

The cells are disposed in longitudinal series, one above the other—but alternate with each other in the contiguous series. The mouth of the cell is contracted, circular, and simple.

On a NEW SPECIES of BUGULA. By JOSHUA ALDER, Esq.

Bugula turbinata, Pl. XVII, figs. 1—4.

Polyzoary orange-coloured or yellowish, paler when dry; one to two inches high, forming an ascending spiral, the branches dividing dichotomously, truncated at top, and arching outwards. Cells in two to five series, elongated, the aperture reaching nearly to the bottom; a single erect spine at each upper angle. Avicularia of two sizes, those on the outside moderately large, with a rounded head, and a short beak abruptly bent at the point; situated on the upper part of the margin of the cell; inner avicularia small. Ovicapsules subglobose, with a rim rising into a peak in front.

Cellularia avicularia, Pallas, 'Elench. Zooph.,' 68 (?).

Gosse, 'Ramb. Dev. Coast.,' p. 195, t. x.

This species has hitherto been confounded with *Bugula avicularia*, to which it bears a strong resemblance, but is nevertheless quite distinct. In its mode of growth it is rather more robust than that species, and may readily be distinguished from it by the number of cells increasing to three, or occasionally even to five longitudinal rows in some of the branches; in *B. avicularia*, there are never more than two throughout. On examining the two kinds microscopically, other differences are found. The cells in *B. turbinata* have invariably only a single large spine on the outer angle; *B. avicularia* has two spines, as correctly represented by Professor Busk,* though the smaller one has been frequently overlooked. The avicularium is rather smaller in *B. turbinata* than in *B. avicularia*, and has the head more rounded, and the beak much shorter and more abruptly bent at the point (fig. 4). It is also set higher up on the margin of the cell, frequently close below the spine. The ovicapsule in this species is smaller, and has a border generally rising into a peak in front.

The only published figure of this species that can be recognised with certainty is that of Mr. Gosse, in his interesting 'Rambles on the Devonshire Coast,' where it is well described under the name of *Cellularia avicularia*. The magnified figures α, η, pl. xxxviii of Ellis's 'Corallines,' would seem to represent this species, having only a single

* 'Catalogue of Marine Polyzoa,' pl. liii.

spine on each angle of the cell, but the small figure (7) is more like *B. flabellata*, to which it has been usually referred. Pallas describes his *Cellularia avicularia* with three to five longitudinal series of cells, and a single spine at each upper angle; characters which taken together only belong to *B. turbinata*, and the general accuracy of his descriptions favour the supposition that he had this species in view; his var. β being probably *B. flabellata*, to which *Crisia fustroides* of Lamouroux, and *Flustra angustiloba* of Lamarek, may also be referred, though the former author describes only a single spine at each angle of the cell: this is likewise the case in Dr. Johnston's description of *Flustra avicularia*, but his figure more correctly shows two or three spines on each side. The *Cellularia avicularia* of Van Beneden is evidently *B. flabellata*.

B. turbinata appears to be quite as common on the British coast as *B. avicularia*, if not more so. It occurs principally within tide-marks, or in shallow water. The finest specimens I possess were got under stones at low-water mark in the island of Herm. They were of a deep orange colour when alive. I have met with it at Guernsey and in the Menai Straits, and have had it sent from Falmouth by Mr. Cocks. Mr. Hincks informs me that it is the common species on the Devonshire and Yorkshire coasts; and Mr. Busk has favoured me with the examination of a specimen sent from Tenby by Mr. Dyster. It has not yet occurred on the Northumberland coast, nor can I trace it into Scotland, but it would be premature at present to fix any limits to its range.

On some NEW BRITISH POLYZOA. By the Rev. T. HINCKS.

THE new British Polyzoon which I am about to describe is, in many points, so nearly related to the well-known *Scruparia chelata*, that I have determined to rank it in the same genus with this species, although the generic character, as given by Mr. Busk in his 'Catalogue,' must be revised to allow of its admission.

Polyzoa INFUNDIBULATA.

Sub-order. *Cheilostomata*.

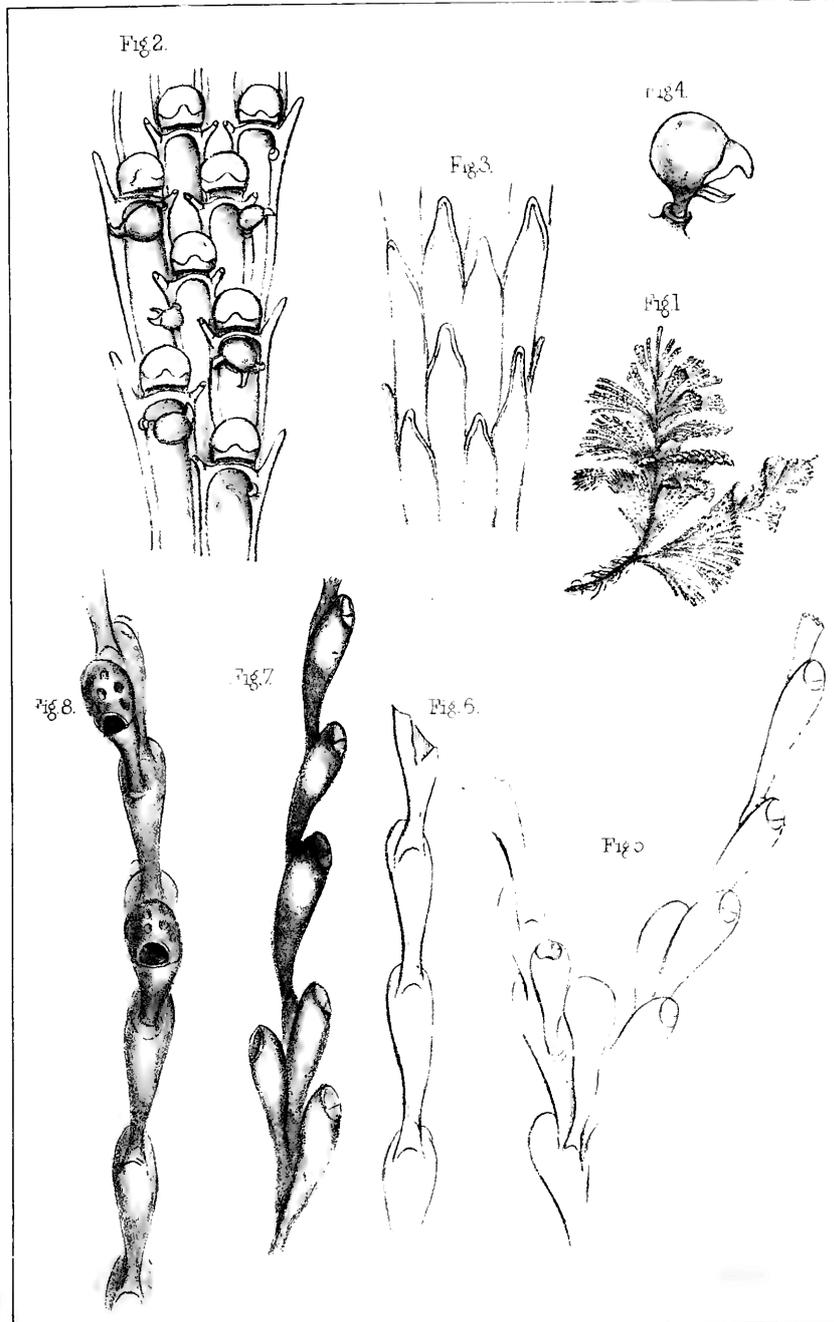
Fam. *Scrupariade*.

Gen. *Scruparia* (Oken).

Polyzooary erect, branching, subealcareous; cells clavate; apertures on one aspect, oblique, subterminal.

ZOOPLYCOLOGY

Plate XVII



J. Alder & G.B. del.

W. West. imp.