SBORNÍK NÁRODNÍHO MUSEA v PRAZE
ACTA MUSEI NATIONALIS PRAGAE
Vol. I B (1938) No. 6. Geologia et Paleontologia No. 2.

Dr. FERDINAND PRANTL:

Revise českých palezoických Reptariideí. (Mechovky).

Revision of the Bohemian Paleozoic Reptariidae. (Bryozoa).

(Předloženo 15. XII. 1937.)

Čeleď *Reptariidae Simpson* 1895 je v Barrandienu dosti bohatě zastoupena; mimo dva druhy, které popsal svého času POČTA, pod rodovým označením *Thamnocoelum*, a nověji zjištěný druh *Clonopora sp.* (PRANTL, 1935 — str. 2, pl. I., fig. 3), byly zjištěny i některé druhy další, které pokládám za nové.

Rod *Thamnocoelum* byl utvořen POČTOU (1894 — str. 208) pro dva druhy, *Thamnocoelum fruticosum* Počta 1894 a *Thamnocoelum pennulatum* Počta 1894. POČTA však jej kladl do skupiny *Cladophora* Hopk. [*Dendroidea* Nich.] Na jeho příslušnost k mechovkám *(Hederolloidea)* upozornil až BASSLER (1934 — str. 17, 216). Týž autor označil za genotyp tohoto rodu druh *Thamnocoelum fruticosum*, který je však zřejmě sourodý s rodem *Hederella* Hall 1883. Proto má podle zákona priority platnost pouze starší rodové jméno HALLOVO. Druhý druh, označený POČTOU jako *Thamnocoelum pennulatum* Počta 1894, je pak totožným s druhem *Bryozoon Steiningeri*, již dříve vyobrazeným BARRANDEM (1868 — pl. 248, fig. 1.), a náleží do rodu *Reptaria* Rolle 1851. Musí býti proto nadále označován jako *Reptaria steiningeri* (Barr.) 1868.

K rodu *Hederella* náleží dále nově zjištěné druhy *Hederella formosa* n. sp., a *Hederella obscura* n. sp. Rod *Reptaria* Rolle 1851 je mimo výše uvedený druh zastoupen ještě druhem dalším, který označuji jako *Reptaria gigas* n. sp. Po stránce paleogeografické je dále velmi zajímavé zjištění zástupce monotypického rodu *Hernodia* Hall 1883, známého dosud jen ze severoamerického devonu. Kladu do něho druh *Hernodia počtai* n. sp., který

byl dříve uváděn pod označením *Tubiporide sp. ind.* [POČTA, v Barr. vol. VIII, str. 228, pl. i, fig. 12—13. 1894.]

Geologicko-paleont. oddělení,
Národní Museum v Praze.
Srpen, 1937.

In arranging the rich research material of Cephalopodes and Gastropodes from the Barrandien in the Collections of the National Museum in Prague, I found many minute bryozoic forms which cover those fossils. Among them I determined especially different kinds of the families *Prasoporidae* Simpson 1897, *Heterotrypidae* Ulrich 1890, *Fistuliporidae* Ulrich 1882, and *Reptariidae* Simpson 1895. In the present paper I give a survey of the Bohemian representatives of the family *Reptariidae*; the description of the other families will be given in one of the later notes.

CYCLOSTOMATA Busk,

Hederelloidea Bassler 1934.

REPTARIIDAE Simpson 1895.

The representation of this family in the Barrandien is sufficiently rich. In addition to two species already described before, to which POČTA gave the generic name *Thamnocoelum,* and to *Clonopora* sp. determined more recently (PRANTL 1935 — p. 2, pl. I., fig. 3), several other newly established species, some of which I believe to be new, have to be mentioned here.

POČTA did not discover the true systematic position of those two species which he called *Thamnocoelum* and placed into the group *Cladophora* Hopkinson (syn. *Dendroidea* Nicholson). It was only BASSLER (1934 — p. 17, 216) who discovered that they were *Bryozoa* and not *Dendroidea.* The same author writes also that the genus *Thamnocoelum* Počta 1894 is not a good independent genus and classifies it as a synonimum of the genus *Hederella* Hall 1883.

POČTA created his genus *Thamnocoelum* for the two species: *Thamnocoelum fruticosum* Počta and *Thamnocoelum pennulatum* Počta; but he did not fix the genotype of the genus. BASSLER (1934 — p. 216) was therefore able by the right of priority to choose as genotype of the genus *Thamnocoelum* Počta 1894 the species *Thamnocoelum fruticosum* Počta 1894. This species is distinctly congeneric with the genus *Hederella* Hall (1883 — p. 194); so that by priority only the earlier name introduced by HALL is admissible.

In the original generic diagnosis POČTA (1894 — p. 208) characterized his genus *Thamnocoelum* as follows:

« Les arbrisseaux consistent dans les fines tiges, qui se divisent fréquement et portent de petits tubes latéraux, élargis à leur extrémité. Nous pouvons aussis désigner ces tubes par le nom de cellules.

La bifurcation se fait tantot irrégulierement, et, dans ce cas, les rameaux partent sans ordre du tronc principal, tantot régulierement, alors les rameaux nouveaux forment tous avec le tronc un angle égal, et sont paralléles entre eux dans toute leur longuer.

Les tiges ou rameaux sont d'une grande finesse. Les tubes ou cellules indépendants s'inserent sur le tronc par leur base étroite et vont en s'élargissant vers l'extérieur. Ils sont géneralement droits. Parfois ils sont courbés, et, dans ce cas, ils apparaisent ordinairement sur les ramenaux, disposés comme les barbes d'une plume, en se penchant un peu vers l'extérieur.

La surface des rameaux est presque toujours lisse, ou bien quelquefois ruguese, et elle semble avoir été ponctuée. »

It is evident from this diagnosis that POČTA combines under the name *Thamnocoelum* two heterogeneous forms of different type; the one shows the characteristic hederelloid structure of the zoarium with a more or less straight cylindric central axis from which minute tubular zoecia spread alternately to the right and left (*Thamnocoelum fruticosum* Počta), whereas the other shows in the penniform shape of the zoarium the characteristic of the genus *Reptaria* Rolle 1851 (*Thamnocoelum pennulatum* Počta).

I am therefore of BASSLER'S opinion that the genus *Thamnocoelum* Počta 1894 has no systematic validity.

HEDERELLA Hall 1883.

Genotype. *Alecto* (?) *canadensis* Nicholson 1874. Onondago, Port Colburne, Ontario, Canada. Corniferous Limestone, Upper Helderberg Group.

Remarks: After the growth of the zoarium and the arrangement of the zoecia which is constant for each group, the genus *Hederella* Hall 1883 may be divided in two sections, A. and B.

A. — The Section of the species *Hederella canadensis.* This group is characterized by the close grouping of the zoecia on both sides of the middle axis of the zoarium; the zoecia form with the axis an acute angle (of about 10^0) and are in contact with it for more than half their length. The zoecia are generally subtubular, with a distinctly enlarged distal end.

B. — The Group of the species *Hederella cirrhosa.* This group is characterized by the zoecia being set wide apart around the principal axis, so that the alternating arrangement of the zoecia becomes very distinct. The zoecia form with the axis an obtuse angle (of about 30^0—50^0) and are in contact with it for less than one third of their length. Zoecia subtubular or tubular; generally this second shape prevails.

The two groups are well defined and from the literature at my disposal I do not know any case in which the two zoarial types would be combined in one and the same species.

HEDERELLA FRUTICOSUM (Počta) 1894.

(Pl. IV, fig. 1, 4.)

1894 — *Thamnocoelum fruticosum* Počta, p. 209, pl. I, fig. 14—18.

Holotype, the specimen shown by POČTA in 1894 as fig. 14—15 in pl. I, Kosoř, Bohemia. Budňany Limestones eβ (Ludlow). National Museum in Prague.

Description. Minute adnate zoarium, with a more or less straight cylindric central axis from which sparse, short, straight, tabular zoecia spread on both sides. The distance between the zoecia is quite considerable (0.90—0.95 mm). The zoecia are provided with rather large, circular terminal apertures which are however but rarely well preserved. The zoecial walls show faint transverse furrows and rings of growth.

Measurements:	length of the zoecia	1.00—1.05 mm.
	maximum width of the zoecia .	0.25—0.30 mm,
	distance between the zoecia . .	0.90—0.95 mm.

On five mm in length of the principal axis there are four to five zoecia on each side.

Remarks and relations. The arrangement of the zoecia is in places very regular and the angle between them and the principal axis is fairly constant (35°—45°).

POČTA has already emphasized that the ramification of the principal axes is variable; either the zoarium ramifies irregularly and the axes run in different directions, or the new axes branch off from the earlier axis under an angle of about 90° and continue in a constant direction and distance from each other. Both instances are connected by forms of transition and it is not rare to find them in one and the same zoarium. This feature is therefore due to outside factors and therefore I do not consider it as of systematic importance.

The species *Hederella fruticosum* (Počta) has been chosen by BASSLER (1934— p. 216) as genotype of the genus *Thamnocoelum*; as it is congeneric with the genus *Hederella* Hall 1883, the genus *Thamnocoelum* had to be abolished after the law of priority.

Hederella fruticosum (Počta) belongs after the shape of the zoarium to the group of the species *Hederella cirrhosa* characterized by sparsely scattered

zoecia around the principal axis. In size and arrangement of the zoecia it resembles the species *Hederella formosa* n. sp.; this species has however subtubular zoecia which are scattered more sparsely around the axis.

Occurence: BUDŇANY-LIMESTONES, eβ.

Dvorce — the zoaria are attached to *Orthonychia cuneus* (Barr.) (orig. Barrande 1907, pl. 162, fig. 18, 19, 21) and *Orthonychia togata subjaces* (Barr.), (orig. Barrande, 1907, pl. 163, fig. 7).

Karlštejn — the zoarium covers *Orthonychia elegans praestans* (Barr.), (orig. Barrande, 1907, pl. 148, fig. 6, 8).

Kosoř — the zoarium is attached to *Cytoceras sp.*

Slivenec — the zoarium covers a test of *Poleumita sp.*

Zmrzlíky — the zoarium covers *Platyceras sp.*

HEDERELLA FORMOSA n. sp.

(pl. IV, fig. 5.)

Holotype, here described, the specimen shown as fig. 5 in pl. I. Budňany-Limestones, eβ (Ludlow). Dvorce. National Museum, Praha.

Description: Minute adnate zoarium, with a cylindric axis from which minute subtubular zoecia spread in considerable distances to the right and left.

The zoecia are straight or slightly arched, subtubular and distinctly enlarged at the distal end. Apertures terminal, circular, but rarely well preserved.

The zoecia are in contact with the axis by their proximal end and enclose with it an angle of from 20° to 30°. The zoecial walls are closely transversally straited and annulated.

Measurements:	length of the zoecia	1.00—1.01 mm,
	maximum width of the zoecia .	0.50—0.60 mm,
	distance between the zoecia . .	1.50—1.75 mm.

For every 5 mm of the lenght of the principal axis there about 3—4 zoecia on each side.

Remarks and relations. The species *Hederella formosa* n. sp. belongs together with the species *Hederella fruticosum* (Počta) to the *Hederella cirhosa — group,* which is characterized by a considerable distance between the zoecia. The arrangement and size of the zoecia resembles those in the species *Hederella fruticosum* (Počta), but the latter has those zoecia, less enlarged at the distal end and more closely grouped.

Occurence: BUDŇANY-LIMESTONES, e β (Ludlow).

Dvorce — the zoecia covers together with *Atactoporella* sp. a shell of *Gomphoceras halli* Barr., and *Orthonychia togata subjacens* (Barr.), (orig. Barrande 1907, pl. 162, fig. 1—8).

Karlštejn — the zoarium is attached to *Orthonychia elegans praestans* (Barr.), (orig. Barrande 1907, pl. 148, fig. 2, 5).

HEDERELLA OBSCURA n. sp.

(pl. IV, fig. 2.)

Holotype, the specimen shown here as fig. 2 in pl. I. Suchomasty. Koněprusy Limestones — f, Lower Devonian. National Museum in Prague.

Description. Adnate zoarium composed of a tubular axis, more or less straight with close packed zoecia on both its sides, so that the zoarium offers a reptarioid aspect. The zoecia are fairly large, slim, distinctly subtubular, generally arched. The apertures, when preserved, are terminal, circular, fairly large. The zoecia form with the principal axis an acute angle of about 10°. For most of their length the zoecia are in contact either with the principal axis or with the neighbouring zoecia, but without amalgamating with them.

The surface of the zoecia shows fairly coarse, irregular transverse furrows and ridges of growth.

Dimensions: length of the zoecia . . . . . 7.00—8.00 mm,
maximum width of the zoecia . . 0.75—0.80 mm.

For every 5 mm of length of the principal axis there are 4—5 zoecia.

Remarks and relations. *Hederella obscura* n. sp. belongs to the group of the species *Hederella canadensis*, characterized by closely packed zoecia. This species is well characterized by the size of the zoarial elements in which it differs from all the other representatives of the genus.

Occurrence: KONĚPRUSY-LIMESTONES, , -f. (Lower Devonian.)

Suchomasty. — The zoarium covers *Orthoceras sp.*

HERNODIA Hall 1883.

HERNODIA POČTAI n. sp.

(Pl. IV, fig. 7.)

1894 — *Tubiporide sp. ind.* Počta, p. 228, pl. 1, fig. 12—13.

Holotype, by the specimen shown by POČTA in 1894 as fig. 12—13 in pl. I. Lochkov, Budňany-Limestones — e β. (Ludlow.) National Museum in Prague.

Description. Zoarium adnate, composed of more or less straight rows of straight or slightly curved, subtubular zoecia, narrow and oblong. The younger zoecia sprout from the walls of the older zoecia in about half their lenght. In some cases several zoecia (2—4) sprout together from one place. The apertures are circular, terminal, fairly large. The zoecial walls show characteristic, regular transverse furrows and rings of growth.

Dimensions: length of the zoecia . . . . . 2.50—3.00 mm,
maximum width of the zoecia . . 0.45—0.50 mm.

Remarks and relations. This species has been described originally by POČTA as an interesting but indeterminable fossil which he referred to the affinity of the family *Auloporidae*.

The species *Hernodia počtai* n. sp. is very similar to the *Hernodia semifusa Hall* (1883 — p. 196) with which it is perhaps conspecific. But it seems to have larger zoecia. The massy sprouting of the younger zoecia in one place has not been described for the species *Hernodia semifusa* Hall.

Occurrences: BUDŇANY LIMESTONES — e β (Ludlow).

Lochkov. — The zoarium covers a test of *Auriptygma fortior* (Bar.).
LOCHKOV LIMESTONES — e γ (uppermost Ludlow).

Kosoř. — The zoarium is attached to *Orthoceras sp.*

HERNODIA PERMINUTA n. sp.

(Pl. IV, fig. 6.)

Holotype, by the specimen shown as fig. 6 in pl. I. Bráník. Bráník Limestones — g α. (Mesodevonian.) National Museum in Prague.

Description. Very delicate adnate zoarium, composed of minute, very slim, subtubular zoecia, either straight or arched, which broaden only quite gradually towards the distal end. The younger zoecia sprout from the walls of the older ones, generally in the upper third of their length. The apertures are minute, circular, terminal. The zoecial walls are very delicately transversally striated.

Dimensions: length of the zoecia . . . . . 1.20—1.40 mm,
maximum width of the zoecia . . . 0.20—0.25 mm.

Remarks and relations. The species *Hernodia perminuta* n. sp. is well distinguished by its very delicate zoarium and the slender zoecia from

the other two representatives of the genus (*Hernodia hemifusa* Hall, *Hernodia počtai* n. sp.).

Occurrence. BRÁNÍK LIMESTONES, g 2. (Mesodevonian.)

Bráník. — The zoarium covers *Orthoceras sp.*

REPTARIA Rolle 1851.

Genotype, *Reptaria stolonifera* Rolle (1851, p. 813, pl. XI, fig. 5—6). Cazenovia, New York, Hamilton group.

Remarks: The mode of occurrence of the genus *Reptaria Rolle* 1851 is most interesting from a palaeobiological point of view. Its zoaria are found always only in certain *Nautiloidea* (principally in *Orthoceras* Breyn and *Phragmoceras* Broderip); ROLLE (1851—p. 810) has already mentioned that he has found the species *Reptaria stolonifera* Rolle and *Reptaria orthoceratum* Rolle always only on *Orthoceras* or *Phragmoceras sp.*, and he also shows (Rolle, 1851 — pl. Xi, fig. 6) a zoarium of the species *Reptaria stolonifera* Rolle on the nucleus stripped on its shell of *Orthoceras sp.* A similar case is shown also by SIMPSON (1895 — pl. 25, fig. 8). In the Bohemian material the zoaria of the genus *Reptaria* Rolle 1851 are found likewise always on *Orthoceratidae* stripped of their shell. Nor do I know of any case in the literature, that a *Reptaria* would have been found on the outer surface of a shell of *Nautiloidea* or on another substratum.

In contradistinction to the other representatives of the family *Reptariidae* Simpson 1895 the genus *Reptaria* Rolle 1851 does not form adnate, incrustating zoaria, but (?) parasitic zoaria. The formations found on the outer surface of the air chambers of *Nautiloidea* stripped of their shell and called *Reptaria* are not the zoaria, but represent only their nuclei. DR. VL. ZÁZVORKA has been able to ascertain in the Bohemian material, that originally the zoaria of the genus *Reptaria* Rolle 1851 had been growing into the shells of *Nautiloidea.* Here we have to remember that the zoaria were growing into the shells with their inner surface and not with their outer one. This is proved also by SIMPSON's remark (1895 — p. 599); the lower surface of the zoaria, facing the air chambers of the *Nautiloidea,* is flat, the outer surface facing the shell is convex.

It is rather difficult to explain this occurrence of the genus *Reptaria* Rolle 1851. I do not believe the theory that *Reptaria* settled in the shells of dead *Nautiloidea* to be sufficiently proved. Considering their relatively frequent occurence it might have been expected that they would de found also on another substratum. When we admit however that *Reptaria* lived already in the living *Nautiloidea,* below the outer surface of their shell, then this phenomenon can be explained only as a special case of symbiosis or parasitism. The vegetative distal ends of the zoaria of the genus *Reptaria* stretch always more or less towards the proximal end of the nautiloid shells, away from the living-

chamber. This seems to indicate the direction from which *Reptaria* coud enter the shell of the *Nautiloidea.* This seems to be in keeping with ROLLE's remark (1851 — p. 810), that zoaria of the genus *Reptaria* had been found on the nuclei of the living-chamber of *Phragmoceras.*

This phenomenon has no analogy either among the Bryozoa of the group *Hederelloidea* Bassler 1934 nor among the other *Cyclostomata*; therefore we believe the present systematic position of the genus *Reptaria* Rolle 1851 to be problematic.

REPTARIA STEININGERI (Barrande).

(Pl. IV, fig. 8—9.)

1868 — *Bryozoon Steiningeri* Barrande, in explication to the pl. 248, fig. 1.
1894 — *Thamnocoelum pennulatum* Počta, p. 209, pl. I, fig. 19—20.

Holotype, the zoarium shown by BARRANDE in 1868 as fig. 1 in pl. 248.

Description. Zoarium delicate, penniform, composed of many minute alternating zoecia, convexly curved, which stretch bilaterally in one plane from the median line of the zoarium and which are so crowded together that they are in contact with each other in the lower half of the zoecia. The distal ends of the zoecia are free. The zoecia are subtubular, flat on the lower side and enlarged at their distal end. On the surface they show generally traces of fine transverse striae. The apertures are preserved but rarely; they are minute, circular, terminal. The length of the different zoecia vary even in one and the same zoarium; in some parts of the zoarium we find sometimes groupe of zoecia which are distinctly longer than the others; elsewhere there are isolated larger zoecia scattered in a row of zoecia of normal size. The longer zoecia are generally straighter than the normal ones and the distance between them is greater, too.

Dimensions: length of the zoecia . . . . . 1.40—1.60 mm,
maximum width of the zoecia . . 0.30—0.35 mm.

In each 5 mm of the length of the axis of the zoarium there are 6—7 zoecia.

Remarks and relations. This species has been fixed first by BARRANDE (1868 — pl. 248, fig. 1) who represented it and called it *Bryozoon steiningeri.* Later it was described by POČTA (1894 — p. 209, pl. 1, fig. 19—20) under the name of *Thamnocoelum pennulatum* Počta after BARRANDE's specimen. As BARRANDE's name has the priority, though he gave only a picture of this species and not also its description in words; I return to the original specific name *Reptaria steiningeri* (Barrande) 1868.

The species *Reptaria steiningeri* (Barrande) is very similar to the species *Reptaria stolonifera* Rolle (1851 — p. 814, pl. xi, fig. 5—6); but differs from it especially by its larger zoecia, the distal part of which is free.

Occurrence. BUDŇANY BEDS — eβ (Ludlow).

Dvorce. — This species is there fairly abundant and it is found generally on the outside of the air-chambers of *Orthoceras* stripped of their shells, chiefly on the species *Orthoceras steiningeri* Barrande. In one instance it was found also on *Cyrtoceras sp.*

REPTARIA GIGAS n. sp.

(Pl. IV, fig. 3.)

Holotype, the specimen shown as fig. 3 in pl. I. Karlštejn, Bráník-Limestones, gα. National Museum in Prague.

Description. Zoarium penniform, grown into the shell of *Orthoceras sp.*, from its inner surface. Zoecia fairly large, subtubular, widening rapidly towards the distal end. The zoecia are alternating bilaterally around the median line of the zoarium, and are close together so that they are in contact with each other for most of their length.

The lower surface of the zoarium is flat, the upper convex, turned towards the shell of the *Orthoceras*. No apertures known.

The walls of the zoecia are visible on the lower, obserse side of the zoarium. They are thickened in the distal parts of the zoecia and narrow gradually towards the proximal end. The median line of the zoarium manifests itself as a thin undulated line.

Dimensions: length of the zoecia . . . . . 5.00—6.00 mm,
maximum width of the zoecia . . 0.30—0.35 mm.

In 5 mm of the length of the axis of the zoaria there are 4—5 zoecia.

Occurrence. BRÁNÍK LIMESTONES — gα (Middle Devonian.)

Karlštejn. — The zoarium is grown into the shell of *Orthoceras sp.*

CLONOPORA Hall 1883.

CLONOPORA sp.

1935 — *Clonopora sp.*, Prantl p. 2, pl. I, fig. 3.

Remark. The reader is referred to the paper cited above for the description of this species; I know of no other new find of the genus *Clonopora* Hall 1883 in the Lower Palaeozoic rocks of Bohemia.

Occurrence. BRÁNÍK LIMESTONES — gα. (Middle Devonian.)

Hlubočepy, — *"Kettner's coral reef at the chapel"*. The first quarry near the "chapel" on the road to Malá Chuchle.

Department of Geology an Paleontology,
Národní museum, Praha. 1937.

BIBLIOGRAPHY:

Barrande J., Système Silurien du Centre de la Bohême. I. Part. Recherches paléontologiques. vol. II., Cephalopodes, 3ème ser. pl. 245—350. Prague 1868.

Bassler R. S., Bryozoa. Generum et Genotyporum Index et Bibliographia. In Fossilium Catalogus, editus a W. Quenstedt, I. Animalia. pars 67. 229 pps. 's Gravenhage 1935.

Hall J., Bryozoans of the Upper Helderberg and Hamilton groups. Trans. Albany Inst., X. pp. 145—197. Albany 1883.

Hall J., Continuation of description of Bryozoa not printed in vol. VI. Paleontology of New York, for the Report of the State Geologist 1890. Forthy-fourth Ann. Rep. N. York State Museum for 1890 pp. 66—87. Albany 1892.

Hall J. & Whitfield R. P., Description of new species of fossils from the devonian rocks of Iowa. Twently-third Ann. Rep. Univ. N. York pp. 223—243. Albany 1873.

Nicles J. M. & Bassler R. S., A Synopsis of American Fossil Bryozoa including Bibliography and Synonymy. U. S. Geol. Survey, Bull. 173, pp. XI 663. Washington, 1900.

Nicholson H. A., Description of new fossils form the devonian rocks of Western Ontario. Abstract from: Canadian Naturalist, ser. 2, vol. VII, pp. 1—10. 1874.

Miller S. A., North American Geology and Paleontology. 718 pps. Cincinnati, Ohio 1889.

Perner J., Gastéropodes in J. Barrande: Système silurien du centre de la Bohême. I. Partie. Recherches paléontologiques. Vol. IV, tome 2, with pls. 90—175. Prague 1907.

Prantl F., New Cyclostomatous Bryozoa form the Bráník-limestone — gα (Bohemia). Abstract from: Bull. Inter. Acad. Sci. Boheme, 1935, pp. 1—9, with. 2 pls.

Počta F., Bryozoires, Hydrozoires et partie des Anthozoires in J. Barande: Système silurien du centre de la Bohême, I. Partie. Recherches paléontologiques. Vol. VIII, tome 1, with. 21 pls. Prague 1894.

Rolle H. F., Ueber zwei neue devonische Korallen, einer neuen Sippe, Reptaria. N. Jahrb. f. Min. etc., pp. 810—814, with pl. IX, fig. 1—6, Stuttgart 1851.

Simpson G. B., A Handbook of the Genera of the North American Paleozoic Bryozoa. 48th Ann. Rep. N. York State Museum, vol. II., pp. 407—608, with 25 pls. Albany 1895.

The important paper *"Hederella, eine amerikanische Bryozoen-Gattung im rheinischen Unterdevon"*, by Dr. G. SOLLE (Senckenbergiana, XIX, pp. 15—21, text fig. 1—2, 1937), was receiwed too late for discussion here.

EXPLANATION TO PLATE IV.

1. — *Hederella fruticosum* (Počta).
The specimen covers *Orthoceras sp.* 2 x. (Orig. BARRANDE 1894, pl. 1, fig. 1.)
Horizon. Budňany-Limestones, eβ (Ludlow).
Locality. Kosoř.

2. — *Hederella obscura* n. sp.
The specimen is attached to *Orthoceras sp.* Holotype. 0·2 x.
Horizon. Koněprusy-Limestones, f. (Lower Devonian).
Locality. Suchomasty.

3. — *Reptaria gigas* n. sp.
The zoarium is grown into the shell of *Orthoceras sp.* Holotype. 0·2 x.
Horizon. Budňany-Limestones, eβ (Ludlow).
Locality. Karlštejn.

4. — *Hederella fruticosum* (Počta).
The specimen is attached to *Poleumita sp.* Holotype. 2 x. (Orig. BARRANDE 1894, pl. 1, fig. 16.)
Horizon. Budňany-Limestones, eβ (Ludlow).
Locality. Slivenec.

5. — *Hederella formosa* n. sp.
Portion of a specimen incrusting *Gomphoceras halli* Barr. Holotype. 2·6 x.
Horizon. Budňany-Limestones, eβ (Ludlow).
Locality. Dvorce.

6. — *Hernodia perminuta* n. sp.
The specimen is attached to *Orthoceras sp.* Holotype. 2 x.
Horizon. Bráník-Limestones, g ε. (Low. Devonian).
Locality. Bráník.

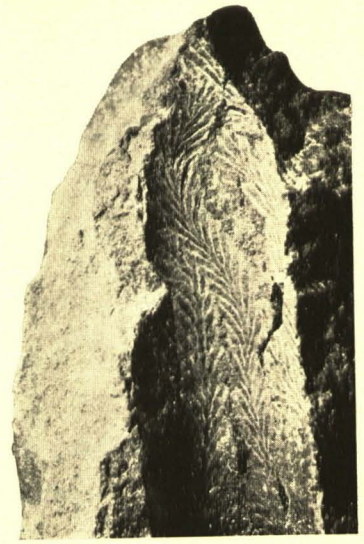
7. — *Hernodia počtai* n. sp.
A specimen incrusting *Auriptygma fortior* (Barr.). Holotype. 0·2 x. (Figured in 1894 by POČTA as *Tubiporide sp. ind.* in pl. 1, fig. 12.)
Horizon. Budňany-Limestones, eβ (Ludlow).
Locality. Lochkov.

8. — *Reptaria steiningeri* (Barrande).
Portion of a specimen incrusting *Orthoceras steiningeri* Barr. Holotype. 2·6 x. (Orig. BARRANDE 1868, pl. 248, fig. 1, refigured in 1894 by POČTA as *Thamnocoelum pennulatum* in pl. 1, fig. 19.)
Horizon. Budňany-Limestones, eβ (Ludlow).
Locality. Dvorce.

9. — *Reptaria steiningeri* (Barrande).
Orther portion of the speciment figured here in pl. 1, fig. 9, nat. size.
Horizon. Budňany-Limestones, eβ (Ludlow).
Locality. Dvorce.


1


2


3


4


5


6


7


8


9

Foto F. Tvrz.