

Nephtyidæ of a very various form, but with the barren trunk always exhibiting a greater or less degree of development. The polyps are not retractile; their little heads, beset with large spicules, have a firm consistency and are overtopped by bundles of large, spindle-shaped spicules, which project like spines all over the colony. In the walls of the little heads the spicules are mostly placed obliquely, at the base of the tentacles they are arranged in a ring. The tentacles themselves are beset with spicules arranged *en chevron*. The walls of the polyp tubes and of the larger canals of the stem and branches are thin and fleshy; the surface of the colony, on the other hand, is hard and stiff, owing to the presence in the cœnenchyma of numerous, spindle-shaped spicules.

The polyps are placed on the branches and twigs, several may be united in one bundle or they may be isolated and scattered. Gray (*loc. cit.*) attempted to base two genera upon this character, which he distinguished as *Spoggodes*, with the polyps united in bundles, and *Spoggodia*, with isolated polyps.

Verrill (*loc. cit.*) showed, however, that in certain species, *e.g.*, *Spongodes gigantea*, V., both characters are present in one and the same colony, so that the generic separation attempted by Gray falls to the ground.

The genus *Morchellana*, made by Gray (*loc. cit.*), must also, according to Ridley, who investigated the type,<sup>1</sup> be united with *Spongodes*.

For a long time only four species of the genus were known, *viz.*, *Spongodes florida* (= *Alcyonium floridum*, Esper), *Spongodes celosia*, Less., *Spongodes arborescens*, Dana (Verrill), and *Spongodes savignii*, Ehrbg. The first three were regarded by Gray as synonymous with *Spongodes florida*, Esper, but nevertheless they must be considered as distinct species. In 1862 Gray added, from the material in the British Museum, four more species (five if we count *Morchellana*). In January 1864<sup>2</sup> Verrill described two new species, Klunzinger (*loc. cit.*) made two, and Ridley one,<sup>3</sup> so that at the present day the number of known species reaches fourteen. The collection made during the voyage of the Challenger contains twenty-two species, of which eighteen are new to science; if we add to these the six new species collected by Dr. Döderlein in Japan, and also the two new species mentioned below, the number as yet known reaches forty species (*vide* review of species, p. 225).

This great multiplicity in the development of the generic type appears to be due to the fact that most of the species inhabit shallow water, commonly the declivity of coral reefs, where the isolation of individual forms is greater, and at the same time the external conditions of life are subject to greater change, than in the case of the inhabitants of deep water. The same phenomenon is here repeated as in the case of the genus *Madrepora*. Most of the species are found within the tropical zone, at depths of from 10 to 70 fathoms, few range down to over 100 fathoms.

<sup>1</sup> *Ann. and Mag. Nat. Hist.*, ser. 5, vol. ix. p. 186, 1882.

<sup>2</sup> *Bull. Mus. Comp. Zool.*, vol. i. p. 39.

<sup>3</sup> *Zoology of the Voyage of H.M.S. "Alert,"* p. 333.