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Annals and Magazine of Natural History: Series 4

Publication details, including instructions
for authors and subscription information:
<http://www.tandfonline.com/loi/tnah10>

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Published online: 16 Oct 2009.

To cite this article: Dr. J.E. Gray F.R.S. (1872) XXI.—On Codiophyllum, a new
genus of unicellular green Algæ from Port Natal , Annals and Magazine of
Natural History: Series 4, 10:56, 139-141, DOI: [10.1080/00222937208696660](https://doi.org/10.1080/00222937208696660)

To link to this article: <http://dx.doi.org/10.1080/00222937208696660>

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third species of that genus, being widely different from the antarctic and Philippine ones.

Euplectella aspergillum.

Dr. A. B. Meyer has brought home, and placed in the British Museum, two specimens of this sponge in spirits from the Philippines, which are entirely covered with a thick coat of sarcode like the bark on a *Gorgonia*, but softer, so that the siliceous fibres are entirely hidden from view. No one would suspect that this sponge had such a beautiful lace-like structure, but simply a netted or pierced tube, with irregular, circular, thicker hoops. The flesh or sarcode is of a dark brown colour, but most likely is coloured by the action of the spirit.

Esperiadæ.—Along with these sponges were sent some fragments of a sponge, according to Mr. Carter's examination, "nearly allied to *Halichondria incrustans*, with three kinds of spicules:—1, large, subulate, smooth; 2, bihamate; 3, equi-anchorate, larger than the bihamate."

Mr. Carter's microscopical examination of *Meyerina claviformis* and *Crateromorpha Meyeri* will be found at pp. 110–113 of this Number of the 'Annals.'

XXI.—On Codiophyllum, a new Genus of Unicellular Green Algae from Port Natal. By Dr. J. E. GRAY, F.R.S. &c.

[Plate IX.]

AMONG a large collection of corals and corallines from Port Natal, sent by Colonel Bolton, I observed some specimens of a green spongy alga of a thick cloth-like texture, more or less of a wedge-shape, and borne on a solid, cylindrical stem, which is branched at the bottom, and may be a distinct RhodospERM Alga on which it is parasitic. This stem pierces and supports the broad, expanded frond, and is branched so that the branches support the different parts of the expansion. When the felt-like cloth is carefully examined, it is found to consist of a very fine network of fine cylindrical tubular fibre, which inosculates in every direction, leaving a minute mesh. When looked at in a mass, the mesh seems to be arranged in very obscure circles concentric to the outer margin, indicating the lines of growth, the mesh of the outer edge being incomplete. The stem is tough and fleshy when soaked in water, but becomes cartilaginous when dry; in the younger specimens it is tortuous and slightly branched, each branch

ending in a triangular, wedge-shaped frond, with the stem extending a slight distance from its base; the stem is thick and gradually tapers as it extends in length, and is affixed to a rock by a rather extended base. The older fronds become more or less semicircular, with one or two slight lobes on the circumference, and the stem becomes divided at the base of the frond into several branches, which spread out in a palmated manner and thus support the different parts of the frond, which rarely throws out a rounded lobe of a similar structure from its surface.

The stem when wet is flesh-coloured, becoming dark brown or blackish when dry; the frond is green, like the rest of the chlorosperm Algæ.

This plant evidently forms a new family; and I do not know to what existing group of the green Algæ to refer it. The filaments of which the felted net is composed are cylindrical, all of the same size, and in external appearance like the fibre of *Cladophora*; but they appear to be entirely destitute of articulations, and they are very unlike the continuous fibre of the *Oscillatoria* or *Calothrix*, and they seem to have most alliance with *Bryopsis*.

This plant, when roughly dried with other seaweeds as it comes out of the sea (and I have little doubt it is so when it is growing), has a matted green frond which is thicker and more opaque in the older and more developed specimens, when it looks like a piece of felted cloth just showing the internal stems through some parts of it; but when it is washed in fresh water and dried between blotting-paper with just sufficient pressure to prevent its curling, the frond loses a great part of its thickness, becomes nearly transparent, shows the details of the network and the internal part of the stem through the substance, very unlike the living state of the plant.

The genus may be thus defined:—

CODIOPHYLLUM.

The frond expanded, formed of uniform, minute network, matted together so as to form a cloth, and consisting of uniform cylindrical tubular fibres supported or parasitic on a cartilaginous solid stem, which pierces the base of the frond and is affixed to the rocks by an expanded base.

Codiophyllum natalense. Pl. IX.

Stem branched, tapering, ending in a triangular wedge-shaped frond, which becomes more or less semicircular, and sometimes furnished with one or more lobes on the surface.

Hab. Coast of Natal.

EXPLANATION OF PLATE IX.

Fig. 1. The adult frond.

Fig. 2. The worn stems of an adult frond; part of the network still remaining.

Fig. 3. A young specimen with root dried after being soaked in fresh water.

Fig. 4. Part of the frond magnified, showing the imperfect meshes in process of formation on the margin.

XXII.—*Answer to Dr. Bowerbank's "Observations on Mr. Carter's paper &c." in the last Number of the 'Annals.'*

By H. J. CARTER, F.R.S. &c.

IN reply to Dr. Bowerbank's criticisms on my paper "On two new Sponges from the Antarctic Sea &c.," in the 'Annals' of last June, I can only state that I shall be quite satisfied with the verdict that a perusal of our respective papers may give. I employ no artist, make my own drawings, write my own descriptions to the best of my ability, and with nothing to compensate me but the hope that I am communicating the truth, and, in many instances, saving future students from losing time in labouring to understand that which too frequently is imaginary, misconceived, or utterly unintelligible.

Truly it has been said; that "of all extravagance, waste of time is the greatest;" and what is this but a grievous waste entailed upon posterity (if his works ever reach it) of an ignorant or unscrupulous author.

In criticising Dr. Bowerbank's publications I am not criticising Dr. Bowerbank (personally we should not know each other in the street), but simply, as I have before stated, endeavouring to save time for those who may come after us in similar inquiries.

Controversial disputes afford very little interest to any but the parties immediately concerned, and therefore ought not to be allowed to occupy the pages of a valuable scientific journal.

Dr. Bowerbank's and my own descriptions are now before the public; and a practical examination of them concerns the public and posterity much more than it will ever concern us.

I have not time to make finished drawings, but my sketches, I have no doubt, will serve, at least diagrammatically, with my descriptions to convey the meaning I intend to an intelligent naturalist.

Besides, however "talented and accurate a microscopical artist" may be, Dr. Bowerbank will hardly deny, I should think, what Dr. Schmidt states on this subject at the end of the preface to his work on the Adriatic Sponges, viz. :—"Ein Maler von Profession würde die Charaktere vieler Species kaum haben ausdrücken können, &c."

Ann. & Mag. N. Hist. Ser. 4. Vol. x.

G.H. Ford.

Mintern Bros. imp.

CODIOPHYLLUM NATALENSE.