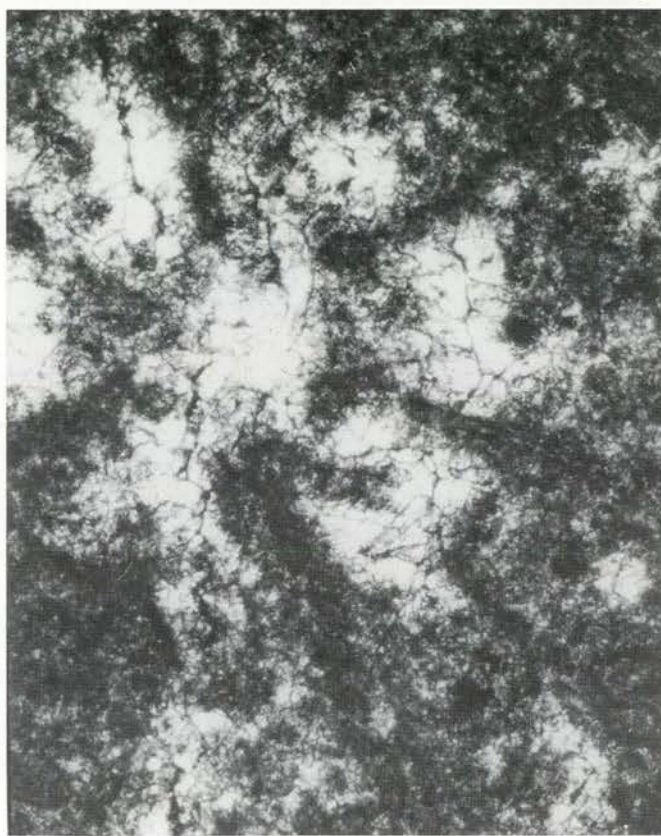
D



E



F



Stephanosmilia polydectes Kolosváry 1954

1954 *Stephanosmilia polydectes* n. sp. KOLOSVÁRY, 103-104, Pl. 10, figs. 4-9.

1978 *Stephanosmilia* (?) *polydectes* Kolosváry. TURNŠEK, 83-84, 114, Pl. 17, figs. 1-6.

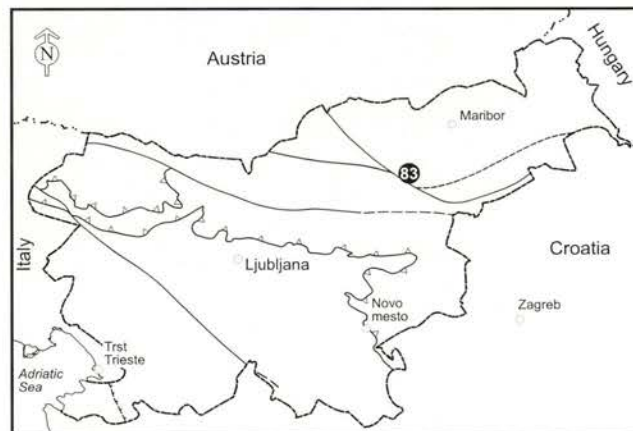
Description: Solitary turbinate corallum with flat base, calice round. Septa perforated, irregularly vermiculate, laterally strongly pennulated, axially prolonged into parietal columella. Wall not preserved, numerous synapticalae, microstructure trabecular. h = 40 mm, d = 12 mm, s = ca 80.

Localities: 83 Stranice-quarry (75); Hungary

Age: K: Santonian-Campanian; K: Santonian-Campanian.

Paleoenvironment: Austro-Alpine shoal, Gosau facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: surface from side; St-75, x 1.

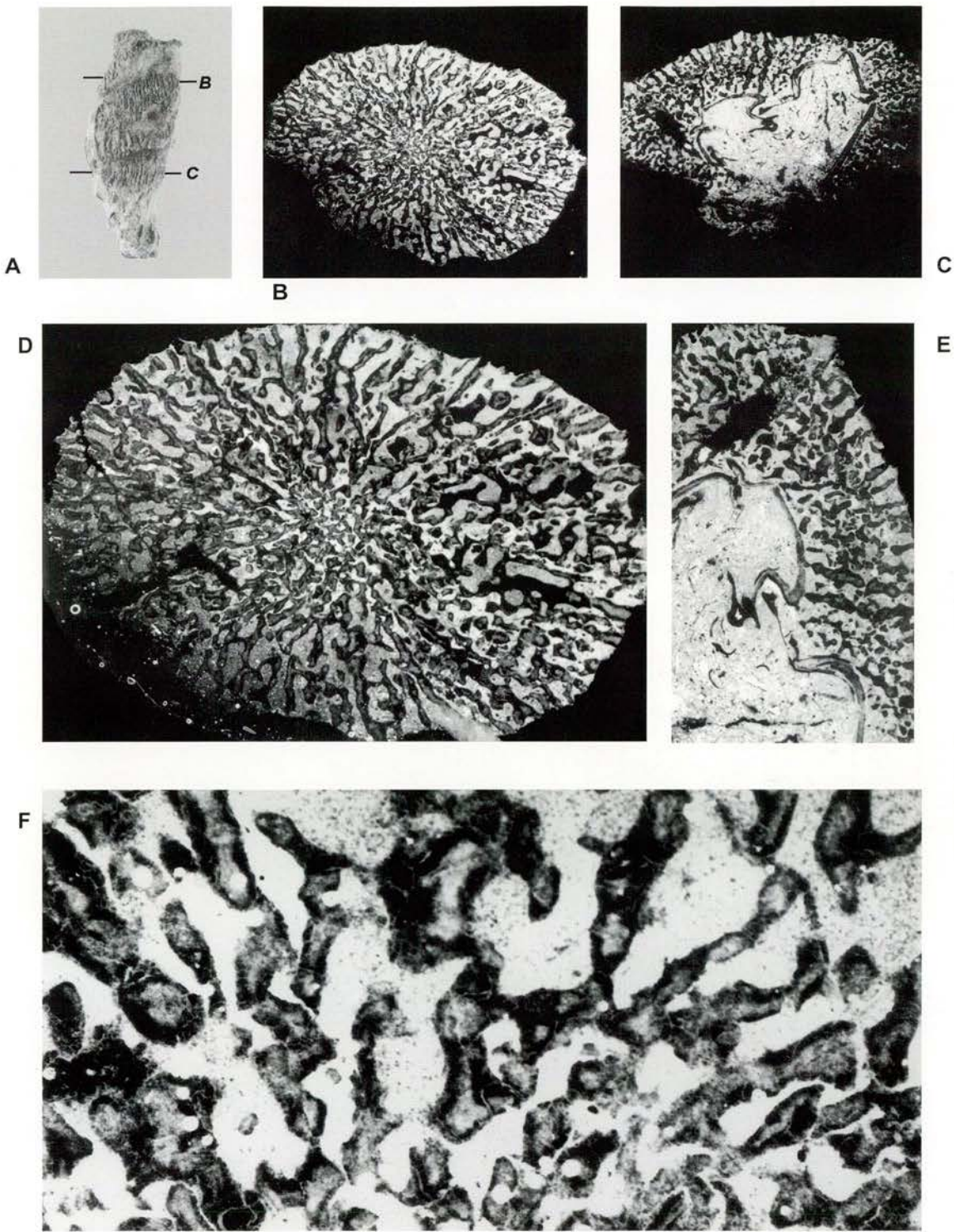
B: transverse section in upper part of corallum; St-75a, x 4.

C: transverse section in lower part of corallum; St-75b, x 4.

D: the same as B, x 8.

E: the same as C, x 8.

F: microstructure, monoaxial thick trabeculae; St-75a, x 40.



Strotogyra augusti Turnšek 1992

1992 *Strotogyra augusti* n. sp. TURNŠEK et al., 216, Pl. 10, figs. 1-6, Pl. 11, figs. 1-3, Pl. 12, figs. 1-2.

Description: Lamellar flabellate colony, with irregularly contorted uniserial corallites of unclear centres. Septa in 2-3 orders, laterally granulated, axially thickened. Septoparatheca with peripheral dissepimentarium, discontinuous lamellar columella, microstructure not recognizable. d of series = 10-12 mm, density of septa in peripheral part (s1+s2+s3) = 8-9/10 mm.

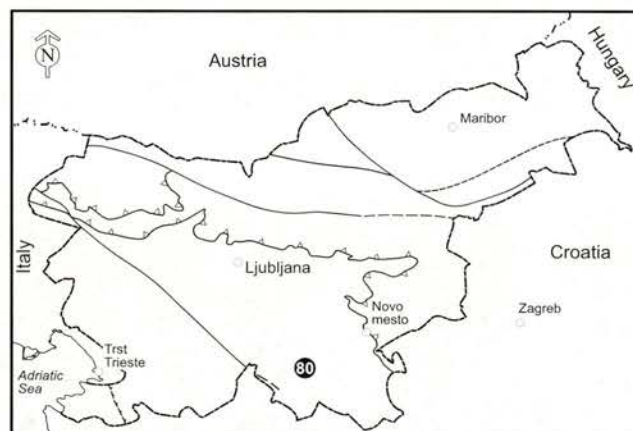
Remarks: The similar species *Strotogyra magna* (REIG 1992; 10, pl. 2/1-2) has more septa 28-34/10mm.

Locality: 80 Slovenski vrh (E/3, E/4, E/6 holotype, E/7, E/9, E/10, E/11).

Age: K: Albian;

Paleoenvironment: Patch reef in the back reef area on the Dinaric Carbonate Platform. Urgonian facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
			Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: schematic drawing of corallum, x 1.

B: surface from above; Sv-E/6, x 1.

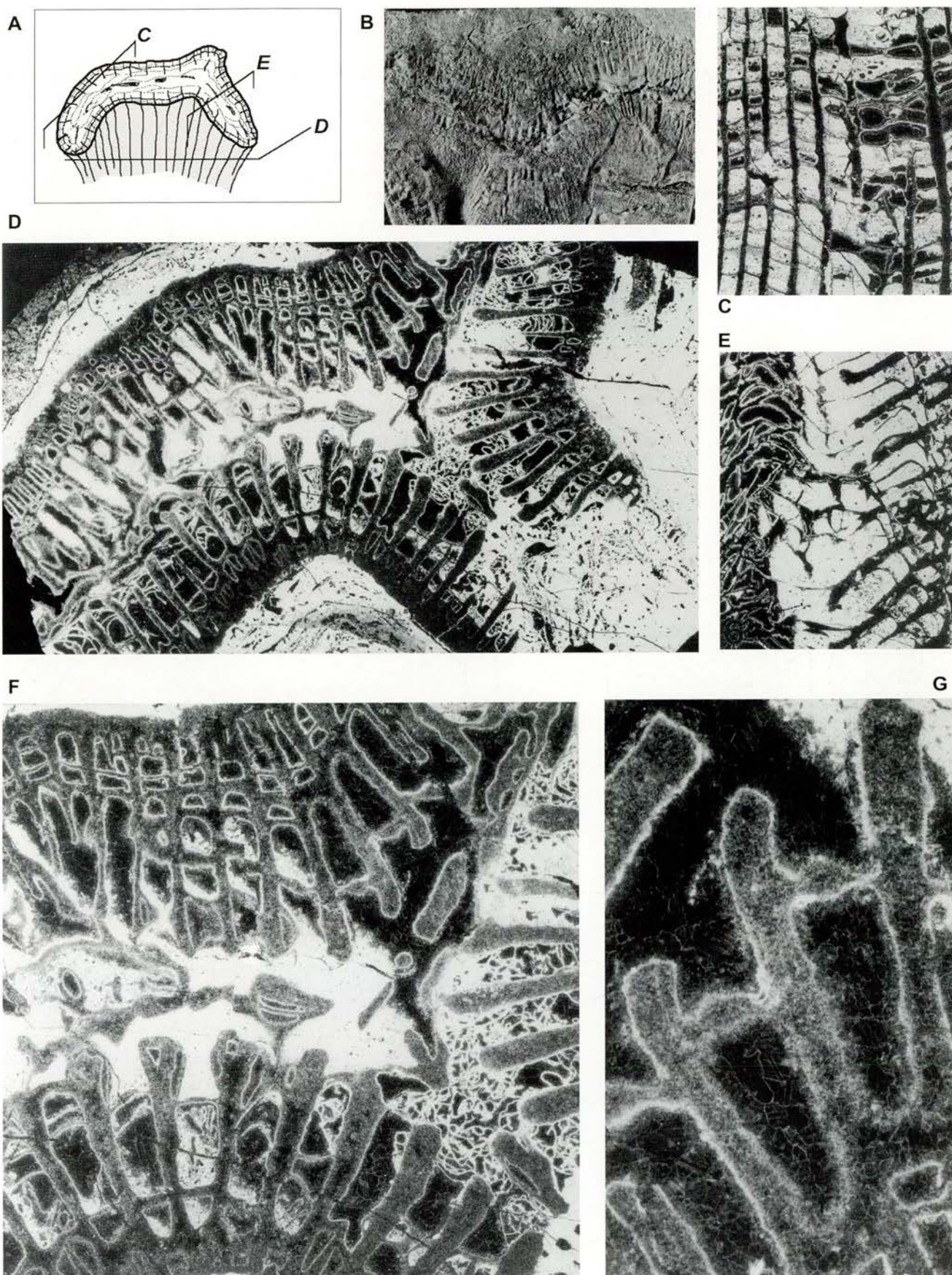
C: longitudinal peripheral section (see A); Sv-E/6b, x 4.

D: transverse section (see A); Sv-E/6a, x 4.

F: longitudinal section (see A); Sv-E/6c, x 4.

G: detail from D, x 8.

F: microstructure, not preserved; Sv-E/6a, x 20.



Stuoresia bronni (Klipstein) 1843

- 1843 *Meandrina bronni*. KLIPSTEIN, II. V.
 1896 *Isastraea bronni* (Klipstein). VOLZ, 53, Pl. 5, figs. 8-12.
 1973 »*Isastraea*« *bronni* Klipstein. MONTANARO GALLITELLI et al., Table 1.
 1976 *Stuoresia bronni* (Klipstein). CUIF, 103-105, 108, Pl. 7, figs. 1-9.
 ?1976 *Stuoresia cerioidea* nov. sp. CUIF, Pl. 14, fig. 7.
 1989 *Stuoresia bronni* (Klipstein). TURNŠEK & BUSER, 88, Pl. 7, fig. 5.

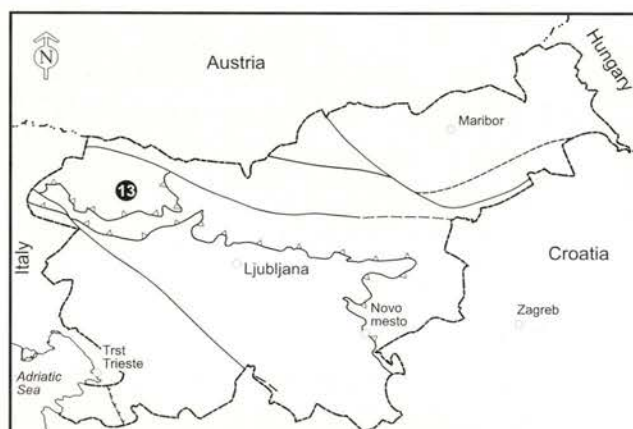
Description: Cerioid-meandroid colony, irregular mono to polycentric corallites, budding intracalicular. Septa in 5-6 cycles, laterally granulated or ?pennulated. Strong septotheca, no columella, rare dissepiments and/or synapticalae, microstructure not preserved. $d = 4-5(6)$ mm, $s = ca 80+s5-6$.

Localities: 13 Pokljuka (P-813); Italy (Dolomites).

Age: T: Carnian (Cordevolian); T: Carnian (Cassian beds).

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	

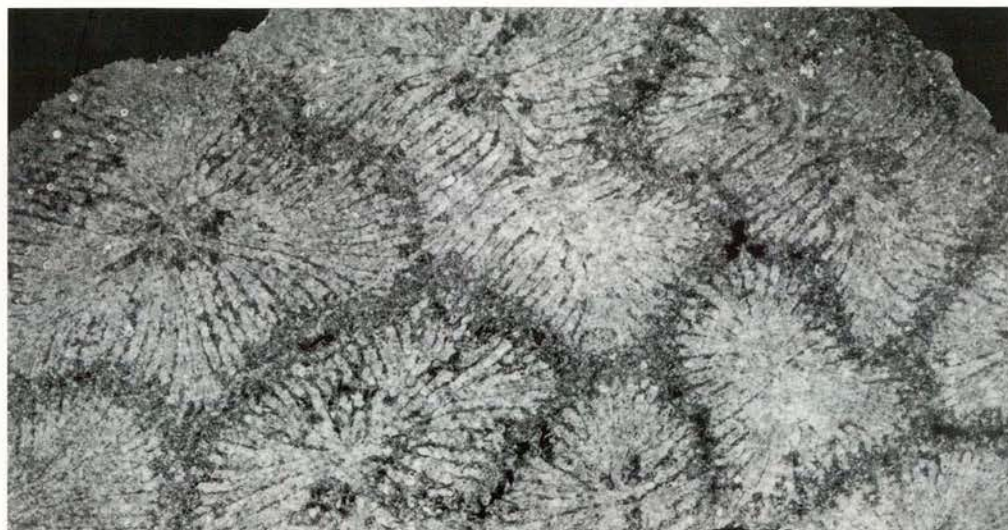


A: transverse section; P-813a, x 4.
 B: the same as A, x 8.

C: microstructure, medium-sized trabeculae with lateral offsets, midseptal line; P-813a, x 40.



A



B

C



Stylina decipiens Étallon 1864

- 1864 *Stylina decipiens* Étallon. ÉTALLON, 367, Pl. 51, fig. 9.
 ?1881 *Cryptocoenia decipiens* Étallon. Koby, 90-91, Pl. 20, fig. 12.
 1954 *Stylina decipiens* Étallon. GEYER, 133.
 1955a *Stylina decipiens* Étallon. GEYER, 182.
 1965 *Stylina decipiens* Étallon. GEYER, 231.
 1972 *Stylina decipiens* (Étallon). TURNŠEK, 166, Pl. 7, figs. 1-3.
 1976 *Pseudocoenia decipiens* (Étallon). RONIEWICZ, 52, Pl. 6, fig. 3.
 1982 *Cryptocoenia decipiens* (Étallon). BENDUKIDZE, 9-10, Pl. 2, figs. 1ab.
 1985 *Stylina decipiens* Étallon. ROSENDAHL, 39.
 1990 *Pseudocoenia decipiens* (Étallon). ERRENT, 171-172, Pl. 4, figs. 1a-c.

Description: Plocoid colony with round corallites, costate peritheca, extracalicular budding. Septa oktamer, in 2-3 cycles, laterally slightly granulated, axially thickened or auriculated. Paratheca, columella massive styloform not always preserved, vesicular dissepiments, microstructure trabecular. $d = 2-3$ mm, $c-c = 4-6$ mm, $s = 16+s3$.

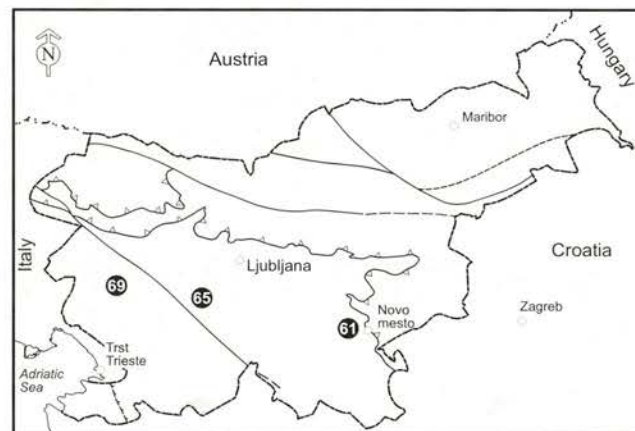
Remarks: This species was put into *Cryptocoenia*, *Stylina* or *Pseudocoenia* by several authors, on the basis of preserved or non-preserved columella. In our specimens it is clearly seen that columella is lacking only in some corallites of the same colony.

Localities: 69 Selovec (P-485), 61 Frata (P-369), 65 Logaška planota (P-942); France, ?Switzerland, Romania, Spain, Crimea, Portugal.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian.

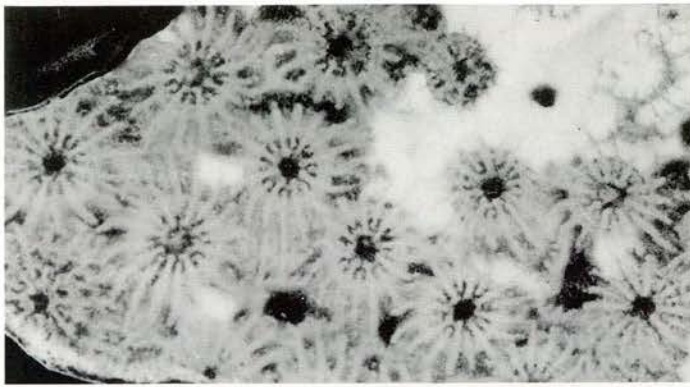
Paleoenvironment: Central and inner (sheltered) barrier reef on the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	

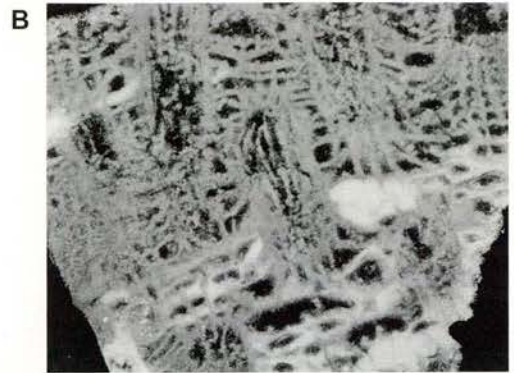


- A: transverse section; P-369a, x 4.
 B: longitudinal section; P-369b, x 4.
 C: transverse section; P-485a, x 4.
 D: transverse section; P-942a, x 4.
 E: longitudinal section; P-942b, x 4.

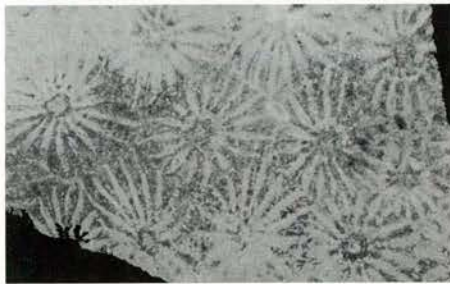
- F: detail from A, x 8.
 G: detail from B, x 8.
 I: microstructure; ?medium-sized to thick trabeculae; P-369a, x 40.



A



B



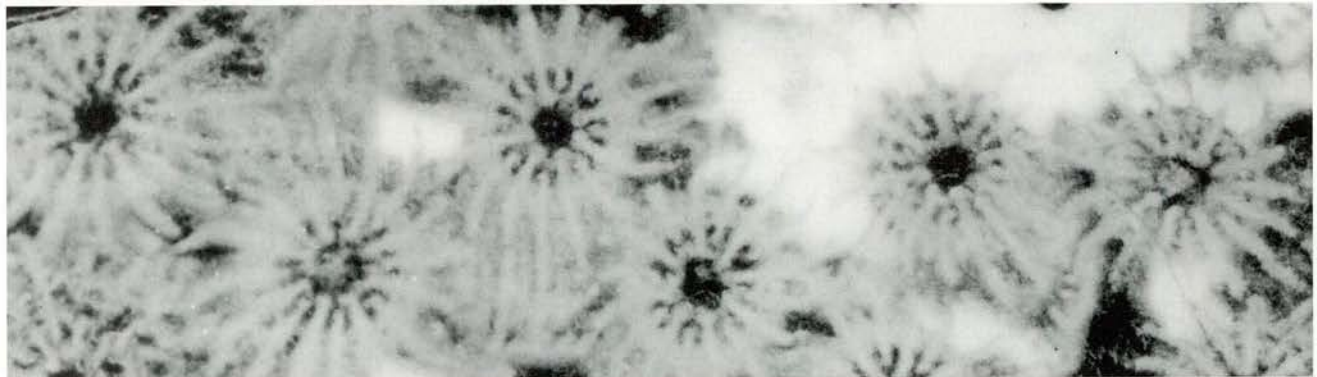
C



D



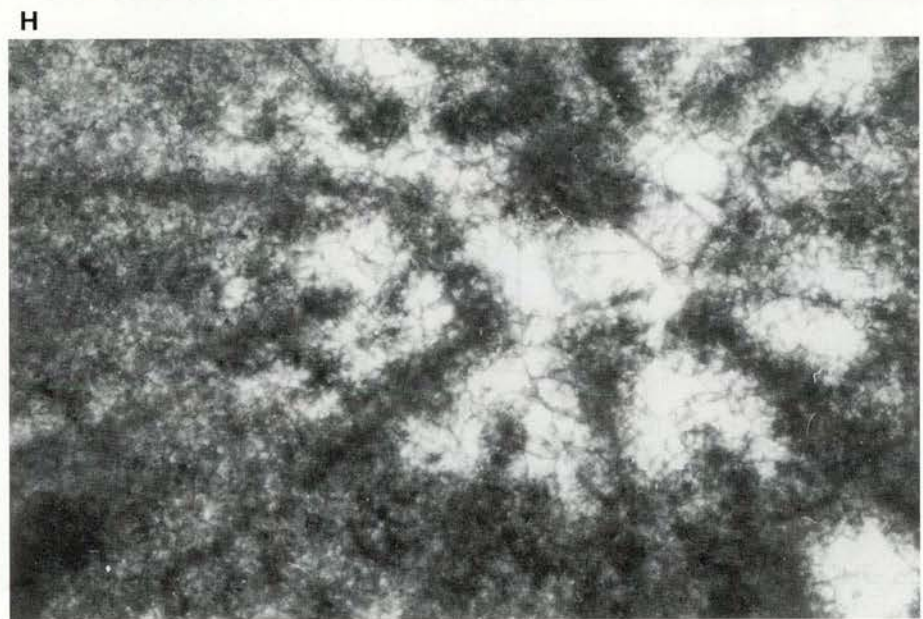
E



F



G



H

Stylina regularis Fromentel 1867

- 1867 *Stylina regularis*. FROMENTEL, 514, Pl. 135, fig. 1.
 1964 *Stylina regularis* de Fromentel. MORYCOWA, 34-36, Pl. 10, fig. 7, Pl. 15, fig. 3, Pl. 19, figs. 1-2.
 1971 *Stylina regularis* de Fromentel. MORYCOWA, 47-48, Pl. 5, fig. 2.
 1974 *Stylina regularis* Fromentel. TURNŠEK & BUSER, 93, 113, Pl. 4, figs. 2-3,
 1977 *Stylina regularis* Fromentel. SIHARULIDZE, 82-83, Pl. 13, fig. 4.
 1981 *Stylina regularis* Fromentel. TURNŠEK & MIHAJLOVIĆ, 15, Pl. 8, figs. 4-5.
 1994 *Stylina* cf. *regularis* Fromentel. LIAO & XIA, 147, Pl. 39, fig. 5.
 1996 *Stylina regularis* Fromentel. BARON-SZABO & STEUBER, 6, Pl. 1, figs. 3-4.

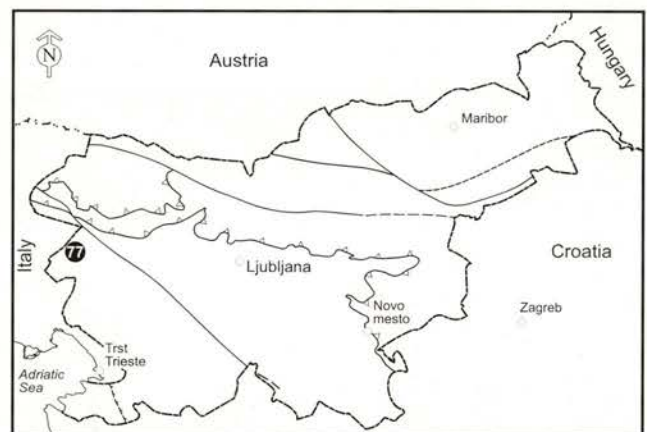
Description: Massive plocoid colony, round corallites, extracalicular budding, costate peritheca. Septa compact, hexameral, laterally granulated, axially auriculated. Septoparatheca, styliform columella, vesicular dissepiments, microstructure trabecular. $d = 1.5-2$ mm, $cc = 2-3$ mm, $s = 12+s3$.

Localities: 77 Osojnica (P-511, P-512); France, Romania, Poland, Serbia, Greece, Georgia, China (Xizang).

Age: K: Barremian-Aptian; K: Berriasian-Hauterivian-Barremian-Aptian.

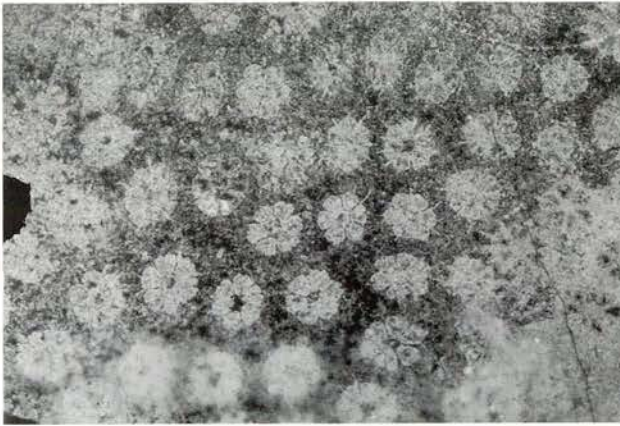
Paleoenvironment: Reef flat at the edge of the Dinaric Carbonate Platform. Urgonian facies.

CRETACEOUS	Upper	Senonian	Maastrichtian	
			Campanian	
			Santonian	
			Coniacian	
		Turonian	Turonian	
			Cenomanian	
	Lower		Albian	
			Aptian	
			Barremian	
			Hauterivian	
			Valanginian	
			Berriasian	



A: transverse section; P-511a, x 4.
 B: longitudinal section; P-511b, x 4.
 C: the same as A, x 8.

D: longitudinal section; P-512b, x 4.
 E: microstructure, medium-sized to ?thick trabeculae; P-511a, x 40.

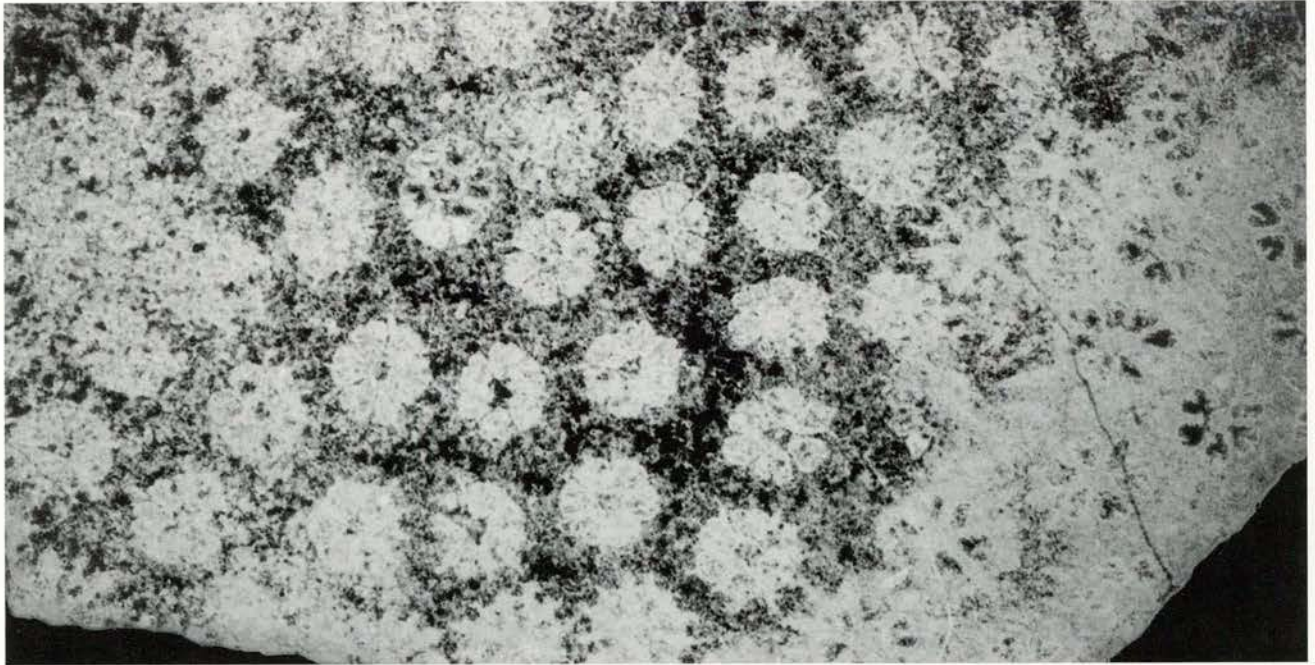


A



B

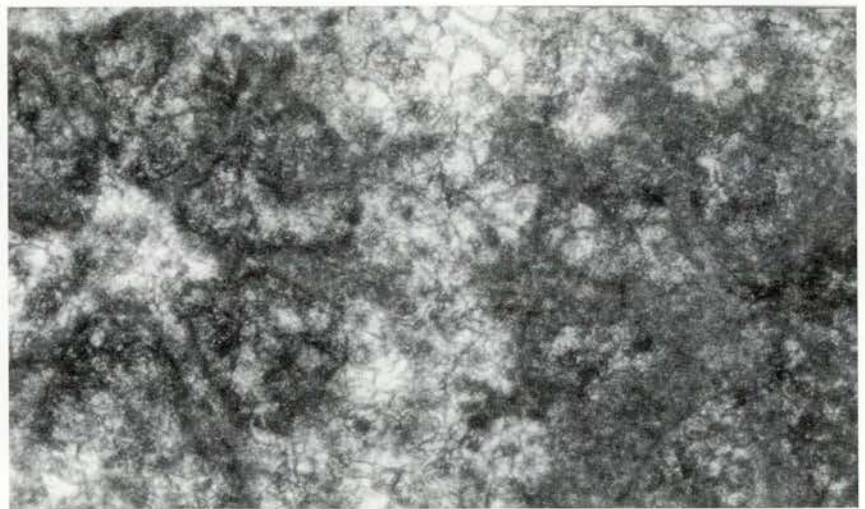
C



D



E



Stylophylloopsis media (Roniewicz 1974)

- 1974 *Phacelostylophyllum medium* sp. n. RONIEWICZ, 106, Pl. 3, fig. 5, Textfigs. 5-6.
 1987 *Phacelostylophyllum* cf. *medium* Roniewicz. TURNŠEK & RAMOVŠ, 39, Pl. 9, figs. 2-3.
 1989 *Stylophylloopsis media*. RONIEWICZ, 123.

Description: Phaceloid colony with rare corallites. Septa subcompact with isolated pores, radial, in 3-4 cycles, lateral rare granulae. Wall fibrous, tabulate thin dissepiments, columella parietal or ?papillar, microstructure fibrous, poorly preserved. d = 6-8 mm, s = 24+s.

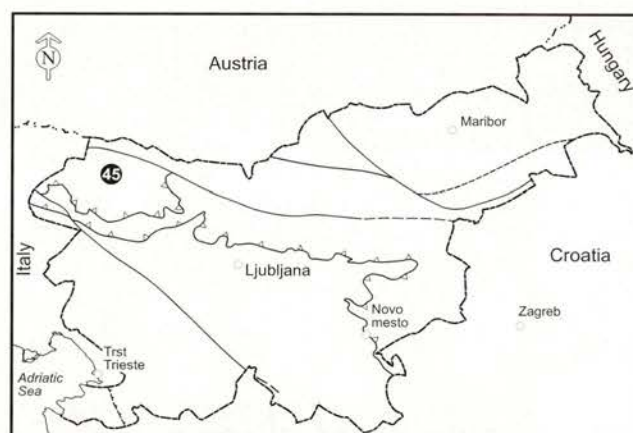
Remarks: Revision of *Stylophylloopsis* and *Phacelostylophyllum* was made by RONIEWICZ (1989) on the basis of original material so I follow these results.

Localities: 45 Rušnata Mlinarica (15/82-2); Poland (Tatre).

Age: T: Lower Norian; T: Rhaetian.

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	■
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	



A: transverse section; 15/82-2a, x 4.

B: the same as A, positive, x 5.

C: transverse section; 15/82-2b, x 4.

D: the same as A, x 8.

E: the same as C, x 8.

F: microstructure, ?fibres, poorly preserved, 15/82-2a, x 40.



A



B



C

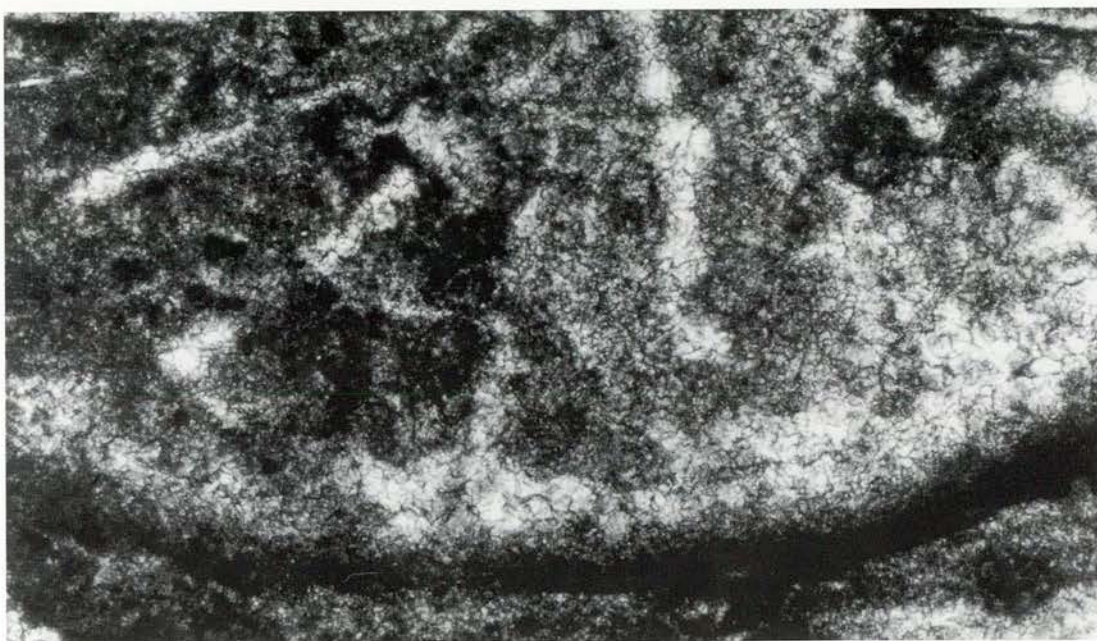


D



E

F



Stylophyllum pygmaeum Frech 1890

- 1890 *Stylophyllum pygmaeum* nov. sp. FRECH, 56-57, 4 Textfigs.
 1972 *Stylophyllum pygmaeum* Frech. CUIF, 232-236, Textfigs. 12-13.
 1972 *Phacelostylophyllum pygmaeum* (Frech). MELNIKOVA, 60.
 1975 *Phacelostylophyllum pygmaeum* (Frech). MELNIKOVA, 179.
 1987 *Phacelostylophyllum pygmaeum* (Frech). TURNŠEK & RAMOVŠ, 39, Pl. 9, fig. 1.
 1989 *Stylophyllum pygmaeum* Frech. RONIEWICZ, 122, Pl. 36, fig. 9, Pl. 38, fig. 6.

Description: Phaceloid colony with many branching cylindrical corallites. Septa thick and short in 2-3 irregular cycles, protruding from the wall, rare lateral granulae. Thick folded septotheca, tabulate dissepiments, microstructure fibrous, poorly preserved. d = 4-6 mm, s ca 24.

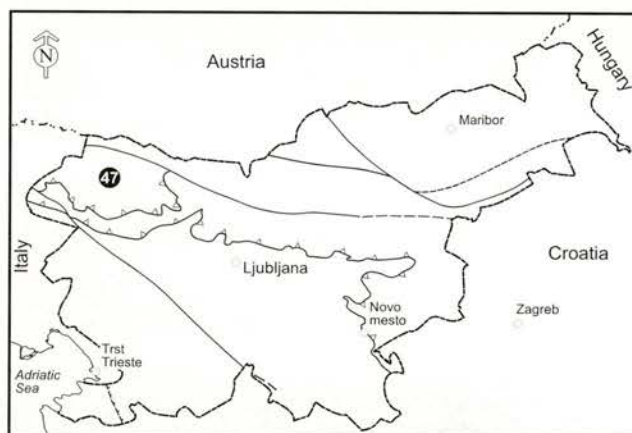
Remarks: RONIEWICZ (1989, 115-130) revised the genus *Phacelostylophyllum* as a younger synonymus of *Stylophyllum* because of the same skeleton structure.

Localities: 47 Tominškova pot (5/85); Austria (Alps)

Age: T: Lower Norian; T: Norian? Rhaetian.

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	■
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
			Scythian	
	Lower			



A: transverse oblique section; 5/85a, x 4.

B: detail from A, x8.

C: microstructure, fibres, ?midseptal line; 5/85a, x 40.

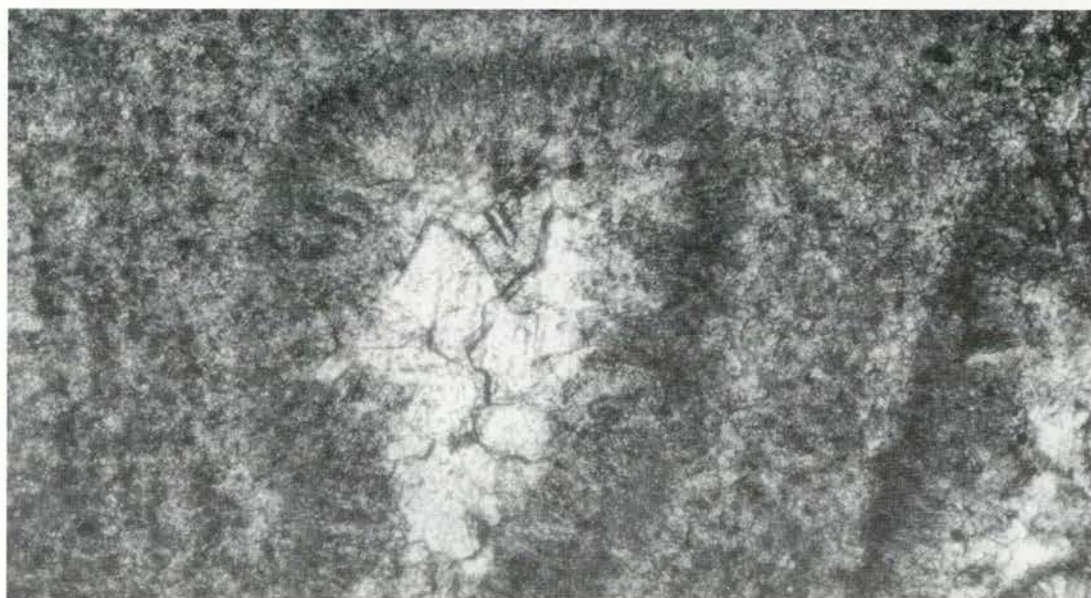


A



B

C



Stylophyllum paradoxum Frech 1890

- 1890 *Stylophyllum paradoxum* nov. sp. FRECH, 54-55, Pl. 4, figs. 1-24, Pl. 15, fig. 12.
 1972 *Stylophyllum paradoxum* Frech. CUIF, 227-232.
 1972 *Stylophyllopsis paradoxum* (Frech). MELNIKOVA, 56.
 1977 *Stylophyllum paradoxum* Frech. CUIF, 14, Pl. 1, figs. 1-3.
 1979 *Stylophyllum paradoxum* Frech. STANLEY, 26.
 1979 *Stylophyllum paradoxum* Frech. SCHÄFER, 45-46, Pl. 9, fig. 3.
 1980 *Stylophyllum paradoxum* Frech. CUIF, 362, Textfig. 1.
 1986 *Stylophyllum paradoxum* Frech. STANLEY, 29, Pl. 3, figs. 1-3.
 1989 *Stylophyllum paradoxum* Frech. RONEWICZ, 121-122, Pl. 36, figs. 3, 4, 8, Pl. 38, fig. 5, Pl. 42, fig. 9.
 1991 *Stylophyllum paradoxum* (Frech). TURNŠEK & BUSER, 225, Pl. 1, fig. 4.

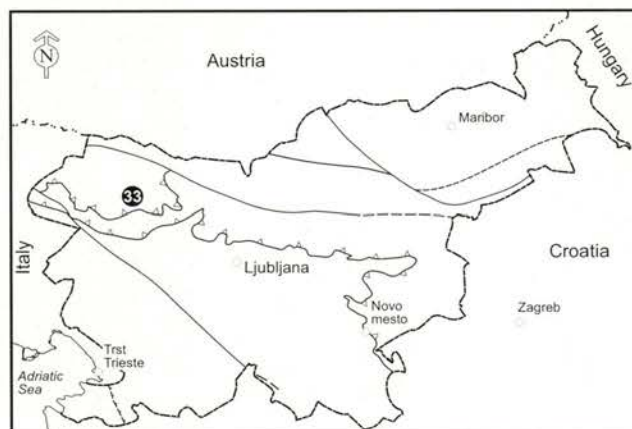
Description: Solitary cylindrical corallum. Thick septa (septal spines) in 2-3 cycles, laterally smooth with thickenings. Wall thick, epithecate, dissepiments large, horizontal, some kind of axial structure present, microstructure fibrous (see also RONEWICZ 1989). $d = \text{ca } 15 \text{ mm}$, $s = \text{ca } 20$.

Localities: 33 Bohinj-Bitnje (P-896); Austria (Alps).

Age: T: Upper Norian-Rhaetian; T: Rhaetian.

Paleoenvironment: Reef body at the southern edge of the Julian Carbonate Platform. Reef limestone.

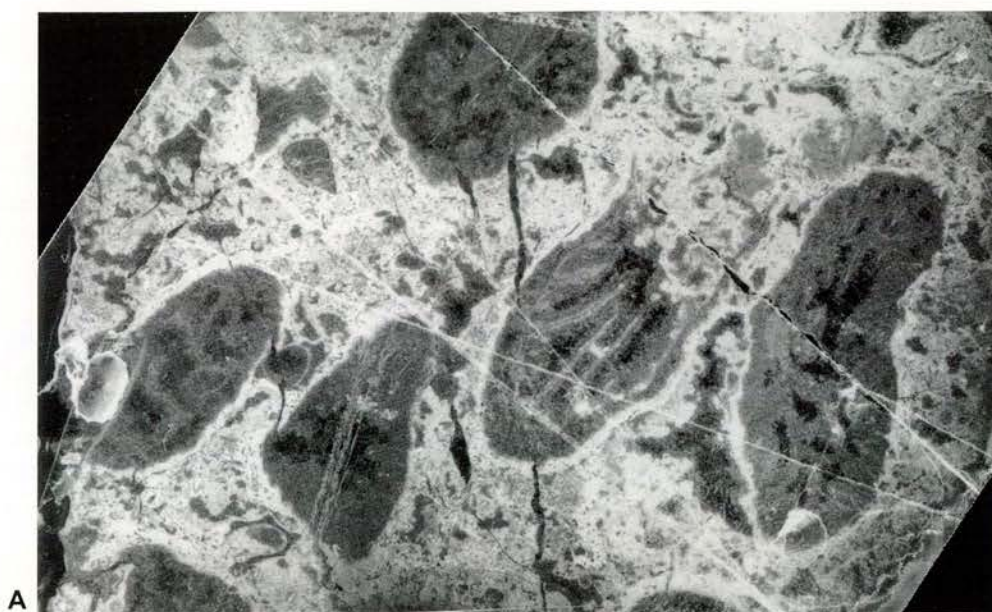
TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	



A: transverse section; P-896a, x 4.

B: the same as A, x 8.

C: microstructure, fibres in thick septa; P-896a, x 40.



Stylosmilia corallina Koby 1881

- 1881 *Stylosmilia corallina* Koby. Koby, 62-63, Pl. 14, figs. 3-7.
 1954 *Stylosmilia corallina* Koby. GEYER, 138.
 1964 *Stylosmilia corallina* Koby. BEAUVAIS, 116.
 1966 *Stylosmilia corallina* Koby. RONIEWICZ, 191-192, Pl. 7, fig. 1.
 1972 *Stylosmilia corallina* Koby. TURNŠEK, 169-170, Pl. 10, figs. 1-2.
 1973 *Stylosmilia corallina* Koby. TURNŠEK & MIHAJLOVIĆ, 97, Pl. 1, figs. 3-4.
 1975 *Stylosmilia corallina* Koby. TURNŠEK, 9, Pl. 2, figs. 1-5.
 1976 *Stylosmilia corallina* Koby. RONIEWICZ, 56, Pl. 8, figs. 3-4.
 1981 *Stylosmilia corallina* Koby. ELIÁŠOVÁ, 126.
 1982 *Stylosmilia corallina* Koby. BENDUKIDZE, 18.
 1990 *Stylosmilia corallina* Koby. ERRENST, 176, Pl. 5, figs. 4ab.

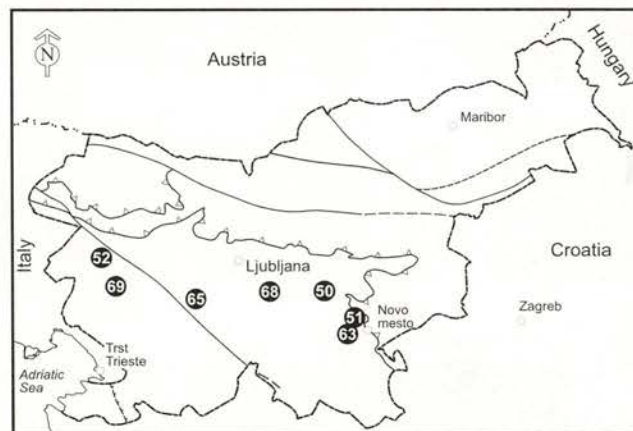
Description: Phaceloid colony, corallites long, round, budding extracalicular lateral. Septa hexamerous, radial, in 3-4 cycles, laterally granulated, axially auriculated. Septoparatheca, lamellar columella, subtabulate dissepiments, microstructure trabecular, poorly preserved. $d = 2-3 \text{ mm}$, $s = 24+s4$.

Localities: 51 Ivanja vas (P-318), 50 Gaber (P-344, P-346), 63 Frata-Mali vrh (P-412), 68 Predole (P-397), 52 Kal nad Kanalom (P-1033), 69 Selovec (P-972), 65 Logaška planota (P-943); Switzerland, Germany, France, Poland, Croatia, Serbia, Romania, Czech R. (Štramberk), Crimea, Spain.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian-Tithonian.

Paleoenvironment: Outer and inner (sheltered) barrier reef on the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-346a, x 4.
 B: longitudinal section; P-346b, x 4.
 C: transverse section; P-1033a, x 4.

D: longitudinal section; P-1033b, x 4.
 E: detail from A, x 8.
 F: detail from B, x 8.

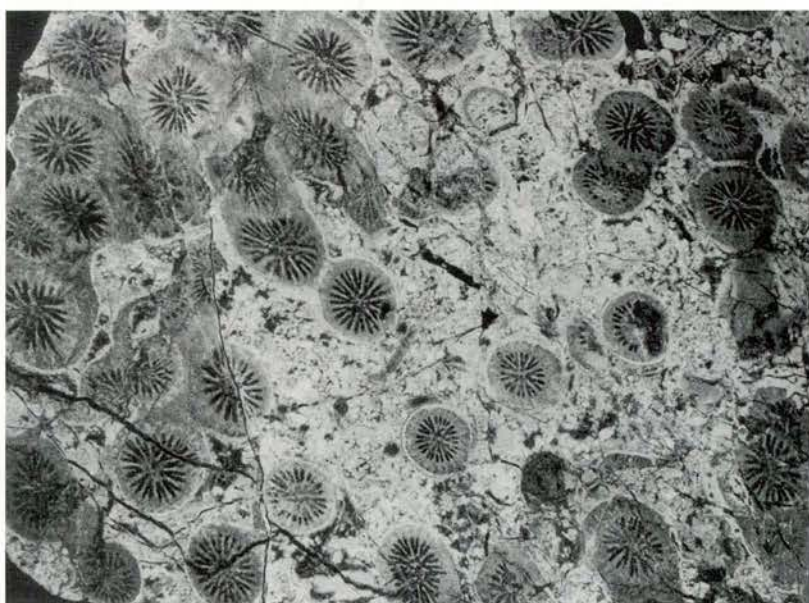


A



B

C

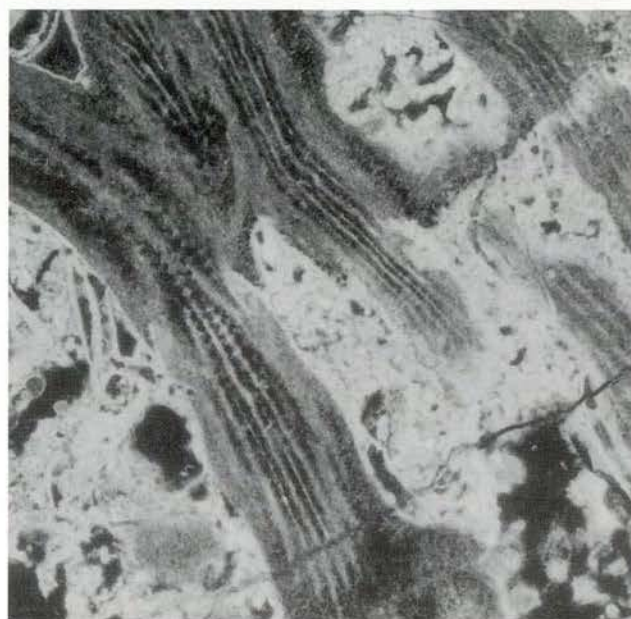
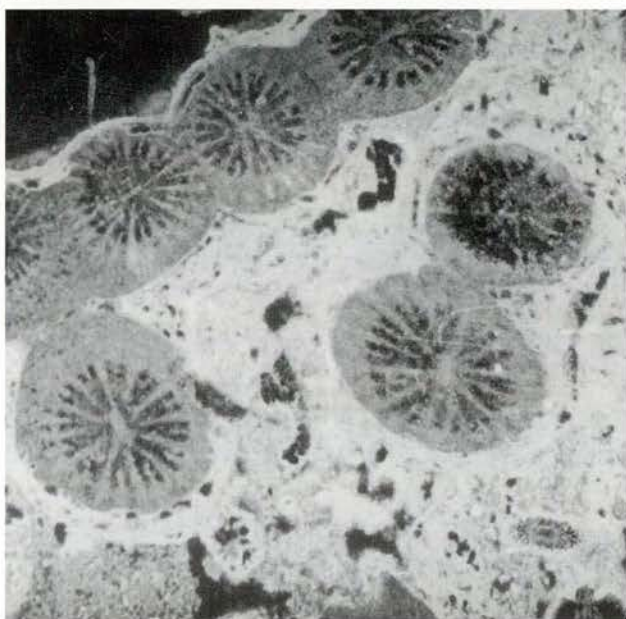


E



D

F



Synastraea dubia Fromentel 1861

- 1861 *Synastraea dubia* de Fromentel. FROMENTEL, 219.
 1964 *Synastraea dubia* Fromentel. BEAUVAIS, 224, Pl. 28, fig. 1.
 1972 *Synastraea dubia* Fromentel. TURNŠEK, 207, Pl. 36, figs. 2-3.
 1985 *Synastraea dubia* de Fromentel. ROSENDAHL, 68, 257, Pl. 2, fig. 9.
 ?1996 *Synastraea* cf. *dubia* Fromentel. BARON-SZABO & STEUBER, 25, Pl. 14, figs. 1,7.

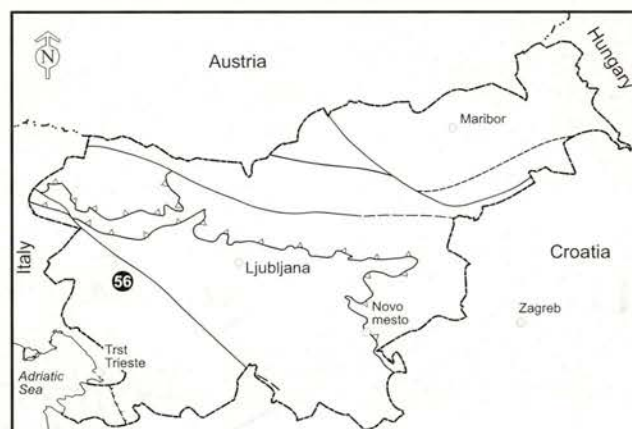
Description: Encrusted thamnasterioid colony with polygonal corallites, budding intracalicular. Septa numerous, irregularly perforated with lateral pennulae. No wall, spongy columella, numerous synapticalae, rare dissepiments, microstructure trabecular. $d = (3)4-6$ mm, $s = 25-42$ (10-12/3 mm).

Localities: 56 Ojstrovca (P-447); France, Portugal, Greece.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian, Kimmeridgian, ?K: Aptian.

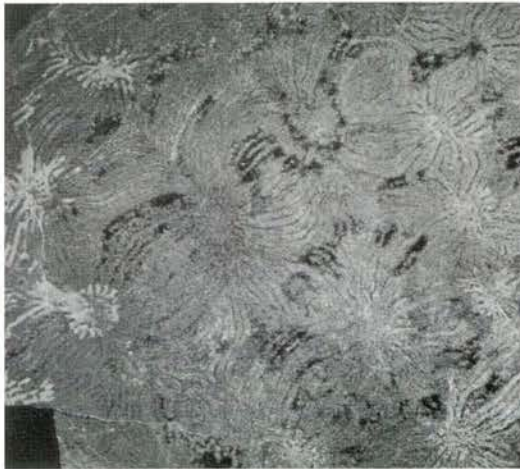
Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-447a, x 4.
 B: oblique longitudinal section; P-447b, x 4.
 C: detail from B, x 8.

D: detail from A, x 8.
 E: microstructure, mini or medium-sized trabeculae; P-447a, x 40.



A



B



C



D



E

Synastraea subagaricites (Becker) 1875

- 1875 *Thamnastraea subagaricites* Becker. BECKER, 71, Pl. 40, fig. 5.
 1972 *Synastraea subagaricites* (Becker). TURNŠEK, 207, 257, Pl. 36, fig. 1.
 1985 *Synastraea subagaricites* (Becker). ROSENDAHL, 68, Pl. 7, fig. 4.

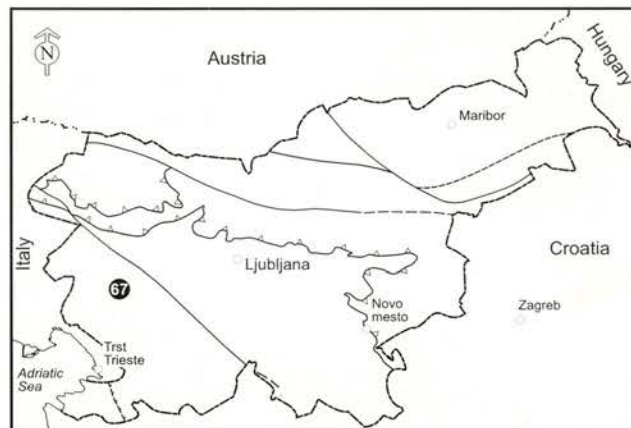
Description: Bulb-shaped thamnasterioid colony with polygonal corallites, budding intracalicular. Septa irregularly perforated, densely spaced, thin, with lateral granulae or pennulae. No wall, spongy columella, synapticalae numerous, dissepiments rare, microstructure trabecular. $d = 5-7.5 \text{ mm}$, $s = \text{ca } 60 \text{ (26/5mm)}$.

Localities: 67 Otlica (P-428); Germany, Portugal.

Age: J: Upper Oxfordian-Kimmeridgian; J: Kimmeridgian.

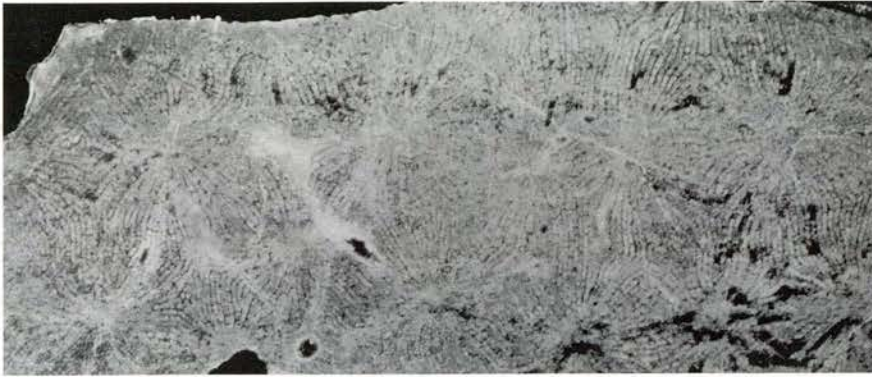
Paleoenvironment: Inner (sheltered) barrier reef on the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section; P-428a, x 4.
 B: longitudinal section; P-428b, x 4.
 C: the same as A, x 8.

D: detail from B, x 8.
 E: microstructure, mini or medium-sized trabeculae, midseptal line; P-428a, x 40.

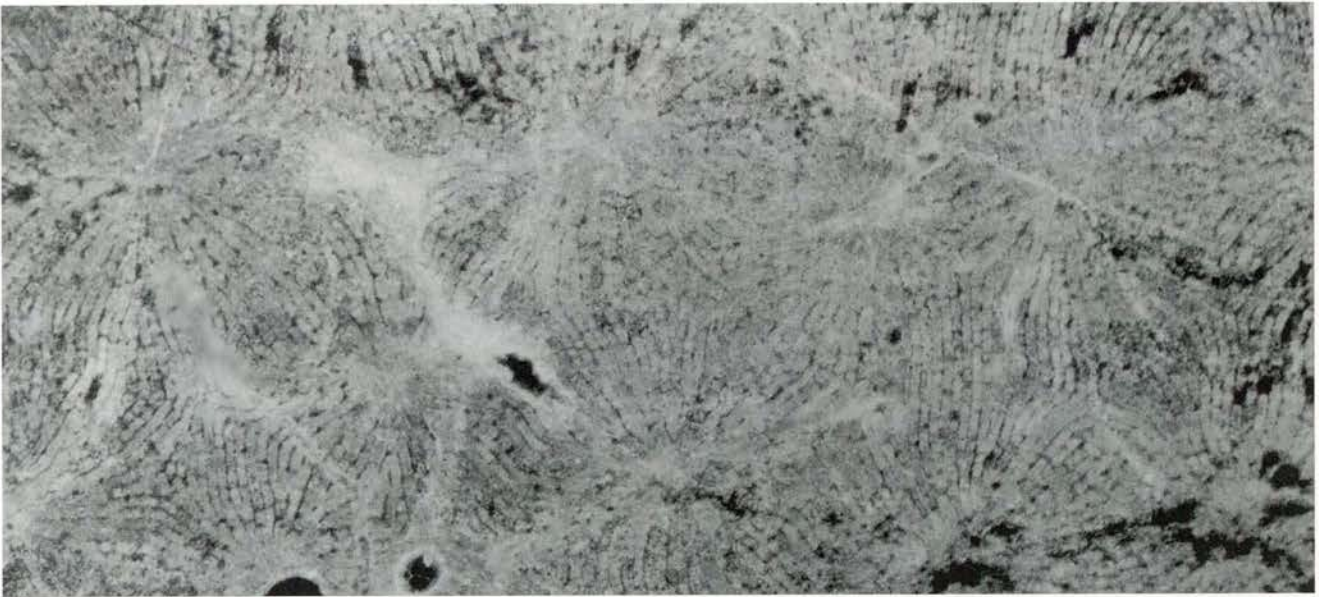


A



B

C



D

E



Thamnasteria concinna (Goldfuss) 1826

- 1826 *Astrea concinna*. GOLDFUSS, 64, Pl. 22, fig. 1a.
 1954 *Synastraea concinna* (Goldfuss). GEYER, 163.
 1964 *Stereocoenia concinna* (Goldfuss). BEAUVAIS, 217, Textfigs. 47, Pl. 26, figs. 1, 6, Pl. 27, figs. 1-2.
 1966 *Thamnasteria concinna* (Goldfuss). RONIEWICZ, 232, Pl. 19, figs. 1-4.
 1968 *Thamnasteria concinna* (Goldfuss). LAMBELET, 139, Textfigs. 67-76.
 1976 *Thamnasteria concinna* (Goldfuss). RONIEWICZ, 92, Pl. 25, figs. 1a-d, 2ab.
 1985 *Thamnasteria concinna* (Goldfuss). ROSENDAHL, 67, Pl. 2, fig. 6.
 1993 *Thamnasteria concinna* (Goldfuss). DOZET & TURNŠEK, 69, Pl. 2, fig. 4.
 1995a *Thamnasteria concinna* (Goldfuss). BERTLING, 111-116, Textfig. 1.

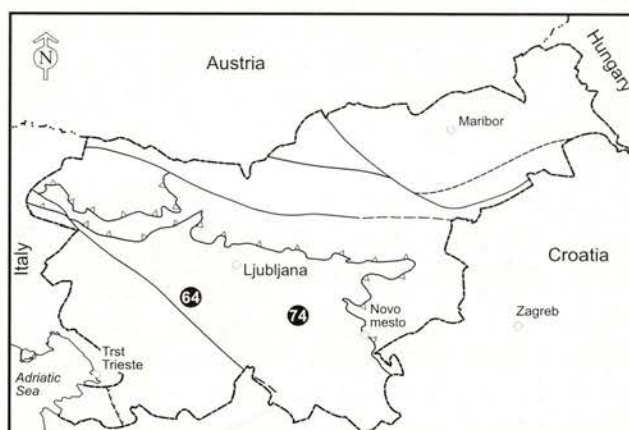
Description: Bulbous to encrusting thamnasterioid colony. Septa subporous, confluent, laterally strongly granulated (?penulated), axially anastomosing. No wall, synapticalae present, styliiform columella very weak, microstructure trabecular. cc = (1.5)2(2. 5) mm, s = 18-30.

Localities: **64** Logaška planota (P-935); **74** Korinj (P-936); Poland, Spain, Germany, Portugal.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian.

Paleoenvironment: Inner barrier reef and patch reef in the back reef area on the Dinaric Carbonate Platform.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	

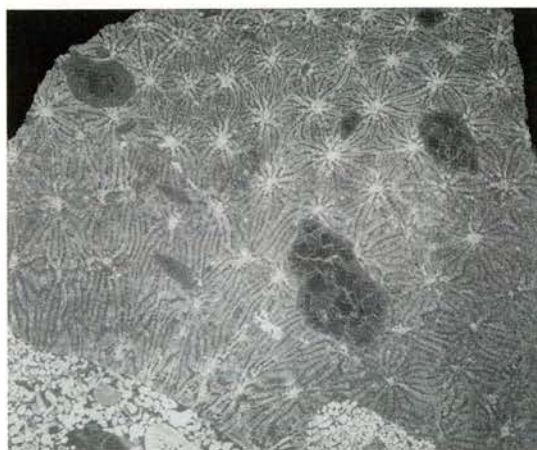


A: transverse section; P-935a, x 4.

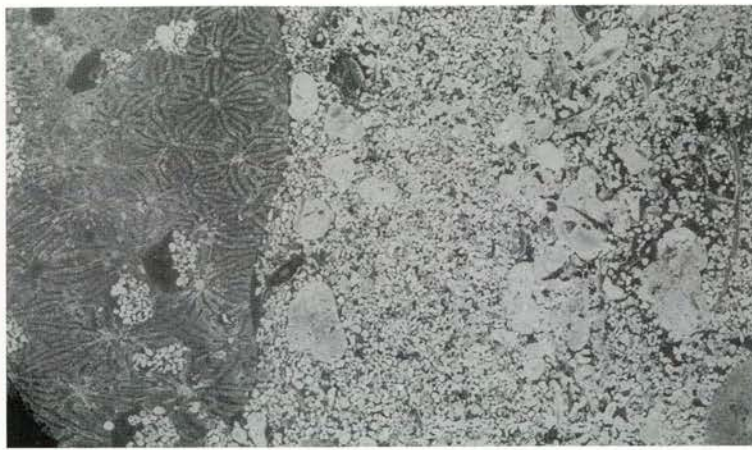
B: transverse section; P-935b, x 4.

C: the same as A, x 8.

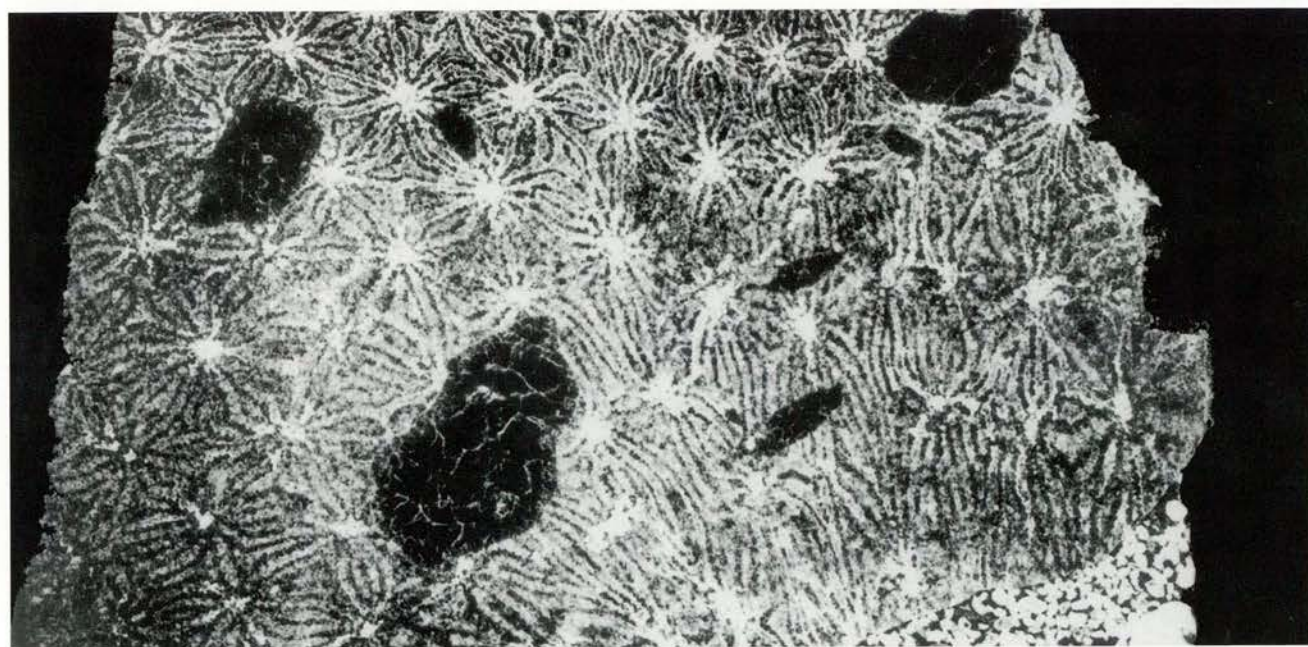
D: microstructure, polycentric thick trabeculae; P-935a, x 40.



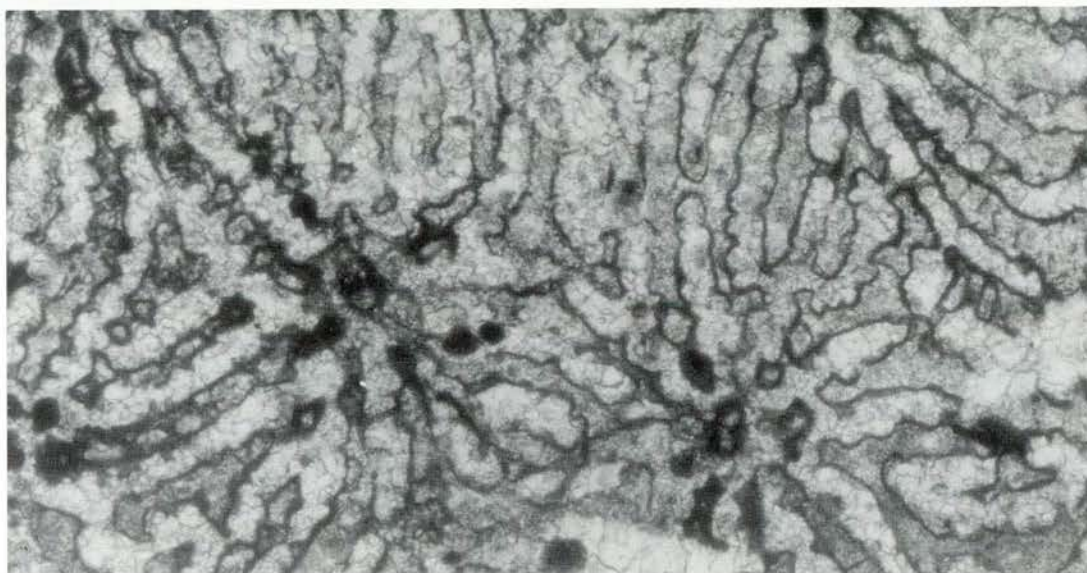
A



B



C



D

Thamnasteria lobata (Goldfuss) 1826

- 1826 *Agaricia lobata*. GOLDFUSS, n. v.
 1857 *Thamnastraea ?lobata*. MILNE EDWARDS & HAIME, 581.
 1954 *Thamnasteria lobata* (Goldfuss). GEYER, 157. Synonymy.
 1955b *Thamnasteria lobata* (Goldfuss). GEYER, 230.
 1957 *Thamnasteria lobata* (Goldfuss). SUČIĆ, 164, Pl. 2, figs. 1-6.
 1965 *Thamnasteria lobata*. GEYER, 230.
 1972 *Thamnasteria lobata* (Goldfuss). TURNŠEK, 204-205, Pl. 35, figs. 1-2.
 1991 *Thamnasteria lobata* (Goldfuss). PRINZ, 183, Pl. 5, fig. 4, Textfig. 21.

Description: Massive thamnasterioid colony with polygonal corallites, budding intracalicular. Septa thick, confluent rarely perforated, laterally granulated (?pennulated). Styliform columella, tabulate dissepiments, rare synapticalae, microstructure trabecular. c-c = 2-3.5 mm, s = 15-22 (5-6/2 mm).

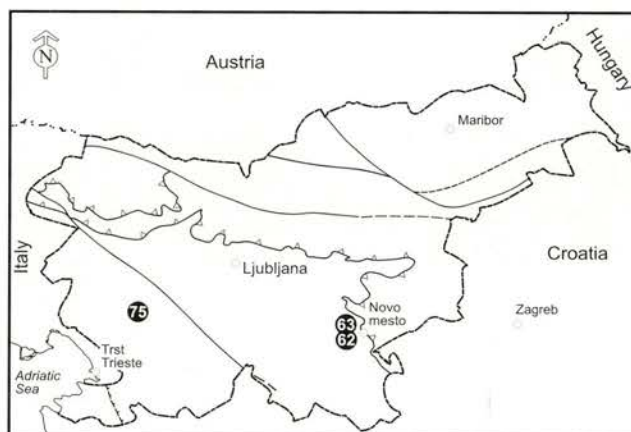
Remarks: ERRENST, 1991 ascribed part of *T. lobata* (of GEYER, 1954, 1955, 1965) to the *Kobyastraea bourgeati*.

Localities: 63 Frata-Mali vrh (P-400, P-403), 62 Frata-Brezova reber (P-388), 75 Nanos (P-960); Germany, France, Switzerland, Czech R., Portugal, Spain, Serbia, Chile.

Age: J: Upper Oxfordian-Kimmeridgian; J: Bajocian, Oxfordian-Kimmeridgian-Tithonian.

Paleoenvironment: Inner (sheltered) barrier reef and patch reef in the back reef area on the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
	Lias	Toarcian	
		Pliensbachian	
		Sinemurian	
		Hettangian	

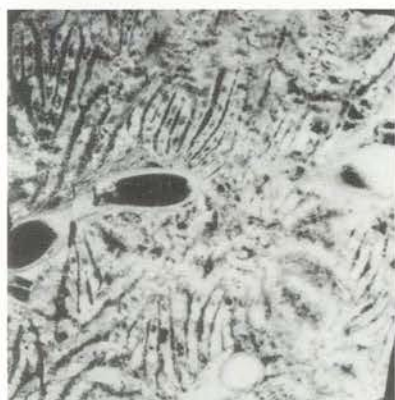


A: transverse section; P-403a, x 4.
 B: longitudinal section; P-403b, x 4.
 C: the same as A, x 8.
 D: detail from B, x 8.

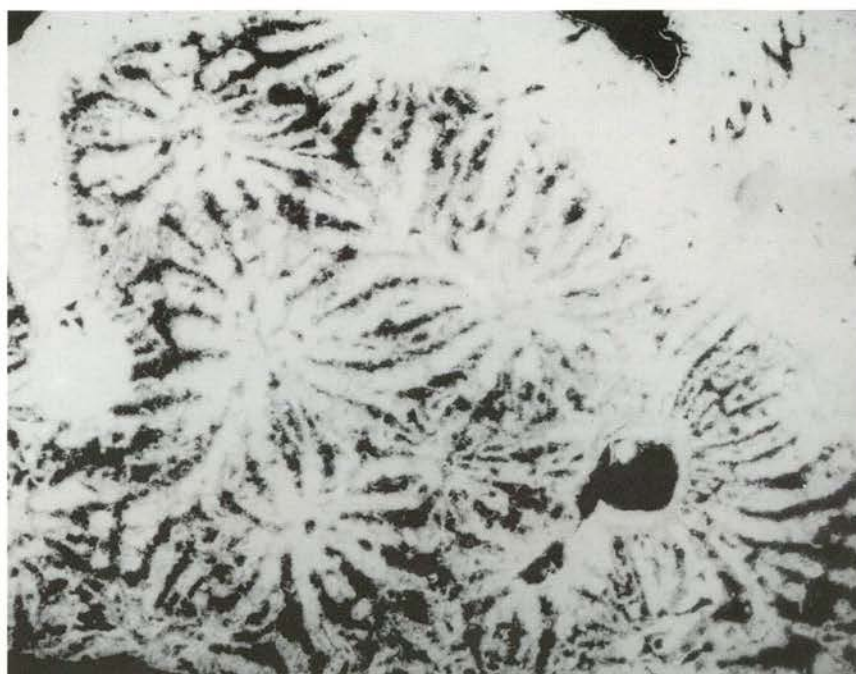
E: transverse and oblique section; P-388a, x 4.
 F: microstructure, polycentric trabeculae, poorly preserved; P-403a, x 40.



A C



B



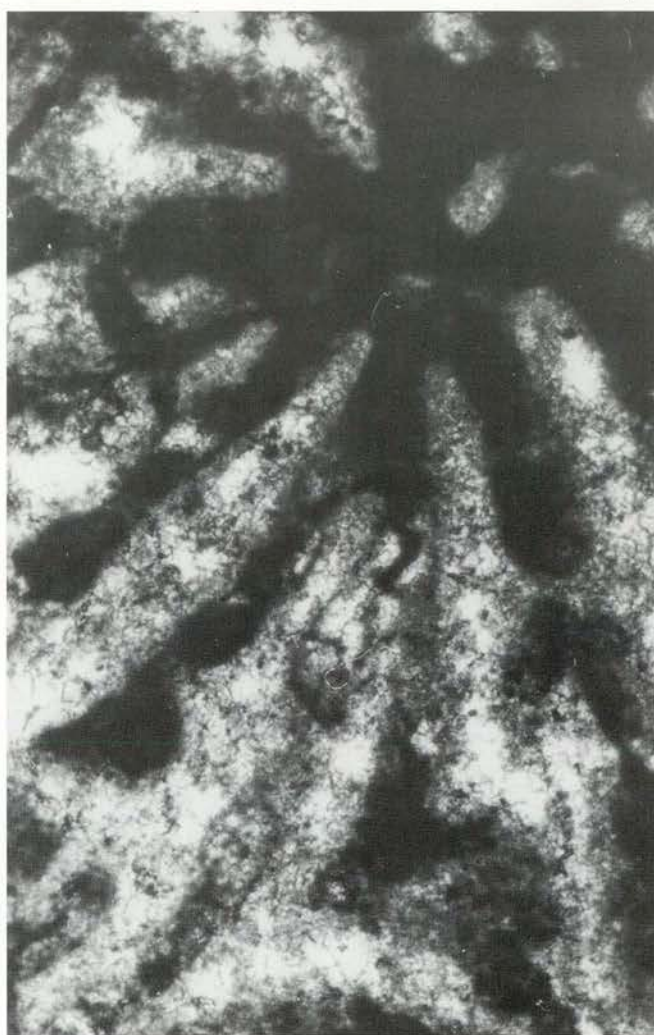
D



E



F



Thamnasteria moreana (d'Orbigny) 1850

- 1850 *Centrastrea moreana*. D'ORBIGNY, 37.
 1955b *Thamnasteria moreana* (d'Orbigny). GEYER, 334, Pl. 1, fig. 9. Synonymy.
 1972 *Thamnasteria moreana* (d'Orbigny). TURNŠEK, 205-206, Pl. 35, figs. 3-4.
 1985 *Thamnasteria moreana* (Orbigny). ROSENDAHL, 67, Pl. 7, fig. 3.

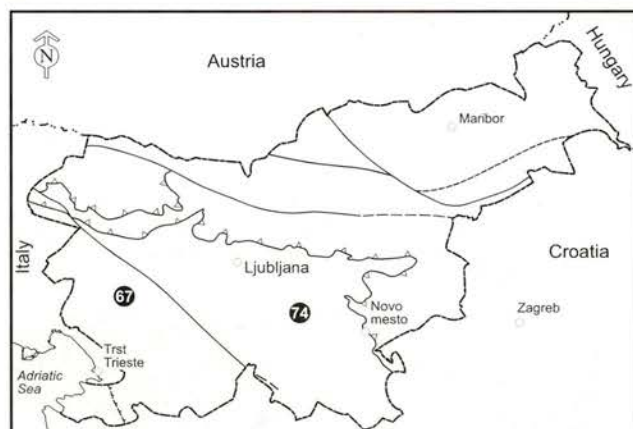
Description: Thamnasterioid colony with densely spaced corallites in irregular lines, budding intracalicular. Septa rarely perforated with lateral granulae and/or pennulae. Columella styliiform, synapticalae throughout the colony, dissepiments tabulate and vesicular, microstructure trabecular. cc = 2-4 mm, s = 25-40 (10-13/3 mm).

Localities: 67 Otlica (P-413, P-430), 74 Korinj (P-946); France, Switzerland, Portugal.

Age: J: Upper Oxfordian-Kimmeridgian; J: Kimmeridgian.

Paleoenvironment: Inner (sheltered) barrier reef on the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	

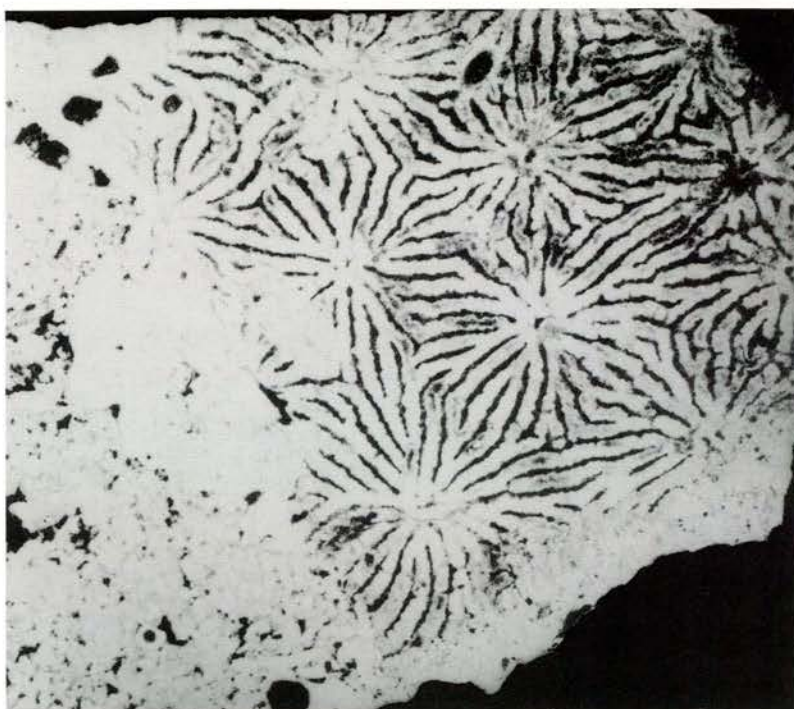


A: transverse section; P-430a, x 4.
 B: longitudinal section; P-430b, x 4.
 C: the same as A, x 8.

D: detail from B, x 8.
 E: transverse section; P-413a, x 4.
 F: microstructure, ? poorly preserved; P-430a, x 40.



A C

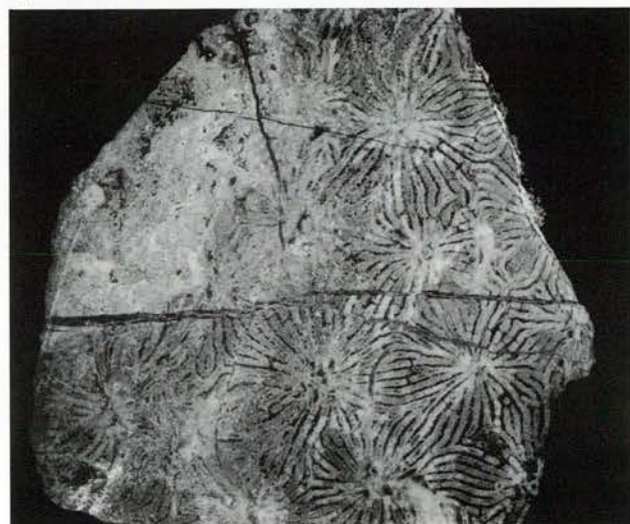


B

D



E



F



Thamnoseris morchella (Reuss 1854)

- 1854 *Latomeandra morchella* m. REUSS, 107, Pl. 21, figs. 9-10.
 1857 *Isastraea morchella* REUSS. MILNE EDWARDS & HAIME, 534.
 1873 *Isastraea morchella* REUSS. STOLICZKA, 36-37, Pl. 7, figs. 7-8.
 1903 *Latimeandraraea morchella* REUSS. FELIX, 217.
 1957 *Brachyseris morchella* (REUSS). ALLOITEAU, 309-310.
 1976 *Thamnoseris morchella* (REUSS). TURNŠEK & BUSER, 61-62, Pl. 19, figs. 1-3.
 1997 *Thamnoseris morchella* (REUSS). BARON-SZABO, 89, Pl. 16, fig. 1.

Description: Meandroid to cerioid colony, corallites in series or monocentric, oval to polygonal with clear centres, extratentacular. Septa subcompact, confluent, perforated in periphery, axially thickened and trabecularly prolonged, laterally pennulated. Incomplete synapticulotheca, many synapticulae, some ?vesicular dissepiments, spongy columella. Microstructure trabecular. d = 4-8 mm, cc = 4-8 mm, s in monocentric corallites = 24-48, in series = 10-13/5mm.

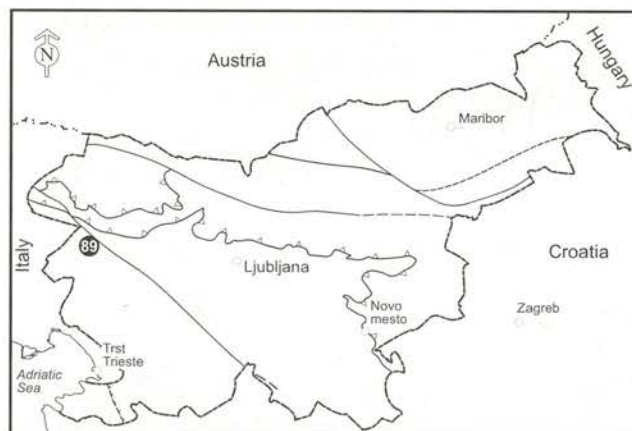
Remarks: *Brachyseris* Alloiteau 1952 was put as a younger synonymus to *Thamnoseris* Étallon 1864 by TURNŠEK & BUSER, 1976. *Brachyseris* was recognized again by ELIÁŠOVÁ (1994b) because it has a different lateral ornamentation of septa. They should be prolonged granulae (grains allongés) and not pennulae. In our specimens they are pennulae.

Localities: 89 Kanalski Lom (P-613, P-614); Germany, Austria (Gosau), India.

Age: Senonian breccia; K: Turonian, Santonian.

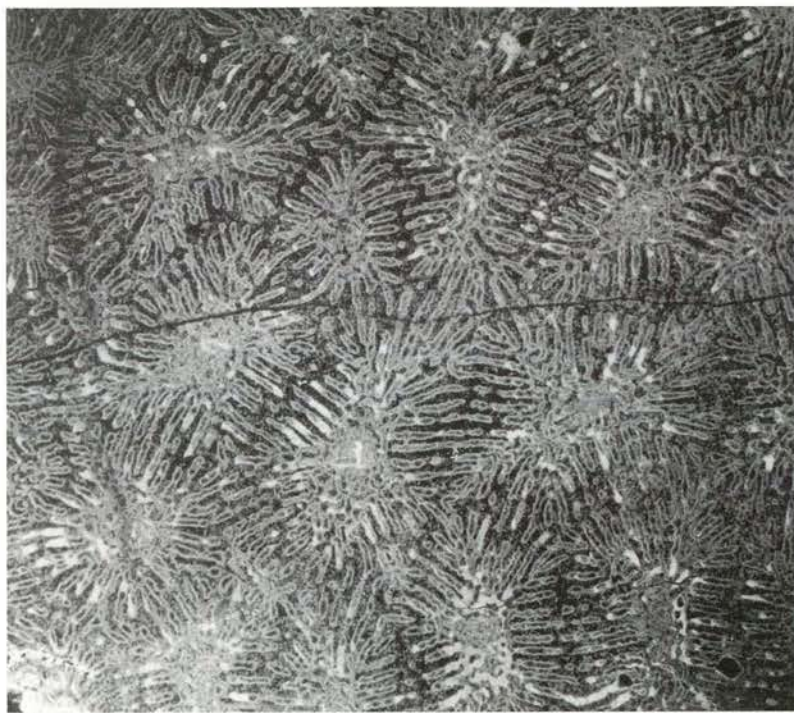
Paleoenvironment: Outer slope of the Dinaric Carbonate Platform. Reef limestone resedimented in breccia.

CRETACEOUS	Upper	Senonian	Maastrichtian
			Campanian
			Santonian
			Coniacian
			Turonian
	Lower		Cenomanian
			Albian
			Aptian
			Barremian
			Hauterivian
			Valanginian
			Berriasian

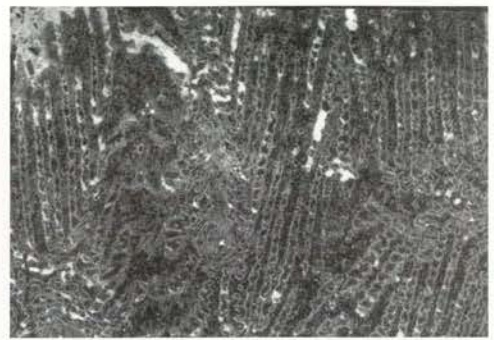


A: transverse section; P-614a, x 4.
 B: longitudinal section; P-614b, x 4.
 C: longitudinal section; P-613b, x 4.

D: transverse section; P-613a, x 6.
 E: microstructure, ?medium-sized to thick trabeculae; P-613a, x 40.



A



B



C



D



E

Thamnotropis rakoveci Turnšek 1985

1985 *Thamnotropis rakoveci* n. sp. TURNŠEK, 307-312, Pl. 1, figs. 1-2, Pl. 2, figs. 1-3, Pl. 3, figs. 1-2, Textfigs. 1-2.

Description: Bulby colony with thamnaterioid corallites of polygonal shape. Septa subcompact, confluent, axially rarely perforated, laterally pennulated. No wall, vesicular dissepiments, rare synapticalae, spongy columella, microstructure trabecular. $d = (6)7-8(9)$ mm, $s = 40-70$.

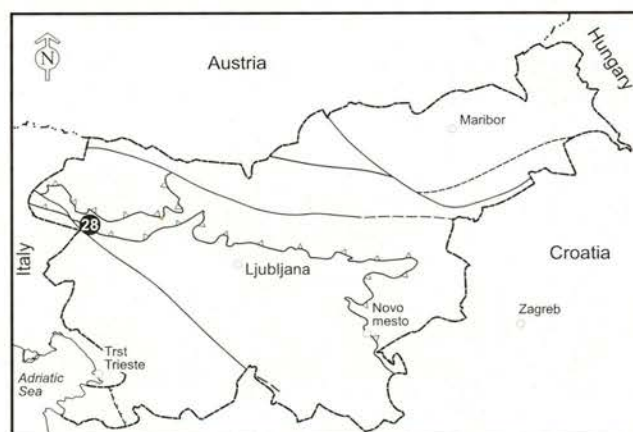
Locality: 28 Perbla (P-780 holotype, P-781, P-782, P-783, P-784);

Age: T: Carnian (Tuvanian).

Remarks: In the first description (TURNŠEK, 1985) the age was mentioned as Carnian. Later (TURNŠEK et al., 1987) it was stated as Upper Carnian (Tuvanian).

Paleoenvironment: Reef mound within the clastic beds in the Slovenian Basin.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvanian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
			Scythian	
	Lower			



A: transverse section; P-780a, x 4.

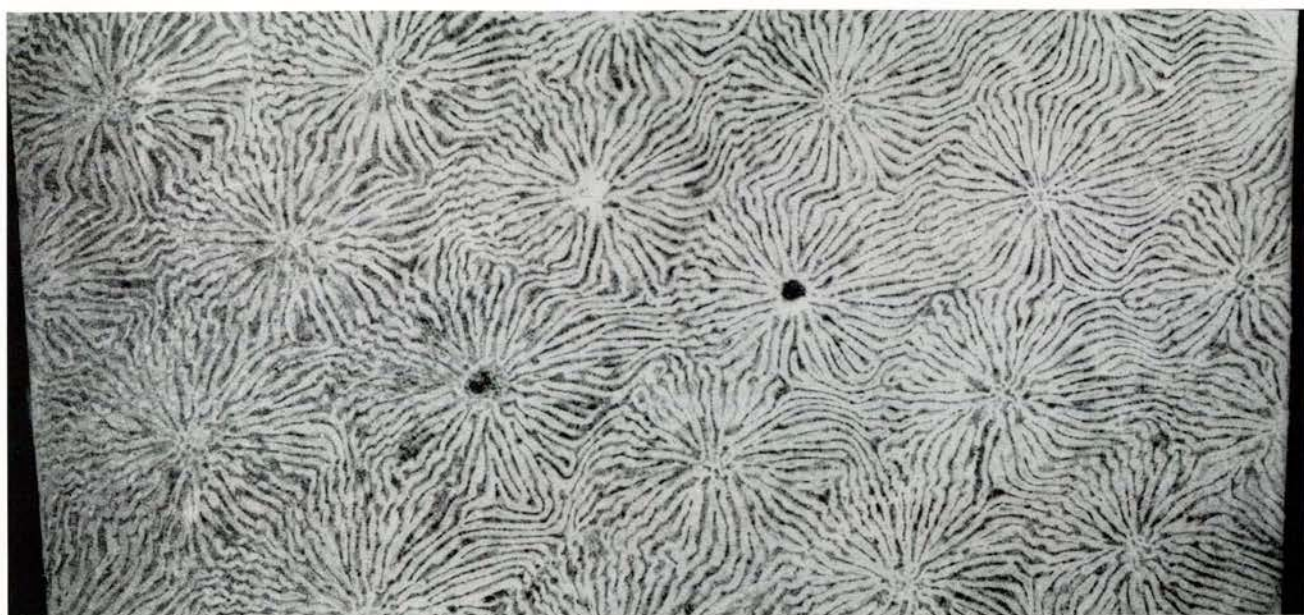
B: detail from A, x 8.

C: longitudinal section; P-780b, x 4.

D: detail from C showing pennulae, x 20

E: detail from B, x 20.

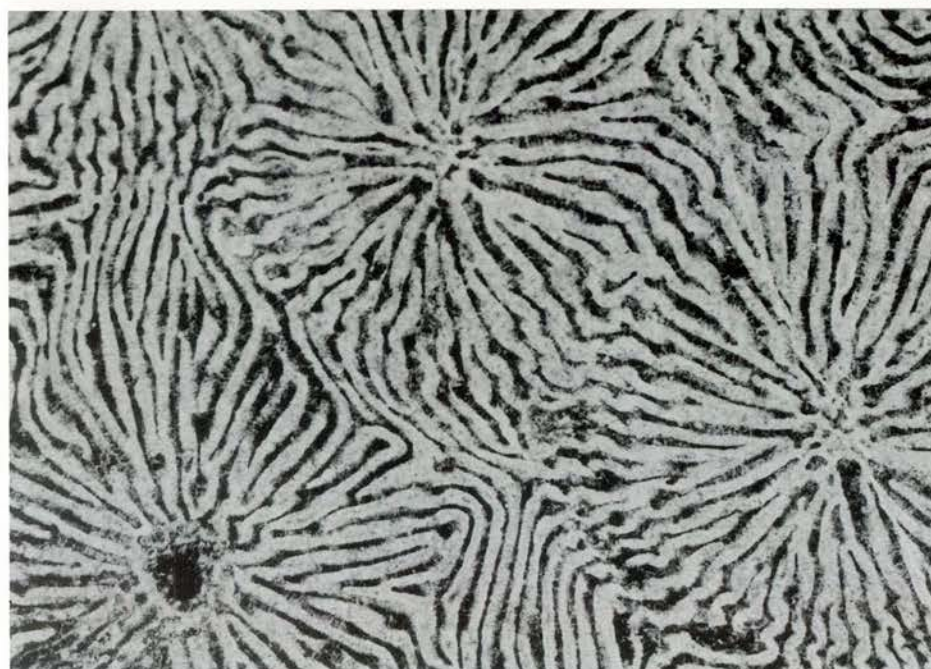
F: microstructure, ?medium-sized to thick trabeculae, P-780a, x 40.



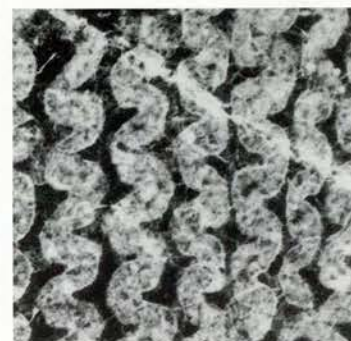
A

B

C



D



E

F



Thecosmilia dichotoma Koby 1884

- 1884 *Thecosmilia dichotoma* Koby. Koby, 175, Pl. 46, figs. 4-8.
 1954 *Thecosmilia dichotoma* Koby. GEYER, 182, Pl. 14, fig. 15.
 1955a *Thecosmilia dichotoma* Koby. GEYER, 200.
 1966 *Thecosmilia dichotoma* Koby. RONIEWICZ, 212, Pl. 12, fig. 3.
 1972 *Thecosmilia dichotoma* Koby. TURNŠEK, 175-176, Pl. 13, figs. 3-4.
 1974 *Thecosmilia dichotoma* Koby. MORYCOWA, 466-467, Pl. 5, fig. 1.
 1976 *Thecosmilia dichotoma* Koby. ELIÁŠOVÁ, 169, Pl. 1, fig. 2.
 1982 *Thecosmilia dichotoma* Koby. BENDUKIDZE, 50.
 1985 *Thecosmilia dichotoma* Koby. ROSENDAHL, 47, Pl. 1, fig. 7.
 1996 *Thecosmilia dichotoma* Koby. BARON-SZABO & STEUBER, 14, Pl. 6, figs. 1-3.

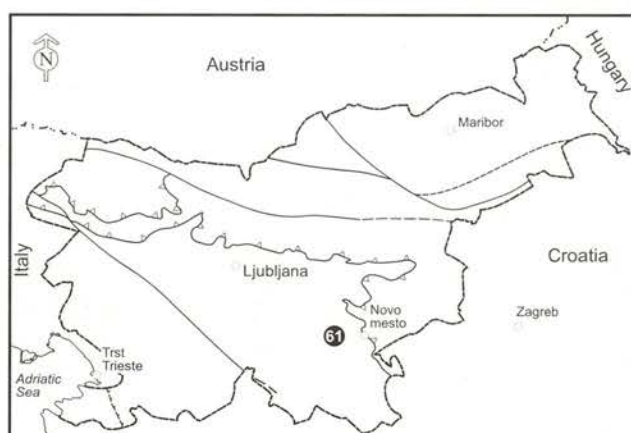
Description: Phaceloid colony with round corallites. Septa in 3-4 cycles, lateral granulae, round fossula. Septoparatheca, large bent dissepiments, columella absent, microstructure montlivaltioid. d = 12-15 mm, s = 45-60.

Localities: 61 Frata (P-358, P-359, P-363); Switzerland, Germany, Poland, Czech R. (Štramberk), Crimea, Portugal, Greece.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian-Tithonian, K: Aptian

Paleoenvironment: Inner (sheltered) barrier reef on the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	

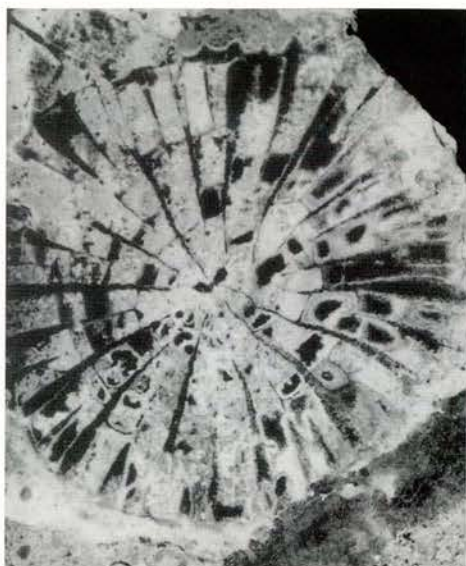


A: transverse section of one corallite; P-358a, x 4.

B: longitudinal section; P-358b, x 4.

C: oblique transverse and longitudinal sections; P-363a, x 4.

D: microstructure, ?monoaxial trabeculae, recrystallized, P-358a, x 4.



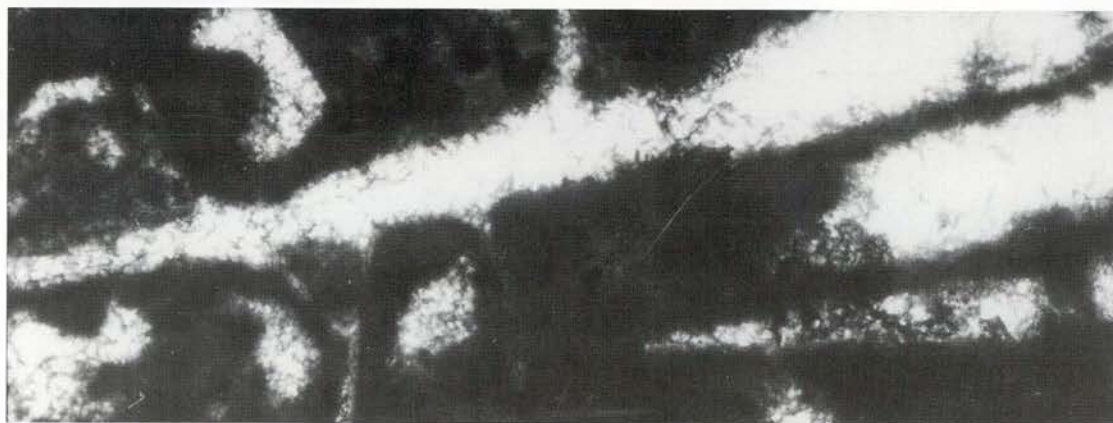
A



C



B



D

Thecosmilia minuta Koby 1884

- 1884 *Thecosmilia minuta* Koby. Koby, 173, Pl. 59, figs. 8-10,
 1972 *Thecosmilia minuta* Koby. TURNŠEK, 175, Pl. 13, figs. 1-2.
 1976 *Thecosmilia minuta* Koby. ELIAŠOVÁ, 170, Pl. 2, fig. 2.

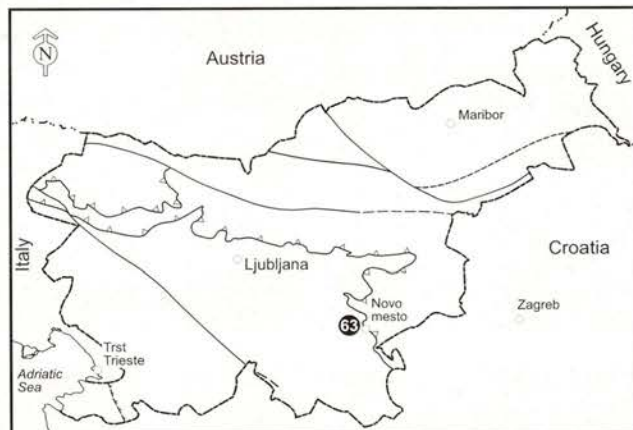
Description: Phaceloid colony with round corallites, budding extracalicular. Septa in 3-4 cycles, laterally granulated. Septoparatheca, convex and concave dissepiments, microstructure montlivaltioid, poorly preserved. d = 9-12 mm, s = 30-40.

Localities: 63 Frata-Mali vrh (P-404, P-410, P-411); Switzerland, Czech R. (Štramberk)

Age: J: Upper Oxfordian-Kimmeridgian; J: Upper Oxfordian, Tithonian.

Paleoenvironment: Inner (sheltered) barrier reef on the Dinaric Carbonate Platform. Reef limestone.

JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
		Toarcian	
	Lias	Pliensbachian	
		Sinemurian	
		Hettangian	



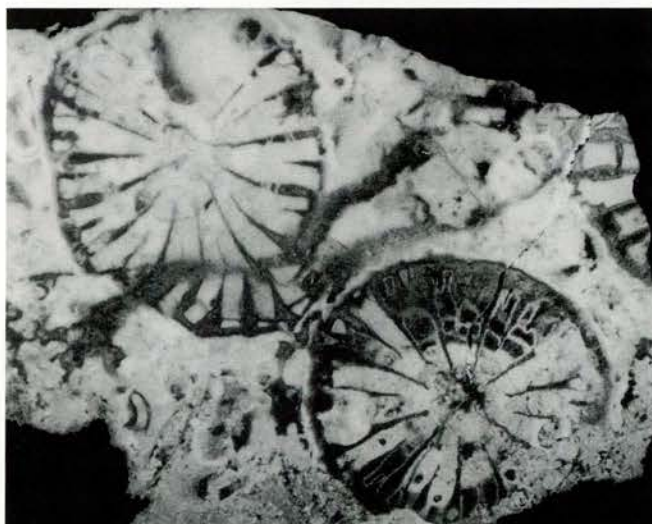
A: transverse section; P-410a, x 4.

B: transverse section of another corallites; P-410b, x 4.

C: longitudinal section of one corallite; P-404b, x 4.

D: detail from C, x 8.

E: the same as A, x 8.



D

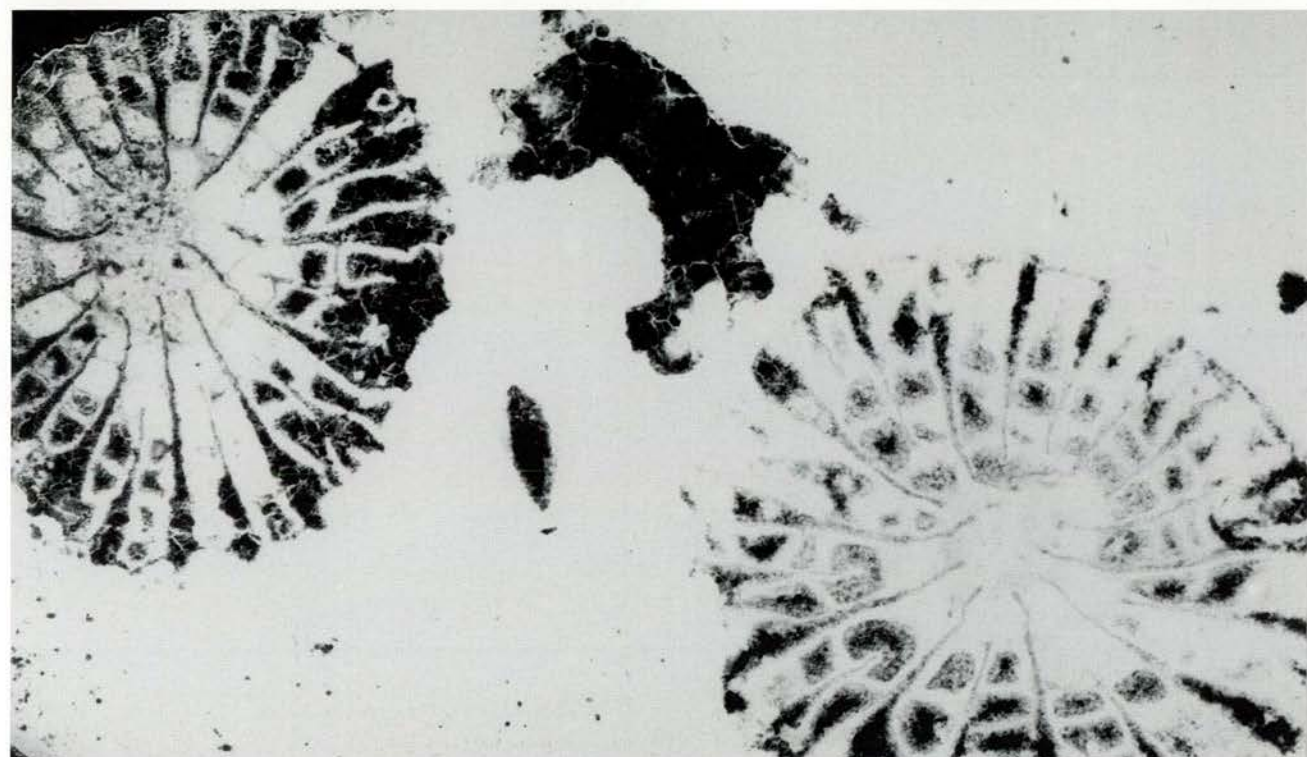
A

B

C



E



Thecosmilia trichotoma (Goldfuss) 1826

- 1826 *Lithodendron trichotomum* Goldfuss. GOLDFUSS, 45, Pl. 13, fig. 6.
 1954 *Thecosmilia trichotoma* (Goldfuss). GEYER, 180-181.
 1960 *Thecosmilia trichotoma* (Goldfuss). RONEWICZ, 454-456, Pl. 1-2, Pl. 3, figs. 1-2. Synonymy.
 1968 *Thecosmilia trichotoma* (Goldfuss). LAMBELET, 125-137, Textfigs. 60-66.
 1972 *Thecosmilia trichotoma* (Goldfuss). TURNŠEK, 176-177, Pl. 14, figs. 1-2, Pl. 15, fig. 3.
 1974 *Thecosmilia* cf. *trichotoma* (Goldfuss). MORYCOWA, 467-468, Pl. 5, fig. 2, Pl. 10, fig. 1, Textfig. 5.
 1976 *Thecosmilia trichotoma* (Goldfuss). ELIÁŠOVÁ, 169, Pl. 4, fig. 2.
 1982 *Thecosmilia trichotoma* (Goldfuss). BENDUKIDZE, 43-44, Pl. 15, fig. 5.
 1985 *Thecosmilia trichotoma* (Goldfuss). ROSENDAHL, 47.
 1994 *Thecosmilia trichotoma* (Goldfuss). ELIÁŠOVÁ, 67, Pl. 2, figs. 1-4.
 1996 *Thecosmilia trichotoma* (Goldfuss). BARON-SZABO & STEUBER, 13-14, Pl. 5, figs. 3, 6.

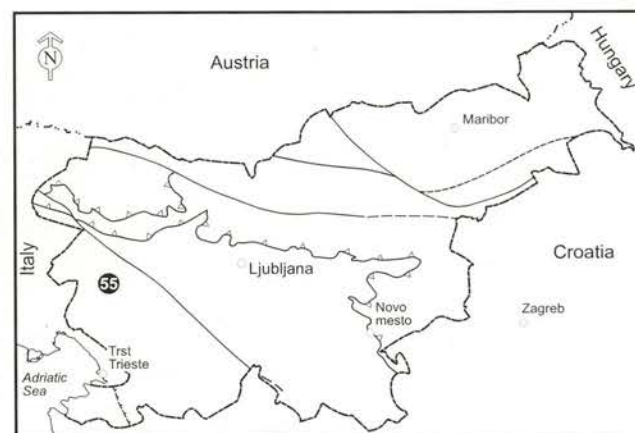
Description: Phaceloid colony with round corallites. Septa in 5-6 cycles, laterally granulated, budding intracalicular, round fossula. Septoparatheca, large dissepiments, no columella, microstructure montlivaltioid with lateral thickenings. d = ca 20 mm, s = 70-100.

Localities: 55 Mrzovec (P-463); Germany, Poland, Crimea, Czech R. (Štramberk, Brno), Portugal, Greece.

Age: J: Upper Oxfordian-Kimmeridgian; J: Oxfordian-Kimmeridgian-Tithonian, K: Aptian.

Paleoenvironment: Outer barrier reef at the edge of the Dinaric Carbonate Platform. Reef limestone.

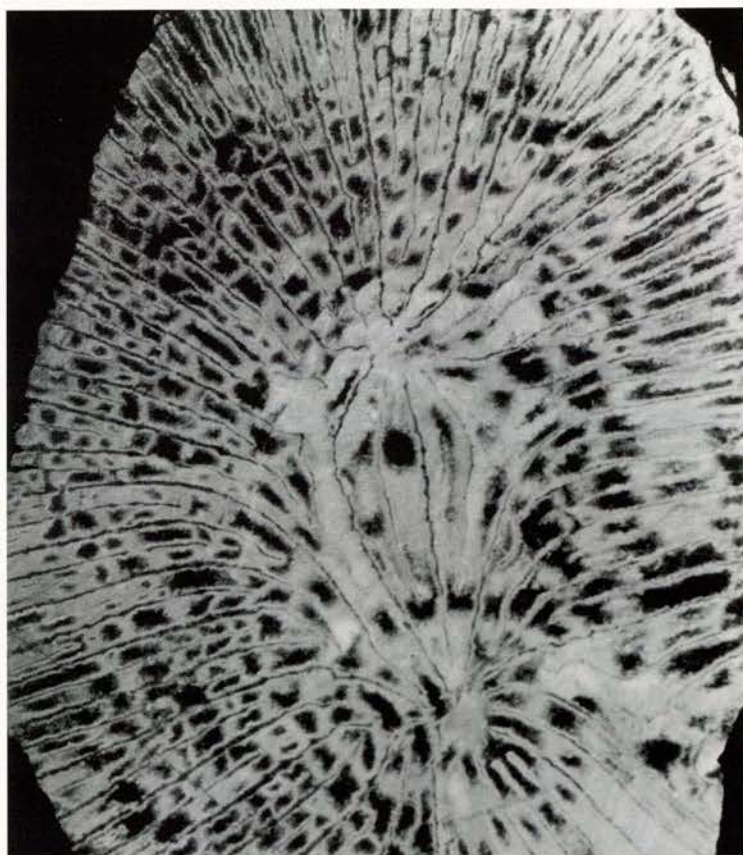
JURASSIC	Malm	Tithonian	
		Kimmeridgian	
		Oxfordian	
	Dogger	Callovian	
		Bathonian	
		Bajocian	
		Aalenian	
	Lias	Toarcian	
		Pliensbachian	
		Sinemurian	
		Hettangian	



A: transverse section of corallite in phase of budding; P-463a, x 4.

B: longitudinal section; P-463b, x 4.

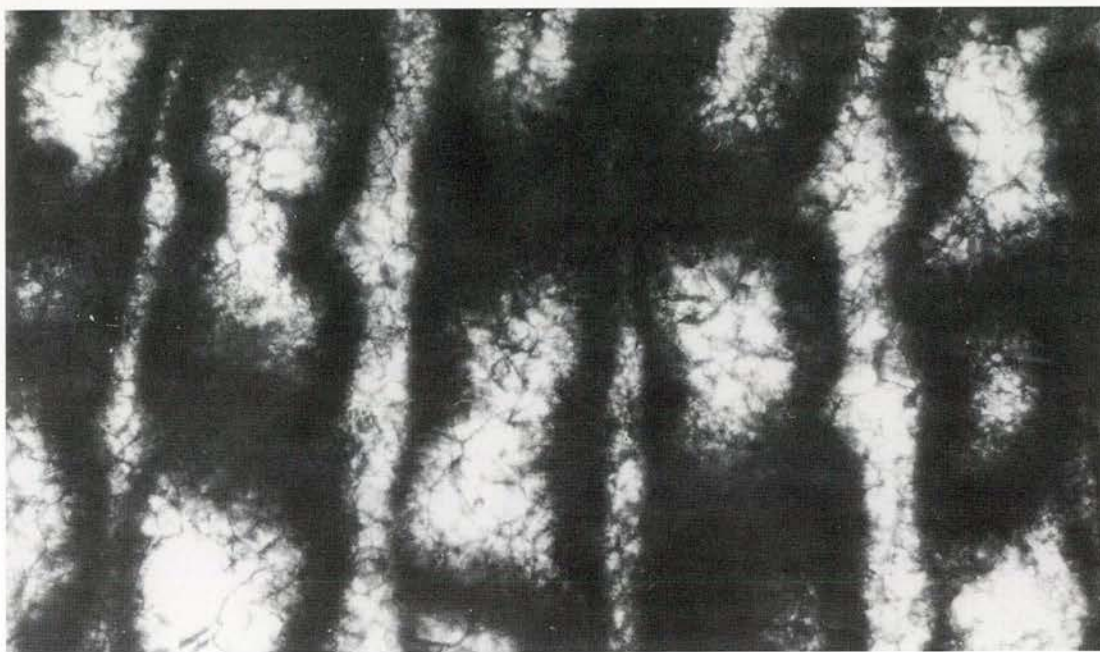
C: microstructure, monoaxial montlivaltioid trabeculae, somewhere midseptal line; P-463a, x 40.



A



B



C

Toechastraea pachyphyllia Cuif 1976

- 1976 *Toechastraea pachyphyllia* nov. sp. CUIF, 146-148, Pl. 16, figs. 3-4.
 1987 *Toechastraea pachyphyllia* Cuif. TURNŠEK & RAMOVŠ, 41-42, Pl. 3, figs. 5-6.

Description: Cerioid colony with intercalicinal marginal division, corallites round to polygonal. Septa compact in 3-4 cycles, first two being stronger, laterally granulated. Septotheca, columella large styliform, not always preserved, thin vesicular dissepiments, microstructure poorly preserved. $d = 3-5 \text{ mm}$, $s = 24+s4$.

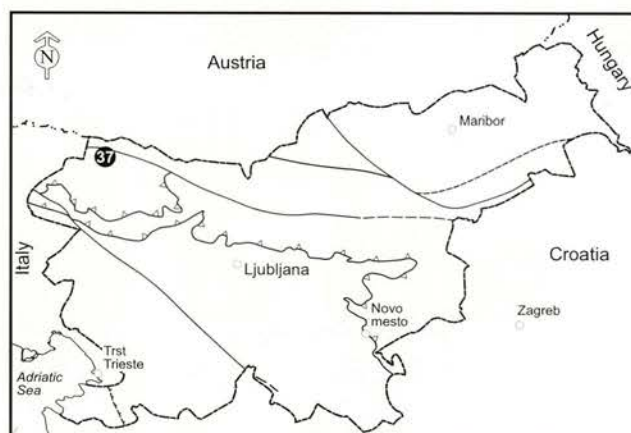
Remarks: RONIEWICZ (1989) put this genus into the suborder *Caryophyllina* Vaughan & Wells 1943. I follow BEAUVAIS (1981), systematizing it to the *Distichophyllina* because of the endotheca.

Localities: 37 Dovški križ (59/81-1,-2); Turkey.

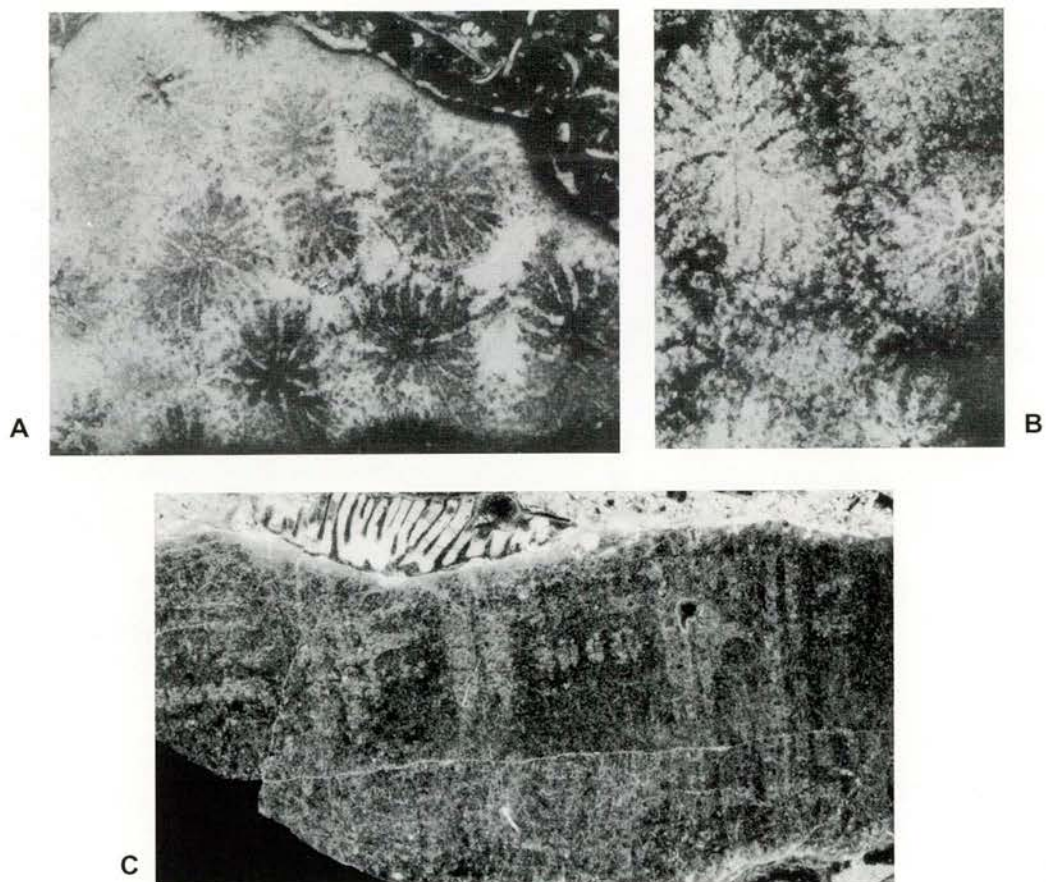
Age: T: Upper Norian-Rhaetian; T: Norian.

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	



- A: transverse section; 59/81-1a, x 4.
 B: detail from A, x 8.
 C: longitudinal section; 59/81-2b, x 4.



Tropidendron mlinaricensis Turnšek 1987

1987 *Tropidendron mlinaricensis* n. sp. TURNŠEK & RAMOVŠ, 42, Pl. 12, figs. 1-6, Pl. 13, figs. 1-5.

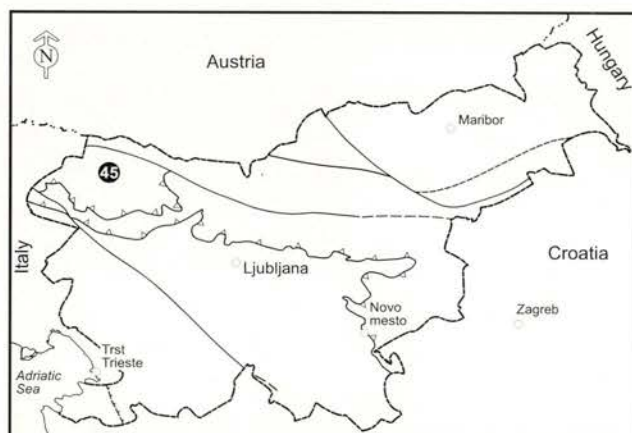
Description: Phaceloid colony with irregularly ramified round corallites. Septa compact, in 3-4 cycles, lateral thorns and pennulae. Incomplete septotheca, tabulate and vesicular dissepiments, styliiform columella, microstructure not preserved. $d = 2-3.5(4)$ mm, $s = 24+s$.

Localities: 45 Rušnata Mlinarica (15/82-6 holotype, 16/82, 17/85, 18/85-2, 19/85-1, 2), Tominškova pot (8/85).

Age: T: Lower Norian.

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Rhaetian		■
		Norian		
		Carnian	Tuvalian	
			Julian	
			Cordevolian	
	Middle	Ladinian		
		Anisian		
	Lower	Scythian		



A: surface from above, 19/85-2, x 1.

B: transverse section; 15/82-6a, x 8.

C: longitudinal and partly oblique section; 15/82-6b, x 4.

D: oblique longitudinal and transverse section; 15/82-6c, x 4.

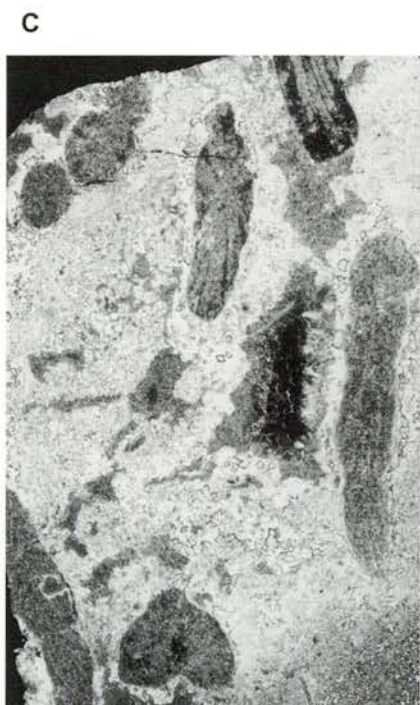
E: microstructure, ?medium-sized trabeculae, midseptal line; 15/82-6a, x 40.



A



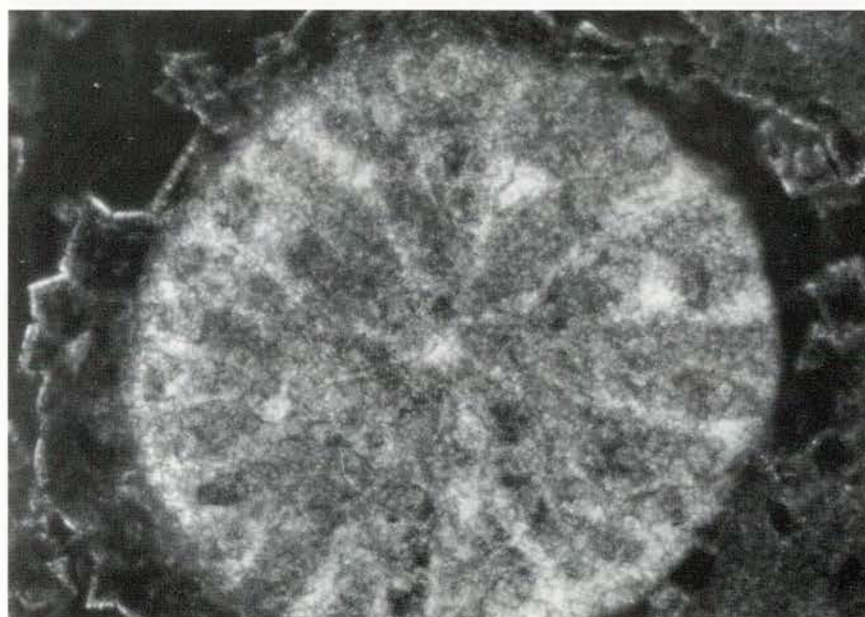
B



C



D



E

Tropidendron rhopalifer Cuif 1975

- 1975 *Tropidendron rhopalifer* n. g, n. sp. CUIF, 94-97, 126, Pl. 12, figs. 1-6, Textfig. 13.
 1984 *Tropidendron rhopalifer* Cuif. RAMOVŠ & TURNŠEK, 7, Pl. 6, figs. 1-5, Pl. 7, figs. 1-2.
 1984 *Tropidendron* sp. RAMOVŠ & TURNŠEK, 178, Pl. 7, figs. 3-4.
 1989 *Tropidendron rhopalifer* Cuif. TURNŠEK & BUSER, 88, Pl. 7, figs. 6-7.

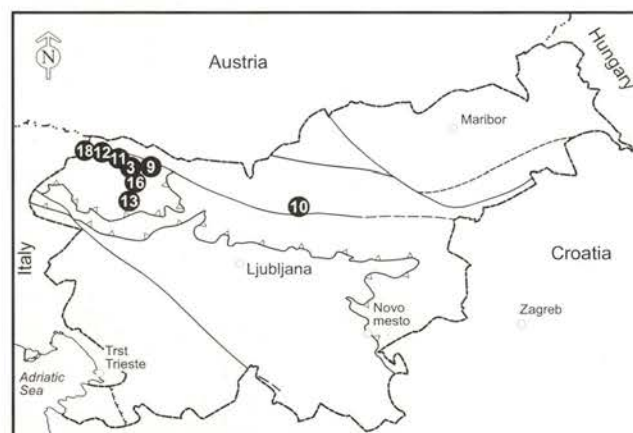
Description: Phaceloid colony with small round coralites, budding extracalicular lateral. Septa radial with rare lateral pennulae, in 3-4 cycles. Incomplete septotheca, styloform columella feebly developed, thin vesicular dissepiments, microstructure not preserved. $d = (2)3-5$ mm, $s = ca\ 40$.

Localities: **9** Mežakla-Kisovec (SJA-7/3, 8/3, 4), **16** Radovna (SJA-14/2, 4, 11), **3** Frčkov vrh (SJA-15/4, 13, 14), **11** Mojstrana (SJA-40,-45), **12** Njivice (SJA-48), **18** Vitranc (SJA-55/3), **13** Pokljuka (P-809), **10** Menina planina (8); Italy (Dolomites).

Age: T: Carnian (Cordevolian); T: Carnian (Cassian beds).

Paleoenvironment: Reef complex on the Julian Carbonate Platform. Reef limestone.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	



- A: surface from above; SJA-15/14, x 1.
 B: transverse section; SJA-15/14a, x 4.
 C: longitudinal section; SJA-15/14b, x 4.
 D: the same as B, x 8.

- E: surface from above; P-809, x 1.
 F: transverse section; P-809a, x 4.
 G: microstructure, not preserved; P-809a, x 40.



A

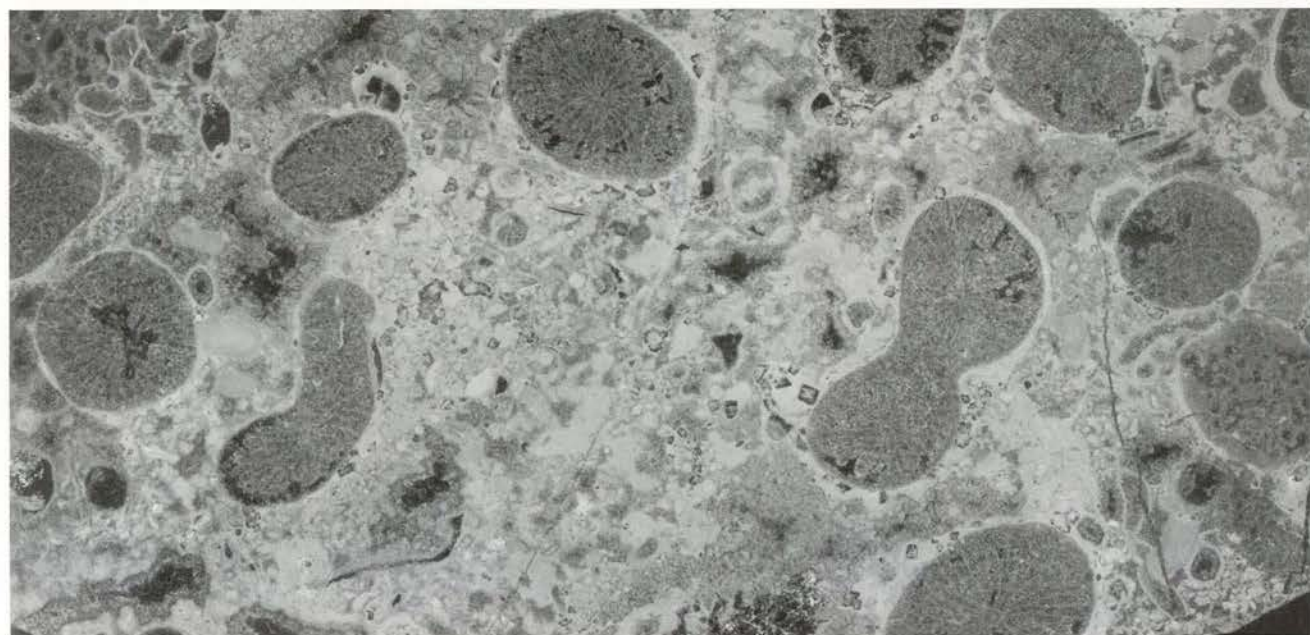


B



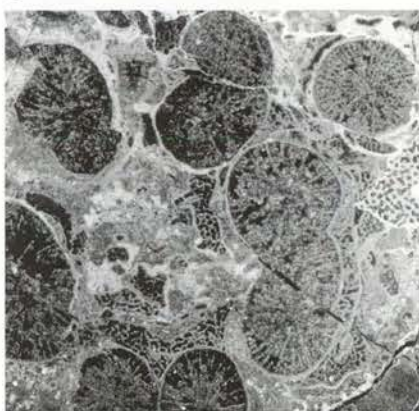
C

D



E

F



G



Volzeia badiotica (Volz) 1896

- 1896 *Thecosmilia badiotica* nov. spec. VOLZ, 26-30, Pl. 2, fig. 14-19, Textfigs. 24-27.
 1966a *Thecosmilia badiotica* Volz. KOLOSVÁRY, 127.
 1966b *Thecosmilia badiotica* Volz. KOLOSVÁRY, 186.
 1966 *Volzeia badiotica* (Volz). CUIF, 126-127, Pl. 4, fig. 1, Textfigs. 1AB.
 1967b *Thecosmilia badiotica* Volz. KOLOSVÁRY, 103, Pl. 7, fig. 3.
 1967 *Thecosmilia badiotica* Volz. LEONARDI, 299.
 1974 *Thecosmilia badiotica* (= *Volzeia*). CUIF, 337-352, Textfigs. 19-22, 23c.
 1975 *Volzeia badiotica* (*Thecosmilia* auct.). CUIF, Pl. 11, fig. 3.
 1975 *Volzeia badiotica* (Volz). MELNIKOVA, 157.
 1982 *Volzeia badiotica* (Volz). TURNŠEK et al., 69-70, Pl. 3, figs. 4-5.
 1984 *Volzeia badiotica* (Volz). RAMOVŠ & TURNŠEK, 178, Pl. 8, fig. 1.
 1987 *Volzeia badiotica* (Volz). TURNŠEK et al., 45, Pl. 4, figs. 1-2.
 1989 *Volzeia badiotica* (Volz). TURNŠEK & BUSER, 84, Pl. 2, figs. 1-3.
 1994 *Volzeia badiotica* (Volz). TURNŠEK & SENOWBARI-DARYAN, 479, Pl. 1, fig. 5-6.
 1996 *Volzeia badiotica* (Volz). BERNECKER, 52.

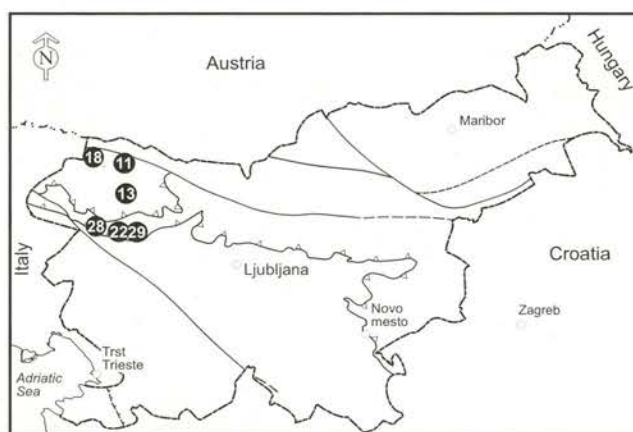
Description: Phaceloid colony, corallites round, extracalicular budding. Septa radial, compact, in 4-5 cycles, rare lateral granulae. Epitheca, large and tabulate dissepiments, microstructure trabecular. $d = 7-15$ mm, $s = 48+s5$.

Localities: 22 Hudajužna (P-712, P-719, P-720, P-726, P-737, P-754, P-755), 11 Mojstrana (SJA-43/1), 18 Vitranc (SJA-55/2), 28 Perbla (P-788), 13 Pokljuka (P-808), 29 Zakojca (P-1002); Italy (Dolomites), Hungary (Bükk), Czech R. (Male Tatre), Greece (Hydra), Oman, Pamir.

Age: T: Carnian (Cordevolian, Julian, Tuvanian); T: Carnian (Cassian beds).

Paleoenvironment: Reef complex on the Julian Carbonate Platform and reef mound in the Slovenian Basin.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvanian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
			Scythian	
	Lower			



A: transverse section; P-788a, x 4.

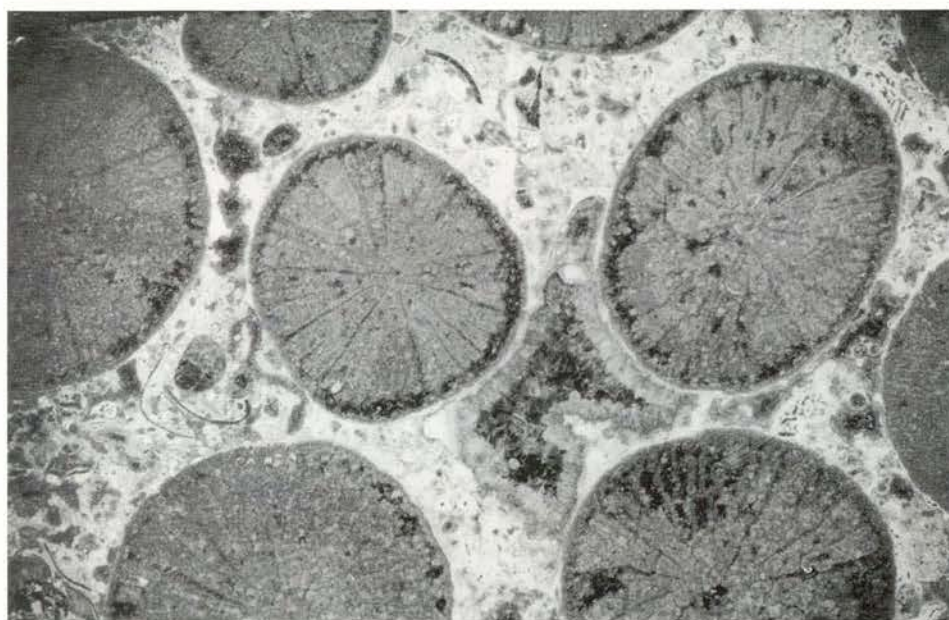
B: longitudinal section of one corallite; P-788b, x 4.

C: longitudinal section; P-755b, x 4.

D: microstructure, ?mini- and ?thick trabeculae, midseptal line; P-755a, x 40.

E: transverse section of one corallite; SJA-55/2a, x 8.

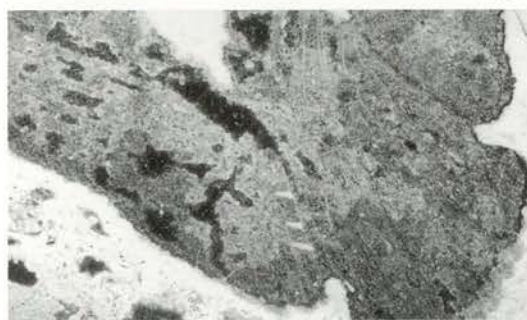
F: detail from E showing minitrabeculae and midseptal line, x 20.



A



B



C



E



D



F

Volzeia sublaevis (Münster) 1841

- 1841 *Lithodendron sublaeve*. MÜNSTER, n. v.
 1896 *Thecosmilia sublaevis* Münster. VOLZ, 24-26, Pl. 2, figs. 1-5, Textfigs. 21-22.
 1935 *Thecosmilia sublaevis* (Münster) Volz. KÜHN, 113.
 1967 *Thecosmilia sublaevis* (Münster). LEONARDI, 299.
 ?non 1972 *Remismilia sublaevis* (Münster). BEAUVAIS, 312-313.
 1973 *Thecosmilia sublaevis* Münster. MONTANARO GALLITELLI et al., Table 1.
 1974 *Volzeia (Thecosmilia) sublaeis* (Münster). CUIF, 337-352, Textfigs. 18, 23, 24.
 1981 *Volzeia badiotica* (Volz). ČAR et al. 237, fig. 4D (not. fig. 4E).
 1982 *Volzeia sublaevis* (Münster). TURNŠEK et al. 70, Pl. 3, fig. 6.
 1984 *Volzeia sublaevis* (Münster). RAMOVŠ & TURNŠEK, 178-179, Pl. 8, figs. 2-3.
 1994 *Volzeia sublaevis* (Münster). TURNŠEK & SENOW-BARI-DARYAN, 479-480, Pl. 1, fig. 7.

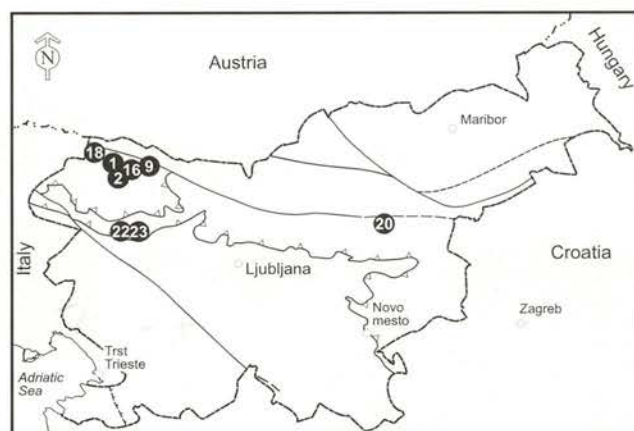
Description: Phaceloid colony with round corallites. Septa radial, in 4 cycles, laterally granulated. Thin epitheca, tabulate and large dissepiments, no columella, microstructure trabecular. d = 4-5 mm, s = ca 48.

Localities: **22** Hudajužna (P-723, P-749), **23** Jesenica (P-1031), **9** Mežakla-Kisovec (SJA-7/2, 4-7), **16** Radovna (SJA-14/2, 12), **2** Debela peč (SJA-17/1-3), **1** Črna gora (SJA-33), **18** Vitranc (SJA-55/1, 5), **20** Celje (P-993); Italy (Dolomites), Greece (Hydra).

Age: T: Uppermost Ladinian, Carnian (Cordevolian, Julian); T: Carnian (Cassian Beds).

Paleoenvironment: Reef complex on the Julian Carbonate Platform and reef mound in the Slovenian Basin.

TRIASSIC	Upper	Carnian	Rhaetian	
			Norian	
			Tuvalian	
			Julian	
			Cordevolian	
	Middle		Ladinian	
			Anisian	
	Lower		Scythian	

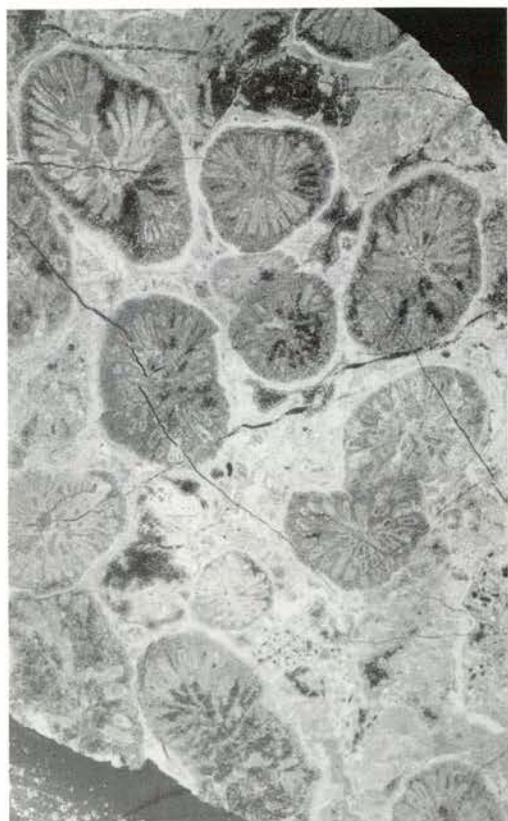


A: transverse section; SJA-7/6a, x 4.

B: transverse and longitudinal sections of corallites; SJA-7/6b, x 5.

C: detail from A, x 8.

D: detail showing longitudinal section from B, x 8.



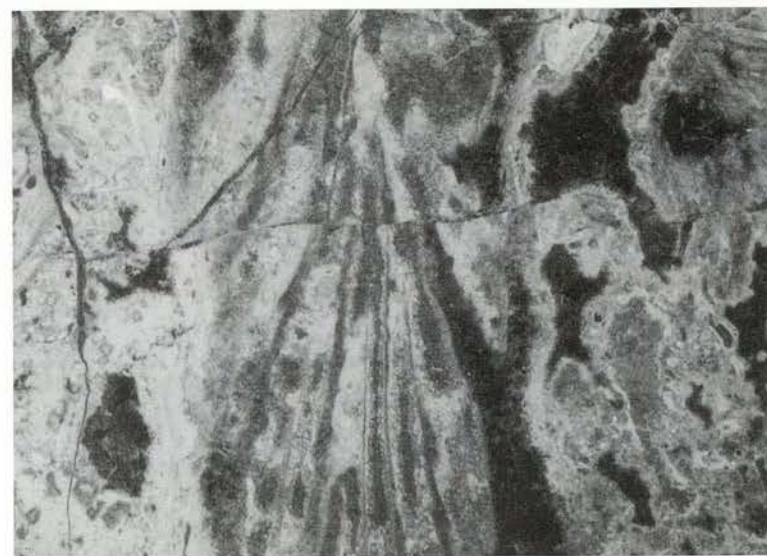
A



B



C



D

POVZETEK

UVOD

Velik del slovenskega ozemlja je zgrajen iz karbonatnih kamnin. Med njimi so zelo pomembne koralne grebenske tvorbe, ki so nastajale v plitvih morjih, zlasti na obrobjih morskih plitvin. Govore nam o bogatem podmorskem življenju v raznih geoloških obdobjih in pomagajo pri razmejevanju različnih paleogeografskih ekosistemov. Med najvažnejše tvorce mezozojskih grebenov štejemo korale, ki so jih spremljali še številni drugi organizmi.

Sistematične raziskave fosilnih koral potekajo pri nas že vrsto let. Ugotovljeno je, da se v nekaterih obdobjih mezozoika množično pojavljajo, in sicer v zgornjem triasu, zgornji juri ter spodnji in zgornji kredi. V zgornji juri so koralni grebeni pri nas tako bogati in obsežni, da se prištevajo med največje in najbogatejše v svetu. Rezultati raziskav mezozojskih koral so bili doslej objavljeni v 17 razpravah in člankih, celotna fosilna združba pa še v številnih dodatnih publikacijah.

Pričujoča publikacija združuje vse te delne rezultate na enem mestu in jih dopolnjuje z novjšimi raziskavami doma in s sodobnimi ugotovitvami v svetu.

V poglavju o stratigrafskih in paleoekoloških značilnostih koral in koralnih grebenov v Sloveniji je prikazan njihov razvoj skozi ves mezozoik. Poudarjena je njihova odvisnost od paleogeografskih enot oziroma paleosedimentacijskih prostorov. Obdelanih je 92 nahajališč in sklopov nahajališč s koralami. V vsakem koralnem nahajališču so podane glavne značilnosti kamnin, fosilne grebenske združbe in nove ugotovitve o regionalnih in globalnih vplivih na nastajanje, rast in izumrtje koralnih grebenov. Podana je primerjava s podobnimi grebenskimi oblikami v vsej Tetidi.

Poglavje o sistematiki obsega seznam in razporeditev podredov, družin in rodov upoštevajoč poleg lastnih ugotovitev še revizije in dopolnitve raznih sodobnih avtorjev.

Najvažnejši del monografije je predstavitev 211 vrst koral. Sledijo si po abecednem redu rodov ne glede na

starost. Pri vsaki vrsti je dopolnjena sinonimika za čas od domače objave do danes, posodobljen je kratek opis vrst z značilnimi strukturnimi elementi in upoštevana revizija nekaterih vrst. Pri vsaki vrsti sta na enoten način prikazana stratigrafska razširjenost doma in v svetu ter paleogeografski položaj. Ti podatki so za Slovenijo prikazani tudi grafično. Fotografije vrst kažejo prečni in po možnosti podolžni presek ter mikrostrukturo, vedno za vse vrste v enakih povečavah.

Nekaj vrst je sedaj prvič predstavljenih iz slovenskih nahajališč. Dodana so novoodkrita in z dodatnimi podatki dopolnjena nahajališča.

Dodan je abecedni register vrst, nahajališč, fosilnih združb in literatura.

Večina fosilov je shranjenih v Paleontološkem inštitutu Ivana Rakovca ZRC SAZU. Vzorci iz Lipice in Dol pri Litiji so v zbirki dr. Bogdana Jurkovška, kolonijske korale iz Stranic so v zbirki Franca Pajtlerja v muzeju v Slovenski Bistrici.

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PREGLED DOSEDANJIH RAZISKAV

Prvo omembo dveh vrst krednih koral iz Stranic najdemo v literaturi že sredi prejšnjega stoletja (REUSS, 1854). KOSSMAT (1905) je le omenil koralne apnenice na Trnovskem gozdu. RAKOVEC (1933) je v vodniku po muzejski zbirki strnil vse dotedanje podatke o fosilih in tudi o koralah. V okolici Kočevja je URŠIČ (1933) odkril kredne korale, v okolici Metlike pa ellipsaktinijske apnenice (URŠIČ, 1937).

Mezozojske grebenske fosile smo v Sloveniji pričeli sistematično raziskovati ob terenskih raziskavah za Geološko karto Slovenije po drugi svetovni vojni. Zato so potekale te raziskave različno glede na geološka obdobja.

Najprej smo zaradi številnih novoodkritih nahajališč v južni Sloveniji začeli sistematično raziskovati zgornjejurske stromatoporoide (GERMOVŠEK, 1954; HUDSON, 1959; TURNŠEK, 1966, 1969), šele nato so sledile raziskave koral iz istega obdobja in iz skoraj istih nahajališč (TURNŠEK, 1972; TURNŠEK et al., 1981; DOZET & TURNŠEK, 1993). Sledile so raziskave spodnjekrednih koral in grebenskih združb iz Osojnice na Banjski planoti (TURNŠEK & BUSER, 1974) in pozneje s Kočevskega (TURNŠEK et al., 1992), korale z grebenko združbo iz senonske breče (TURNŠEK & BUSER, 1976), korale iz zgornje krede pri Stranicah (TURNŠEK, 1978, 1994). Triasne korale in spremljajočo grebenko združbo smo pričeli raziskovati šele v osemdesetih letih. Pregledno razširjenost triasnih grebenov iz vse Slovenije so podali BUSER et al. (1982), njihov paleoekološki pomen pa še TURNŠEK et al. (1984). Sledile so sistematične paleontološke raziskave posameznih nahajališč zlasti iz zahodne Slovenije. To so triasni grebenki fosili iz Baške grape in Cerkljanskega (ČAR et al., 1981; SENOWBARI-DARYAN, 1981; TURNŠEK et al., 1982; TURNŠEK, 1985; TURNŠEK et al., 1987), iz Julijskih Alp (RAMOVŠ & TURNŠEK, 1984; TURNŠEK & RAMOVŠ, 1987, 1991; TURNŠEK & BUSER, 1989, 1991) ter iz Kamniških Alp (RAMOVŠ & ŠRIBAR, 1993). Posamezne korale iz Selške doline je omenil RAMOVŠ (1972), o posameznih triasnih koralah iz Leskovice, s Storžiča, iz Tržiča in Drage ter edinem liasnem solitarnem primerku korale iz Jelovice je pisal KOLOSVÁRY (1967).

KRATEK OPIS NAHAJALIŠČ, NJIHOV STRATIGRAFSKI IN PALEOEKOLOŠKI POLOŽAJ

TRIAS

Triasne korale in koralne grebene smo našli v dveh geoloških časovnih obdobjih: karnijskem in norijsko-retijskem. Posamezna nahajališča smo lahko razčlenili na podstopnje.

KARNIJ

Karnijske korale se pojavljajo v dveh različnih paleogeografskih prostorih: na Julijski karbonatni platformi in v Slovenskem bazenu.

Julijska platforma

Na Julijski karbonatni platformi so bili karnijski grebeni s koralami najdeni na številnih nahajališčih, ki jih lahko razdelimo na tri področja:

- a) severne Julijske Alpe,
- b) Pokljuka in
- c) Kamniške Alpe.

a – V severnih Julijskih Alpah se korale pojavljajo v 800 m debeli skladovnici masivnih sivih apnencev. Najdene so v krpastih (patch) grebenih, ki so kot gnezda vključeni v skladnate ali masivne algalne apnenice. Vsako tako gnezdo je obravnavano kot posamezno nahajališče: od zahoda proti vzhodu si približno slede: Vitranc, Krnica, Njivice, Mojstrana, Črna gora, Srednja gora, Debela peč, Krma, Frčkov vrh, Radovna, Mežakla-Kisovec, Mežakla-Brezovec (glej sl. 1 in seznam nahajališč).

Od koral prevladujejo vejnate korale rodov *Margarosmia*, *Tropidendron* in *Volzeia*, manj številne pa so masivne *Cassianastrae*, *Gumbelastrae* in *Koilocoenia*. Spremljajo jih redkejšje spongije, hetetide, solenoporne alge in mikroproblematika. Vsa ta fosilna združba je značilna za spodnje karnijsko (cordevol) obdobje. Starost grebenov je določena tudi po legi, ker leže na zgornjem ladiniju (z *Daonella lomelli*, *Posidonia wengensis*, *Protrachyceras archelaus*) in pod julsko stopnjo (*Myophoria kefersteini*, *Trigonodus carniolicus*), lateralno pa prehajajo v masivni cordevolski diploporni apnenec (glej RAMOVŠ & TURNŠEK, 1984) (sl. 2, 3).

b – Na Pokljuki so koralni grebeni najdeni v debeli skladovnici apnencev, ki so bili raziskani v profilu ob cesti med hotelom Šport in Srenjskim pašnikom (sl. 4). To so svetlo sivi biolititni apneneci, v katerih sestavljajo

več kot polovico sedimenta grebenski organizmi, vmes je biosparitni apnenec. Po legi se biolitit lahko razdeli na cordevol, jul in tuval. V vzhodnem delu Pokljuke prehaja grebenski apnenec lateralno v mikritni plastoviti apnenec z roženci, ki vsebuje cordevolske konodonte (BUSER & KRIVIC, 1979). V zahodni, to je zgornji del grebenskega profila, pa se pri Srenjskem pašniku žepasto zajedajo ploščasti apnenci z roženci, v katerih so najdeni konodonti ter lumakele halobij tuvalske starosti, to so *Halobia paracelica* in *H. mediterranea* (KOLAR-JURKOVŠEK et al., 1983) (sl. 5).

V cordevolskem delu profila smo našli korale rodov *Margarophyllia*, *Araiophyllum*, *Volzeia*, *Tropidendron*, *Stuoresia*, v srednjem julskem delu prevladujejo vrste rodov *Myriophyllum*, *Koilocoenia* in *Margarosmilia*, v tuvalskem pa *Coryphyllia*, *Craspedophyllia* ter nove vrste rodov *Pokljukosmilia*, *Rhopalodendron* in *Protoheterastraea*. Ta zadnja združba se pojavlja tudi v najstarejšem noriju Planje in Razorja in se razlikuje od tipičnih cordevolsko-julskih vrst (BUSER, 1986; TURNŠEK & BUSER, 1989). Razlike v obliki koralnih kolonij kaže sl. 6.

c – V Kamniških Alpah so karnijski grebenski apnenci redki. Posamezne vrste koral so bile najdene pod Krvavcem, na Kamniškem sedlu in na Menini planini. Koralna združba in sediment sta identična z združbo in sedimentom v Julijskih Alpah in dokazujeta isti sedimentacijski prostor (BUSER et al., 1981; RAMOVŠ & ŠRIBAR, 1993).

Slovenski bazen

Karnijske korale in koralni (koralno-spongijski) grebeni so najdeni tudi v Slovenskem bazenu, in sicer v Baški grapi, na Cerkljanskem, kjer se pojavljajo v obliki večjih ali manjših okroglastih in lečastih vložkov ali večjih lečastih plasti znotraj psevdofiljskih (ČAR et al., 1981) in amfiklinskih (BUSER v: TURNŠEK et al., 1982) skladov. Ti vložki so debeli od 10 do 150 metrov in dolgi do 5 km. Zasledujemo jih v ozkih pasovih od Novakov in Blegoša preko Leskovice, Zakriža, Jesenice, Zakojce in Hudajužne do Perble pri Tolminu. V ta sklop verjetno sodijo tudi najdbe koral v Celju in Dolah pri Litiji, kjer domnevamo, da so uspevale že v zgornjem ladiniju. Podobne sestave, toda iz drugega sedimentacijskega prostora, so nahajališča koral v okolici Mežice. Podrobneje so bila raziskana nahajališča

- a) Jesenica,
- b) Hudajužna in Zakriž,
- c) Perbla.

a – Koralne grebenske tvorbe v Jesenici so opisali ČAR et al. (1981) kot bioherme mirnega morskega okolja znotraj psevdofiljskih in deloma amfiklinskih skladov. Pripisujejo jim starost od srednjega cordevola do konca

jula (sl. 7). Favniščična združba kaže, da v spodnjem delu prevladujejo spongijske, v zgornjem pa korale. Koralni rodovi so: *Margarosmilia*, *Margarophyllia*, *Myriophyllum*, *Volzeia*.

b – V Hudajužni in Zakrižu (sl. 8, 9) so koralne grebenske tvorbe opisane kot lečasti vložki znotraj srednjega dela amfiklinskih skladov in so po legi uvrščeni v zgornji cordevol in jul. Na njih namreč leže plasti s tuvalskimi konodonti (BUSER & KRIVIC, 1979). Iz grebena je opisanih 22 vrst spongijskih (SENOWBARI-DARYAN, 1981) in 14 vrst koral (TURNŠEK et al., 1982). Od solitarnih se pojavljajo vrste rodov *Margarophyllia* in *Omphalophyllia*, od vejnatih pa *Margarosmilia*, *Volzeia* in *Protoheterastraea*. Edina masivna kolonija je *Andrazella*. Vmes so solenoporacejske alge, foraminifere in mikroorganizmi, ki soustvarjajo grebensko maso. Fosili so tipični za cordevol in jul, podrobnejše delitve pa ne omogočajo.

Sedimentološke raziskave grebena v Hudajužni povedo, da so to globljemorske oblike, takoimenovane grebenske kope (reef mounds) s strmimi pobočji. Sestojе iz jedra, breče in vložkov mikritnega apnenca, kar vse nakazuje procese zgodnje in pozne diageneze. Začetek grebena je pritrdjen na neko primerno podlago v nekoliko globljem okolju. Nadaljnji grebenski organizmi pa so igrali vlogo lovilcev in stabilizatorjev karbonatnega blata. Mikriti so produkt mikritizacije spongijskih skeletov in situ. Različne velikosti grebenskih tvorb so odvisne od časa, dokler niso prekinili rasti zasipi terignega materiala (OGORELEC v: TURNŠEK et al., 1982, 1984, primerjaj tudi REITNER et al., 1995).

c – V Perbli leži grebenski apnenec med kompleksom drobnozrnatih klastitov (sl. 10), ki so se odlagali v globljem okolju. V talnini so plasti biomikrita, biokalkarenita in kalcirudita, v krovlini pa se menjavajo skrilavci, breča in apnenec z roženci. Ti klastiti so podobni zgornjemu delu amfiklinskih plasti in vsebujejo tuvalske konodonte ter leže konkordantno pod norijskim baškim dolomitom (sl. 11) (FLÜGEL & RAMOVŠ, 1970, BUSER & KRIVIC, 1979). Tudi grebenska fosilna združba je nekoliko drugačna od Hudajužne in poleg cordevolsko-tuvalskih vrst iz rodov *Astreomorpha*, *Margarophyllia*, *Margarosmilia*, *Volzeia* vsebuje še vrste zgornjekarnijskih in spodnjenorijskih rodov *Pamiroseris*, *Retiophyllia*, *Atrochaetetes*, *Pamirochaetetes* (TURNŠEK et al., 1987).

Spongijsko-koralni greben dobimo tudi v Celju, kjer se pojavlja znotraj psevdofiljskih skladov. Uvrščen je v zgornji ladinij, ker na njem leži zgornjeladinijska tufska plast z *Daonella lomeli* (BUSER et al., 1982, JURKOVŠEK, 1984). Enako stare kot v Celju ali vsaj ladinijsko-cordevolske so korale v Dolu pri Litiji. V teh nahajališčih smo dobili koralne vrste rodov *Margarophyllia*, *Margarosmilia*, *Myriophyllum*, *Omphalophyllia* in

Volzeia. Nahajališči sedimentološko še nista podrobno raziskani.

Zanimiva je stratigrafska primerjava grebenov Slovenskega bazena od Celja do Perble. Od vzhoda proti zahodu si slede vedno mlajši grebeni, od zgornjega ladinija v Celju na vzhodu do tuvala v Perbli na zahodu. Iz tega lahko sklepamo, da so grebeni morda sledili transgresiji morja od vzhoda proti zahodu, oziroma da se je bazen odpiral v to smer (glej sl. 19).

Podobne globljemorske grebenske kope (reef mounds) opisujejo v Dolomitih (FOIS & GAETANI, 1980; NEUWEILER & REITNER, 1995), kjer sta kasijansko formacijo analizirala tudi WENDT & FÜRSICH (1979). Nekaj podobnih oblik je znanih tudi v Severnih Apneniških Alpah (FLÜGEL, 1982), kjer se pri Tegernseeju grebenske tvorbe nadaljujejo v retij in celo lias (EHSES & LEINFELDER, 1988). Ladinijske grebenske kope so znane iz Španije (CALVET & TUCKER, 1995). Poznamo tudi primere sodobnih globljemorskih grebenskih tvorb, na primer v Rdečem morju (FRICKE & HOTTINGER, 1983), v Bermudih (FRICKE & MEISCHNER, 1985), vendar njihova narava še ni v celoti razjasnjena.

NORIJ-RETIJ

Norijsko-retijske korale in koralni grebeni se v Sloveniji pojavljajo samo na Julijski karbonatni platformi, in sicer

- a) v severnih Julijskih Alpah,
- b) v južnih Julijskih Alpah ter
- c) na Begunjščici.

a – Severne Julijske Alpe obsegajo po starosti dva sklopa grebenov. Najstarejši, spodnjemorijski, je razvit na Planji in Razorji. Tu je greben debel do 150 m. Koralni rodovi so *Cyclophyllia*, *Pokljukosmilia*, *Protoheterastraea* in *Rhopalodendron*, kar trije znani tudi iz tuvala Pokljuke. Kamnina je dachsteinski apnenec, ki je spodaj plastovit, navzgor pa grebenški. Leži tik na zgornjem ploščastem apnencu hallstattskega razvoja, na pasu zgornjetuvalskega anatrofitnega horizonta. Tako se grebenški apnenec uvršča v spodnji norij, kar poleg koral potrjuje halobidna školjka *Halobia* ex gr. *lenticularis*, ki se žepasto zajeda v grebenški apnenec. Školjko je določil Jurkovšek (RAMOVŠ & TURNŠEK, 1991) (sl. 12, 13).

Približno enake starosti je koralni greben v nahajališčih: Tominškova pot, Rušnata Mlinarica in Kot (sl. 14). Tu leži koralni greben na ploščastem mikritnem zgornjekarnijskem apnencu s konodonti in je debel 250 do 300 m. Najpogostejše korale so solitarni rodovi *Cuifia*, *Procycolites*, *Craspedophyllia*, *Distichophyllia* ter vejnate *Retiophyllia* in *Tropidendron*. Vmes so najdene

še stromatopore in spongije. Navzgor v zgornjem noriju in retiju je grebenški apnenec nadomeščen s ploščastim dachsteinskim apnencem (TURNŠEK & RAMOVŠ, 1987).

Drugi stratigrafski sklop je obsežnejši in obsega celotno norijsko-retijsko obdobje. To je grebenški kompleks Dovški križ, Šplevta in Kopica (sl. 15), ki je debel do 1000 m. Njegov začetek lahko primerjamo s prej opisanim kompleksom, toda tu je grebenški razvoj ohranjen vse do konca triasa. Najpogostejše fosilne združbe so vejnate korale rodov *Gillastraea*, *Retiophyllia*, *Elysastraea* in *Parathecosmilia* ter masivni *Astraeomorpha* in *Toechastraea*. Od ostalih grebenotvornih fosilov so pogostne stromatopore, spongije, foraminifere in alge (TURNŠEK & RAMOVŠ, 1987).

b – V južnih Julijskih Alpah so bili koralni grebeni najdeni v Bohinju, na Kobli in v Rdečem robu (TURNŠEK & BUSER, 1991) (sl. 16).

V Bohinju imajo koralni grebeni največji obseg, dobimo jih v strnjenem pasu dolgem 5 km in širokem nekaj sto metrov. Korale smo zbrali v nahajališčih Babna gora, Boltarje, Drenova gora, Gradišče in Bitnje (sl. 17). Kamnina je grebenški dachsteinski apnenec sive do svetlosive barve. Pripada pravemu biolititu, saj tvorijo grebenški organizmi več kot polovico kamninske mase. Debel je 250 do 300 m. Leži tik pod liasnim krinoidnim apnencem hierlaškega tipa. Po taki legi lahko sklepamo, da pripada retiju, morda še zgornjemu noriju. Fosilna združba je raznolika: solitarna koralna rodova sta *Distichophyllia* in *Stylophyllum*, vejnata pa *Alpinoseris* in *Retiophyllia*, medtem ko masivnih koral ni. Dobimo še stromatoporoide in spongije, med katerimi je stratigrafsko vodilna vrsta *Cheilosporites tirolensis*. Pojavljajo se tudi mikroproblematike in grebenske foraminifere.

V Rdečem robu v Krnskem pogorju je grebenški apnenec velik le nekaj deset metrov. Kamnina in položaj sta enaka kot v Bohinju, sestava koralne favne pa se bistveno razlikuje po vsebini in obliki organizmov. Pretežna koralna fosilna združba je iz masivnih rodov *Astraeomorpha*, *Crassastrella*, *Gablonzeria* in *Cuifastraea*, redkejša so vejnate oblike *Cyclophyllia*, *Parathecosmilia* in *Retiophyllia*, medtem ko solitarne korale ni nobene.

Na Kobli je položaj grebenskega apnenca podoben kot v Bohinju, vendar tukaj fosilov sistematično nismo zbirali. Določila sem le eno solitarno koralo iz rodu *Distichophyllia*.

c – Na Begunjščici so najdene in določene koralne vrste rodov *Astraeomorpha*, *Cuifia*, *Cyclophyllia*, *Distichophyllia*, *Palaeastraea* in *Retiophyllia*, vendar ta greben v celoti še ni obdelan (BUSER et al., 1982, FLÜGEL & RAMOVŠ, 1961).

Razširjenost naših triasnih vrst zunaj Slovenije: Dolomiti in Lombardija v Italiji (VOLZ, 1896; MONTANARO GALLITELLI et al., 1973; STOPANNI, 1862-65); Karnijske Alpe (DULLO & LEIN, 1982); Bavarske Alpe (WÖHRMANN, 1889); Severne Apneniške Alpe v Avstriji (FRECH, 1890; SCHÄFER & SENOWBARI-DARYAN, 1978; SCHÄFER, 1979; SENOWBARI-DARYAN, 1980; DULLO, 1980); Tatre in Mali Karpati na Slovaškem (KOLOSVÁRY, 1966b, 1967b; RONIEWICZ, 1974); Bakony, Bükk in Mecsek na Madžarskem (KOLOSVÁRY, 1966a); Brasov v Romuniji (KÜHN, 1935); Taurus v Turčiji (CUİF, 1976); Hydra v Grčiji (TURNŠEK & SENOWBARI-DARYAN, 1994). Zunaj Evrope so znane še iz naslednjih krajev: Oman (BERNECKER, 1996); Iran (KRISTANN-TOLLMANN et al., 1980); Pamir (MELNIKOVA, 1975, 1983); Kitajska (DENG & ZHANG, 1985; LIAO & XIA, 1993); Japonska (OKUDA & YAMAGIWA, 1978); Timor (VINASSA DE REGNY, 1915); in skoraj celoten zahodni del Severne in Južne Amerike (STANLEY, 1979, 1986, 1993; STANLEY & WHALEN, 1989; STANLEY et al., 1994; MONTANARO GALLITELLI et al., 1979) (sl.18). Razširjenost vseh triasnih koralnih vrst je predstavil RIEDEL (1991).

RAZVOJ TRIASNIH GREBENOV

V aniziju je obstajala na ozemlju Slovenije enotna platforma. Ta je zaradi tektonskih premikov zlasti ob koncu anizija začela pokati, kar se je stopnjevalo v ladiniju, ki je za območje Slovenije ena najbolj razgibanih stopenj v triasu. PLACER & ČAR (1977) jo imenujeta Idrijska tektonska faza. Ta je povzročila močno tektonsko in vulkansko delovanje. Centralni del Slovenije se je pogreznil, začel je nastajati Slovenski bazen, ki je prejšnjo platformo razdelil na severno Julijsko in južno Dinarsko (BUSER et al., 1982; TURNŠEK et al., 1984; BUSER, 1989, 1996; glej tudi HERAK, 1986, 1991). Takim močnim tektonskim premikom in vulkansko delovanju, ki so nastali zaradi razpada Pangee, so sledile paleoekološke spremembe, kot je povečanje cirkulacije in prezračenosti vode, spremenil se je kemizem vode, temperatura, vodni tokovi s hrano, nivo morske gladine in drugo, kar vse je bilo ugodno za nastanek in rast grebenskih organizmov (gl. FAGERSTROM, 1987, 1988; KAUFMANN & FAGERSTROM, 1993). Zaradi tega so se začeli v karniju množično pojavljati koralni in spongijsko-koralni grebeni. Polipi so začeli naseljevati obrobja pravkar nastalih platform. Tudi lokalni pogoji so bili ugodni. Zaradi zadostne količine kalcijevega karbonata v vodi se je spremenila organska presnova, korale so začele izločati apnenčasti (= aragonitni) skelet in graditi kolonije ter grebene. Verjetno so prve simbiotske skleraktinije prav iz tega

obdobja (STANLEY, 1988; VERON, 1995, 1996; HALLOCK, 1996).

Ostane še vprašanje, zakaj niso nikjer na svetu znane korale v spodnjem triasau. Najverjetnejša se zdi razlaga, da so zaradi drugačnega kemizma vode uspevale v tem obdobju le mehke korale, ki se fosilno niso ohranile. Sicer bi si težko razlagali veliko raznovrstnost skleraktinij takoj v začetku karnija. To se ujema z mnenjem, ki ga zagovarja OLIVER (1996), da "se je veliko koral razvilo preko različnih anemonskih grup v raznih obdobjih".

Na Julijski karbonatni platformi so grebeni uspevali v vsem zgornjem triasu od začetka karnija do konca retija, eni daljši, drugi krajši čas. Njihovo trajanje po posameznih nahajališčih je prikazano na sl. 19. V vsem tem obdobju so prevladoval korale, medtem ko so bili stromatoporoidi, spongie in mikroproblematike le spremljevalci in povezovalci. Ob koncu triasa se je vsaj del Julijske platforme poglobil oziroma pogreznil. To nakazujejo globokomorski liasni hierlatski sedimenti na grebenskih apnencih v Bohinju (BUSER v: TURNŠEK & BUSER, 1991). Nastala je nenadna poglobitev in ne postopna transgresija, saj je razlika v sedimentaciji očitna in nenadna.

V zgornjem triasu ali v začetku liasa so nastale paleoekološke spremembe večjega obsega, saj je znano množično izginotje grebenskih organizmov na meji med triasom in liasom (STANLEY, 1993). Enako kaže tudi pregledna slika triasnih grebenov v Severnih Apneniških Alpah (FLÜGEL, 1981, 1982).

Nekoliko drugačen je bil razvoj triasnih grebenov v Slovenskem bazenu. Tu so grebenske kope (reef mounds) uspevale v nekoliko globljem okolju, toda le do konca karnija. Začele so nastajati v globljem morju, kjer so nekatere morske dele najprej naselile spongie. Na njihovo že trdno ogrodje so se ob najugodnejši stopnji oscilacije naselile tudi korale in živele verjetno brez simbioze z zooksantelami. To naj bi trajalo do konca karnija, ko je prevelik dotok klastičnih sedimentov, verjetno pa tudi kemizem vode grebene uničil. V noriju in retiju je namreč v velikem delu Slovenskega bazena začel nastajati baški dolomit z roženci, ki je zahteval drugačne razmere, te pa so bile neugodne za korale.

Če na kratko povzamemo paleogeografske razmere, so začetek grebenske rasti v zgornjem ladiniju oziroma v karniju omogočili tektonski premiki z vsemi pozitivnimi posledicami. Prenehanje grebenov je v Slovenskem bazenu ob koncu karnija povzročil prevelik dotok klastičnih sedimentov in sprememba v kemizmu vode, na Julijski platformi pa so grebeni prenehali, ker se je Julijska platforma na meji med triasom in liasom ali v spodnjem liasu poglobila. Ta lokalna poglobitev

platforme je prav gotovo posledica večjih premikov, saj so iz tega obdobja znane globalne spremembe paleoklime (FABRICIUS et al., 1970), kemizma, nivoja morske gladine in drugo, kar je uničilo večino grebenov v tem obdobju (FLÜGEL, 1994). Dinarska platforma je bila ves čas zgornjega triasa preplitva za koralno rast in so jo naseljevale alge diplopornege tipa.

JURA

RAZŠIRJENOST IN STRATIGRAFIJA

Jurske korale so v Sloveniji uspevale samo na Dinarski karbonatni platformi. Na njenem severnem in severovzhodnem obrobju so v združbi s stromatoporoidi in drugimi fosili gradile barierne grebene, v notranjosti platforme pa krpaste (patch) grebene. Stromatoporoide smo prej v celoti uvrščali k hidrozojem (GERMOVŠEK, 1954; TURNŠEK, 1966, 1969), danes pa jih nekateri raziskovalci pripisujejo k spongijam (glej WOOD, 1986; WOOD & REITNER, 1986).

Ves kompleks jurskih grebenov v Sloveniji je zelo razširjen in favnistično zelo bogat. Lahko se primerja z najbogatejšimi fosilnimi koralnimi grebeni na svetu. Dobimo ga v okoli 15-20 kilometrov širokem pasu, ki poteka od doline Soče preko osrednje Slovenije do Metlike v Beli krajini, od koder se širi naprej proti jugovzhodu in sega vse do Črne gore. Po taki velikosti se delno lahko primerja tudi z današnjim Velikim bariernim grebenom v Avstraliji (glej MURDOCH, 1992). Jurski greben je v Sloveniji dolg okoli 200 km (BUSER, 1965, 1978; TURNŠEK, 1966, 1969, 1972).

Na podlagi fosilne združbe zlasti stromatoporoidov smo lahko jurski greben v Sloveniji razdelili na tri regionalne pasove:

- a) zunanji greben,
- b) notranji greben in
- c) zagreben (sl. 20).

a – Zunanji greben je pas grebenskih kamnin, ki je razvit na samem obrobju Dinarske karbonatne platforme. Širok je okoli 5 do 10 km. Sem prištevamo koralna nahajališča Kal na Banjški planoti, Plave ob Soči, Čepovanski dol, Mrzovec in Ojstrovco na Trnovskem gozdu, pa Bič, Gaber, Sela, Karteljevo, Ivanjo vas in Mačkovec na Dolenjskem, od koder se nadaljuje še v Belo krajino, kjer so bili najdeni le stromatoporoidi.

Sestava koralne favne v zunanjem pasu je izredno bogata. Korale so v glavnem masivne, največ iz rodov *Amphiastraea*, *Comoseris*, *Clausastraea*, *Complexastraea*, *Fungiastraea*, *Microphyllia*, *Microsolena*, *Myriophyllia*, *Pseudocoenia*, *Solenocoenia*; razmeroma

pogostne so tudi vejnate oblike rodov *Calamophylliopsis*, *Donacosmia*, *Apocladophyllia*, *Dermosmia*, *Placophyllia*, *Stylosmia*. Solitarne so redke iz rodov *Epistreptophyllum*, *Axosmia*, *Montlivaltia*. Zelo pogostni so stromatoporoidi iz rodov *Astrostylopsis*, *Actinostromina*, *Coenostella*, *Cylicopsis*, *Tubuliella*, *Ellipsactinia* in *Sphaeractinia*.

b – Notranji greben poteka vzporedno z zunanjim in je prav tako širok okoli 5-10 km. V ta pas sodijo nahajališča Selovec, Otlica, Logaška planota, Čušperk, Predole, Luče, Dobrnič, Frata z okolico. Sestavljajo ga korale masivnih rodov *Actinaraea*, *Comoseris*, *Helio-coenia*, *Meandrophyllia*, *Microsolena*, *Pseudocoenia*, *Stylina*, *Synastraea*, *Thamnasteria*, vejnatih rodov *Allocoenia*, *Calamophylliopsis*, *Ceratothecia*, *Dermosmia*, *Diplaraea*, *Goniocora*, *Proaplophyllia*, *Thecosmia*, *Stylosmia*, od solitarnih pa dobimo primerke rodu *Montlivaltia*. Med stromatoporoidi so pogostni rodovi *Disparistromaria*, *Hudsonella*, *Parastromatopora*, *Reticullina*.

c – Zagrebensko področje je laguna, kjer so grebeni razviti le v obliki manjših krpastih grebenov. To so nahajališča Col, Vodice, Javornik, Nanos, Hrušica, Korinj in Draga na Kočevskem. Sestavljajo jih korale masivnih rodov *Comoseris*, *Isastraea*, *Meandraraea*, *Meandrophyllia*, *Microphyllia*, *Ovalastraea*, *Pseudocoenia*, *Pseudocoeniopsis*, *Thamnasteria* ter vejnatih rodov *Calamophylliopsis*, *Diplaraea*, *Goniocora*, od solitarnih koral je prisoten le rod *Epistreptophyllum*. Stromatoporoidi so prav tako pogostni, za to področje je značilen rod *Cladocoropsis*.

Nahajališča jurskih koral so prikazana na sl. 21.

Vidimo, da se stromatoporoidi v vseh treh pasovih močno razlikujejo. Za zunanji pas so značilni aktinostromaridi, v notranjem pasu so najdeni predstavniki parastromatoporoidov, v zagrebenskih krpastih grebenih pa rod *Cladocoropsis* (TURNŠEK, 1966, 1969, 1972; TURNŠEK et al., 1981). Zanimiva je ugotovitev, da se stromatoporoidi zunanjega in notranjega ter zagrebenskega pasu razlikujejo po mikrostrukturi. Za zunanji pas je značilna ortogonalna mikrostruktura, za notranji in zagrebenski pas pa klinogonalna mikrostruktura (tipi mikrostrukture po HUDSON, 1959, 1960; TURNŠEK, 1966).

Korale so glede na omenjene pasove bolj pomešane, kar pomeni, da niso tako občutljive na okolje. Le 25-30 % koralnih vrst je vezanih na en pas in prav toliko na drugega, ostale so pomešane. Lahko pa ugotovimo, da v zunanjem pasu po številu primerkov prevladujejo masivne kompaktne oblike koralnih kolonij, medtem ko so v notranjem grebenu pogostejše vejnate kolonije. Močno izstopa le celotni koralni podred *Amphiastracina*, ki se pojavlja skoraj izključno v zunanjem pasu (sl. 22).

Sedimentološke značilnosti zunanjega in zatišnega grebena se le malenkostno razlikujejo. V zunanjem pasu je velika masa biolitita, vmes delci breč in kalkarenitov ter sparitni cement, kar nakazuje visoko vodno energijo, čeprav so mestoma tudi področja s horizonti pelmikitov in biomikitov. Tudi v notranjem grebenu prevladuje biolitit, vendar so drobeci nekoliko bolj sortirani, indeks vodne energije pa je različen. V zagrebenu se grebenski facies pojavlja le v obliki krpastih grebenov. To je okolje nizke vodne energije, prevladuje temni mikritni apnenec ali mestoma celo bituminozni laporni apnenec s favno foraminifer in dazikadacejskih alg. Krpasti grebeni so majhni in kratkotrajni, velikosti le nekaj 10 metrov, nato pa so zopet prekriti z lagunarnimi sedimenti (glej OGORELEC v: TURNŠEK et al., 1981). Paleogeografske pregibne cone sta v Sloveniji preučila PREMUR & PLENIČAR (1981) in te na Dolenjskem ustrezajo enotam jurskega grebena.

Po starosti so jurski grebeni uvrščeni v obdobje zgornjega oksfordija in kimmeridgija. Ta starost je potrjena s favno in po legi. Greben leži na spodnje-oksfordijskem apnencu z roženci in pod apnenci s titonijsko algo *Clypeina jurassica*. (BUSER, 1965, 1978; TURNŠEK, 1966, 1969, 1972; TURNŠEK et al., 1981; STROHMENGER & DOZET, 1991). Zunanji greben sicer leži mestoma na spodnjeljurskih ali celo triasnih skladih, vendar so te vrzeli nastale le na obrobju platforme, kjer je bil greben večkrat razrušen in presedimentiran v bazen.

V naši starejši literaturi smo uporabljali angleško pojmovanje kimmeridgija, na katerem leži portlandij, ker je to stratigrafsko razdelitev sprejel mednarodni Colloque de Jurassique 1961 (TURNŠEK, 1966). Vendar je ta kolokvij dovoljeval za alpski prostor tudi uporabo titonija kot stratigrafskega člena, ki obsega angleški zgornji kimmeridgij in portlandij. Prav to imenovanje se je pozneje bolj uveljavilo kot prvo, zato se mu tukaj pridružujem. (O neenotnosti glede rabe kimmeridgija glej tudi GEYER, 1954; MAYNC, 1960 ter LUTERBACHER v: LEINFELDER et al., 1994).

Najdene jurske korale iz slovenskih nahajališč smo stratigrafsko lahko primerjali s številnimi nahajališči v svetu, kot na primer v Franciji (BEAUVAIS, 1964); v Španiji (GEYER, 1965; ERRENT, 1990-1991); na Portugalskem (GEYER, 1955b; ROSENDAHL, 1985; FEZER, 1988; LEINFELDER, 1992); v Italiji (CARLONE, 1989), na Češkem (GEYER, 1955a; ELIÁŠOVÁ, 1973, 1975, 1976 b, 1981); na Poljskem in v Romuniji (RONIEWICZ, 1966, 1976); v Nemčiji (GEYER, 1954; LAUXMANN, 1991); na Hrvaškem (TURNŠEK, 1975); na Krimu in v Zakavkazju (KRASNOV, 1964; BABAEV, 1973; PAPOJAN, 1977; BENDUKIDZE, 1982); v Švici (KOBY, 1880-89); v Angliji (NEGUS & BEAUVAIS, 1979); Jugoslaviji (KRKOVIČ, 1965; TURNŠEK, 1968,

TURNŠEK & MIHAJLOVIČ, 1973); zunaj Evrope pa še v Indiji (GREGORY, 1900); Uzbekistanu (HUSANOV, 1987); na Kitajskem (LIAO & XIA, 1985); v Argentini (MORSCH, 1996), če naštejemo samo nekaj obsežnejših raziskav. V večini primerov je koralna favna najdena v spodnjem malmu, le na Češkem in mestoma v Zakavkazju tudi v titoniju (ELIÁŠOVÁ, 1981; BENDUKIDZE, 1982).

RAZVOJ JURSKIH GREBENOV

Zgornja jura je obdobje velike razširjenosti koralnih grebenov po vsej Tetidi. Za tak obsežen razvoj so morali obstajati splošni ugodni pogoji, kot so temperatura, kemizem vode, prezračenost, obsežne podmorske plitvine in drugo. Širši globalni pogoji so vsekakor razpadanje Pangee in nastanek vedno novih platform, ki so s svojimi robovi nudile ugodno okolje za nastanek in rast grebenov (HALLAM 1993; MOORE et al. 1992; VALDES & SELWOOD 1992; FLÜGEL 1994; LEINFELDER 1994).

Posledice teh globalnih dogajanj so se odražale tudi pri nas na Dinarski platformi. Povsod pod grebeni najdemo spodnjeoksfordijski globljemorski apnenec z roženci, v katerem so številne spikule spongiij. Ta facies označuje slabe pogoje za karbonatno produkcijo, verjetno zaradi evtrofične morske vode, pa tudi zaradi globljega sedimentacijskega okolja. Omenjena silicijska epizoda bi lahko ustrezala oksfordijskim "flooding events" kot jih označuje globalna skala (HALLAM, 1988) in se ujema s pozitivno pelagično izotopsko stopnjo (YENKYN, 1996; BARTOLINI et al., 1996). V zgornjem oksfordiju opazimo padec morske gladine, kar je omogočilo nastanek grebenskega apnenca s stromatoporoidi in koralami, za kakršne domnevamo, da so že znanilci plitvega morja. Ti so v skoraj nespremenjenih oblikah uspevali vse do konca kimmeridgija. Da pa so ti grebenski organizmi ves ta čas lahko uspevali, se je morala ohraniti idealna morska globina, kar pomeni, da so evstatični cikli obdržali ravnotežje glede na 200 m debeline grebenov. Domnevamo, da je bilo evstatično dviganje gladine povezano z rahlim tonjenjem Dinarske platforme. Šele ob koncu kimmeridgija se je Dinarska platforma povsem poplitvila. V vrhnjem delu zunanjega grebena mestoma najdemo dicerase in nerineje, tubifitse, tudi foraminifero *Lithocodium aggregatum*, ki so tipični plitvomorski naseljenci (glej SCHMID & LEINFELDER, 1996). Na več mestih se je dvignila platforma celo nad gladino. To dokazujejo boksiti, najdeni na grebenskih skladih na Logaški planoti, na Nanosu in drugod (BUSER 1965; DOZET et al., 1993). Boksitna nahajališča so dobri znanilci tektonskih sprememb (D'ARGENIO & MINDSZENTY, 1995). V titoniju je jurske grebene nadomestil apnenec z dazikadacejsko

algo *Clypeina jurassica*, ki je zavzela celotno Dinarsko platformo (RADOIČIĆ, 1966; TURNŠEK 1969, 1972; TURNŠEK et al. 1981).

Lahko torej rečemo, da je jurski greben na Dinarski platformi nastal v fazi znižanja morske gladine in uspeval zaradi dolgega usklajenega ravnovesja med morskim dnem in gladino (long term sea level balance). Končno je prenehal rasti zaradi preveč poplittvene Dinarske platforme. Poleg ugodne morske globine pa so seveda morale ves ta čas vladati tudi druge ugodne okoliščine kot so temperatura, osvetljenost, hrana, kemična sestava in drugo. Moderne raziskave grebenov so posvečene prav vsem tem dejavnikom in ugotavljajo njihov velik vpliv na rast grebenov (FEZER, 1988; WERNER et al., 1994; LEINFELDER, 1992; GEISTER, 1986; DRAGASTAN et al., 1994; ELIÁŠ & ELIÁŠOVÁ, 1995; INSALACO, 1996 a; PITTET & DUPRAZ, 1995). Zlasti batimetrijo so kot posledico razpada Pangee spoznali za enega važnejših kriterijev za rast grebenov tudi NOSE, SCHMID in WERNER v: LEINFELDER et al. (1994). Celovit pregled o vplivu raznih dejavnikov na rast grebenov so podali tudi KAUFMANN & FAGERSTROM (1993), NOSE (1995) in drugi.

Še ena pomembna ugotovitev je razvidna iz raziskav jurskih grebenov, to je stratifikacija fosilov. Raziskovalci namreč mestoma ugotavljajo prevladovanje kremenastih spongiij v začetku jurskih grebenov in prevlado koral v višjih nivojih: (FLÜGEL & STEIGERT, 1981; LEINFELDER, 1993; LEINFELDER et al., 1994; LEINFELDER & KEUPP, 1995; REITNER et al., 1995) in drugi. To naj bi veljalo zlasti za grebene severnega obrobja Tetide s strmimi šelfnimi pobočji. Spongijski jurski grebeni vzdolž severnega šelfa Tetide naj bi uspevali na globini od 70 do 90 m (WERNER et al., 1994).

Naši grebeni imajo strma pobočja, toda ne vsebujejo kremenastih spongiij, razen če je ta spongijska faza grebenske rasti skrita v apnencih z roženci. V teh so ohranjene samo spikule. Nad njimi ni postopnega prehoda, ampak oster konec rožencev in začetek pravih karbonatnih plitvomorskih grebenov. V tem karbonatnem grebenu ni »vertikalne« stratifikacije fosilov. Prav tako se v začetku grebena ne pojavljajo mikrosolenidne »globlje« plasti, kakršne ugotavlja INSALACO (1996 b) v severni in centralni Evropi. V našem grebenu so fosilne združbe skoraj enake od začetka do konca rasti. Mestoma sicer dobimo lokalne ekosisteme, kjer prevladujejo ali koral ali stromatoporoidi, vendar je to pojavljanje lateralno lečasto in ne v stratigrafskih horizontih. Pripadajo tako imenovanemu »hard limestone faciesu«, kakršnega omenjajo tudi WERNER et al. (1994).

KREDA

SPODNJA KREDA

Spodnjekredni koralni grebeni (po HÖFLINGU, 1977 kredne biokonstrukcije) so v Sloveniji razmeroma redki in podobno kot jurski grebeni vezani izključno na Dinarsko karbonatno platformo. Po starosti so uvrščeni v valanginij, barremij-aptij in albij (sl. 23).

V valanginiju so bile koralne odkrite zahodno od Lokev na Trnovskem gozdu. To so posamezni primerki koral v belem 50 cm debelem apnencu, ki še pripadajo jurskima rodovima *Microphyllia* in *Ironella*. Starost je dokazana z aberantnimi tintinami, ki so bile najdene v talnini in krovnini (TURNŠEK & BUSER, 1974).

Bogatejše in večje spodnjekredno nahajališče koral je v Osojnici na Banjški planoti (sl. 24). To je grebenski apnenec debeline 300 m in zavzema okoli 6 km² površine. Iz tega kompleksa so določene v glavnem masivne koralne rodov *Cyathophora*, *Stylina*, *Eugyra*, *Felixigra*, *Eohydnophora*, *Latusastraea*, *Phyllocoenia*, *Placophyllia*, *Microsolena*, *Ovalastraea*, *Dermosmilina*, *Pseudopolytrema*. Spremljajo jih stromatoporoidi in hetetide ter številne foraminifere iz skupine orbitolin, odlomki rudistov, nerineje, bodice morskih ježkov. Sediment je grebenski apnenec, ki ga sestavljajo biolititi, med njimi pa je tudi mikritno vezivo. Mestoma so vmes oolitni in vložki breče. Po starosti je greben uvrščen v barremij-aptij. V višjem delu lateralno prehaja v temnosiv mikritni apnenec z aptijsko dazikladacejsko algo *Salpingoporella dinarica* in drugimi organizmi. Greben po svoji sestavi in legi sodi v tako imenovani urgonski facies (TURNŠEK & BUSER, 1974, KOCH et al., 1989). HÖFLING (1997) uvršča to tvorbo v masivne gomoljaste bioherme.

Najverjetneje je imel greben pri Osojnici prvotno večji obseg, morda tudi večji stratigrafski razpon, kar pričajo številne najdbe grebenskih organizmov spodnjekredne starosti v senonski breči severno od Osojnice, to je na severnem pobočju Dinarske platforme.

Drugo nahajališče spodnjekrednega koralnega grebena v Sloveniji je Slovenski vrh pri Kočevju (sl. 25, 26). Tu so bile koralne najdene v širšem stratigrafskem razponu od barremija do konca albija. Barremijsko-aptijske koralne so istih rodov in vrst kot v Osojnici, medtem ko v vrhnjem delu grebena dobimo primerke novih vrst iz rodov *Procladocora* in *Strotogyra*. Uvrstila sem jih v albij, kar dokazujejo spremljajoči rudisti in foraminifere, zlasti *Ichthyosarcoclitus monocarinatus* in *Orbitolina texana* (TURNŠEK et al., 1992). Ta greben leži v notranjosti Dinarske platforme in je majhnega obsega. Iz okolice Kočevja je URŠIČ (1933) omenil 5 koralnih vrst v orbitolinskem apnencu. Žal teh ugotovitev nisem

mogla preveriti, ker koralna zbirka ni ohranjena. DOZET & ŠRIBAR (1991) omenjata spodnjeaptijske koralne krpaste (patch) grebene vzhodno od Željna, od koder korale niso determinirane.

Enake spodnjekredne koralne vrste so zunaj Slovenije znane iz več krajev: Španija (ANGELIS D'OSSAT, 1905 b; BARON-SZABO, 1993; BARON-SZABO & FERNANDEZ-MENDIOLA, 1997); Francija (FROMENTEL, 1857; ALLOITEAU, 1957; MASSE, 1976); Švica (KOBY, 1896-98); Allgäu v južni Nemčiji (BARON-SZABO, 1997); Capri v Italiji (ANGELIS D'OSSAT, 1905a); Lábatlan in Mecsek na Madžarskem (KOLOSÁRY, 1954; CSÁSZÁR & TURNŠEK, 1996); poljske Tatry (MORYCOWA, 1964); romunski Karpati (MORYCOWA, 1971); vzhodna Srbija (MARKOVIĆ, 1951; KOCHANSKY-DEVIDÉ, 1951; JANKIČEVIĆ, 1978; TURNŠEK & MIHAJLOVIĆ, 1981); Bolgarija (ZLATARSKI, 1968); Grčija (BARON-SZABO & STEUBER, 1996; LÖSER & RAEDER, 1995; ABDEL-GAWAD & GAMEIL, 1995); Krim (SOLOMKO, 1887); Gruzija (SIHARULIDZE, 1979 b, 1985); Azerbajdžan (KUZMICHEVA & ALIEV, 1988), Vzhodni Karpati (KUZMICHEVA, 1980); pa tudi zunaj Evrope, kot na primer Turkmenistan (KUZMICHEVA, 1987; BUGROVA, 1990); Kitajska (LIAO & XIA, 1985); Japonska (EGUCHI, 1936); vzhodna Afrika (DIETRICH, 1927); Čile (FRITZSCHE, 1924; PRINZ, 1981) in drugje. Zelo popolno sliko razširjenosti spodnjekrednih grebenov so podali SIMO et al., (1993), pregled vseh koralnih vrst s stratigrafskim položajem pa je kompiliral LÖSER (1996).

ZGORNJA KREDA

Zgornjekredne korale so bile v Sloveniji najdene v velikem številu v Stranica pri Slovenskih Konjicah, delno presedimentirane pa v senonski breči na Banjški planoti. Posamezni primerki so najdeni tudi v Lipici na Krasu. Po starosti uvrščamo vsa nahajališča v santonij-campanij, po paleogeografskem položaju pa spadajo v tri različne enote: a) Avstroalpinsko plitvino, b) Dinarsko platformo, c) vznožje Dinarske platforme.

a – Korale v Stranica (sl. 27) so gosavskega tipa, prevladujejo solitarne korale rodov *Placosmilia*, *Aulosmilia*, *Dasmiopsis*, *Rennensismilia*, *Conicosmilotrochus*, *Acrosmilia*, *Cunolites*, manj je masivnih grebenotvornih rodov *Actinastraea*, *Enallocoenia*, *Columactinastraea*, *Hydnophora*, *Neocoeniopsis*, *Dimorphastraea*, *Actinacis*, k vejnatom pa spada le rod *Procladocora*. Kamnina je lapor in lapornat apnenec, ki se kot ena ali več plasti pojavlja v spodnjem delu rudistnega apnenca ali lateralno prehaja vanj. Starost je določena po koralnih in rudistnih fosilih kot santonijsko-campanijska (PLENIČAR, 1971, 1994; TURNŠEK, 1978,

1994). Skoraj v celoti smo jih lahko primerjali s koralami gosavskega tipa v Severnih Apneniških Alpah (BEAUVAIS, 1982).

b – V Lipici na Krasu so bile korale najdene šele v zadnjem času. To so posamezni primerki iz rodu *Hydnophora*, vmes so posamezni stromatoporoidi, pogostejši pa so rudisti in foraminifere. Pojavljajo se v mikritnem apnencu lipiške formacije in so uvrščeni v santonij in campanij. Paleogeografsko je to nahajališče notranji del Dinarske platforme, grebenski fosili grade krpaste grebene in trate (JURKOVŠEK et al., 1996; BUSER, 1996).

c – Korale so bile najdene tudi v senonski breči na Banjški planoti severovzhodno od Osojnice. Nahajališča so Levpa, Podsela, Mešnjak in Hoje (sl. 28). Obsegajo večje ali manjše apnenčeve bloke, ki vsebujejo številne rudiste, korale, stromatoporoidne in hetetide. Vezivo je zdrobljeni apnenec, redkeje kalcit ali lapor, ki se mestoma pojavlja tudi v plasteh. Lateralno se v brečo zajeda ploščasti volčanski apnenec z roženci, ki vsebuje številne globotrunkane. Te globotrunkane določajo starost breče od koniacija do zgornjega campanija. Enake starosti so tudi rudisti v breči. Tudi v vmesnih lapornih plasteh so določene številne globotrunkane in nanoplankton. Iz vseh primerkov sklepa Buser (glej TURNŠEK & BUSER, 1976), da se je sedimentacija breče začela v spodnjem koniaciju. Z obrobja Dinarske platforme se je v njeno vznožje (slope) presedimentiralo v brečo veliko grebenskih tvorb s koralami in rudisti, od časa do časa pa se je med brečo sinhrono usedal tudi lapornati sediment. Na nekaterih mestih so se na vzboklinah kratkotrajno naselili primarni senonski grebeni. Breča z laporji predstavlja nekakšen uvodni sediment flišne sedimentacije (BUSER, 1989). Progradacija in regradacija obrobja krednih karbonatnih platform je pogost pojav, podrobno je opisana v Maielli v Italiji (VECSEI, 1991; MUTTI et al., 1996).

Koralna favna iz breče obsega vrste koral, ki kažejo na jursko, spodnjekredno in zgornjekredno starost. Na jursko starost kažejo vrste, ki pripadajo rodovom: *Mitrodendron*, *Amphiaulastraea*, *Chomatoseris*, na spodnjekredno pa *Cyathophora*, *Eugyra*, *Eohydnophora*, *Diplogyra* in drugi. Vmes, kot že rečeno, dobimo tipične zgornjekredne vrste rodov *Heterocoenia*, *Procladocora*, *Meandroria*, *Pseudofavia*, *Thamnoseris*. Zanimiva je najdba nove vrste *Pseudopistophyllum quinqueseptatum*, ki je bila pozneje najdena v albiju (REITNER, 1987), iz česar lahko domnevamo, da je spodnjekredni greben na obrobju Dinarske platforme uspeval tudi v albiju, čeprav albijske korale na obrobju platforme danes niso ohranjene. Breča kaže na veliko erozijsko podmorsko delovanje in rušenje robov karbonatne platforme.

Razširjenost pri nas najdenih zgornjekrednih

koralnih vrst zunaj slovenije: Portugalska (FELIX, 1903b; BEAUVAIS et al., 1975); Španija (BATALLER, 1937; VIDAL, 1980; REIG, 1997); Italija (PREVER, 1909); južna Francija (ALLOITEAU, 1952, 1954, 1957; FROMENTEL, 1889; BEAUVAIS & BEAUVAIS, 1974); Avstrija (REUSS, 1854; FELIX, 1903; OPPENHEIM, 1930; BEAUVAIS, 1982; HÖFLING, 1985; SANDERS & BARON-SZABO, 1997); južna Nemčija (BARON-SZABO, 1997); Madžarska (KOLOSVÁRY, 1954; GÉCZI, 1954); Romunija (SURARU, 1957, 1961); Bolgarija (TSCHECHMEDJEVA, 1971, 1981); Hrvaška (TURNŠEK & POLŠAK, 1978); Srbija (MILOVANOVIĆ, 1939; PAŠIĆ, 1953); Grčija (HACKEMESSER, 1936; ABDEL-GAWAD & GAMEIL, 1995) in druge (sl. 29).

RAZVOJ KREDNIH KORALNIH GREBENOV

Karbonatne platforme severnega in južnega obrobja Tetide so v kredi dosegle velik obseg. Tudi globalni pogoji, kot so temperatura, globina, rahla oscilacija vodne gladine in drugo so bili ugodni in so ponovno omogočali nastanek in rast grebenskih organizmov (COATES, 1973; HÖFLING, 1985; BUGROVA, 1990; LÖSER, 1994; SCOTT, 1994; SIMO et al., 1993; MASSE, 1975; BARON-SZABO, 1994).

V Sloveniji je v spodnji kredi še vedno obstajala Dinarska karbonatna platforma. Na njenem severnem obrobju so ohranjeni majhni ostanki grebenov pri Osojnici ter posamezni krpasti grebeni znotraj te platforme na Kočevskem. Vsi so znanilci plitvega karbonatnega faciesa. Niti začetka niti konca pa ne moremo zanesljivo razložiti, saj so na razmeroma majhnem prostoru uspevali razmeroma dolgo: od srede barremija vse do srede albija. Povsod v svetu je število koralnih vrst v albiju močno padlo. Zaradi močnega podvodnega rušenja v začetku

zgornje krede pa vseh obsežnosti spodnjekrednih grebenov ne moremo točno ugotoviti.

V zgornji kredi so korale najdene posamično v Lipici kot majhne kolonije na ostankih Dinarske platforme in jih zaradi posamičnih primerkov niti ne moremo šteti za grebenski facies.

V večjem obsegu so korale znane v Stranica. To je biolititni kompleks, ki ga je predstavil PLENIČAR (1993, 1994). Imenuje ga "Styrian Gosau development" in ga primerja s podobnimi kompleksi v sosednji Avstriji, Madžarski in Hrvaški. Pripada lahko k Avstroalpinski platformi ali plitvini, ki jo omenjata STAMPFLI & MARCHANT (1997). Podobne strukture na Medvednici je POLŠAK (1979) razlagal, da bi lahko nastale v področju "otočnih lokov" v zoni subdukcije. Po PLACERJEVI karti (1997) leže Stranice severno od periadriatskega lineamenta. So severno od Slovenskega bazena (TURNŠEK, 1994; PLENIČAR, 1994). Solitarne korale so uspevale v laguni, na njenem obrobju so rasli grebeni masivnih koral. Ti so delno presedimentirani, podobno kot drugod v gosavskem faciesu (HÖFLING, 1985; TURNŠEK & POLŠAK, 1978; POLŠAK, 1979 in drugi).

Lahko zaključimo, da so nastanek naših krednih koralnih grebenov omogočili že prej omenjeni ugodni pogoji na plitvinah, prenehanje grebenov pa lokalni dejavniki kot so poplivenje platforme in s tem povezane sprememba sedimentacije ob koncu krede. Te so vsekakor posledica globalnih sprememb, ki so v velikem obsegu povzročile masovno izumrtje na meji med kredo in terciarjem (ROSEN & TURNŠEK, 1989).

Pregled vseh mezozojskih grebenskih tvorb v Tetidi sta predstavila FLÜGEL & FLÜGEL-KAHLER (1992).

Število vseh mezozojskih koralnih vrst v Sloveniji je prikazano na sliki 30, nahajališča na veznem listu in njihov paleogeografski položaj na sliki 31.

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Eugyra cotteau Fromentel 1857
Eugyra lanckoronensis (Morycowa) 1964
Felixigyra patruliusi tenuiseptata Morycowa 1971
Fungiastraea arachnoides (Parkinson) 1808
Fungiastraea tendagurensis (Dietrich) 1927
Gablonzeria profunda (Reuss) 1854
Gillastraea delicata Melnikova 1983
Goniocora annulata Roniewicz 1966
Goniocora pumila (Quenstedt) 1852
Gumbelastraea guembeli (Laube) 1865
Heliocoenia costulata Koby 1881
Heliocoenia variabilis (Étallon) 1859
Heterocoenia grandis Reuss 1854
Hydnophora ataciana d'Orbigny 1850
Hydnophora multilamellosa Reuss 1854
Hydnophora styriaca (Michelin) 1847
Ironella giseldonensis Starostina & Krasnov 1970
Isastraea helianthoides (Goldfuss) 1826
Koilocoenia decipiens (Laube) 1865
Latiphyllia suevica (Quenstedt) 1858
Latomeandra fromenteli (Koby) 1885
Latusastraea decipiens (Prever) 1909
Latusastraea exiguis (Fromentel) 1862
Margarophyllia capitata (Münster) 1841
Margarophyllia crenata (Münster) 1841
Margarosmilia charliana (Frech) 1890
Margarosmilia confluens (Münster) 1841
Margarosmilia nova Turnšek 1991
Margarosmilia richthofeni Volz 1896
Margarosmilia septanectens (Loretz) 1875
Margarosmilia zieten (Klipstein) 1843
Meandraraea gresslyi Étallon 1864
Meandrophyllia amedei Étallon 1864
Meandrophyllia corrugata (Michelin) 1843
Meandroria konincki (Milne Edwards & Haime) 1849
Microphyllia bachmayeri Geyer 1955
Microphyllia undans Étallon 1858
Microsolena agariciformis Étallon 1858
Microsolena distefanoi (Prever) 1909
Microsolena guttata Koby 1897
Microsolena ornata Koby 1887
Microsolena thurmanni Koby 1887
Mitrodendron ogilvieae Geyer 1955
Mixastraea danubica Roniewicz 1976
Montlivaltia champlittensis Fromentel 1861
Montlivaltia renevieri Koby 1883
Myriophyllia angustata (d'Orbigny) 1850
Myriophyllum badioticum (Volz) 1896
Myriophyllum gracilis (Volz) 1896
Neocaeniopsis corollaris (Reuss) 1854
Neocaeniopsis excelsa (Fromentel) 1867
Omphalophyllia boletiformis (Münster) 1841
Omphalophyllia radiceformis (Klipstein) 1843
Orbignygyra daedalea (Reuss) 1854
Ovalastraea lobata (Koby) 1884
Pachydendron microthallos Cuif 1975
Palaeastraea grandissima (Frech) 1890
Pamiroseris zitteli (Wöhrmann) 1889
Parathecosmilia langobardica (Stoppani) 1857
Parathecosmilia sellae (Stoppani) 1862
Peplosmilia fromenteli (Angelis d'Ossat) 1905
Phyllocoenia cotteau Fromentel 1857
Placophyllia curvata Turnšek 1974
Placophyllia rugosa Becker 1875
Placosmilia gracilis (Felix) 1903
Plesiosmilia compressa (Koby) 1880
Pokljukosmilia tuvalica Turnšek 1989
Polyphylloseris convexa (d'Orbigny) 1850
Proaplophyllia sexradiata (Roniewicz) 1966
Procladocora kocevjeensis Turnšek 1992
Procladocora simonyi (Reuss) 1854
Procladocora tenuis (Reuss) 1854
Procyclolites triadicus Frech 1890
Protoheterastraea hudajuznensis Turnšek 1982
Protoheterastraea minor Turnšek 1989
Protoheterastraea razorensis Turnšek 1991
Pruvostastraea labyrinthiformis Alloiteau 1957
Pseudocoenia baltovensis Roniewicz 1966
Pseudocoenia hexaphyllia (d'Orbigny) 1850
Pseudocoenia limbata (Goldfuss) 1826
Pseudocoenia radisensis (d'Orbigny) 1850
Pseudocoenia slovenica Turnšek 1972
Pseudocoeniopsis jurassica (Turnšek) 1972
Pseudocoeniopsis longiseptata (Roniewicz) 1966
Pseudofavia grandiflora (Reuss) 1854
Pseudopistophyllum quinqueseptatum Turnšek 1976
Pseudopolytremacis spinoseptata Morycowa 1971
Rennensismilia subinduta (Reuss) 1854
Retiophyllia clathrata (Emmrich) 1853
Retiophyllia defilippi (Stoppani) 1865
Retiophyllia fenestrata (Reuss) 1854
Retiophyllia gosaviensis Roniewicz 1989
Retiophyllia norica (Frech) 1890
Retiophyllia paraclathrata Roniewicz 1974

- Retiophyllia tolminensis* Turnšek 1987
Rhopalodendron juliensis Turnšek 1989
Siderastraea senecta Morycowa 1971
Solenocoenia gracilis (Roniewicz) 1976
Stephanosmilia polydectes Kolosváry 1954
Strotogyra augusti Turnšek 1992
Stuoresia bronni (Klipstein) 1843
Stylina decipiens Étallon 1864
Stylina regularis Fromentel 1867
Stylophyllopsis media (Roniewicz) 1974
Stylophyllum paradoxum Frech 1890
Stylophyllum pygmaeum Frech 1890
Stylosmilia corallina Koby 1881
Synastraea dubia Fromentel 1861
Synastraea subagaricites (Becker) 1875
Thamnasteria concinna (Goldfuss) 1826
Thamnasteria lobata (Goldfuss) 1826
Thamnasteria moreana (d'Orbigny) 1850
Thamnoseris morchella (Reuss) 1854
Thamnotropis rakoveci Turnšek 1985
Thecosmilia dichotoma Koby 1884
Thecosmilia minuta Koby 1884
Thecosmilia trichotoma (Goldfuss) 1826
Toechastraea pachyphyllia Cuif 1976
Tropidendron mlinaricensis Turnšek 1987
Tropidendron rhopalifer Cuif 1975
Volzeia badiotica (Volz) 1896
Volzeia sublaevis (Münster) 1841

LIST OF SPECIES NAMES

- aethiopica* - *Amphiastraea*
agariciformis - *Microsolena*
alpina - *Craspedophyllia*
amedei - *Meandrophyllia*
angustata - *Myriophyllia*
annulata - *Goniocora*
arachnoides - *Fungiastraea*
arthaberi - *Cuifastraea*
aspera - *Aulosmilia*
ataciana - *Hydnophora*
augusti - *Strotogyra*
bachmayeri - *Microphyllia*
badiotica - *Volzeia*
badioticum - *Myriophyllum*
baltovensis - *Comoseris*
baltovensis - *Pseudocoenia*
basaltiformis - *Amphiastraea*
boletiformis - *Omphalophyllia*
bolzei - *Clausastraea*
bonjour - *Epistreptophyllum*
bronni - *Stuoresia*
capitata - *Margarophyllia*
carniolica - *Ceratothecia*
cervina - *Calamophylliopsis*
champlittensis - *Montlivaltia*
charliana - *Margarosmilia*
clathrata - *Retiophyllia*
columnaris - *Acanthogyra*
columnaris - *Cuifia*
composita - *Dimorphastraea*
compressa - *Plesiosmilia*
concinna - *Thamnasteria*
conferta - *Amphiaulastraea*
confluens - *Margarosmilia*
confusa - *Astraeomorpha*
conica - *Acrosmilia*
convexa - *Polyphylloseris*
corallina - *Donacosmilia*
corallina - *Stylosmilia*
corollaris - *Neocaeniopsis*
corrugata - *Meandrophyllia*
costulata - *Heliocoenia*
cotteaui - *Eugyra*
cotteaui - *Phyllocoenia*
crenata - *Margarophyllia*
cretacica - *Dermosmilia*
croatica - *Diplaraea*
cuneiformis - *Aulosmilia*
curvata - *Placophyllia*
cyclica - *Cyclophyllia*
cycloides - *Cunolites* (*Plesiocunolites*)
daedalea - *Orbignygyra*
danubica - *Mixastraea*
decipiens - *Koilocoenia*
decipiens - *Latusastraea*
decipiens - *Stylina*
defilippi - *Retiophyllia*
delicata - *Gillastraea*
dendroidea - *Alpinoseris*
dentatus - *Conicosmilotrochus*
depressa - *Cunolites* (*Plesiocunolites*)
dichotoma - *Thecosmilia*
dispar - *Cunolites* (*Plesiocunolites*)
distefanoi - *Microsolena*
dreyfussi - *Andemantastraea*
dubia - *Synastraea*
elegans - *Diplaraea*
etalloni - *Donacosmilia*
excelsa - *Neocaeniopsis*
exiguus - *Latusastraea*
faecata - *Cunolites* (*Plesiocunolites*)
fenestrata - *Retiophyllia*
fiagdonensis - *Dermosmilia*
flabellum - *Calamophylliopsis*
fotalensis - *Calamophylliopsis*
fromenteli - *Latomeandra*
fromenteli - *Peplosmilia*
giseldonensis - *Ironella*
gosavicus - *Cunolites* (*Plesiocunolites*)
gosaviensis - *Distichophyllia*
gosaviensis - *Retiophyllia*
gracilis - *Myriophyllum*

- gracilis* - *Placosmilia*
gracilis - *Solenocoenia*
grandiflora - *Pseudofavia*
grandis - *Heterocoenia*
grandissima - *Palaeastraea*
granulata - *Actinaera*
gresslyi - *Meandraraea*
guembeli - *Gumbelastrea*
guttata - *Microsolena*
helianthoides - *Isastraea*
hexaphyllia - *Pseudocoenia*
hudajuznensis - *Protoheterastraea*
incerta - *Eohydnothophora*
juliana - *Elyastraea*
juliensis - *Rhopalodendron*
jumarense - *Collignonastrea*
jurassica - *Pseudocoeniopsis*
juvavica - *Crassistella*
kocevjiensis - *Procladocora*
koniakensis - *Apocladophyllia*
konincki - *Meandroria*
labyrinthica - *Andrazella*
labyrinthiformis - *Pruvostastrea*
lamellicostatus - *Dasmiopsis*
lamellosa eguchii - *Diplogyra*
lanckoronensis - *Eugyra*
langobardica - *Parathecasmilia*
laxata - *Dermosmilia*
leptophyllia - *Dimorphastraea*
limbata - *Pseudocoenia*
lobata - *Complexastraea*
lobata - *Ovalastrea*
lobata - *Thamnasteria*
lomensis - *Columellogyra*
longiseptata - *Pseudocoeniopsis*
marcou - *Axosmilia*
martiniana - *Actinacis*
media - *Stylophyllopsis*
microthallos - *Pachydendron*
minima - *Comoseris*
minima - *Etallonasteria*
minor - *Protoheterastraea*
minuta - *Thecosmilia*
miyakoensis - *Cyathophora*
mlinaricensis - *Tropidendron*
morchella - *Thamnoseris*
moreana - *Thamnasteria*
moreauana - *Calamophylliopsis*
multiformis - *Acanthogyra*
multilamellosa - *Hydnophora*
norica - *Distichophyllia*
norica - *Retiophyllia*
nova - *Margarosmilia*
octolamellosa - *Actinastraea*
ogilvieae - *Mitrodendron*
orbignyi - *Cunolites* (*Plesiocunolites*)
ornata - *Microsolena*
pachyphyllia - *Toechastraea*
paraclathrata - *Retiophyllia*
paradoxa - *Chondrocoenia*
paradoxum - *Stylophyllum*
patruliusi tenuiseptata - *Felixigyra*
picteti - *Eohydnothophora*
piriformis - *Amphiastraea*
polydectes - *Stephanosmilia*
pratzi - *Astraeomorpha*
profunda - *Gablonzeria*
pseudoconfluens - *Clausastraea*
pumila - *Goniocora*
pygmaea - *Columactinastraea*
pygmaea - *Cyathophora*
pygmaeum - *Stylophyllum*
quinqueseptatum - *Pseudopistophyllum*
radiciformis - *Omphalophyllia*
radisensis - *Pseudocoenia*
rakoveci - *Thamnotropis*
ramosa - *Actinastraea*
raricorallita - *Cyclophyllia*
razorensis - *Protoheterastraea*
regularis - *Actinastraea*
regularis - *Coryphyllia*
regularis - *Stylina*
renevieri - *Montlivaltia*
reussi - *Actinacis*
reussi - *Cassianastrea*
reussi - *Cunolites* (*Cunolites*)
rhopalifer - *Tropidendron*
richthofeni - *Margarosmilia*
robusta - *Cunolites* (*Plesiocunolites*)
rollieri - *Cladophyllia*
rugosa - *Placophyllia*
salisburgensis - *Enallocoenia*
scutellum - *Cunolites* (*Paracunolites*)
sellae - *Parathecasmilia*
sellata - *Cunolites* (*Cunolites*)
senecta - *Siderastraea*
septanectens - *Margarosmilia*
seriata - *Complexastraea*
sexradiata - *Proaplophyllia*
simonyi - *Procladocora*
slovenica - *Pseudocoenia*
sp. - *Chomatoseris*
sp. - *Enallhelina*
spinoseptata - *Pseudopolytrema*

steinmanni - *Cyathophora*
stockesi - *Calamophylliopsis*
stranicensis - *Conicosmilotrochus*
strictus - *Conicosmilotrochus*
styriaca - *Hydnophora*
subagaricites - *Synastraea*
subinduta - *Rennensismilia*
sublaevis - *Volzeia*
suevica - *Latiphyllia*
tendagurensis - *Fungiastraea*
tenue - *Epistreptophyllum*
tenuis - *Actinaraea*
tenuis - *Procladocora*

thurmanni - *Microsolena*
tolminensis - *Retiophyllia*
triadicus - *Procyclolites*
triassicum - *Araiophyllum*
trichotoma - *Thecosmilia*
trochiformis - *Allocoenia*
tuvalica - *Pokljukosmilia*
undans - *Microphyllia*
undulata - *Cunolites* (*Plesiocunolites*)
variabilis - *Heliocoenia*
zieteni - *Margarosmilia*
zitteli - *Pamiroseris*

REVISED SPECIES

Names from synonymy:

Actinastraea juvavica
Actinastraea pygmaea
Adelocoenia minima
Adelocoenia pygmaea
Agaricia granulata
Agaricia lobata
*Aplophyllia sexradiata**
Apocladophyllia chaputi
Archaeophyllia fenestrata
Astraea concinna
Astraea confluens
Astraea helianthoides
Astraea limbata
Astraea octolamellosa
Astraea ramosa
Astraraea corollaris
Astrocoenia pygmaea
Astrocoenia ramosa
Aulastraea conferta
Axosmilia alpina
*Axosmilia fromenteli**
Brachyseris morchella
Calamophyllia cervina
Calamophyllia fenestrata
Calamophyllia flabellum
Calamophyllia stockesi
Caryophyllia pumila
Centrastraea moreana
Chorisastraea fromenteli
Cladocora simonyi
Cladophyllia septanectens
*Clausastraea confluens** (pars)
Clausastraea saltensis
Coelocoenia decipiens
*Columnocoenia jurassica**
*Comoseris jumarensis**
Complexastraeopsis lobata
Connectastraea piriformis
Conophyllia boletiformis
Conophyllia radiciformis

Valid names:

Crassistella juvavica
Columactinastraea pygmaea
Etallonasteria minima
Cyathophora pygmaea
Actinaraea granulata
Thamnasteria lobata
Proaplophyllia sexradiata
Apocladophyllia koniakensis
Retiophyllia fenestrata
Thamnasteria concinna
Clausastraea pseudoconfluens
Isastraea helianthoides
Pseudocoenia limbata
Actinastraea octolamellosa
Actinastraea ramosa
Neocaeniopsis corollaris
Columactinastraea pygmaea
Actinastraea ramosa
Amphiaulastraea conferta
Craspedophyllia alpina
Peplosmilia fromenteli
Thamnoseris morchella
Calamophylliopsis cervina
Retiophyllia fenestrata
Calamophylliopsis flabellum
Calamophylliopsis stockesi
Goniocora pumila
Thamnasteria moreana
Latomeandra fromenteli
Procladocora simonyi
Margarosmilia septanectens
Clausastraea pseudoconfluens
Clausastraea bolzei
Koilocoenia decipiens
Pseudocoeniopsis jurassica
Collignonastraea jumarensis
Complexastraea lobata
Amphiastraea piriformis
Omphalophyllia boletiformis
Omphalophyllia radiciformis

* = revised from the Slovenian literature

<i>Convexastraea intricata</i> * (pars)	<i>Solenocoenia gracilis</i>
<i>Convexastraea minima</i>	<i>Etallonasteria minima</i>
<i>Coryphyllia elliptica</i> * (pars)	<i>Cuifia columnaris</i>
<i>Cryptocoenia decipiens</i>	<i>Stylina decipiens</i>
<i>Cryptocoenia hexaphyllia</i>	<i>Pseudocoenia hexaphyllia</i>
<i>Cryptocoenia limbata</i>	<i>Pseudocoenia limbata</i>
<i>Cryptocoenia minima</i>	<i>Etallonasteria minima</i>
<i>Cryptocoenia radisensis</i>	<i>Pseudocoenia radisensis</i>
<i>Cuifia elliptica</i> * (pars)	<i>Cuifia columnaris</i>
<i>Cyathocoenia juvavica</i> *	<i>Crassistella juvavica</i>
<i>Cyathocoenia paradoxa</i>	<i>Chondrocoenia paradoxa</i>
<i>Cyathocoenia schafhäutli</i> (pars)	<i>Crassistella juvavica</i>
<i>Cyathophora minima</i>	<i>Etallonasteria minima</i>
<i>Cyathophyllum compositum</i>	<i>Dimorphastraea composita</i>
<i>Cyathophyllum confluens</i>	<i>Margarosmilia confluens</i>
<i>Cyathophyllum radiciformis</i>	<i>Omphalophyllia radiciformis</i>
<i>Cyclolites reussi</i>	<i>Cunolites reussi</i>
<i>Etallonia minima</i> *	<i>Etallonasteria minima</i>
<i>Favia lobata</i>	<i>Ovalastraea lobata</i>
<i>Glenarea cretacea</i> *	omitted
<i>Haplaraea elegans</i>	<i>Diplaraea elegans</i>
<i>Heliastrea corollaris</i>	<i>Neocaeniopsis corollaris</i>
<i>Heliopora decipiens</i>	<i>Latusastraea decipiens</i>
<i>Hydnophora incerta</i>	<i>Eohydnophora incerta</i>
<i>Hydnophora picteti</i>	<i>Eohydnophora picteti</i>
<i>Hydnophoraraea multilamellosa</i>	<i>Hydnophora multilamellosa</i>
<i>Hydnophoraraea parviconus</i>	<i>Hydnophora ataciana</i>
<i>Hydnophoraraea styriaca</i> *	<i>Hydnophora styriaca</i>
<i>Isastraea bronni</i>	<i>Stuoresia bronni</i>
<i>Isastraea gümbeli</i>	<i>Guembelastraea gümbeli</i>
<i>Isastraea labyrinthica</i>	<i>Andrazella labyrinthica</i>
<i>Isastraea morchella</i>	<i>Thamnoseris morchella</i>
<i>Isastraea profunda</i>	<i>Gablonzeria profunda</i>
<i>Isastraea undans</i>	<i>Microphyllia undans</i>
<i>Lasmogyra gracilis</i>	<i>Placosmilia gracilis</i>
<i>Latimeandra amedei</i>	<i>Meandrophyllia amedei</i>
<i>Latimeandra morchella</i>	<i>Thamnoseris morchella</i>
<i>Latimeandra undans</i>	<i>Microphyllia undans</i>
<i>Latimeandraraea morchella</i>	<i>Thamnoseris morchella</i>
<i>Leptophyllia conica</i>	<i>Acrosmilia conica</i>
<i>Leptoria konincki</i>	<i>Meandroria konincki</i>
<i>Lithocodium sublaevis</i>	<i>Volzeia sublaevis</i>
<i>Lithodendron clathratum</i>	<i>Retiophyllia clathrata</i>
<i>Lithodendron flabellum</i>	<i>Calamophylliopsis flabellum</i>
<i>Lithodendron moreausiacum</i>	<i>Calamophylliopsis moreauana</i>
<i>Lithodendron trichotomum</i>	<i>Thecosmilia trichotoma</i>
<i>Lobophyllia suevica</i>	<i>Latiphyllia suevica</i>
<i>Meandrina angustata</i>	<i>Myriophyllia angustata</i>
<i>Meandrina bronni</i>	<i>Stuoresia bronni</i>
<i>Meandrina edwardsi</i>	<i>Meandrophyllia corrugata</i>
<i>Meandrina konincki</i>	<i>Meandroria konincki</i>
<i>Meandrina labyrinthica</i>	<i>Andrazella labyrinthica</i>

- Meandrophyllia edwardsi**
Microphyllia amedei
Microsaraea distefanoi
Miyakopora miyakoensis
Monticularia styriana
Montlivaltia badiotica
Montlivaltia boletiformis
Montlivaltia bonjourii
Montlivaltia capitata
Montlivaltia crenata
Montlivaltia gosaviensis
Montlivaltia norica
Montlivaltia zietenii
Myriophyllia badiotica
Myriophyllia gracilis
Myriophyllia lanckoronensis
Orbignycoenia pygmaea
*Ovalastraea turbinata** (pars)
Pachygyra daedalea
Paradistichophyllum charlium
Paradistichophyllum clathratum
*Paradistichophyllum noricum**
Parastraea grandiflora
*Phacelostylophyllum medium**
*Phacelostylophyllum pygmaeum**
Phyllocoenia corollaris
Phyllocoenia decipiens
Phyllocoenia excelsa
Phyllocoenia grandissima
Phyllosmilia subinduta
Placosmilia cuneiformis
Pleurocoenia decipiens
Pleurosmilia compressa
Pleurosmilia marcou
Prionastraea langobardica
Procladocora fotisalisensis
Protoseris fromenteli
Pseudocoenia decipiens
*Pseudocoenia longiseptata**
Pseudothecosmilia etalloni
Reimaniphyllia gosaviensis
Reimaniphyllia norica
Rhabdophyllia cervina
Rhabdophyllia defilippi
Rhabdophyllia sellae
Rhabdophylliopsis cervina
Schizosmilia koniakensis
*Schizosmilia rollieri**
Stephanocoenia juvavica
Stephanocoenia trochiformis
Stereocoenia concinna
Stylina limbata
Meandrophyllia corrugata
Meandrophyllia amedei
Microsolena distefanoi
Cyathophora miyakoensis
Hydnophora styriaca
Myriophyllum badioticum
Omphalophyllia boletiformis
Epistreptophyllum bonjourii
Margarophyllia capitata
Margarophyllia crenata
Distichophyllia gosaviensis
Distichophyllia norica
Margarosmilia zietenii
Myriophyllum badioticum
Myriophyllum gracilis
Eugyra lanckoronensis
Cyathophora pygmaea
Polyphylloseris convexa
Orbignygyra daedalea
Margarosmilia charliana
Retiophyllia clathrata
Retiophyllia norica
Pseudofavia grandiflora
Stylophyllopsis media
Stylophyllum pygmaeum
Neocaeniopsis corollaris
Koilocoenia decipiens
Neocaeniopsis excelsa
Palaeastraea grandissima
Rennensismilia subinduta
Aulosmilia cuneiformis
Latusastraea exiguis
Plesiosmilia compressa
Axosmilia marcou
Parathecosmilia langobardica
Calamophylliopsis fotisalisensis
Latomeandra fromenteli
Stylina decipiens
Pseudocoeniopsis longiseptata
Donacosmilia etalloni
Distichophyllia gosaviensis
Distichophyllia norica
Calamophylliopsis cervina
Retiophyllia defilippi
Parathecosmilia sellae
Calamophylliopsis cervina
Apocladophyllia koniakensis
Cladophyllia rollieri
Crassistella juvavica
Allocoenia trochiformis
Thamnasteria concinna
Pseudocoenia limbata

Stylina reussi
*Stylosmilia chaputi**
Stylosmilia koniakensis
Stylosmilia pumila
Stylosmilia rugosa
Synastraea composita
Synastraea concinna
Synastraea confluens
Synastraea leptophyllia
Thamnasteria arachnoides
Thamnasteria confluens
Thamnasteria confusa
Thamnasteria subagaricites
Thamnasteria tendagurensis
Thamnastraea arthaberi
Thamnastraea composita
Thamnastraea leptophyllia
Thamnasteria zitteli
Thamnoseris amedei
Thecosmilia badiotica
Thecosmilia charliana
Thecosmilia clathrata (pars)
Thecosmilia clathrata (pars)
Thecosmilia confluens
Thecosmilia cyclica
Thecosmilia defilippi
Thecosmilia fenestrata
Thecosmilia laxata
Thecosmilia norica
Thecosmilia sublaevis
*Thecosmilia suevica**
Trochocyathus lamellicostatus
Trochosmilia subinduta
Turbinolia aspera

Cassianastraea reussi
Apocladophyllia koniakensis
Apocladophyllia koniakensis
Goniocora pumila
Placophyllia rugosa
Dimorphastraea composita
Thamnasteria concinna
Clausastraea pseudoconfluens
Dimorphastraea leptophyllia
Fungiastraea arachnoides
Clausastraea pseudoconfluens
Astraeomorpha confusa
Synastraea subagaricites
Fungiastraea tendagurensis
Cuifastraea arthaberi
Dimorphastraea composita
Dimorphastraea leptophyllia
Pamiroseris zitteli
Meandrophyllia amedei
Volzeia badiotica
Margarosmilia charliana
Retiophyllia clathrata
Retiophyllia paraclathrata
Margarosmilia confluens
Cyclophyllia cyclica
Retiophyllia defilippi
Retiophyllia fenestrata
Dermosmilia laxata
Retiophyllia norica
Volzeia sublaevis
Latiphyllia suevica
Dasmiopsis lamellicostatus
Rennensismilia subinduta
Aulosmilia aspera

LIST OF CORAL SPECIES IN STRATIGRAPHICAL ORDER

TRIASSIC (Upper Ladinian - Carnian) species

<i>Andrazella labyrinthica</i>	Cordevolian-Julian
<i>Araiophyllum triassicum</i>	Cordevolian
<i>Astraeomorpha pratzii</i>	Tuvalian
<i>Cassianastraea reussi</i>	Cordevolian
<i>Coryphyllia regularis</i>	Cordevolian-Julian-Tuvalian-Lower Norian
<i>Craspedophyllia alpina</i>	Tuvalian
<i>Gumbelastraea guembeli</i>	Cordevolian
<i>Koilocoenia decipiens</i>	Cordevolian
<i>Margarophyllia capitata</i>	Upper Ladinian-Cordevolian-Tuvalian
<i>Margarophyllia crenata</i>	Upper Ladinian-Cordevolian-Tuvalian
<i>Margarosmia confluent</i>	Upper Ladinian-Cordevolian-Julian
<i>Margarosmia richthofeni</i>	Cordevolian-Julian
<i>Margarosmia septanectens</i>	Upper Ladinian-Cordevolian-Julian
<i>Margarosmia zietenii</i>	Upper Ladinian-Cordevolian-Tuvalian
<i>Myriophyllum badioticum</i>	Upper Ladinian-Cordevolian-Julian
<i>Myriophyllum gracilis</i>	Upper Ladinian-Cordevolian-Julian
<i>Omphalophyllia boletiformis</i>	Upper Ladinian-Cordevolian-Julian
<i>Omphalophyllia radiciformis</i>	Cordevolian-Julian
<i>Pamiroseris zitteli</i>	Tuvalian
<i>Protoheterastraea hudajuznensis</i>	Cordevolian-Julian
<i>Protoheterastraea minor</i>	Julian-Tuvalian
<i>Retiophyllia tolminensis</i>	Tuvalian
<i>Rhopalodendron juliensis</i>	Tuvalian-Lower Norian
<i>Stuoresia bronni</i>	Cordevolian
<i>Pokljukosmia tuvalica</i>	Tuvalian-Lower Norian
<i>Thamnotropis rakoveci</i>	Tuvalian
<i>Tropidendron rhopalifer</i>	Cordevolian
<i>Volzeia badiotica</i>	Cordevolian-Julian-Tuvalian
<i>Volzeia sublaevis</i>	Upper Ladinian-Cordevolian-Julian

TRIASSIC (Norian-Rhaetian) species

<i>Alpinoseris dendroidea</i>	Upper Norian-Rhaetian
<i>Astraeomorpha confusa</i>	Upper Norian-Rhaetian
<i>Chondrocoenia paradoxa</i>	Norian-Rhaetian
<i>Crassistella juvavica</i>	Lower Norian
<i>Cuifastraea arthaberi</i>	Norian-Rhaetian
<i>Cuifia columnaris</i>	Norian-Rhaetian
<i>Cyclophyllia cyclica</i>	Lower Norian
<i>Cyclophyllia raricorallita</i>	Norian-Rhaetian
<i>Distichophyllia gosiavensis</i>	Norian-Rhaetian

<i>Distichophyllia norica</i>	Norian-Rhaetian
<i>Elysastraea juliana</i>	Lower Norian
<i>Gablonzeria profunda</i>	Norian-Rhaetian
<i>Gillastraea delicata</i>	Upper Norian-Rhaetian
<i>Margarosmia charliana</i>	Upper Norian-Rhaetian
<i>Margarosmia nova</i>	Lower Norian
<i>Pachydendron microthallos</i>	Upper Norian-Rhaetian
<i>Palaeastraea grandissima</i>	Upper Norian-Rhaetian
<i>Parathecospilia langobardica</i>	Norian-Rhaetian
<i>Parathecospilia sellae</i>	Upper Norian-Rhaetian
<i>Procycolites triadicus</i>	Rhaetian
<i>Protoheterastraea razorensis</i>	Lower Norian
<i>Retiophyllia clathrata</i>	Upper Norian-Rhaetian
<i>Retiophyllia defilippi</i>	Upper Norian-Rhaetian
<i>Retiophyllia fenestrata</i>	Norian-Rhaetian
<i>Retiophyllia gosaviensis</i>	Norian-Rhaetian
<i>Retiophyllia norica</i>	Lower Norian
<i>Retiophyllia paraclathrata</i>	Upper Norian-Rhaetian
<i>Stylophylloids media</i>	Lower Norian
<i>Stylophyllum paradoxum</i>	Upper Norian-Rhaetian
<i>Stylophyllum pygmaeum</i>	Lower Norian
<i>Toechastraea pachyphyllia</i>	Upper Norian-Rhaetian
<i>Tropidendron mlinaricensis</i>	Lower Norian

JURASSIC species

<i>Acanthogyra columnaris</i>	Upper Oxfordian-Kimmeridgian
<i>Acanthogyra multiformis</i>	Upper Oxfordian-Kimmeridgian
<i>Actinaraea granulata</i>	Upper Oxfordian-Kimmeridgian
<i>Actinastraea regularis</i>	Upper Oxfordian-Kimmeridgian
<i>Allocoenia trochiformis</i>	Upper Oxfordian-Kimmeridgian
<i>Amphiastraea basaltiformis</i>	Upper Oxfordian-Kimmeridgian
<i>Amphiastraea piriformis</i>	Upper Oxfordian-Kimmeridgian
<i>Andemantastraea dreyfussi</i>	Upper Oxfordian-Kimmeridgian
<i>Apocladophyllia koniakensis</i>	Upper Oxfordian-Kimmeridgian
<i>Axosmia marcou</i>	Upper Oxfordian-Kimmeridgian
<i>Calamophylloids cervina</i>	Upper Oxfordian-Kimmeridgian
<i>Calamophylloids flabellum</i>	Upper Oxfordian-Kimmeridgian
<i>Calamophylloids moreauana</i>	Upper Oxfordian-Kimmeridgian
<i>Calamophylloids stockesi</i>	Upper Oxfordian-Kimmeridgian
<i>Ceratothecia carniolica</i>	Upper Oxfordian-Kimmeridgian
<i>Cladophyllia rollieri</i>	Upper Oxfordian-Kimmeridgian
<i>Clausastraea pseudoconfluens</i>	Upper Oxfordian-Kimmeridgian
<i>Collignonastraea jumarensis</i>	Upper Oxfordian-Kimmeridgian
<i>Comoseris baltovensis</i>	Upper Oxfordian-Kimmeridgian
<i>Comoseris minima</i>	Upper Oxfordian-Kimmeridgian
<i>Complexastraea lobata</i>	Upper Oxfordian-Kimmeridgian
<i>Complexastraea seriata</i>	Upper Oxfordian-Kimmeridgian
<i>Dermosmia fiagdonensis</i>	Upper Oxfordian-Kimmeridgian
<i>Dermosmia laxata</i>	Upper Oxfordian-Kimmeridgian
<i>Diplaraea croatica</i>	Upper Oxfordian-Kimmeridgian
<i>Diplaraea elegans</i>	Upper Oxfordian-Kimmeridgian
<i>Donacosmia corallina</i>	Upper Oxfordian-Kimmeridgian

<i>Donacosmilia etalloni</i>	Upper Oxfordian-Kimmeridgian
<i>Enallhelia</i> sp.	Upper Oxfordian-Kimmeridgian
<i>Epistreptophyllum bonjourii</i>	Upper Oxfordian-Kimmeridgian
<i>Epistreptophyllum tenue</i>	Upper Oxfordian-Kimmeridgian
<i>Etallonasteria minima</i>	Upper Oxfordian-Kimmeridgian
<i>Fungiastraea arachnoides</i>	Upper Oxfordian-Kimmeridgian
<i>Goniocora annulata</i>	Upper Oxfordian-Kimmeridgian
<i>Goniocora pumila</i>	Upper Oxfordian-Kimmeridgian
<i>Heliocoenia costulata</i>	Upper Oxfordian-Kimmeridgian
<i>Heliocoenia variabilis</i>	Upper Oxfordian-Kimmeridgian
<i>Ironella giseldonensis</i>	Upper Oxfordian-Kimmeridgian
<i>Isastraea helianthoides</i>	Upper Oxfordian-Kimmeridgian
<i>Latiphyllia suevica</i>	Upper Oxfordian-Kimmeridgian
<i>Latomeandra fromenteli</i>	Upper Oxfordian-Kimmeridgian
<i>Meandraraea gresslyi</i>	Upper Oxfordian-Kimmeridgian
<i>Meandrophyllia amedei</i>	Upper Oxfordian-Kimmeridgian
<i>Meandrophyllia corrugata</i>	Upper Oxfordian-Kimmeridgian
<i>Microphyllia bachmayeri</i>	Upper Oxfordian-Kimmeridgian
<i>Microphyllia undans</i>	Upper Oxfordian-Kimmeridgian
<i>Microsolena agariciformis</i>	Upper Oxfordian-Kimmeridgian
<i>Microsolena ornata</i>	Upper Oxfordian-Kimmeridgian
<i>Microsolena thurmanni</i>	Upper Oxfordian-Kimmeridgian
<i>Mitrodendron ogilvie</i>	Upper Oxfordian-Kimmeridgian
<i>Mixastraea danubica</i>	Upper Oxfordian-Kimmeridgian
<i>Montlivaltia champlittensis</i>	Upper Oxfordian-Kimmeridgian
<i>Montlivaltia renevieri</i>	Upper Oxfordian-Kimmeridgian
<i>Myriophyllia angustata</i>	Upper Oxfordian-Kimmeridgian
<i>Ovalastraea lobata</i>	Upper Oxfordian-Kimmeridgian
<i>Placophyllia rugosa</i>	Upper Oxfordian-Kimmeridgian
<i>Plesiosmilia compressa</i>	Upper Oxfordian-Kimmeridgian
<i>Proaplophyllia sexradiata</i>	Upper Oxfordian-Kimmeridgian
<i>Pruvostastraea labyrinthiformis</i>	Upper Oxfordian-Kimmeridgian
<i>Pseudocoenia baltovensis</i>	Upper Oxfordian-Kimmeridgian
<i>Pseudocoenia hexaphyllia</i>	Upper Oxfordian-Kimmeridgian
<i>Pseudocoenia limbata</i>	Upper Oxfordian-Kimmeridgian
<i>Pseudocoenia radisensis</i>	Upper Oxfordian-Kimmeridgian
<i>Pseudocoenia slovenica</i>	Upper Oxfordian-Kimmeridgian
<i>Pseudocoeniopsis jurassica</i>	Upper Oxfordian-Kimmeridgian
<i>Pseudocoeniopsis longiseptata</i>	Upper Oxfordian-Kimmeridgian
<i>Solenocoenia gracilis</i>	Upper Oxfordian-Kimmeridgian
<i>Stylina decipiens</i>	Upper Oxfordian-Kimmeridgian
<i>Stylosmilia corallina</i>	Upper Oxfordian-Kimmeridgian
<i>Synastraea dubia</i>	Upper Oxfordian-Kimmeridgian
<i>Synastraea subagaricites</i>	Upper Oxfordian-Kimmeridgian
<i>Thamnasteria concina</i>	Upper Oxfordian-Kimmeridgian
<i>Thamnasteria lobata</i>	Upper Oxfordian-Kimmeridgian
<i>Thamnasteria moreana</i>	Upper Oxfordian-Kimmeridgian
<i>Thecosmilia dichotoma</i>	Upper Oxfordian-Kimmeridgian
<i>Thecosmilia minuta</i>	Upper Oxfordian-Kimmeridgian
<i>Thecosmilia trichotoma</i>	Upper Oxfordian-Kimmeridgian

Lower CRETACEOUS species

<i>Actinaraea tenuis</i>	Aptian
<i>Clausastraea bolzei</i>	Barremian-Aptian
<i>Cyathophora pygmaea</i>	Barremian-Aptian
<i>Dermosmilia cretacica</i>	Barremian-Aptian
<i>Eohydnophora picteti</i>	Barremian-Aptian
<i>Eugyra cotteau</i>	Barremian-Aptian
<i>Felixigyra patruliusi tenuiseptata</i>	Barremian-Aptian
<i>Ironella giseldonensis</i>	Valanginian
<i>Latusastraea decipiens</i>	Barremian-Aptian
<i>Latusastraea exiguis</i>	Barremian-Aptian
<i>Microphyllia bachmayeri</i>	Valanginian
<i>Microphyllia undans</i>	Valanginian
<i>Microsolena distefanoi</i>	Barremian-Aptian
<i>Microsolena guttata</i>	Barremian-Aptian
<i>Peplosmilia fromenteli</i>	Barremian-Aptian
<i>Phyllocoenia cotteau</i>	Barremian-Aptian
<i>Placophyllia curvata</i>	Barremian-Aptian
<i>Polyphylloseris convexa</i>	Barremian-Aptian
<i>Procladocora kocevjensis</i>	Albian
<i>Pseudopolytremacis spinoseptata</i>	Barremian-Aptian
<i>Siderastraea senecta</i>	Barremian-Aptian
<i>Strotogyra augusti</i>	Albian
<i>Stylina regularis</i>	Barremian-Aptian

Upper CRETACEOUS species

<i>Acrosmilia conica</i>	Santonian-Campanian
<i>Actinacis martiniana</i>	Santonian-Campanian
<i>Actinacis reussi</i>	Santonian-Campanian
<i>Actinastraea octolamellosa</i>	Santonian-Campanian
<i>Actinastraea ramosa</i>	Santonian-Campanian
<i>Aulosmilia aspera</i>	Santonian-Campanian
<i>Aulosmilia cuneiformis</i>	Santonian-Campanian
<i>Columactinastraea pygmaea</i>	Santonian-Campanian
<i>Conicosmilotrochus dentatus</i>	Santonian-Campanian
<i>Conicosmilotrochus stranicensis</i>	Santonian-Campanian
<i>Conicosmilotrochus strictus</i>	Santonian-Campanian
<i>Cunolites (Cunolites) reussi</i>	Santonian-Campanian
<i>Cunolites (Cunolites) sellata</i>	Santonian-Campanian
<i>Cunolites (Paracunolites) scutellum</i>	Santonian-Campanian
<i>Cunolites (Plesiocunolites) cycloides</i>	Santonian-Campanian
<i>Cunolites (Plesiocunolites) depressa</i>	Santonian-Campanian
<i>Cunolites (Plesiocunolites) dispar</i>	Santonian-Campanian
<i>Cunolites (Plesiocunolites) faecata</i>	Santonian-Campanian
<i>Cunolites (Plesiocunolites) gosavicus</i>	Santonian-Campanian
<i>Cunolites (Plesiocunolites) orbigny</i>	Santonian-Campanian
<i>Cunolites (Plesiocunolites) undulata</i>	Santonian-Campanian
<i>Cunolites (Plesiocunolitopsis) robusta</i>	Santonian-Campanian
<i>Dasmiopsis lamellicostatus</i>	Santonian-Campanian
<i>Dimorphastraea composita</i>	Santonian-Campanian
<i>Dimorphastraea leptophyllia</i>	Santonian-Campanian
<i>Enallocoenia salisburgensis</i>	Santonian-Campanian

<i>Hydnophora ataciana</i>	Santonian-Campanian
<i>Hydnophora multilamellosa</i>	Santonian-Campanian
<i>Neocaeniopsis corollaris</i>	Santonian-Campanian
<i>Neocaeniopsis excelsa</i>	Santonian-Campanian
<i>Orbigygyra daedalea</i>	Santonian-Campanian
<i>Placosmilia gracilis</i>	Santonian-Campanian
<i>Procladocora simonyi</i>	Santonian-Campanian
<i>Procladocora tenuis</i>	Santonian-Campanian
<i>Rennensismilia subinduta</i>	Santonian-Campanian
<i>Stephanosmilia polydectes</i>	Santonian-Campanian

Senonian breccia species

<i>Amphiastraea aethiopica</i>	Senonian breccia
<i>Amphiaulastraea conferta</i>	Senonian breccia
<i>Calamophylliopsis fotisalensis</i>	Senonian breccia
<i>Chomatoseris</i> sp.	Senonian breccia
<i>Clausastraea bolzei</i>	Senonian breccia
<i>Columellogyra lomensis</i>	Senonian breccia
<i>Cyathophora miyakoensis</i>	Senonian breccia
<i>Cyathophora pygmaea</i>	Senonian breccia
<i>Cyathophora steinmanni</i>	Senonian breccia
<i>Diplogyra lamellosa eguchii</i>	Senonian breccia
<i>Eohydnophora incerta</i>	Senonian breccia
<i>Eohydnophora picteti</i>	Senonian breccia
<i>Eugyra cotteau</i>	Senonian breccia
<i>Eugyra lanckoronensis</i>	Senonian breccia
<i>Fungiastraea tendagurensis</i>	Senonian breccia
<i>Heterocoenia grandis</i>	Senonian breccia
<i>Hydnophora styriaca</i>	Senonian breccia
<i>Meandroria konincki</i>	Senonian breccia
<i>Procladocora simonyi</i>	Senonian breccia
<i>Procladocora tenuis</i>	Senonian breccia
<i>Pseudofavia grandiflora</i>	Senonian breccia
<i>Pseudopistophllum quinquesepatum</i>	Senonian breccia
<i>Thamnoseris morchella</i>	Senonian breccia

LOCALITIES OF MESOZOIC CORALS (IN ALPHABETICAL ORDER)

Begunjščica	T		Norian-Rhaetian
Bič (Dolenjsko)		J	Upper Oxfordian-Kimmeridgian
Blegoš	T		Upper Cordevolian-Julian
Bohinj-Babna gora	T		Upper Norian-Rhaetian
Bohinj-Bitnje	T		Upper Norian-Rhaetian
Bohinj-Boltarje	T		Upper Norian-Rhaetian
Bohinj-Drenova gora	T		Upper Norian-Rhaetian
Bohinj-Gradišče	T		Upper Norian-Rhaetian
Bukovje (Hrušica)		J	Upper Oxfordian-Kimmeridgian
Celje (grad-castle)	T		Upper Ladinian
Col (N of Col)		J	Upper Oxfordian-Kimmeridgian
Čepovanski dol		J	Upper Oxfordian-Kimmeridgian
Črna gora (N Julian Alps)	T		Cordevolian
Čušperk (Dolenjsko)		J	Upper Oxfordian-Kimmeridgian
Debela peč (N Julian Alps)	T		Cordevolian
Dobrnich (Dolenjsko)		J	Upper Oxfordian-Kimmeridgian
Dole at Litija	T		Upper Ladinian-Cordevolian
Dovški križ (N Julian Alps)	T		Norian-Rhaetian
Draga (Kočevsko)		J	Upper Oxfordian-Kimmeridgian
Frata (Dolenjsko)		J	Upper Oxfordian-Kimmeridgian
Frata-Brezova reber (Dolenjsko)		J	Upper Oxfordian-Kimmeridgian
Frata-Mali vrh (Dolenjsko)		J	Upper Oxfordian-Kimmeridgian
Frčkov vrh (N Julian Alps)	T		Cordevolian
Gaber/Babna gora (Dolenjsko)		J	Upper Oxfordian-Kimmeridgian
Hoje (Banjška planota)		K	Senonian breccia
Hrušica OGG		J	Upper Oxfordian-Kimmeridgian
Hudajužna	T		Upper Cordevolian-Julian
Ivanja vas (Dolenjsko)		J	Upper Oxfordian-Kimmeridgian
Jelovica (Rovtarica)	T		Norian-Rhaetian
Jesenica (at Cerčno)	T		Upper Cordevolian-Julian
Kal nad Kanalom (Banjška planota)		J	Upper Oxfordian-Kimmeridgian
Kamnik Alps- road to Krvavec	T		Cordevolian
Kamniško sedlo	T		Cordevolian
Kanalski Lom (Banjška planota)		K	Senonian breccia
Karteljevo (Dolenjsko)		J	Upper Oxfordian-Kimmeridgian
Kobla	T		Upper Norian-Rhaetian
Kopice (N Julian Alps)	T		Upper Norian
Kot (N Julian Alps)	T		Lower Norian
Krma (N Julian Alps)	T		Cordevolian
Krnica (N Julian Alps)	T		Cordevolian
Leskovica	T		Upper Cordevolian-Julian

Levpa (Banjška planota)		K	Senonian breccia
Lipica		K	Santonian-Campanian
Logaška planota (1161)	J		Upper Oxfordian-Kimmeridgian
Logaška planota OGK	J		Upper Oxfordian-Kimmeridgian
Luče (Dolenjsko)	J		Upper Oxfordian-Kimmeridgian
Mačkovec (Dolenjsko)	J		Upper Oxfordian-Kimmeridgian
Korinj (Dolenjsko)	J		Upper Oxfordian-Kimmeridgian
Menina planina	T		Cordevolian
Mešnjak (Banjška planota)		K	Senonian breccia
Mežakla-Brezovec	T		Cordevolian
Mežakla-Kisovec	T		Cordevolian
Mežica-Graben	T		Cordevolian-Julian
Mežica-Hlevnik	T		Cordevolian-Julian
Mojstrana (N Julian Alps)	T		Cordevolian
Mrzovec (Trnovski gozd)	J		Upper Oxfordian-Kimmeridgian
Nanos-Železni klanec	J		Upper Oxfordian-Kimmeridgian
Njivice at Mojstrana (N Julian Alps)	T		Cordevolian
Novaki	T		Upper Cordevolian-Julian
Ojstrovca (Trnovski gozd)	J		Upper Oxfordian-Kimmeridgian
Osojnica (Banjška planota)		K	Barremian-Aptian
Otlica (Trnovski gozd)	J		Upper Oxfordian-Kimmeridgian
Perbla (at Tolmin)	T		Upper Julian-Tuvalian
Planja (N Julian Alps)	T		Lower Norian
Plave at Soča	J		Upper Oxfordian-Kimmeridgian
Podsela (at Soča)		K	Senonian breccia
Pokljuka (Hotel Šport)	T		Cordevolian
Pokljuka (Lemovce)	T		Julian
Pokljuka (Srenjski pašnik)	T		Tuvalian
Predole (Dolenjsko)	J		Upper Oxfordian-Kimmeridgian
Radovna (N Julian Alps)	T		Cordevolian
Razor (N Julian alps)	T		Lower Norian
Rdeči rob (S Julian Alps)	T		Upper Norian-Rhaetian
Robidišče		K	Barremian-Aptian
Rušnata Mlinarica (N Julian Alps)	T		Lower Norian
Sela (Šumberk) (Dolenjsko)	J		Upper Oxfordian-Kimmeridgian
Selovec (Trnovski gozd)	J		Upper Oxfordian-Kimmeridgian
Slovenski vrh (Kočevsko)		K	Albian
Slovenski vrh (Kočevsko)		K	Barremian-Aptian
Srednja gora (N Julian Alps)	T		Cordevolian
Stranice-Dobrava		K	Santonian-Campanian
Stranice-quarry		K	Santonian-Campanian
Stranice-Radana vas		K	Santonian-Campanian
Stranice-Rugelj		K	Santonian-Campanian
Šplevta (N Julian Alps)	T		Upper Norian-Rhaetian
Tominškova pot (N Julian Alps)	T		Lower Norian
Vitranc (N Julian Alps)	T		Cordevolian
Vodice (S of Javornik)	J		Upper Oxfordian-Kimmeridgian
Zakojca	T		Upper Cordevolian-Julian
Zakriž	T		Upper Cordevolian-Julian
Zavrh (Trnovski gozd)		K	Valanginian
Zreče		K	Santonian-Campanian

LOCALITIES OF MESOZOIC CORALS (STRATIGRAPHIC AND REGIONAL ORDER)

TRIASSIC

Carnian localities of Julian Carbonate Platform

Črna gora (Pri Turnih) (N Julian Alps)	T	Cordevolian
Debela peč (N Julian Alps)	T	Cordevolian
Frčkov vrh (N Julian Alps)	T	Cordevolian
Kamniške Alpe- road to Krvavec	T	Cordevolian
Kamniško sedlo	T	Cordevolian
Krma v (N Julian Alps)	T	Cordevolian
Krnica (N Julian Alps)	T	Cordevolian
Mežakla-Brezovec	T	Cordevolian
Mežakla-Kisovec	T	Cordevolian
Menina planina (+)	T	Cordevolian
Mojstrana (N Julian Alps)	T	Cordevolian
Njivice at Mojstrana (N Julian Alps)	T	Cordevolian
Pokljuka (Šport hotel)	T	Cordevolian
Pokljuka (Lemovce)	T	Julian
Pokljuka (Srenjski pašnik)	T	Tuvalian
Radovna (N Julian Alps)	T	Cordevolian
Srednja gora (N Julian Alps)	T	Cordevolian
Vitranc (N Julian Alps)	T	Cordevolian

Carnian localities of Slovenian Basin

Blegoš	T	Upper Cordevolian-Julian
Celje (grad - castle)	T	Upper Ladinian
Dole at Litija	T	Upper Ladinian-Cordevolian
Hudajužna	T	Upper Cordevolian-Julian
Jesenica (at Cerkno)	T	Upper Cordevolian-Julian
Leskovica	T	Upper Cordevolian-Julian
Mežica-Hlevnik	T	Cordevolian-Julian
Mežica-Pristava	T	Cordevolian-Julian
Novaki	T	Upper Cordevolian-Julian
Perbla (at Tolmin)	T	Upper Julian-Tuvalian
Zakojca	T	Upper Cordevolian-Julian
Zakriž	T	Upper Cordevolian-Julian

Norian-Rhaetian localities

Begunjščica	T	Norian-Rhaetian
Bohinj-Babna gora	T	Upper Norian-Rhaetian
Bohinj-Bitnje	T	Upper Norian-Rhaetian
Bohinj-Boltarje	T	Upper Norian-Rhaetian

Bohinj-Drenova gora	T	Upper Norian-Rhaetian
Bohinj-Gradišče	T	Upper Norian-Rhaetian
Dovški križ (N Julian Alps)	T	Norian-Rhaetian
Jelovica (Rovtarica)	T	Norian-Rhaetian
Kobla	T	Upper Norian-Rhaetian
Kopice (N Julian Alps)	T	Upper Norian
Kot (N Julian Alps)	T	Lower Norian
Planja (N Julian Alps)	T	Lower Norian
Razor (N Julian Alps)	T	Lower Norian
Rdeči rob (S Julian Alps)	T	Upper Norian-Rhaetian
Rušnata Mlinarica (N Julian Alps)	T	Norian Lower
Šplevta (N Julian Alps)	T	Upper Norian-Rhaetian
Tominškova pot (N Julian Alps)	T	Lower Norian

JURASSIC

Localities of Dinaric Carbonate Platform

Upper Jurassic localities of outer barrier reef

Bič (Dolenjsko)	J	Upper Oxfordian-Kimmeridgian
Čepovanski dol	J	Upper Oxfordian-Kimmeridgian
Gaber (Dolenjsko)	J	Upper Oxfordian-Kimmeridgian
Ivanja vas (Dolenjsko)	J	Upper Oxfordian-Kimmeridgian
Kal nad Kanalom (Banjška planota)	J	Upper Oxfordian-Kimmeridgian
Karteljevo (Dolenjsko)	J	Upper Oxfordian-Kimmeridgian
Mačkovec (Dolenjsko)	J	Upper Oxfordian-Kimmeridgian
Mrzovec (Trnovski gozd)	J	Upper Oxfordian-Kimmeridgian
Ojstrovca (Trnovski gozd)	J	Upper Oxfordian-Kimmeridgian
Plave at Soča	J	Upper Oxfordian-Kimmeridgian
Sela (Dolenjsko)	J	Upper Oxfordian-Kimmeridgian

Upper Jurassic localities of inner barrier reef

Čušperk (Dolenjsko)	J	Upper Oxfordian-Kimmeridgian
Dobrnich (Dolenjsko)	J	Upper Oxfordian-Kimmeridgian
Frata (Dolenjsko)	J	Upper Oxfordian-Kimmeridgian
Frata-Brezova reber	J	Upper Oxfordian-Kimmeridgian
Frata-Mali vrh	J	Upper Oxfordian-Kimmeridgian
Logaška planota OGK	J	Upper Oxfordian-Kimmeridgian
Logaška planota 1161	J	Upper Oxfordian-Kimmeridgian
Luče (Dolenjsko)	J	Upper Oxfordian-Kimmeridgian
Otlica (Trnovski gozd)	J	Upper Oxfordian-Kimmeridgian
Predole (Dolenjsko)	J	Upper Oxfordian-Kimmeridgian
Selovec (Trnovski gozd) (+)	J	Upper Oxfordian-Kimmeridgian

Upper Jurassic localities of back reef area

Bukovje (Hrušica)	J	Upper Oxfordian-Kimmeridgian
Col (North of Col)	J	Upper Oxfordian-Kimmeridgian
Draga (Kočevsko)	J	Upper Oxfordian-Kimmeridgian
Hrušica OGK	J	Upper Oxfordian-Kimmeridgian
Korinj (Dolenjsko)	J	Upper Oxfordian-Kimmeridgian
Nanos	J	Upper Oxfordian-Kimmeridgian
Vodice (Javornik)	J	Upper Oxfordian-Kimmeridgian

CRETACEOUS**Lower Cretaceous localities (Dinaric Carbonate Platform)**

Osojnica (Banjška planota)	K	Barremian-Aptian
Robidišče (Banjška planota)	K	Barremian-Aptian
Slovenski vrh (Kočevsko)	K	Barremian-Aptian
Slovenski vrh (Kočevsko)	K	Albian
Zavrh (Trnovski gozd)	K	Valanginian

Upper Cretaceous localities (Dinaric and Austroalpine shoal)

Lipica	K	Santonian-Campanian
Stranice-quarry	K	Santonian-Campanian
Stranice-Dobrava	K	Santonian-Campanian
Stranice-Radana vas	K	Santonian-Campanian
Stranice-Rugelj	K	Santonian-Campanian
Zreče	K	Santonian-Campanian

Senonian breccia localities

Hoje (Banjška planota)	K	Senonian breccia
Kanalski Lom S (Banjška planota)	K	Senonian breccia
Levpa (Banjška planota)	K	Senonian breccia
Mešnjak (Banjška planota)	K	Senonian breccia
Podsela (Banjška planota)	K	Senonian breccia

CORAL ASSEMBLAGES

TRIASSIC

**Carnian coral assemblages:
Julian Carbonate Platform**

Črna gora/Pri Turnih: Cordevolian

*Margarosmilia septanectens**Volzeia sublaevis*

microproblematica

algae

Debela peč: Cordevolian

*Margarosmilia septanectens**Volzeia sublaevis*

stromatoporoids

microproblematica

Frčkov vrh: Cordevolian

*Coryphyllia regularis**Margarophyllia capitata**Margarosmilia richthofeni**Tropidendron rhopalifer*

sponges

microproblematica

Kamnik Alps-road to Krvavec: Cordevolian

Rhopalodendron juliensis

Kamniško sedlo: Cordevolian

Protoheterastraea minor

Krma: Cordevolian

*Margarophyllia capitata**Myriophyllum gracilis*

algae

Krnica: Cordevolian

*Gumbelastrea guembeli**Margarophyllia capitata*

Mežakla/Brezovec: Cordevolian

Margarophyllia capitata

stromatoporoids

microproblematica

Mežakla/Kisovec: Cordevolian

*Cassianastraea reussi**Margarosmilia richthofeni**Myriophyllum gracilis**Tropidendron rhopalifer**Volzeia sublaevis*

chaetetids

microproblematica

algae

Menina planina: Cordevolian

*Margarophyllia capitata**Margarosmilia septanectens**Tropidendron rhopalifer*

sponges

microproblematica

Mojstrana: Cordevolian

*Koilocoenia decipiens**Margarophyllia crenata**Margarosmilia richthofeni**Myriophyllum gracilis**Tropidendron rhopalifer**Volzeia badiotica*

stromatoporoids

microproblematica

algae

Njivice at Mojstrana: Cordevolian

*Myriophyllum gracilis**Tropidendron rhopalifer*

stromatoporoids

sponges

microproblematica

Pokljuka/Šport hotel: Cordevolian

Araiophyllum triassicum

Margarophyllia capitata
Myriophyllum badioticum
Stuoresia bronni
Tropidendron rhopalifer
Volzeia badiotica
 chaetetids
 microproblematica

Pokljuka/Lemovce: Julian
Koilocoenia decipiens
Margarosmilia confluens
Margarosmilia richthofeni
Margarosmilia septanectens
Myriophyllum badioticum
 stromatoporoids
 chaetetids
 microproblematica
 algae

Pokljuka/Srenjski pašnik: Tuvanian
Coryphyllia regularis
Craspedophyllia alpina
Pokljukosmilia tuvalica
Protoheterastraea minor
Rhopalodendron juliensis
 chaetetids
 microproblematica
 algae

Radovna: Cordevolian
Cassianastraea reussi
Margarophyllia capitata
Myriophyllum gracilis
Tropidendron rhopalifer
Volzeia sublaevis
 stromatoporoids
 microproblematica

Srednja gora: Cordevolian
Coryphyllia regularis

Vitranc: Cordevolian
Tropidendron rhopalifer
Volzeia badiotica
Volzeia sublaevis
 sponges
 microproblematica
 algae

Carnian coral assemblages: Slovenian Basin

Blegoš: Upper Cordevolian-Julian
Protoheterastraea minor

Celje/castle: Upper Langobardian
Margarophyllia capitata
Margarophyllia crenata
Margarosmilia zietenii
Myriophyllum badioticum
Myriophyllum gracilis
Omphalophyllia radiciformis
Volzeia sublaevis
 sponges
 microproblematica

Dole at Litija: ?Upper Langobardian-Cordevolian
Margarosmilia confluens
Margarosmilia septanectens

Hudajužna: Upper Cordevolian-Julian
Andrazella labyrinthica
Margarophyllia capitata
Margarophyllia crenata
Margarosmilia confluens
Margarosmilia zietenii
Myriophyllum badioticum
Omphalophyllia boletiformis
Omphalophyllia radiciformis
Protoheterastraea hudajuznensis
Protoheterastraea minor
Volzeia badiotica
Volzeia sublaevis
 stromatoporoids
 sponges
 microproblematica
 foraminifers

Jesenica (at Cerčno): Cordevolian-Julian
Margarophyllia capitata
Margarophyllia crenata
Margarosmilia confluens
Margarosmilia zietenii
Myriophyllum badioticum
Volzeia sublaevis

Leskovica: Cordevolian-Julian
Margarosmilia zietenii

Mežica/Hlevnik: Cordevolian-Julian
Margarosmilia septanectens

Margarosmilia zieteni
Myriophyllum gracilis
 microporematia

Mežica/Pristava: Cordevolian-Julian
Omphalophyllia radiciformis
 sponges
 microporematia

Novaki (at Cerkno): Cordevolian-Julian
Margarosmilia confluens
Margarosmilia zieteni

Perbla (at Tolmin): Upper Julian-Tuvalian
Astraeomorpha prazi
Margarophyllia capitata
Margarophyllia crenata
Margarosmilia zieteni
Pamiroseris zitteli
Retiophyllia tolminensis
Thamnotropis rakoveci
Volzeia badiotica
 sponges
 chaetetids
 foraminifers

Zakojca: Upper Cordevolian-Julian
Margarosmilia zieteni
Myriophyllum badioticum
Volzeia badiotica

Zakriž: Upper Cordevolian-Julian
Cuifia columnaris
Margarophyllia crenata
Omphalophyllia radiciformis
 stromatoporoids

Norian-Rhaetian coral assemblages:

Begunščica: Norian-Rhaetian
Astraeomorpha prazi
Cuifia columnaris
Cyclophyllia cyclica
Distichophyllia gosaviensis
Palaeastraea grandissima
Retiophyllia clathrata
 sponges
 microporematia
 foraminifers

Bohinj/Babna gora: Upper Norian-Rhaetian
Margarosmilia charliana

Bohinj/Bitnje W: Upper Norian-Rhaetian
Distichophyllia norica
Stylophyllum paradoxum
 microporematia

Bohinj/Bitnje E: Upper Norian-Rhaetian
Alpinoseris dendroidea
Distichophyllia norica
Palaeastraea grandissima
Retiophyllia paraclathrata
 chaetetids
 sponges
 microporematia
 foraminifers

Bohinj/Boltarje: Upper Norian-Rhaetian
Retiophyllia fenestrata

Bohinj/Drenova gora: Upper Norian-Rhaetian
Margarosmilia charliana
 microporematia

Bohinj/Gradišče: Upper Norian-Rhaetian
Margarosmilia charliana

Dovški križ: Upper Norian-Rhaetian
Parathecasmilia langobardica
Procycolites triadicus
Toechastraea pachyphyllia
 foraminifers
 sponges

Jelovica (Rovtarica): Norian-Rhaetian
Astraeomorpha confusa
Astraeomorpha prazi
Distichophyllia norica

Kobla: Upper Norian-Rhaetian
Distichophyllia norica

Kopice: Upper Norian
Elysastraea juliana

Kot: Lower Norian
Cuifia columnaris
Retiophyllia paraclathrata
 sponges

Planja: Lower Norian
Cyclophyllia raricorallita
Margarosmilia nova

Pokljukosmilia tuvalica
Rhopalodendron juliensis

Razor: Lower Norian
Coryphyllia regularis
Cyclophyllia cyclica
Cyclophyllia raricorallita
Protoheterastraea razorensis

Rdeči rob: Upper Norian-Rhaetian
Astraeomorpha pratzii
Chondrocoenia paradoxa
Cuifastraea arthaberi
Cyclophyllia raricorallita
Distichophyllia norica
Gablonzeria profunda
Parathecasmilia langobardica
Retiophyllia gosaviensis
 stromatoporoids
 microproblematica
 foraminifers

Rušnata Mlinarica: Lower Norian
Craspedophyllia alpina
Crassistella juvavica
Distichophyllia gosaviensis
Retiophyllia paraclathrata
Stylophyllopsis media
Tropidendron mlinaricensis
 sponges
 microproblematica
 algae

Šplevta: Upper Norian-Rhaetian
Astraeomorpha confusa
Cuifia columnaris
Distichophyllia gosaviensis
Gillastraea delicata
Pachydendron microthalos
Parathecasmilia sellae
Retiophyllia clathrata
Retiophyllia defilippi
Retiophyllia fenestrata
Retiophyllia paraclathrata
 sponges
 stromatoporoids
 chaetetids
 microproblematica
 foraminifers
 algae

Tominškova pot: Lower Norian
Cuifia columnaris
Distichophyllia gosaviensis
Retiophyllia fenestrata
Retiophyllia norica
Stylophyllum pygmaeum
Tropidendron mlinaricensis
 sponges
 stromatoporoids
 algae

JURASSIC

Upper Oxfordian-Kimmeridgian coral assemblages: Dinaric Carbonate Platform - Outer barrier reef

Bič:
Calamophylloidsis cervina
Calamophylloidsis stockesi
Latomeandra fromenteli
Placophyllia rugosa
Solenocoenia gracilis
 actinostromatids

Čepovanski dol:
Calamophylloidsis flabellum
Microsolena agariciformis

Gaber:
Latomeandra fromenteli
Mitrodendron ogilvie
Stylosmilia corallina
 actinostromatids

Ivanja vas:
Amphiastrea piriformis
Donacosmilia corallina
Microphyllia bachmayeri
Microphyllia undans
Mitrodendron ogilvie
Pruvostastraea labyrinthiformis
Stylosmilia corallina
 actinostromatids

Kal nad Kanalom:
Axosmilia marcou
Calamophylloidsis cervina
Calamophylloidsis flabellum
Calamophylloidsis stockesi
Clausastraea confluens
Complexastraea seriata

Complexastraea lobata
Donacosmilia corallina
Epistreptophyllum tenue
Microsolena agariciformis
Microsolena thurmanni
 actinostromatids

Karteljevo:

Amphiastraea basaltiformis
Calamophylloidsis cervina
Myriophyllia angustata
 actinostromatids

Mačkovec:

Calamophylloidsis cervina
Diplaraea elegans
Donacosmilia corallina
 actinostromatids

Mrzovec:

Acanthogyra columnaris
Amphiastraea basaltiformis
Apocladophyllia koniakensis
Axosmilia marcou
Calamophylloidsis flabellum
Calamophylloidsis stockesi
Cladophyllia rollieri
Comoseris baltovensis
Complexastraea lobata
Complexastraea seriata
Dermosmilia fiagdonensis
Dermosmilia laxata
Epistreptophyllum tenue
Fungiastraea arachnoides
Ironella giseldonensis
Latiphyllia suevica
Latomeandra fromenteli
Microphyllia undans
Microsolena agariciformis
Microsolena thurmanni
Mitrodendron ogilvie
Myriophyllia angustata
Placophyllia rugosa
Pruvostastraea labyrinthiformis
Pseudocoenia baltovensis
Pseudocoenia hexaphyllia
Solenocoenia gracilis
Thecosmilia trichotoma
 actinostromatids

Ojstrovca:

Latiphyllia suevica

Microsolena ornata
Montlivaltia renevieri
Placophyllia rugosa
Pseudocoenia hexaphyllia
Synastraea dubia
 actinostromatids

Plave at Soča:

Actinastraea regularis
Calamophylloidsis flabellum
Donacosmilia corallina
 actinostromatids

Sela at Šumberk:

Cladophyllia rollieri
Mitrodendron ogilvie
Placophyllia rugosa
Solenocoenia gracilis
 actinostromatids

**Upper Oxfordian-Kimmeridgian coral assemblages:
 Dinaric Carbonate Platform - Inner barrier reef**

Čušperk:

Calamophylloidsis flabellum
 parastromatoporidae
 chaetetids

Dobrnič:

Heliocoenia variabilis

Frata S:

Calamophylloidsis flabellum
Ceratothecia carniolica
Collignonastraea jumarensis
Dermosmilia laxata
Fungiastraea arachnoides
Microsolena thurmanni
Montlivaltia champlitensis
Proaplophyllia sexradiata
Pseudocoenia radisensis
Stylina decipiens
Thecosmilia dichotoma

Frata/Brezova reber:

Calamophylloidsis flabellum
Montlivaltia champlitensis
Montlivaltia renevieri
Pseudocoenia radisensis
Thamnasteria lobata
 parastromatoporidae

Frata/Mali vrh:

Calamophylliopsis stockesi
Collignonastraea jumarensis
Goniocora pumila
Microsolena thurmanni
Montlivaltia champlitensis
Stylosmilia corallina
Thamnasteria lobata
Thecosmilia minuta
 parastromatoporids

Logaška planota OGK:

Allocoenia trochiformis
Comoseris baltovensis
Enallhelia sp.
Heliocoenia variabilis
Plesiosmilia compressa
Pseudocoenia limbata
Pseudocoeniopsis longiseptata
Thamnasteria concinna
 parastromatoporids
 chaetetids

Logaška planota 1161:

Andemantastraea dreyfussi
Clausastraea pseudoconfluens
Diplaraea croatica
Microsolena agariciformis
Microsolena thurmanni
Stylina decipiens
Stylosmilia corallina

Luče:

Donacosmilia etalloni
Goniocora annulata
Montlivaltia champlitensis
Microsolena agariciformis
Pseudocoenia radisensis
 parastromatoporids
 chaetetids

Otlica:

Actinaraea granulata
Comoseris baltovensis
Comoseris minima
Dermosmilia laxata
Etallonasteria minima
Heliocoenia variabilis
Goniocora pumila
Meandraraea gresslyi
Meandrophyllia corrugata

Meandrophyllia amedei

Microsolena thurmanni
Thamnasteria moreana
Synastraea subagaricites
 parastromatoporids

Predole:

Heliocoenia variabilis
Stylosmilia corallina
 parastromatoporids

Selovec:

Acanthogyra multiformis
Calamophylliopsis cervina
Calamophylliopsis flabellum
Dermosmilia laxata
Donacosmilia etalloni
Ironella giseldonensis
Placophyllia rugosa
Proaplophyllia sexradiata
Pseudocoenia limbata
Pseudocoeniopsis jurassica
Stylina decipiens
Stylosmilia corallina
 parastromatoporids
 chaetetids

**Upper Oxfordian-Kimmeridgian coral assemblages:
 Dinaric Carbonate Platform - Back reef area**

Bukovje:

Epistreptophyllum tenue
Heliocoenia costulata
Isastraea helianthoides
Ovalastraea lobata
 chaetetids

Col (North of Col):

Comoseris baltovensis
Comoseris minima
Dermosmilia laxata
Diplaraea elegans
Epistreptophyllum bonjour
Microsolena thurmanni
Pseudocoenia slovenica
Pseudocoeniopsis longiseptata

Draga/Kočevsko:

Epistreptophyllum bonjour
Microphyllia bachmayeri

Hrušica OGK:

Enallhelia sp.
Meandrophyllia amedei
Pseudocoeniopsis longiseptata

Korinj:

Calamophylliopsis moreauana
Meandrophyllia amedei
Thamnasteria concina
Thamnasteria moreana

Nanos OGK:

Allcoenia trochiformis
Calamophylliopsis flabellum
Calamophylliopsis moreauana
Comoseris baltovensis
Enallhelia sp.
Goniocora pumilla
Meandraraea gresslyi
Meandrophyllia amedei
Meandrophyllia corrugata
Mixastraea danubica
Pseudocoenia slovenica
Thamnasteria lobata
 parastromatoporids

Vodice (Javornik):

Ovalastraea lobata
Pseudocoenia slovenica

CRETACEOUS

Lower Cretaceous coral assemblages: Dinaric Carbonate Platform

Osojnica: Barremian-Aptian

Axosmilia fromenteli
Clausastraea bolzei
Cyathophora pygmaea
Dermosmilia cretacica
Eohydriophora picteti
Eugyra cotteau
Felixigyra patruliusi tenuiseptata
Fungiastraea tendagurensis
Latusastraea decipiens
Latusastraea exiguus
Microsolena guttata
Microsolena distefanoi
Peplosmilia fromenteli
Phyllocoenia cotteau
Placophyllia curvata

Polyphylloseris convexa
Pseudopolytremacis spinoseptata
Siderastraea senecta
Stylina regularis

stromatoporoids
 chaetetids

Robidišče: Barremian-Aptian

Fungiastraea tendagurensis

Slovenski vrh (Kočevsko): Barremian-Aptian

Actinaraea tenuis
Calamophylliopsis fotisalisensis
Cyathophora pygmaea
Microsolena distefanoi
Peplosmilia fromenteli
 foraminifers
 rudists

Slovenski vrh (Kočevsko): Albian

Procladocora kocevjeensis
Strotogyra augusti
 foraminifers
 rudists

Zavrh (Trnovski gozd): Valanginian

Ironella giseldonensis
Microphyllia bachmayeri
Microphyllia undans
 stromatoporoids

Upper Cretaceous coral assemblages: Dinaric Carbonate Platform and Austroalpine shoal

Lipica - Santonian-Campanian

Hydnophora multilamellosa
 stromatoporoids
 rudists

Stranice-quarry: Santonian-Campanian

Actinacis reussi
Actinacis martiniana
Actinastraea octolamellosa
Actinastraea ramosa
Columactinastraea pygmaea
Conicosmilotrochus dentatus
Conicosmilotrochus stranicensis
Conicosmilotrochus strictus
Cunolites (Cunolites) reussi
Cunolites (Plesiocunolites) orbignyi
Cunolites (Plesiocunolites) robusta
Dasmiopsis lamellicostatus

Dimorphastraea leptophyllia
Dimorphastraea composita
Enallocoenia salisburgensis
Hydnophora ataciana
Hydnophora multulamellosa
Neocaeniopsis corollaris
Neocaeniopsis excelsa
Orbignygyra daedalea
Procladocora simonyi
Procladocora tenuis
Placosmilia gracilis
Stephanosmilia polydectes
 rudists

Stranice/Dobrava: Santonian-Campanian
Aulosmilia cuneiformis
Cunolites (Plesiocunolites) depressa

Stranice/Radana vas: Santonian-Campanian
Aulosmilia cuneiformis
Conicosmilotrochus stranicensis
Conicosmilotrochus strictus
Cunolites (Cunolites) reussi
Cunolites (Plesiocunolites) cycloides
Cunolites (Plesiocunolites) dispar
Cunolites (Plesiocunolites) robusta
Rennensismilia subinduta

Stranice/Rugelj: Santonian-Campanian
Aulosmilia aspera
Acrosmilia conica
Cunolites (Cunolites) sellata
Cunolites (Paracunolites) scutellum
Cunolites (Plesiocunolites) faecata
Cunolites (Plesiocunolites) gosavicus
Cunolites (Plesiocunolites) orbignyi
Cunolites (Plesiocunolites) undulata
Cunolites (Plesiocunolites) robusta

Zreče: Santonian-Campanian
Cunolites (Plesiocunolites) faecata
Cunolites (Plesiocunolites) orbignyi

Coral assemblages in Senonian Breccia:

Hoje:
Amphiastraea aethiopica

Calamophylliopsis fotisalensis
Clausastraea bolzei
Eugyra lanckoronensis

Kanalski Lom S:
Actinaraea granulata
Amphiastraea aethiopica
Amphiaulastraea conferta
Calamophylliopsis fotisalensis
Chomatoseris sp.
Clausastraea bolzei
Columellogyra lomensis
Cyathophora miyakoensis
Cyathophora pygmaea
Diplogyra lamellosa eguchii
Eohydnophora incerta
Eohydnophora picteti
Eugyra cotteau
Eugyra lanckoronensis
Fungiastraea tendagurensis
Heterocoenia grandis
Hydnophora styriaca
Meandroria konincki
Microsolena distefanoi
Mitrodendron ogilvie
Polyphylloseris convexa
Procladocora simonyi
Pseudofavia grandiflora
Pseudopistophyllum quinquesepatum
Thamnoseris morchella
 stromatoporoids
 chaetetids
 rudists
 foraminifers

Levpa:
Cyathophora miyakoensis
Cyathophora steinmanni
Siderastraea senecta

Mešnjak:
Calamophylliopsis fotisalensis
Diplogyra lamellosa
Procladocora simonyi

Podsela:
Eohydnophora picteti



Dragica Turnšek se je rodila 6. avgusta 1932 v Šalamencih v Prekmurju. Diplomirala (1958) in doktorirala (1965) je iz geologije na Ljubljanski univerzi. Od 1954 je bila zaposlena na Paleontološkem inštitutu Ivana Rakovca ZRC SAZU, najprej kot laborantka in nazadnje kot znanstvena svetnica in upravnica. Po upokojitvi 1992 je nadaljevala delo na istem inštitutu. V letu 1971 je bila Humboldtova štipendistka na univerzi v Stuttgartu. Leta 1985 je postala izredna, leta 1993 redna članica SAZU. Njeno glavno raziskovalno delo je posvečeno paleontologiji mezozojskih koral in stromatoporoidov. Raziskovala je triasne, jurske in kredne grebenske fosilne združbe v Sloveniji, kakor tudi v številnih drugih krajih osrednje in južne Evrope (Španija, Francija, Italija, Švica, Madžarska, Romunija, Hrvaška, Srbija, Grčija). Poleg sistematskih in taksonomskih problemov jo je vedno zanimala tudi stratigrafija in paleoekologija fosilov. Pri svojem delu je sodelovala v mnogih mednarodnih in bilateralnih projektih zlasti v okviru Unescovih IGCP programov in medakademijske zamenjave. Je članica mednarodnega paleontološkega društva FOSSIL CNIDARIA AND PORIFERA.

Dragica Turnšek was born on August 6, 1932 in Šalamenci, Prekmurje. She obtained her B.S. (1958) and Ph.D. (1965) degrees in geology from the University of Ljubljana. Since 1954 she has worked at the Ivan Rakovec Institute of Paleontology ZRC SAZU, beginning as a technician and ending as senior research fellow and head of the institute. After her retirement in 1992 she continued her research at the same institute. In 1971 she received a Humboldt scholarship and spent a year at the University of Stuttgart. In 1985 she became Associate Member, and in 1992 Full Member of the Slovenian Academy of Sciences and Arts.

Her main research topic is paleontology of Mesozoic corals and stromatoporoids. She studied Triassic, Jurassic and Cretaceous reef fossil assemblages in Slovenia, and also in several other countries of Central and Southern Europe (Spain, France, Italy, Switzerland, Hungary, Romania, Croatia, Serbia, Greece). In addition to the systematics and taxonomy she was always interested in the stratigraphy and paleoecology of reef fossils. During her career, Dragica Turnšek was involved with many international and bilateral programs, mainly within the Unesco IGCP and inter-academy exchange programs. She is a member of the FOSSIL CNIDARIA AND PORIFERA International Association.

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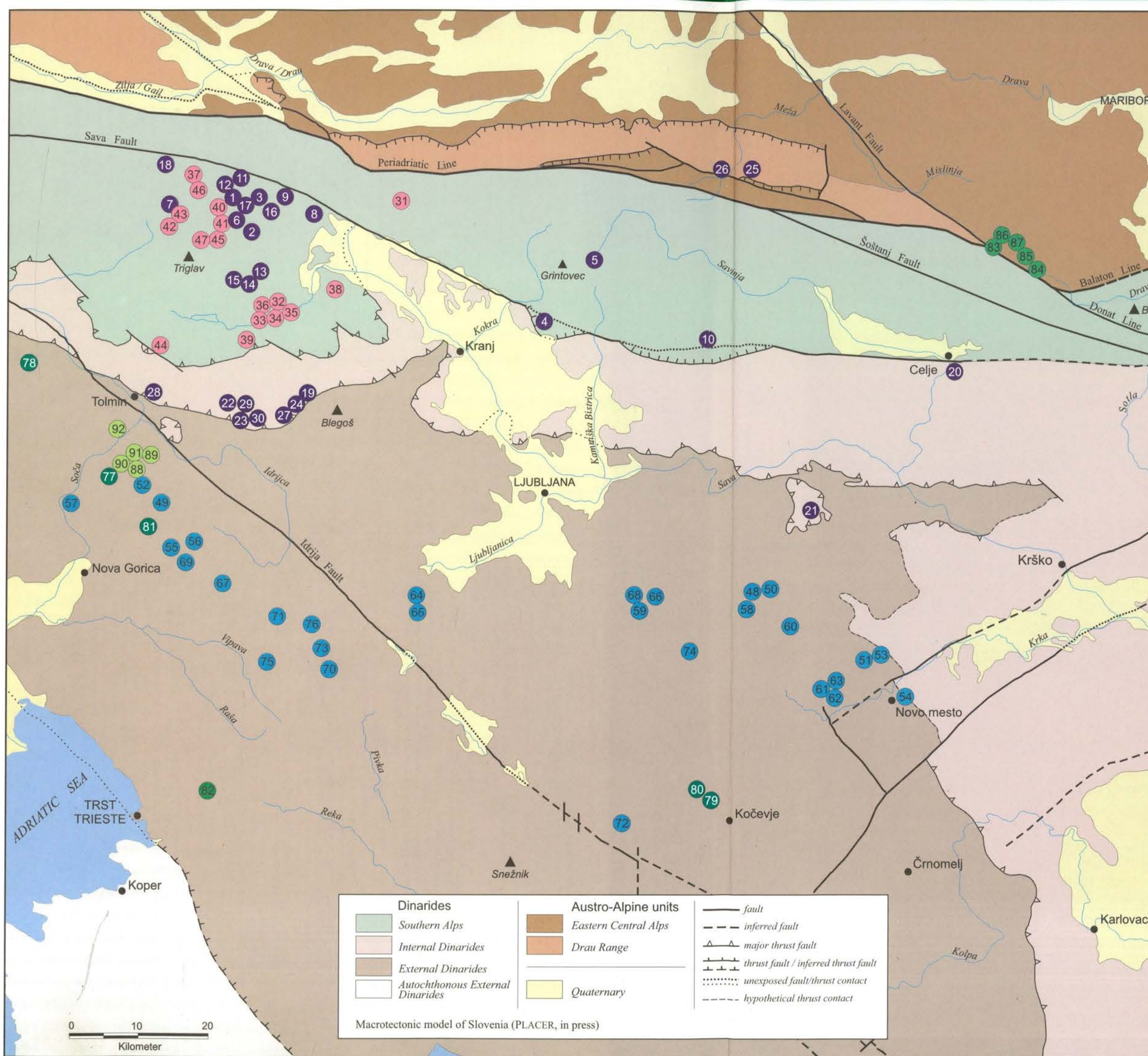
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Slovenia



- ### List of localities
- #### Triassic
- ##### 1-18 Carnian (Julian Carbonate Platform)
- | | |
|-----------------------------------|--|
| 1. Črna gora (N Julian Alps) | 10. Menina planina |
| 2. Debeli peč (N Julian Alps) | 11. Mojstrana (N Julian Alps) |
| 3. Frčkov vrh (N Julian Alps) | 12. Njivice at Mojstrana (N Julian Alps) |
| 4. Kamniške Alpe - road to Kravce | 13. Pokljuka - Šport hotel |
| 5. Kamniško sedlo | 14. Pokljuka - Lemovce |
| 6. Krma (N Julian Alps) | 15. Pokljuka - Srenjski pašnik |
| 7. Krnica (N Julian Alps) | 16. Radovna (N Julian Alps) |
| 8. Mežakla - Brezovec | 17. Srednja gora (N Julian Alps) |
| 9. Mežakla - Kisovec | 18. Vitranč (N Julian Alps) |
- ##### 19-30 Carnian (Slovenian Basin and Austroalpine unit*)
- | | |
|----------------------------|-------------------------|
| 19. Blegoš | 25. Mežica - Hlevnik* |
| 20. Celje (grad - castle) | 26. Mežica - Pristava* |
| 21. Dole at Litija | 27. Novaki |
| 22. Hudajžna | 28. Perla (near Tolmin) |
| 23. Jesenica (near Cerkno) | 29. Zakojca |
| 24. Leskovic | 30. Zakriž |
- ##### 31-47 Norian-Rhaetian (Julian Carbonate Platform)
- | | |
|---------------------------------|---------------------------------------|
| 31. Begunjska | 41. Kot (N Julian Alps) |
| 32. Bohinj-Babna gora | 42. Planja (N Julian Alps) |
| 33. Bohinj-Bitnje | 43. Razor (N Julian Alps) |
| 34. Bohinj-Boljarje | 44. Rdeči rob (S Julian Alps) |
| 35. Bohinj-Drenova gora | 45. Rušnata Mlinarica (N Julian Alps) |
| 36. Bohinj-Gradišče | 46. Špleta (N Julian Alps) |
| 37. Dovški križ (N Julian Alps) | 47. Tomiškova pot (N Julian Alps) |
| 38. Jelovica (Rovtarica) | |
| 39. Kobla | |
| 40. Kopice (N Julian Alps) | |
- #### Jurassic (Dinaric Carbonate Platform)
- ##### 48-58 Upper Jurassic (outer barrier reef)
- | | |
|---------------------------------------|-------------------------------|
| 48. Bič (Dolenjsko) | 53. Karteljevo (Dolenjsko) |
| 49. Čepovanski dol | 54. Mačkovec (Dolenjsko) |
| 50. Gaber (Dolenjsko) | 55. Mrzovec (Trnovski gozd) |
| 51. Ivanja vas (Dolenjsko) | 56. Ojstrovca (Trnovski gozd) |
| 52. Kal nad Kanalom (Banjska planota) | 57. Plave at Soča |
| | 58. Sela (Dolenjsko) |
- ##### 59-69 Upper Jurassic (inner barrier reef)
- | | |
|---------------------------|-----------------------------|
| 59. Čušperk (Dolenjsko) | 65. Logaška planota 1161 |
| 60. Dobrič (Dolenjsko) | 66. Luče (Dolenjsko) |
| 61. Frata (Dolenjsko) | 67. Otlica (Trnovski gozd) |
| 62. Frata - Brezova reber | 68. Predole (Dolenjsko) |
| 63. Frata - Mali vrh | 69. Selovec (Trnovski gozd) |
| 64. Logaška planota OGK | |
- ##### 70-76 Upper Jurassic (back reef area)
- | | |
|-----------------------|------------------------|
| 70. Bukovje (Hrušica) | 74. Korinj (Dolenjsko) |
| 71. Col | 75. Nanos |
| 72. Draga (Kočevsko) | 76. Vodice (Javornik) |
| 73. Hrušica OGK | |
- #### Cretaceous
- ##### 77-81 Lower Cretaceous (Dinaric Carbonate Platform)
- | | |
|---------------------------------|------------------------------|
| 77. Osojnica (Banjska planota) | 80. Slovenski vrh (Kočevsko) |
| 78. Robidišče (Banjska planota) | 81. Zavrh (Trnovski gozd) |
| 79. Slovenski vrh (Kočevsko) | |
- ##### 82-87 Upper Cretaceous (Dinaric and Austroalpine shoal)
- | | |
|------------------------|---------------------------|
| 82. Lipica | 85. Stranice - Radana vas |
| 83. Stranice - quarry | 86. Stranice - Rugelj |
| 84. Stranice - Dobrava | 87. Zreče |
- ##### 88-92 Senonian breccia
- | | |
|------------------------------------|-------------------------------|
| 88. Hoje (Banjska planota) | 90. Levpa (Banjska planota) |
| 89. Kanalski Lom (Banjska planota) | 91. Mešnjak (Banjska planota) |
| | 92. Podšela (Banjska planota) |

Dinarides

Southern Alps

Internal Dinarides

External Dinarides

Autochthonous External Dinarides

Austro-Alpine units

Eastern Central Alps

Drau Range

Quaternary

— fault

--- inferred fault

▲ major thrust fault

▬▬▬ thrust fault / inferred thrust fault

⋯ unexposed fault/thrust contact

- - - - - hypothetical thrust contact

Macrotectonic model of Slovenia (PLACER, in press)



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