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PRELIMINARY DESCRIPTIONS OF NEW GENERA OF
PALEOZOIC RUGOSE CORALS

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Prefatory note

The late Prof. James Hall had planned the preparation of a systematic treatise on the genera of the paleozoic corals, but during his life only the preliminary steps toward the execution of this important work were taken. The comprehensive purpose of the proposed treatise was actually the outcome and continuation of work done for volume 6 of the *Paleontology of New York* and for shorter papers in the annual reports, in the preparation of which the illustrations and analyses were essentially the work of George B. Simpson. Mr Simpson has continued these analyses for the execution, so far as seems practicable, of Prof. Hall's later plan, and in the course of his work has indicated several new types of generic structure, which are herewith made public in order to insure their claim to recognition, as some delay in the publication of the larger work is unavoidable. As these investigations were not reviewed by Prof. Hall, it is proper that the responsibility for their accuracy and stability should rest with Mr Simpson.

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MENISCOPHYLLUM, *gen. nov.*

Type: *Meniscophyllum minutum*, sp. nov.

Corallum minute, horn-shaped, regularly curved; calyx circular, deep; septal fovea conspicuous, situated on the side of the least curvature; septa apparently of the same size, but probably the smaller ones only rudimentary and, except in unusually well preserved specimens, obsolete. The extremities of the septa situated on the side of the greatest curvature become thickened and coalesce, forming in connection with a deposit of stereoplasma a thickened axis or pseudocolumella. In a longitudinal section this axis has the appearance of the columella of

Cyathaxonia. In a transverse section it is crescentiform; tabulae present; dissepiments not observed.

This genus most nearly resembles *Menophyllum* E. & H., but there is only one septal fovea, and the crescentiform thickening appears only in section and is formed in a different manner from that of *Menophyllum*.

Meniscophyllum minutum, *sp. nov.*

Corallum minute, horn-shaped, regularly curved; height about 12 mm; diameter of calyx 7 mm; surface with wrinkles of growth and fine concentric striae; calyx oblique, walls thin; septa about 32 in number; the smaller ones rudimentary. The extremities of the septa of the cardinal and lateral aspects become thickened and coalesce, forming a pseudocolumella; septal fovea narrow; tabulae infrequent and very thin.

Formation and locality: Lower Carbonic, Missouri.

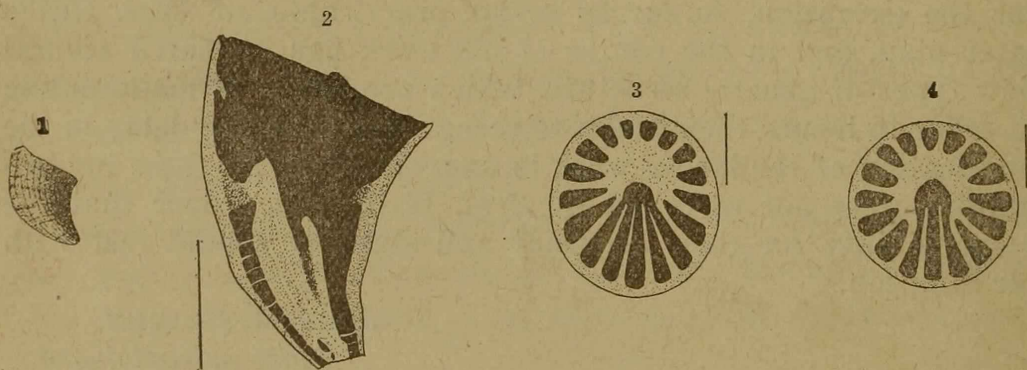


Fig. 1 *Meniscophyllum minutum*, nat. size

2 Longitudinal section, enlarged

3, 4 The crescentiform appearance of a transverse section of the pseudocolumella, enlarged

DITOECHOLASMA, *gen. nov.*

Type: *Petraia fanningana* Safford, Geology of Tennessee. 1869. p. 329. Helderbergian, Perry co. Tenn.

Corallum slender, attenuate, very gradually increasing in size; septa alternating in size, the larger ones continuing to or nearly to the center, becoming involved and forming a pseudocolumella, the smaller septa coalescing with the larger ones. The septa are arranged in pairs, each pair separated by a comparatively wide

interspace; the septa of a pair separated by only a narrow interspace, and having somewhat the appearance of a single septum with double walls; tabulae numerous, subcystose; dissepiments infrequent or obsolete.

The pseudocolumella has very much the appearance of that of *Enterolasma*, but the very different and peculiar arrangement of the septa easily distinguishes it from that species.

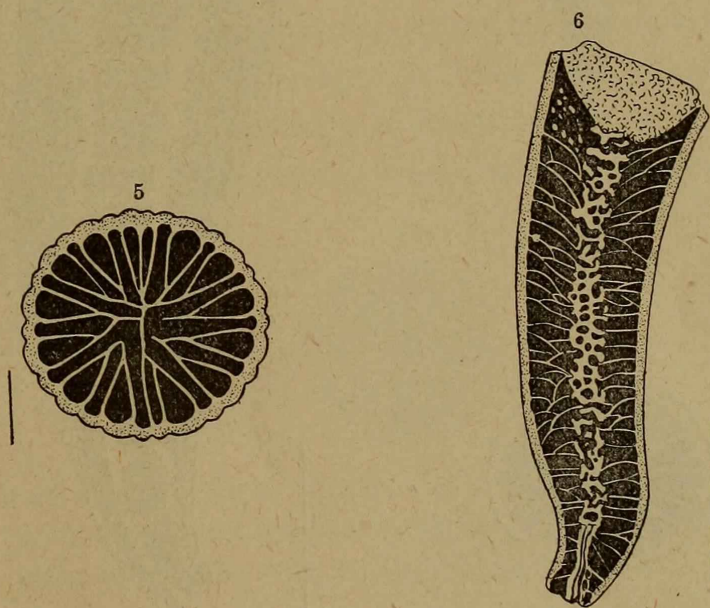


Fig. 5 *Ditoecholasma fanninganum* (Safford). A transverse section, showing the peculiar arrangement of the septa, enlarged
 6 A longitudinal section showing the pseudocolumella and tabulae, enlarged

LACCOPHYLLUM, *gen. nov.*

Type: *Laccophyllum acuminatum*, sp. nov. Niagaran group, Perry co. Tenn.

Corallum small, simple, cylindrico-conical, sometimes slightly curved; septa strong, alternating in size, the larger ones continuing to within a short distance of the center, where their extremities become broadened and fused, forming a distinct inner wall, leaving a cylindric central space, the smaller septa, at about one third the distance to the center, coalescing with the larger ones; tabulae present, those of the inner space strong, horizontal; of the peripheral space, much thinner and ascending from the outer to the inner wall, sometimes subcystose.

This genus in the manner of the formation of the inner wall resembles *Duncanella truncata*, but differs from that species in its frequent tabulae, and in the presence of tabulae in the central cylindric space.

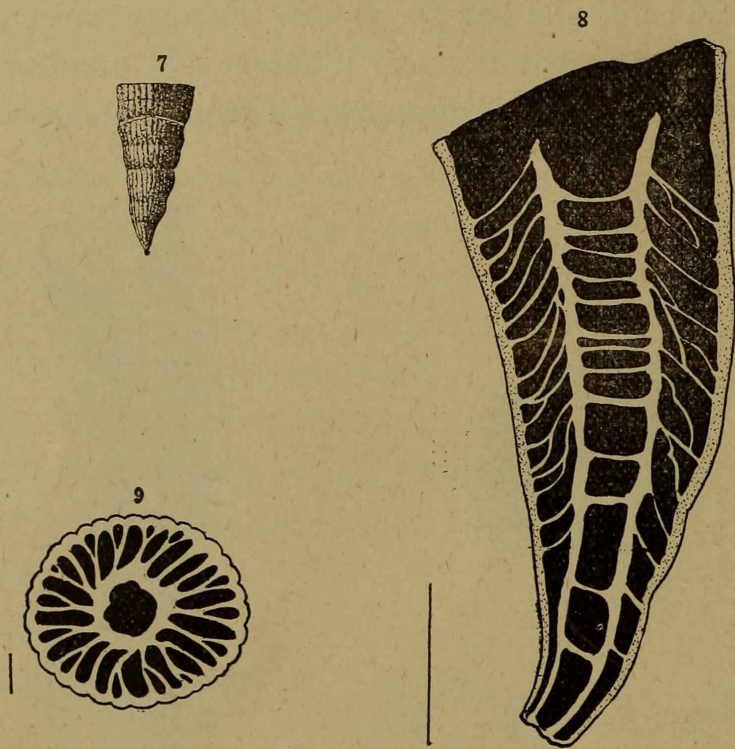


Fig. 7 *Laccophyllum acuminatum*. A lateral view, nat. size
 8 A longitudinal section showing oblique tabulae, inner wall, and the horizontal tabulae of the central space, enlarged
 9 Transverse section showing the septa and the inner wall, enlarged

Laccophyllum acuminatum, *sp. nov.*

Corallum small, cylindrico-conical, usually straight, but sometimes slightly curved; height from 15 to 18 mm; diameter of the calyx from 6 to 9 mm; costae very prominent; septa alternating in size, the larger ones extending to within a short distance of the center, sometimes fasciculating, the extremities thickening, coalescing and forming an inner wall; tabulae frequent, curving abruptly upward, frequently presenting a cystose appearance. In the central space formed by the inner wall are frequent horizontal tabulae, somewhat stronger than the others, and apparently unconnected with them.

Formation and locality: Niagaran group, Perry co. Tenn.

HAPSIPHYLLUM, gen. nov.

Type: *Zaphrentis calcariformis* Hall. Fossil corals, Niagara and Upper Held. groups. 1882. p. 33, and 12th rep't of the state geologist of Indiana. pl. 21, fig. 10, 11. St Louis group, Washington co. Indiana.

Corallum small, simple, conical or horn-shaped; calyx circular, comparatively deep, with thin margins; biareal. The outer area is bounded by the external epitheca; the inner area by a sub-vertical wall of horseshoe shape, open on the side of the septal fovea. Two of the larger septa connect with this wall in such a manner as to be apparently a continuation of it, and form a very distinct pyriform septal fovea; septa alternating in size,

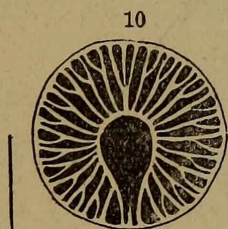


Fig. 10 *Hapsiphyllum calcariforme* (Hall). A transverse section showing the coalescing septa, and the wall of the inner area, connecting with two of the septa.

the smaller ones continuing for a short distance into the cavity of the corallum, there coalescing with the larger ones, which continue to the inner wall, with which they coalesce, and in which they terminate. Tabulae and dissepiments are present.

The wall of the inner area, connecting with two of the septa and bounding a portion of the septal fovea, is similar to that of *Agonophyllum*, but that genus differs from this in several respects, principally in having carinations on the sides of the septa.

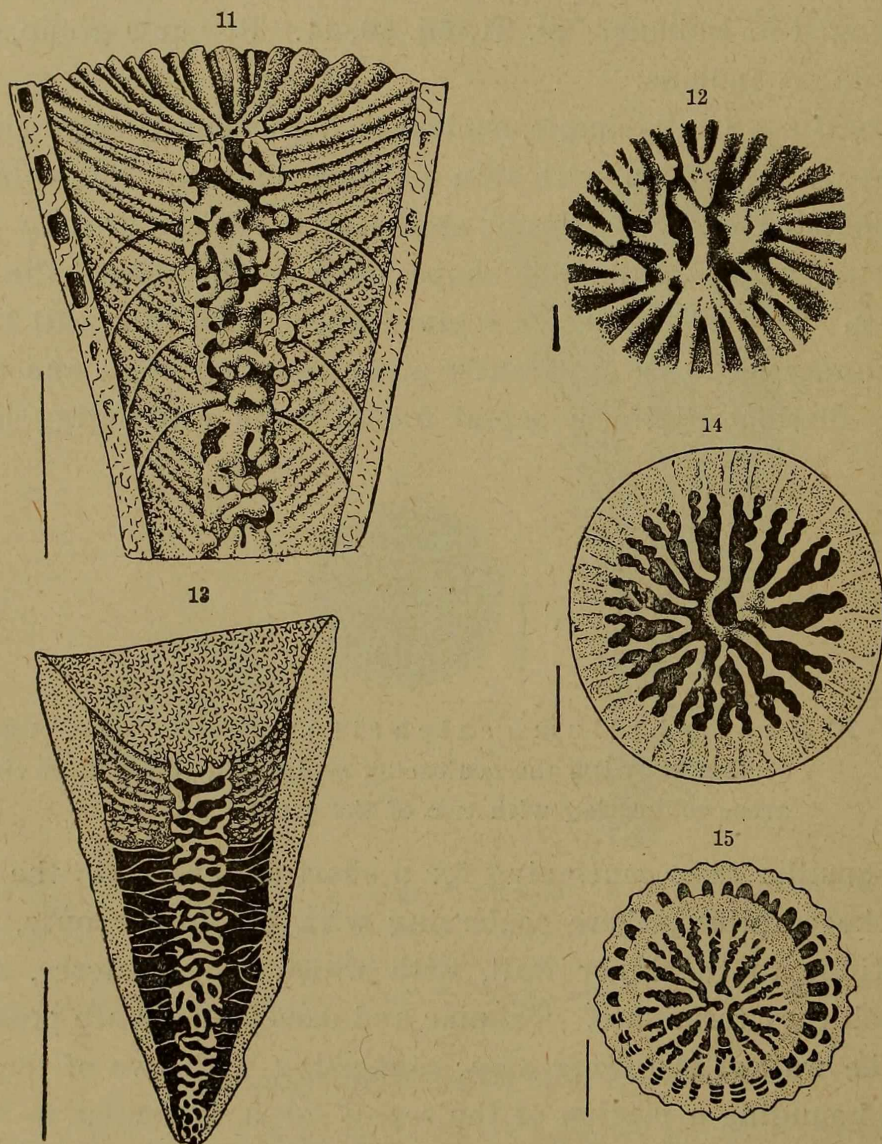
ENTEROLASMA, gen. nov.

Type: *Streptelasma strictum* Hall, 26th rep't N. Y. state museum nat. hist. 1874. Pal. N. Y. v. 6, pl. 1, fig. 1-10. Helderbergian, Clarksville, Albany co. N. Y.

Examples: *Streptelasma caliculus* Hall. Pal. N. Y. 1852. v. 2, p. 3, pl. 32, fig. 1a-k.

Streptelasma radicans Hall. 28th rep't N. Y. state mus. nat. hist. 1876. p. 106, pl. 5, fig. 1-4.

Petraia waynensis Safford. Geol. of Tennessee. 1869. p. 314.



- Fig. 11 *Enterolasma strictum* (Hall). A natural longitudinal section showing the pseudocolumella, the papillated carinae on the sides of the septa, and the ascending tabulae, enlarged
- 12 An enlargement from the center of the calyx, showing the involved processes from the inner margins of the septa
- 13 *Enterolasma waynense* (Safford). A longitudinal section showing the subcystose tabulae and pseudocolumella; the upper portion showing the papillate carinae of the septa, enlarged
- 14 A transverse section showing the thickened walls and the crenulations caused by the septal carinae, enlarged
- 15 A transverse section, showing an individual growing from the calyx of another, enlarged

Corallum moderately small, cylindrico-conical, usually straight, but sometimes slightly curved; calyx circular, moderately deep,

sides thin; septal fovea obscure, and in some species apparently obsolete; septa alternating in size, the larger ones continuing nearly to the center, having projections from their extremities which continue to the center, becoming much involved, forming a pseudocolumella of very peculiar appearance, somewhat resembling the convolutions of the intestines; sides of the septa with numerous papillate elevations or carinae, which in a transverse section give to the septa a crenulate or echinate appearance; tabulae and dissepiments present. The characteristic feature of this genus is the peculiar appearance of the pseudocolumella.

STEREOLASMA, *gen. nov.*

Strombodes? rectus Hall. Geol. rep't 4th district N. Y. 1843. p. 209, fig. 5.

Type: *Streptelasma rectum* (in part) Hall. Illus. Devonian fossils. 1876. pl. 19. Hamilton shales, western New York.

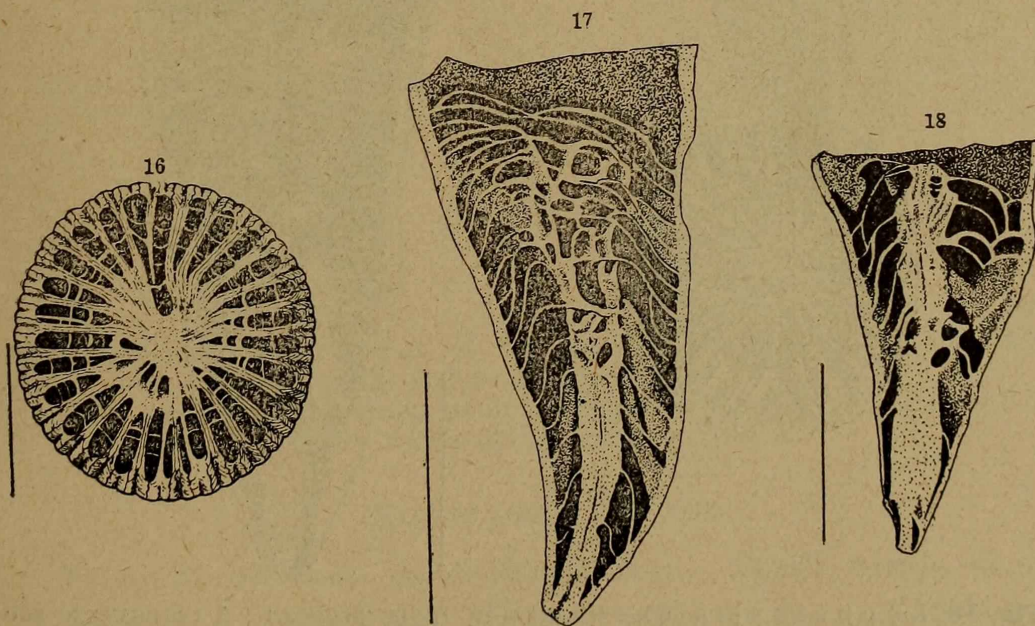


Fig. 16 *Stereolasma rectum* (Hall). A transverse section showing septa, dissepiments, and pseudocolumella

17 A longitudinal section showing tabulae and pseudocolumella

18 *S. ungula* (Hall). A longitudinal section

Example: *Streptelasma ungula* Hall. Illus. Devonian fossils. 1876. pl. 19. Hamilton shales, western New York.

Corallum varying in size, straight or curved, simple; calyx circular; septal fovea conspicuous; septa alternating in size, the larger

ones continuing to the center, straight or very slightly twisted; between the septa at the center of the corallum a deposit of stereoplasma, which has the appearance of a columella; tabulae and dissepiments frequent.

The pseudocolumella distinguishes this genus from *Zaphrentis*.

LOPHOLASMA, *gen. nov.*

Type: *Streptelasma rectum* (in part) Hall. Illus. Devonian fossils. 1876. pl. 19. Hamilton shales, western New York.

Corallum conical, straight, sometimes slightly curved at the apex, subrigid in appearance; surface with frequent annulations, and numerous concentric striae; costae distinct, flat or slightly rounded, the surface resembling that of *Heliophyllum*; septal fovea well defined; septa alternating in size, the larger ones

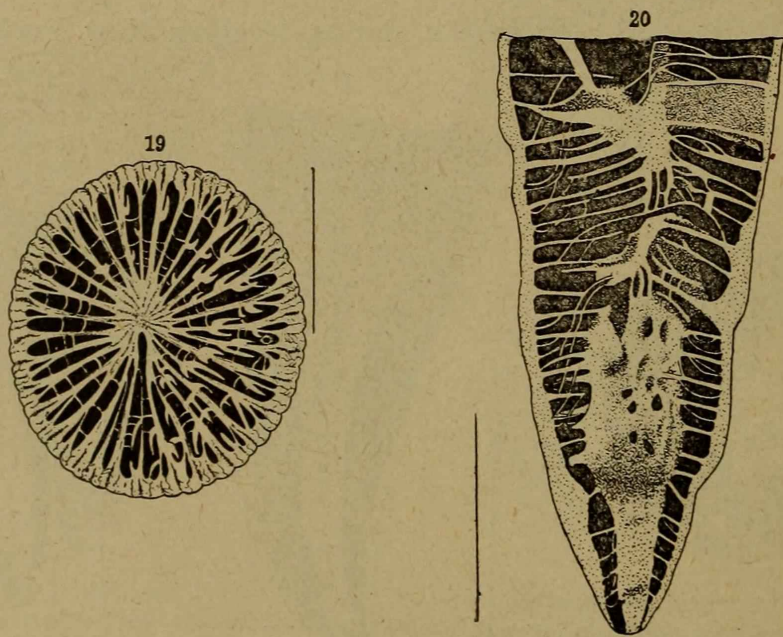


Fig. 19. *Lopholasma carinatum* (*nom. propos.*) A transverse section showing the pseudocolumella, the septa, dissepiments, and the spur-like processes from the septa

20 Longitudinal section showing the pseudocolumella, septal carinae and the delicate tabulae

continuing to the center, where there is a deposit of stereoplasma forming a pseudocolumella, which does not extend beyond the bottom of the calyx. On the sides of the septa are strong, essentially horizontal carinae, extending from the exterior wall to the

extremity of the carina. In a transverse section, curved, spur-like processes are seen proceeding from the sides of the septa. The nature of these processes has not been satisfactorily determined. Tabulae are frequent, delicate; dissepiments frequent.

The type species of this genus closely resembles *Stereolasma rectum*, and from external characters alone they could not be separated, but by slightly grinding down the exterior, the difference can be at once seen.

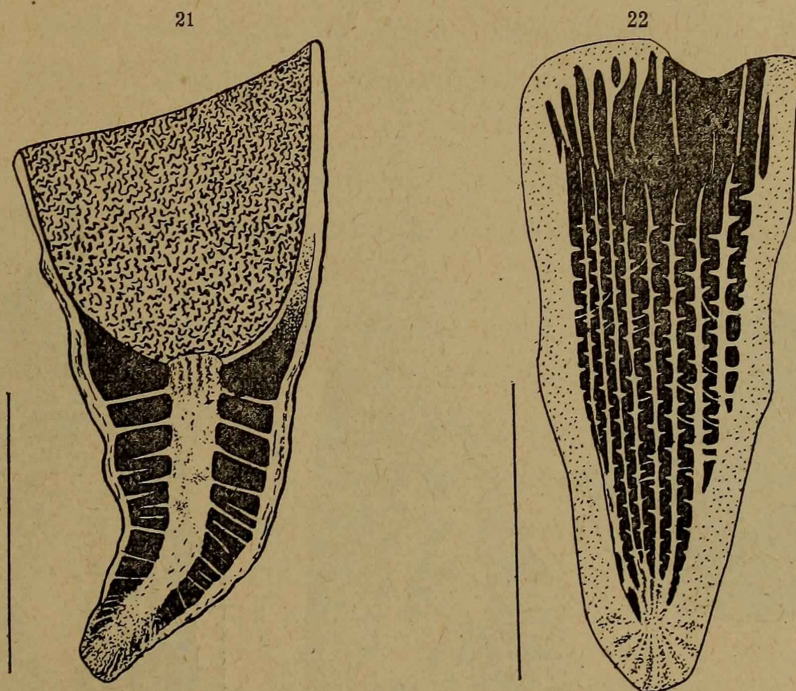


Fig. 21 Longitudinal section of the same showing depth of the calyx, pseudocolumella and septal carinae

22 Longitudinal section near the margin, showing the edges of the septa and the width of the carinae

KIONELASMA, *gen. nov.*

Type: *Streptelasma mammiferum* Hall. Fossil corals of the Niagara and Upper Held. groups. 1882. p. 21, and 35th rep't N. Y. state mus. nat. hist. 1884. p. 425. Onondaga limestone, Falls of the Ohio.

Examples: *Cyathaxonia gainesi* Davis. Kentucky fossil corals. 1885. pl. 104, fig. 1-7.

Streptelasma spongaxis Rominger. Geol. sur. Michigan. 1876. pt 2, pl. 39.

Corallum variable in size, cylindrico-conical or horn-shaped; calyx circular or elliptic; septa alternating in size, the larger

ones continuing to or nearly to the center, where they become thickened and some of them much involved or twisted, forming a central spongy axis or pseudocolumella, which becomes solidified and projects prominently from the bottom of the calyx; tabulae and dissepiments present, comparatively infrequent.

This genus resembles *Cyathaxonia*, *Lophophyllum*, *Axophyllum* and others in having a strong projection from the bottom of the calyx, but internally it differs from all of them.

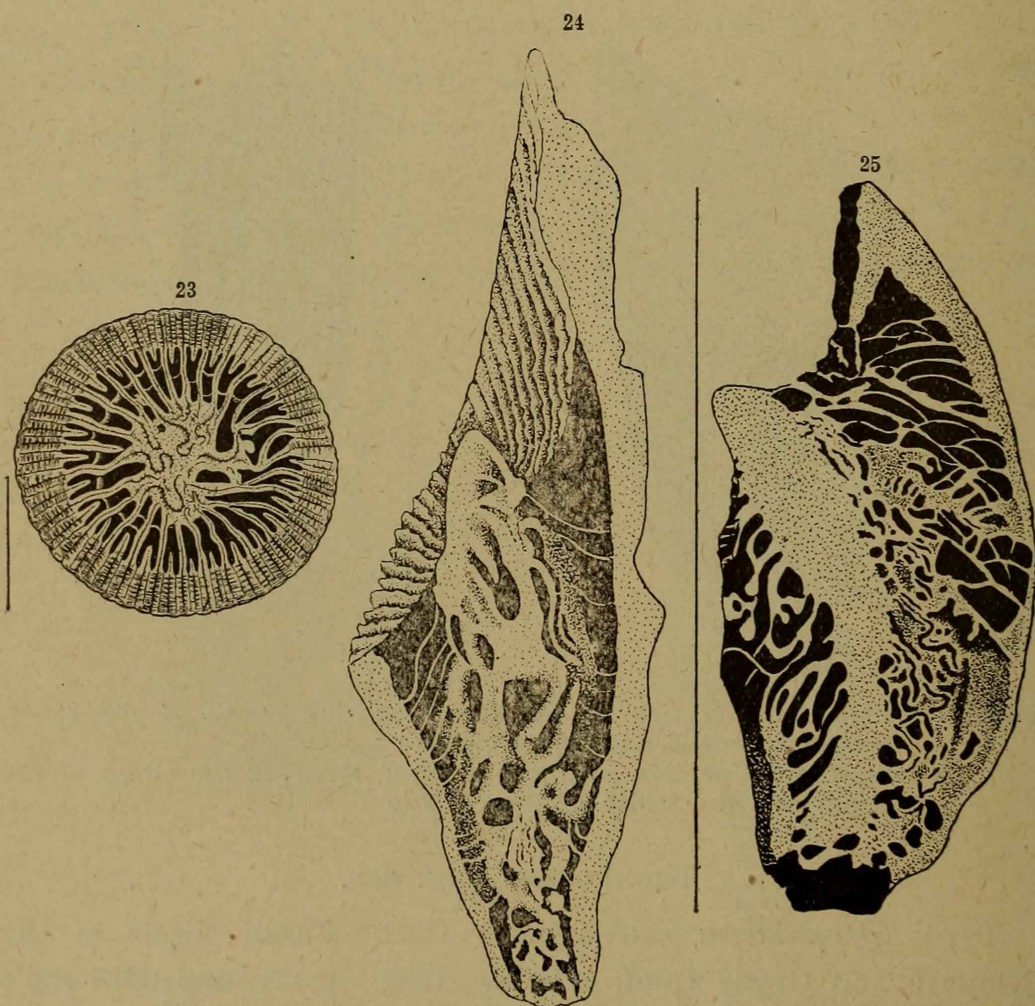


Fig. 23 *Kionelasma mammiferum* (Hall). A transverse section showing the septa and the pseudocolumella
 24 A longitudinal section showing pseudocolumella and tabulae
 25 *Kionelasma herzeri* (Hall). A longitudinal section showing the pseudocolumella and subcystose tabulae

Nicholson and Etheridge, in their *Monograph of the Silurian fossils of the Girvan district, Ayrshire*, pl. 5, fig. 2, illustrate the genus *Lindströmia*, the enlarged sections of which show a close resemblance to the structure of this genus. But the au-

thors say the pseudocolumella is formed by "the amalgamation of the inner ends of a larger or smaller number of septa, without any twisting of the septa, and being accompanied by a more or less copious secondary deposition of sclerenchyma."

In *Kionelasma* the twisting of the septa is one of the most pronounced characteristics.

TRIPLOPHYLLUM, gen. nov.

Type: *Zaphrentis terebrata* Hall. 12th rep't, geol. Indiana. 1883. p. 316, pl. 23, fig. 5. Onondaga limestone, Falls of the Ohio.

Example: *Zaphrentis centralis* Edwards and Haime. Monographie des polypiers fossiles des terrains palaeozoiques. p. 328, pl. 3, fig. 6.

This genus has the same general appearance and mode of growth as *Zaphrentis*, but in addition to the septal fovea there are two lateral foveae. The microscopic character is also different. In *Zaphrentis* the calcareous fibers of the septa are arranged obliquely outward from the median plate: in this genus they are arranged obliquely inward or toward the center of the corallum.

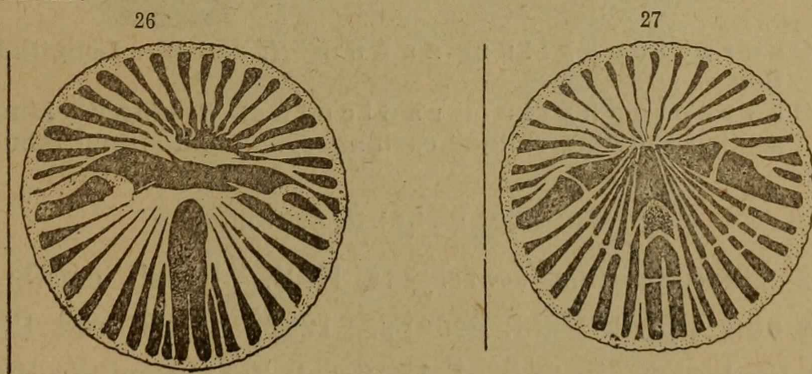


Fig. 26-27 *Triplophyllum dalii* (E. and H.). Transverse sections of two specimens showing the three septal foveae and the arrangement of the septa

CHARACTOPHYLLUM, gen. nov.

Type: *Camptophyllum nanum* Hall and Whitfield. 23d ann. rep't N. Y. state mus. nat. hist. 1873. p. 232. Lower Carbonic Rockford Ind.

This genus has essentially the same structure as *Camp-tophyllum*, with the exception that the sides of the septa are carinated, the carinations forming serrations or denticulations on the margins of the septa.

It differs from that genus in the same manner that *Helio-phyllum* differs from *Cyathophyllum*.

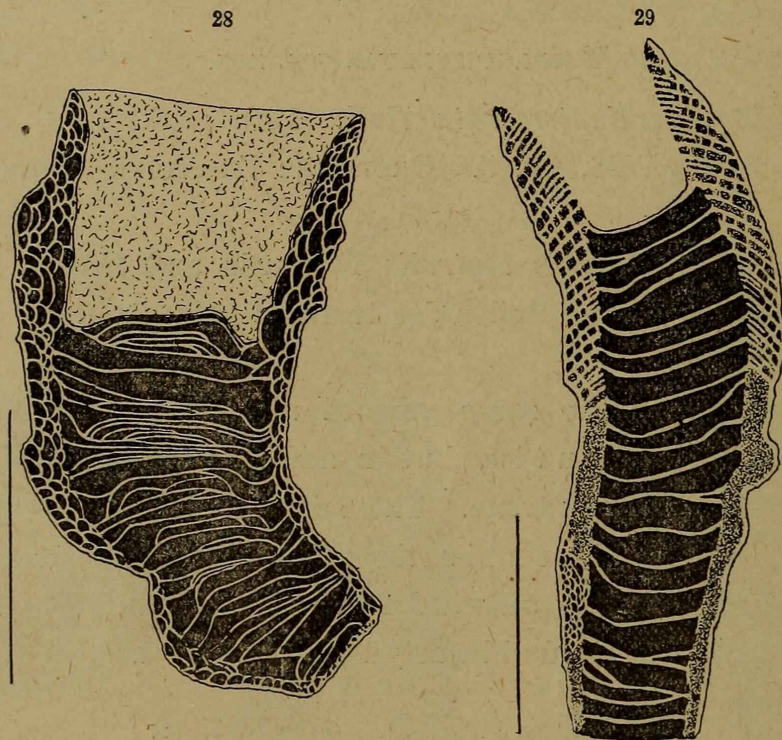


Fig. 28 *Charactophyllum nanum* H. and W. Longitudinal section

29 *Charactophyllum radiculum* Rominger. Longitudinal section showing oblique carinae, cysts, and strong tabulae

ODONTOPHYLLUM, *gen. nov.*

Type: *Aulacophyllum convergens* Hall. Fossil corals of the Niagara and Upper Held. groups. 1882. p. 22, and 12th rep't Indiana geologist. p. 281, pl. 17, fig. 1, 2. Onondaga limestone, Falls of the Ohio.

Forms having the same characters as *Aulacophyllum*, but with the sides of the septa carinate and their margins denticulate as in *Helio-phyllum*.

SCENOPHYLLUM, *gen. nov.*

Type: *Zaphrentis conigera* Rominger. Geol. sur. of Michigan. pt 2, p. 149, pl. 40. Onondaga limestone.

This form would be excluded from *Zaphrentis* on account of its conical tabulae and spirally twisting septa. It is very similar to *Clisiophyllum*, but is without the peripheral zone of cysts, characteristic of that genus.

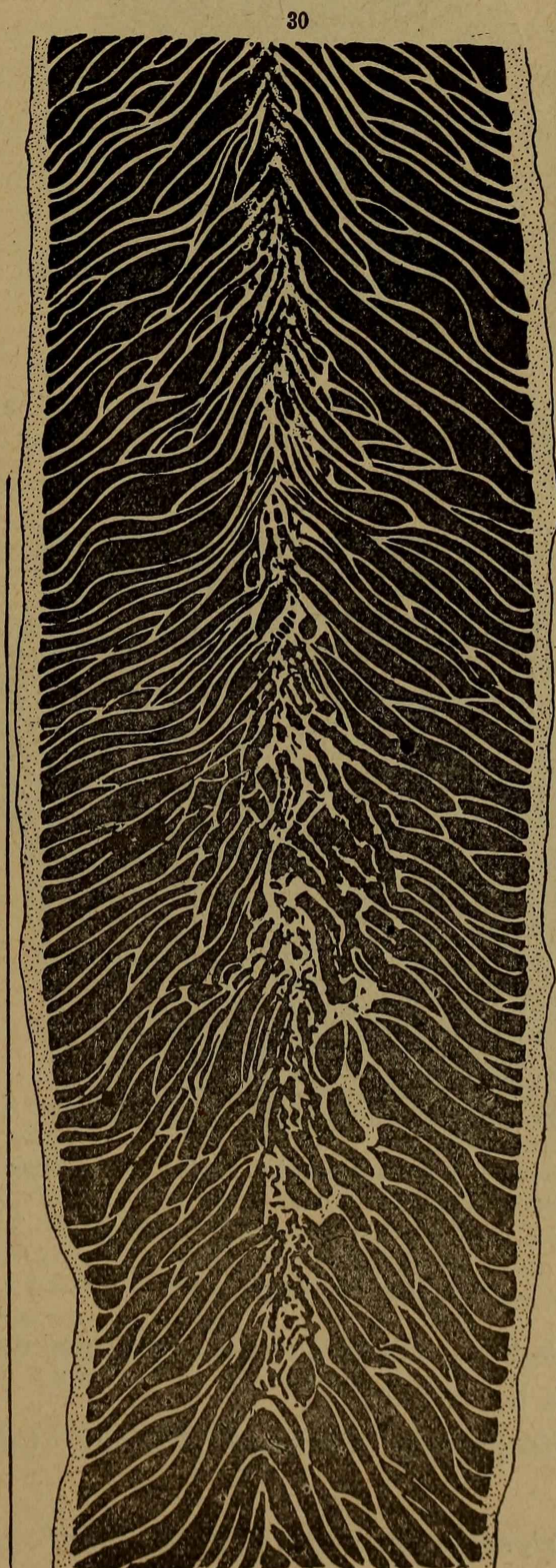


Fig. 30 *Scenophyllum conigerum* Rominger. A longitudinal section showing the conical subcystose tabulae, and pseudocolumella

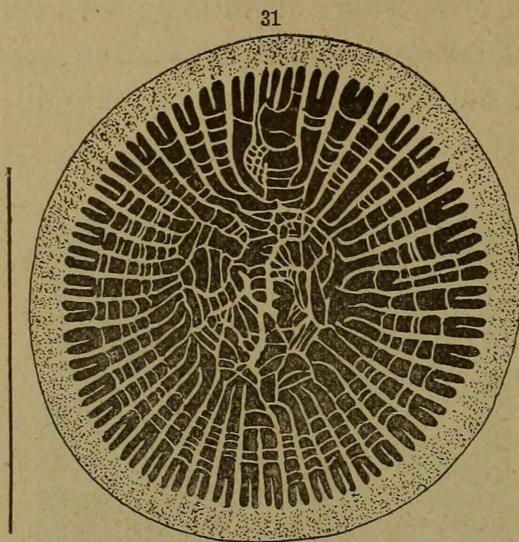


Fig. 31 A transverse section of the same showing septa and dissepiments, and fragmentary edges of tabulae near the center

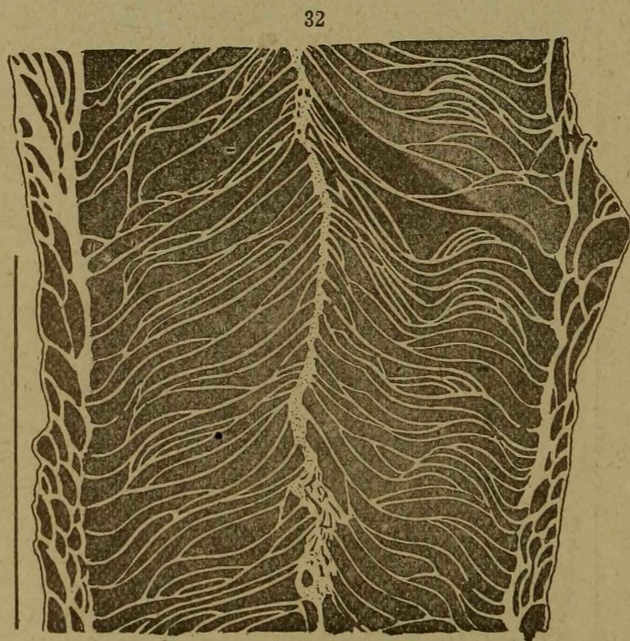


Fig. 32 *Clisiophyllum oneidaense* Billings. A longitudinal section for comparison with fig. 30

SYNAPTOPHYLLUM, *gen. nov.*

Type: *Eridophyllum arundinaceum* Billings, Can. jour. 1859. 4: 134. Onondaga limestone.

Examples: *Eridophyllum simcoense* Billings, Can. jour. 1859. 4: 131.

Eridophyllum stramineum Billings, Can. jour. 1859. 4: 135.

Corallum forming masses composed of slender, elongate, cylindric individuals, subparallel, and connected with each other by radiciform expansions; rapidly increasing by calicinal gemmation; septa alternating in size; the longer ones continuing nearly to the center; their sides carinated as in *Heliophyllum*; the margins slightly denticulated. Internally there are usually, in the peripheral region, a single row of small cysts, though in portions of the more robust forms there are occasionally two rows. The margins of this row of cysts, in a transverse section, give the appearance of a secondary wall. The tabulae are com-

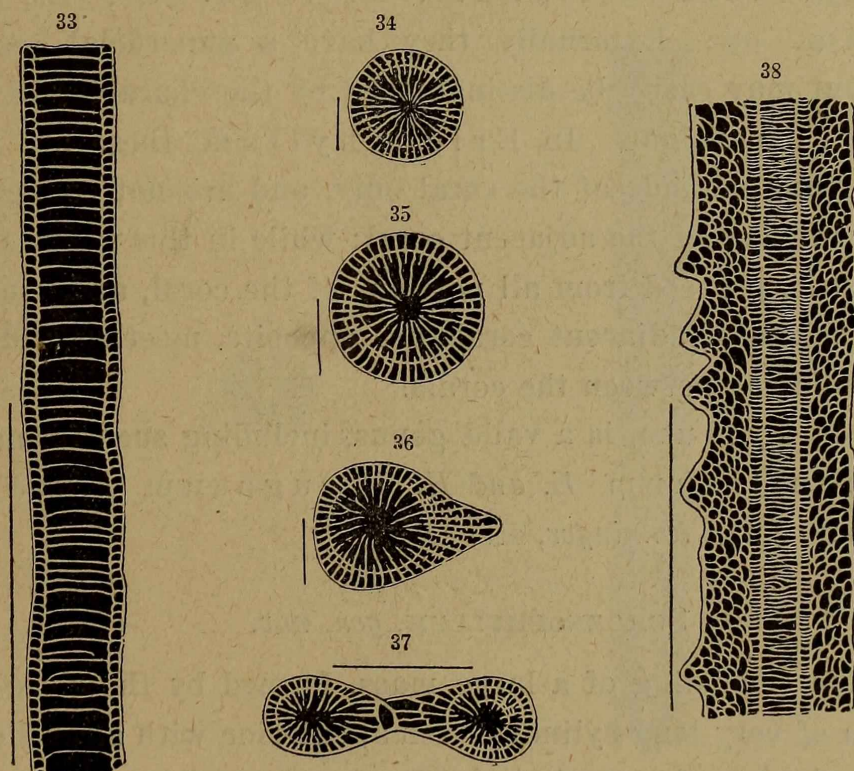


Fig. 33 *Synaptophyllum simcoense* (Billings). Longitudinal section showing single row of cysts, and wide tabulae, enlarged
 34 Transverse section, showing crenulated septa, enlarged
 35 *S. baculoideum* sp. nov. A transverse section showing septa, and vertical rows of cysts resembling an internal wall, enlarged
 36 Transverse section showing radiciform expansion, enlarged
 37 *S. segregatum* sp. nov. Transverse sections showing coalescing radiciform expansions, enlarged
 38 *Eridophyllum rugosum* E. and H. A longitudinal section for comparison with *Synaptophyllum*

paratively strong, occupying the greater portion of the width of the interior.

There has been much confusion in regard to the forms now brought together in this genus. Billings (*loc. cit.*), Davis (*Ken-*

tucky fossil corals) and others, have included them in the genus *Eridophyllum* *E. and H.*; while Rominger (*Geol. sur. Michigan*, 1876) considers *Eridophyllum* a synonym of *Diphyphyllum* *Lonsdale*, and places these forms in the latter genus; but Frech in Roemer's *Lethaea Palaeozoica* p. 356, speaking of *Eridophyllum*, says: "Lonsdale's genus *Diphyphyllum* in fact embraces corals of the Carboniferous limestones of a very different structure."

The forms included in the genus *Synaptophyllum* have generally been considered of the same character as *Eridophyllum verneuillianum*, *E. rugosum*, *E. huronicum*, etc. Externally they have a superficial resemblance, but may easily be distinguished by the character of the radiciform expansions. In *Eridophyllum* these are flat, proceed from one side of the coral only, and are not connected with the interior of the adjacent coral; while in this genus they are cylindric, proceed from all portions of the coral, and usually the expansions of adjacent corals are opposite, meeting and coalescing midway between the corals.

Eridophyllum is a valid genus, including such forms as *E. verneuillianum* *E. and H.*, *E. rugosum* *E. and H.*, *E. huronicum* *Rominger*, etc.

SCHOENOPHYLLUM, *gen. nov.*

Corallum consisting of a large mass, formed by the close aggregation of very long cylindric stems; exterior with strong concentric wrinkles of growth and conspicuous costae. There are frequent slender processes from the coral, about 3 or 4 mm in length, regularly diminishing in size to the extremity, ascending, continuing to the adjacent corallum and serving as supports.

The gemmae spring from the margin of the calyx, the parent corallum continuing growth, thus giving to the younger corals the appearance of proceeding from the side of the parent corallum at a great distance from the calyx; septa comparatively few in number; alternate septa inconspicuous, often apparently obsolete; cardinal septum continuing a short distance beyond the

center, usually becoming much enlarged at the extremity, which has the appearance of a solid, compressed columella, but sometimes the extremity of the septum is but slightly, if at all, enlarged. Internally in the peripheral region there is a single row of comparatively large cysts. In a transverse section the edges of the cysts give the appearance of a continuous inner wall. The tabulae are broad, usually ascending to the center.

In the collection of Prof. Hall this form has been labeled *Lithostrotion harmodites*. I have seen no authentic specimens of that species, but on comparison with the illustra-

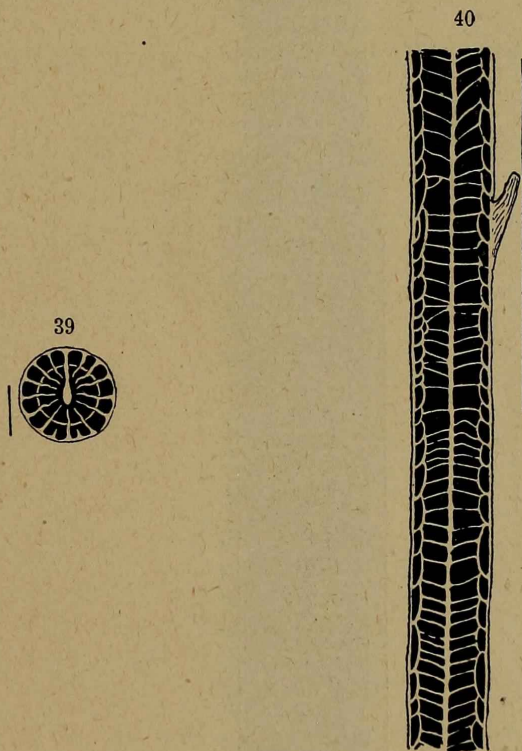


Fig. 39 *Schoenophyllum aggregatum* *sp. nov.* Transverse section showing the enlarged extremity of the cardinal septum, and apparently an inner wall, enlarged

40 Longitudinal section showing a single row of cysts, tabulae, and the enlarged extremity of the cardinal septum, enlarged

tions given by Edwards and Haime (*Monographie des polypiers fossiles*. pl. 15, fig. 1, 1^a) it is evident that the identification is wrong. In that species the columella is solid, unconnected with the septa; while in this the so-called columella is formed by the enlargement of the extremity of the cardinal septum, as in *Lophophyllum*.

PLACOPHYLLUM, *gen. nov.*

Type: *Placophyllum tabulatum* sp. nov. Onondaga limestone.

Corallum consisting of large masses, composed of loosely aggregated, greatly elongate, cylindric stems, of rigid appearance, which in the type species have a diameter of from 8 to 10 mm; exterior with numerous wrinkles of growth; costae distinct.

At infrequent intervals there are slender lateral processes, which continue to the adjacent coral and serve the purpose of supports.

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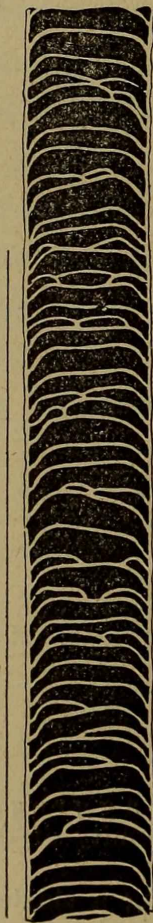


Fig. 41 *Placophyllum tabulatum* sp. nov. A longitudinal section showing the tabulae occupying the whole of the internal cavity

Internally the cysts are absent, the whole interior being occupied by strong, broad tabulae.

The internal structure closely resembles that of *Amplexus*, but the entirely different manner of growth would separate it from that genus. The type species, externally, most closely re-

sembles *Cylindrophyllum elongatum*. The manner of growth is similar, both consisting of an aggregation of elongate, cylindric stems, but in that species there are numerous cysts as well as tabulae, the structure being heliophylloid. From the other forms, which consist of an aggregation of cylindric stems, specially some forms of *Synaptophyllum* to which it has a resemblance, it may always be distinguished by its internal structure.

CYLINDROPHYLLUM, *gen. nov.*

Type: *Cylindrophyllum elongatum* sp. nov. Onondaga limestone.

Colonies forming masses composed of loosely aggregated, very

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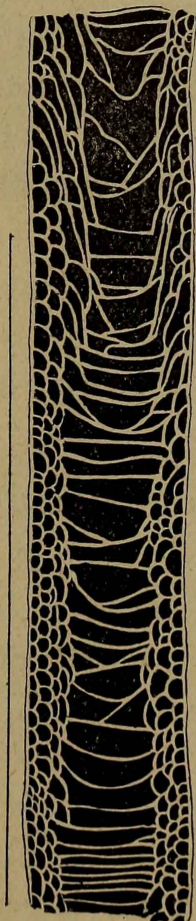


Fig. 42 *Cylindrophyllum elongatum* sp. nov. A longitudinal section showing internal structure

elongate, cylindric stems, in the type species having a diameter of from 12 to 14 mm; distance between the corallites variable;

they are sometimes in contact, at other times distant the diameter of an individual or more; exterior with annulations and wrinkles of growth; costae distinct; alternate septa very short; sides of septa carinated as in *Heliophyllum*, but their margins very seldom denticulate. Internally the peripheral region is occupied by cysts, which in a longitudinal section have the appearance of being arranged in vertical rows; tabulae strong, usually horizontal, and at varying distances apart.

In the type species the corallites are straight and rigid, and I have observed no lateral excrescences or expansions.

The internal structure of this genus is essentially the same as in *Heliophyllum*, but the manner of growth and general appearance is such that it could not be included in that genus.

In a longitudinal section the structure appears similar to that of the more robust forms of *Synaptophyllum*. In a transverse section the appearance is very different. Externally it may be easily distinguished from that genus by the absence of the lateral processes, which are a distinguishing feature of *Synaptophyllum*.

In exterior it resembles *Placophyllum*, but differs in internal structure.

PRISMATOPHYLLUM, *gen. nov.*

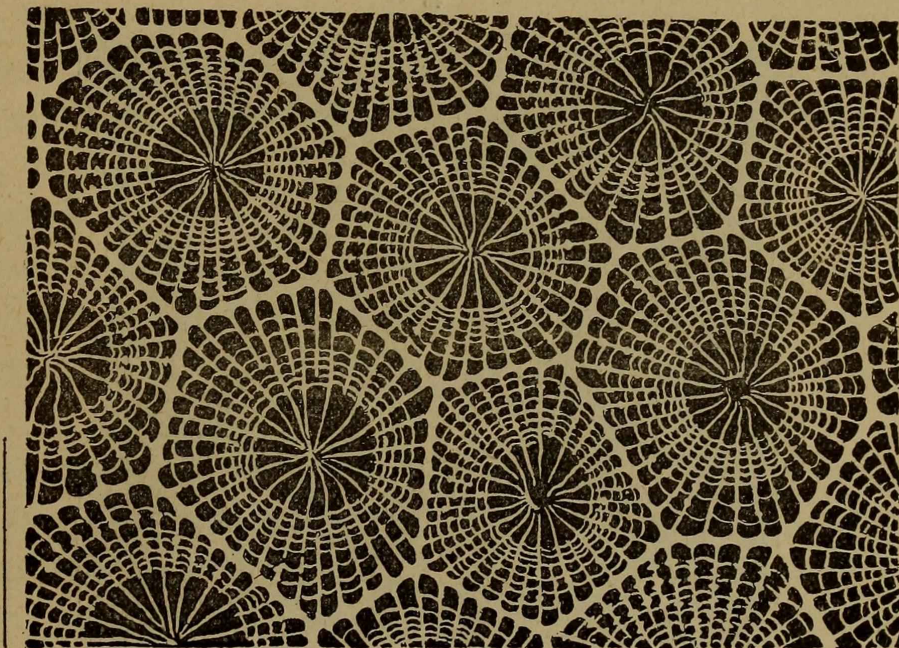
Type: *Prismatophyllum rugosum*, E. and H. Monographie des polypiers fossiles. 1851. p. 387, pl. 12, fig. 1, 1^a, 1^b, and *Cyathophyllum rugosum*, Rominger, Fossil corals. 1876. p. 166.

Example, *Acervularia davidsoni* E. and H. Monographie des polypiers fossiles. 1851.

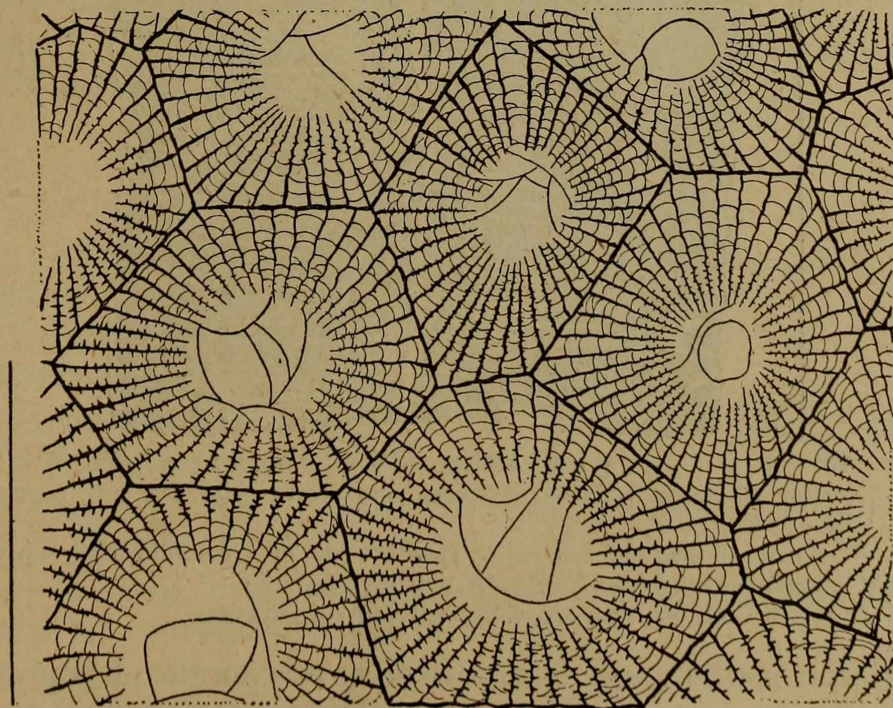
Colonies forming masses composed of prismatic corallites, in contact with each other, and of essentially the same diameter for their entire length. While the internal structure of the genus is very similar to that of *Heliophyllum*, the prismatic form, mode of growth and reproduction are so widely different from the typical forms of that genus that they should not be included in the same genus.

The typical species of this genus, *P. rugosum*, is the same as that described by Milne-Edwards and Haime and by Rominger as *Cyathophyllum rugosum*, they citing

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Astrea rugosa Hall, as a synonym. I have before me the specimen of *Astrea rugosa* from which the original description and drawing were made, and it is very clearly a *Philipsastrea*.

Edwards and Haime (*Monographie des polypiers fossiles*. 1851. p. 418), in the description of *Acervularia davidsoni*, speak of the interior wall, but those forms which in this country have been generally considered as *A. davidsoni* do not have

45

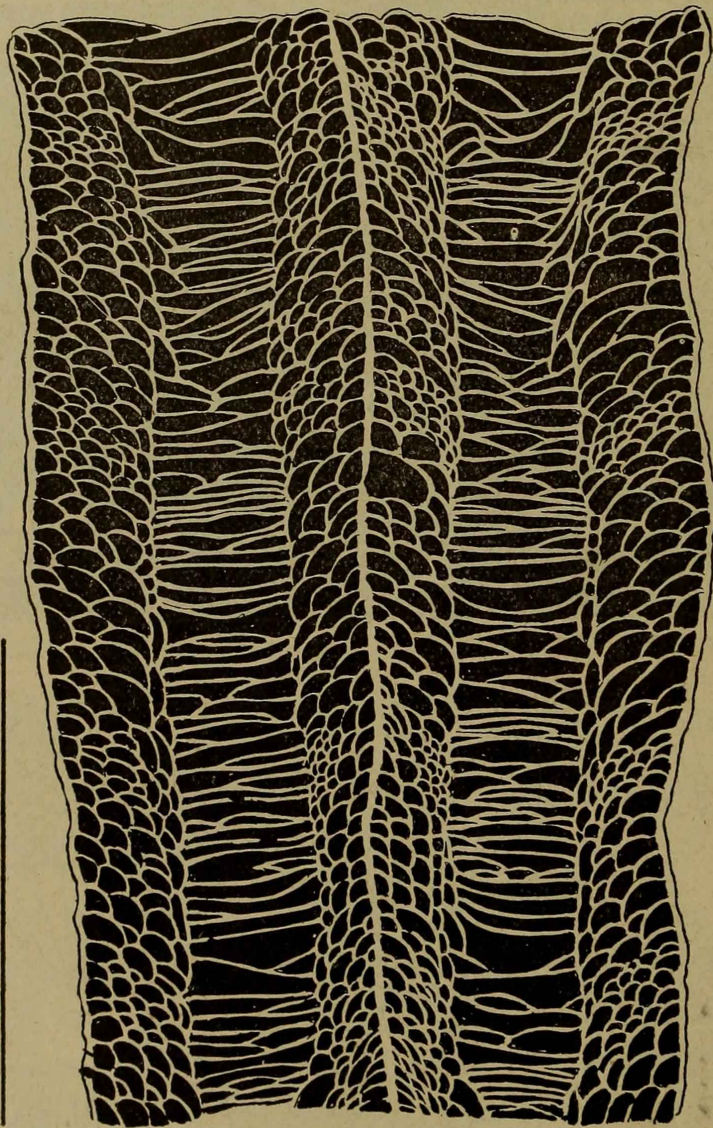


Fig. 43 *Prismatophyllum (davidsoni)* E. and H. Transverse section showing prismatic form, the septa, and the cut margins of cysts, enlarged

44 *P. rugosum* E. and H. Transverse section showing polygonal form of corallites and denticulated septa, enlarged

45 Longitudinal section showing internal structure

an interior wall, though in a transverse section the abrupt ending of the cysts, or dissepiments, coincidentally with the shorter septa gives the appearance of an interior wall. The continuation of alternate septa to the center proves that there is no secondary wall.

HOMALOPHYLLUM, *gen. nov.*

Type: *Zaphrentis ungula* Rominger, Fossil corals. 1876. p. 151. Onondaga limestone.

Example: *Zaphrentis herzeri* Hall. Fossil corals Niagara and Up. Held. groups. 1882. p. 35.

The above species have a decided characteristic in that they are flattened on the side of the greatest curvature; for some distance from the apex they are concave; calyx oval, with one side straighter than the opposite side. The form of the corallum is similar to that of *Calceola*. They make a natural group which differs from *Zaphrentis* and should be removed from that genus.

EDAPHOPHYLLUM, *gen. nov.*

Type: *Cystiphyllum bipartitum* Hall. Onondaga limestone.

In form and general appearance similar to *Coleophyllum*, though the calyx is much less oblique. The conspicuous septal of that genus is replaced by an abnormally developed cardinal septum, which is here the most conspicuous feature.

Internally the structure consists of a series of laminae usually separated by cysts. It also resembles that of *Coleophyllum*, but the cysts are more highly developed.

Etymology of generic terms

Charactophyllum. *Χαρακτός*, toothed, saw edge, and *φύλλον*, a leaf, in allusion to the serrated margins of the septa.

Cylindrophyllum. *Κύλινδρος*, a cylinder, and *φύλλον*, a leaf, in allusion to the form of the corallites.

Ditoecholasma. *Δίς*, double, *τοιχος*, a wall, and *φύλλον*, a leaf, in allusion to the outer and inner walls.

Edaphophyllum. *Ἔδαφος*, a base, foundation, and *φύλλον*, a leaf, in allusion to the laminate base of the calyx.

Enterolasma. *Ἔντερον*, intestine, and *Ἐλασμα*, a plate, in allusion to the convoluted center of the coral.

Hapsiphyllum. *Ἀψίς*, an arch, and *φύλλον*, a leaf, in allusion to the arched accessory wall.

Homalophyllum. *Ὁμαλός*, level, and *φύλλον*, a leaf, in allusion to the flattened portion of the coral.

- Kionelasma.** *Κίων*, a column, and *Ἐλασμα*, a plate, in allusion to the prominent pseudocolumella.
- Laccophyllum.** *Λάχος*, a well, and *φύλλον*, a leaf, in allusion, to the appearance of the central area of the coral in longitudinal section.
- Lopholasma.** *Λόφος*, a crest, and *Ἐλασμα*, a plate, in allusion to the carinae of the septa.
- Meniscophyllum.** *Μηνισκος*, a crescent, and *φύλλον*, a leaf, in allusion to the form of the pseudocolumella.
- Odontophyllum.** *Ὀδόντος*, a tooth, and *φύλλον*, a leaf, in allusion to the denticulate margins of the septa.
- Placophyllum.** *Πλάξ*, anything flat or broad, *φύλλον*, a leaf, in allusion to the broad tabulae.
- Scenophyllum.** *Σκηνος*, a tent, and *φύλλον*, a leaf, in allusion to the tent-like appearance of the tabulae.
- Schoenophyllum.** *Σχοινος*, a rush, and *φύλλον*, a leaf, from the appearance of the corallites.
- Sterelasma.** *Στερεός*, firm, solid, and *Ἐλασμα*, a plate, in allusion to the filling of the central area of the coral with stereoplasma.
- Synaptophyllum.** *Συναπτός*, joined together, *φύλλον*, a leaf, in allusion to the lateral processes connecting the corallites.
- Triplophyllum.** *Τριπλός*, triple, and *φύλλον*, a leaf, in allusion to the three septal foveae.