

REMARKS ON THE NOMENCLATURE
OF
THE LITHOTHAMNIA

BY

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DET KGL. NORSKE VIDENSKABERS SELSKABS SKRIFTER. 1898. NO. 9

AKTIETRYKKERIEET I TRONDHJEM
1898

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ARTIETATRETTI TROUWEN

1895

The unarticulated calcareous algæ proper have — even up to the latest time — been unaffected by the question of nomenclature, which as regards a rather great part of the other algæ has come forward especially in the last years. However, one genus of this group of algæ has lately been drawn into the discussion on the question as to the priority. I shall not here mention genus-names as *Spongites* and *Agardhia*, about which any anteriority has never been urged since the time when given to formerly described and denominated genera. But in Journ. Bot. 9, p. 113 Mr. Hariot¹⁾ shows, based upon type-specimens in Museum d'histoire naturelle, that the species described by Bory²⁾ in the zoological part of the cited work under the name of *Tenarea undulosa* is identic with the alga, which for a long time has gone by the name of *Lithophyllum cristatum* Menegh. Therefore, he proposes that the genus *Lithophyllum* Phil. (such as it was then limited) should consequently be replaced by the above quoted name given by Bory, and so also the species-name be replaced by *undulosa*. With reference to the latter I have already proved³⁾, that even this name must be replaced by an older, or (*Millepora*) *tortuosa* Esp., with which Bory himself and, no doubt, with reason identifies his *Tenarea undulosa*.

Mr. Bory mentions and describes the plant in question as follows⁴⁾:

- 1) P. Hariot, Le genre *Tenarea* Bory. — Journal de Botanique. T. IX. 1895, P. 113.
- 2) Bory de Saint-Vincent, Sur les Polypiers de la Grèce. — Expédition scientifique de Morée, Tome 3. Paris 1836, Pag. 204. Atlas, Pl. LIV.
- 3) M. Foslie, Some new or critical Lithothamnia. — Det kgl. norske Videnskabers Selskabs Skrifter 1898, No. 6. Trondhjem 1898.
- 4) I reprint all concerning this species, as the original work is not easily accessible.

„Un autre Polypier nous a encore paru mériter qu'on le figurât. Il n'est pas nouveau, quelques auteurs l'ayant déjà mentionné; mais ce qu'ils en ont dit représenté est insuffisant. On en doit former un genre dont les caractères seront: croûte lamellaire très-mince et fragile, plicatile, ayant sa surface parsemée de tubercules épars, imperforés, presque microscopiques, et émettant de toute sa surface une mucosité translucide fort abondante. Nous proposons de le nommer *Tenarea*, parce que c'est au cap Ténare même que nous avons trouvé le Polypier par la description duquel nous terminerons le peu que nous avons à dire de ceux des Zoophytes de la Morée.

Tenarée onduleuse, *Tenarea (undulosa), albo-lutescens, lamellosa; lamellis undulato-tortuosis anastomosantibus complicatissimis* Bory, pl. LIX¹⁾, fig. 3. — *Millepora globosa, lamellis tenuissimis, ascenditibus, variè tortuosis, densè invicem coalitis*, etc. Esper, 119, tab. 22. *Millepora decussata?* Syst. nat. XIII, 3789. — Söland. 47, tab. 23, fig. 9. — Esper, tab. 25 (par double emploi). — An *Millepora agariciformis?* Lamk., Anim. sans vert. t. II, p. 204. — La moins mauvaise des figures qu'on avait de cette belle espèce n'en donnait point une idée; elle est la première de celles d'Esper que nous avons critiquées. Ce n'était qu'artificiellement qu'elle put être confondue dans un même genre avec les précédentes, dont elle n'a ni l'aspect, ni la consistance, ni le port, ni l'habitat; elle forme d'abord au pourtour des petites saillies des roches toujours couvertes d'eau, mais près de la surface où la lame brise souvent avec fracas, des masses sphéroïdes qui s'étendent en pulvinules jusque près d'un pied de diamètre, bosselées n'adhérant souvent plus en dessous aux pointes de roches qui l'avaient supportée dans la jeunesse, à surface inégale, mais d'un aspect fort élégant; ces masses, d'un à deux pouces d'épaisseur, sont fragiles et se cassent avec un petit craquement sous la main qui les presse ou le pied qui les foule; leur couleur est d'un beau jaune serin, quand le Nullipore est en vie et qu'il est tout enduit d'une mucosité semblable à du blanc d'oeuf, quand on le sort de l'eau; les masses légères que formant les Ténarées deviennent blanchâtres en séchant, et se brisent alors avec beaucoup de facilité. Des lames minces

¹⁾ Misprint for LIV.

de substance calcaire les composent et s'y contournent en s'anastomosant et se frisant pour ainsi dire à l'infini. Vues à une forte loupe, ces lames sont munies d'un léger rebord, qui les consolide un peu; quelques veines anastomosées et des verrues, semblables à celles des Melobésies, s'y voient éparses. On a choisi en *b* l'un des morceaux qui en était le plus couvert, pour en donner une idée par un grossissement ordinaire, et pour montrer qu'il ne s'y trouve aucun pore. Les cellules résultant de l'entrecroisement des lames sont plus lâches et plus grandes à la partie inférieure des expansions, représentée en *c* et *d*; c'est alors le *decussata* des auteurs."

Thus the genus proposed by Bory is essentially distinguished by characters which are not to be found in any of the calcareous algæ in question. It appears to be impossible only from the description to recognize this genus. The two other species described by Bory l. c. are considered by him as genuine Nullipores, viz. *Nullipora Trochanter* and *Nullipora articulata*. The former according to Mr. Hariot l. c. and a specimen that I have seen in Thuret's (Bornet's) herbarium is identic with *Goniolithon (Lith.) byssoides* (Lam.), and the latter probably belongs to *Amphiroa rigida* Lamour.

Therefore, it seems to me not to be reasonable to replace by *Tenarea* Bory the genus *Lithophyllum* Phil. described five years later. Besides, *Lithophyllum* has been accepted and applied for about 60 years, which in my opinion is a very essential reason to keep this denomination. Cp. Fosl. Norw. Lith. p. 150.

Neither has Mr. O. Kuntze¹⁾ of course omitted to adopt *Tenarea* as genus-name for *Lithophyllum*. However, besides the quoted *T. undulosa* he refers to this genus only *Lithoph. lichenoides* Ell. et Sol. and *L. expansum* Phil. Of these I have in Norw. Lith. and afterwards in List of Lith.²⁾ referred *L. lichenoides* to *Lithothamnion*, while *L. expansum* is still kept in *Lithophyllum*, which at present comprehends 19 species. In the cited last paper

1) Otto Kuntze, Revisio generum plantarum. Pars IIIII, Leipzig 1898. Pag. 433.

2) M. Foslie, List of species of the Lithothamnina. — Det kgl. norske Videnskabers Selskabs Skrifter 1898, No. 3. Trondhjem 1898.

I also referred the alga in question (*T. undulosa*) under the species-name given to it by Esper to a new genus, which in Syst. Surv.¹⁾ I have named *Goniolithon*, without finding any reason even here to adopt the name of *Tenarea*.

With regard to the genus *Lithothamnion* I have in Norw. Lith. l. c. noted that Gunnerus²⁾ as early as 1768 founded a genus by the name of *Apora*, only comprising algæ of the later adopted *Lithothamnion*. I want here to reprint his description as follows.

„No. VIII. Den sidste er en Proteus af adskillig Skikkelse. Gemeenlig er den lav, udskydende en Hoben smaa og korte, trindagtige, ofte smaae-knudrede, i en Knippe eller liden Buske samlede, i Enden nu stumpe, nu igjen noget spidsagtige, Grene; see Tab. XV, Fig 2 og 3. Den voxer paa Biergene under Tangen, og paa løse Stene i Stranden i stor Mængde; og de groe ofte saa tæt sammen, at de aldeles bedække et temmeligt Stykke af Bierget eller hele løse Stene paa den øvre Side, fast at se til som en tyk og knudret Skorpe. Meget ofte finder man dem og løse liggende i Stranden, i større og mindre rundagtige Klumpe, see Tab. XV, Fig. 1., undertiden af tvende knyttede Nævers Størrelse. Naar de ere ret friske, er Farven rød, men bliver siden hvid. I Biørnøer og Aafiorden brænder man Kalk deraf; hvorfor de og kaldes Kalk-Ruur, endskiønt de gemeenligen nævnes med det almindelige Navn: Bierg-Ruur.

Man finder ei, paa disse, Stierner eller *porer* (hverken *Milleporarum* eller *Celleporarum*); hvorfor de Orme, som beboe denne Corall, maa søges imellem dens Grene eller de smaa Rum, som flere sammengroede, af denne Art, foraarsage, eller og i de Hull, som Ormene selv paa adskillige Maader bore igiennem dens Grene. Af denne Aarsag synes mig, at den udgør et nyt *Genus*, som jeg kalder *Apora*. At Hr. v. Linné har kaldet den (in adversariis suis) *Millepora polymorpha*, er mig vel berettet, men jeg har ingen

1) M. Foslie, Systematical Survey of the Lithothamnia. — Det kgl. norske Videnskabers Selskabs Skrifter 1898, No. 2. Trondhjem 1898.

2) J. E. Gunnerus, Om nogle norske Coraller. — Det kgl. norske Videnskabers Selskabs Skrifter. 4. Del. Kjøbenhavn 1768.

fuldkommen Vished herom; ja formoder, at han i Systemate Naturæ XI gjør et nyt *Genus* heraf. I hans Flora lapponica p. 372 n. 537 forekommer den under det Navn: *Isis nuclei juglandis figura*. Hos Ellis des corallines, plate XXVII litt. c finder man en Tegning paa en Gren deraf, og, efter Hr. v. Linné skriftlige Beretning til mig, er den og aftegnet i Sebæ Mus. III. t. 108. f. 8 & t. 116. f. 6. 7., Bonann. Kirch. 289. f. 15. Besl. Mus. t. 3. fig. 12. 13. 14., Sloan jam. I, t. 18. f. 2.“

There is no doubt at all that here is rather distinctly described calcareous algæ of the later founded genus *Lithothamnion*, and only this. The species which Gunnerus delineates l. c. t. XV, fig. 1 as *Apora polymorpha* I have referred to *Lithoth. Ungeri* (*fruticulosum*). Cp. Norw. Lith. p. 18 and p. 62, but as remarked l. c. p. 27 Gunnerus, very likely, referred all the Nullipores or calcareous algæ then known to him to that species. However, even the genus *Lithothamnion* has been accepted and applied for about 60 years. Therefore, there is in my opinion no reason now to change the name of 63 previously established species of this genus.

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