

On the systematic position of *Hyalonema*, Gray in 1859¹ asserted that within the group of polypes with feathered tentacles or Alcyonaria, and close to the "Sabulicolæ" which are rooted in the sand, and to the "Rupicolæ" or Gorgonidæ attached to the rock, a third division might be formed, which on account of its rooting on sponges might be named "Spongicolæ," with the single genus *Hyalonema*.

The opinion of Gray as to the polype nature of the remarkable glassy and filamentous tuft, and which became fixed to a sponge, was shared by Brandt,² who in 1859 also described the glassy spicular bundle as the axial skeleton of the cortical layer of the polype. Brandt thought that two different genera of polypes could be distinguished, viz., *Hyalonema* with plain discoid polypes, and *Hyalochæte* with cylindrical terminally funnel-shaped solitary polypes, both of which he united in the single family Hyalochætides. In the genus *Hyalonema* he described two species, namely, *Hyalonema sieboldii*, Gray, and *Hyalonema affine*, Brandt; of the genus *Hyalochæta* only the single species, *Hyalochæta possieti*.

The loose fleecy mass in which the conical extremity of the glassy filamentous tuft is usually embedded was referred to by Brandt as a "parasitic sponge" which had destroyed the soft parts of the polype stock at its point of attachment, he also distinguished, though he did not accurately describe, two species of this sponge as "*Spongia spinicrux*" and "*Spongia octancyra*." The attachment of a group of *Hyalonema* to a *Pholas*-bored stone by means of their conical projecting tufted extremity, which occurred in the case of a specimen from Japan, Brandt regarded as artificial.

Of this work by Brandt a critical review by Gray³ appeared in 1860. Gray asserted that the two genera distinguished by Brandt with their three species were varieties of one and the same species. Ehrenberg⁴ also expressed an opinion during the same year as to the nature of this remarkable organism; he regarded the whole as a Japanese artifice, compounded of long sponge spicules and a polype.

A thorough investigation of several dried *Hyalonemata* from Japan was first undertaken by Max Schultze. As a result of this he briefly expressed his views in regard to the relation of the polype and sponge,⁵ to the effect that the siliceous filiform cords and the sponge body form an inseparable whole, and that accordingly the *Hyalonema* are to be regarded not as polypes but as sponges. In the same year he published the results of his accurate analysis of the formation and structure of the sponge, as well as of the adherent polype crust, in a special monograph, illustrated by beautiful plates, entitled *Die Hyalonemen*. The opinion expressed in the preliminary communication, that the crust surrounding the spicular tuft also belonged to the sponge body, he soon retracted. He believed that the large cylindrical sponge body became attached by means

¹ *Ann. and Mag. Nat. Hist.*, ser. 3, vol. iv. p. 439.

³ *Ann. and Mag. Nat. Hist.*, ser. 3, vol. v. p. 229.

⁵ *Comptes rendus*, April 23, 1860, vol. 1. p. 792.

² *Symbolæ ad polypos hyalochætides spectantes.*

⁴ *Monatsber. d. k. preuss. Akad. d. Wiss. Berlin*, p. 173.