other respect closely related to *Habrodictyum corbicula*, as a quite distinct and separate genus from the latter, and further, the fact that in *Habrodictyum speciosum* no terminal sieve-plate is present, led Wyville Thomson to object to the opinion which had been expressed by Bowerbank,[1] to the effect that in *Euplectella* and allied sponges "the openings of the lid and those of the tube stand to one another in the relation of oscula and pores." He maintains that on the contrary "each of the large openings of the wall is occupied by an exhalent orifice and that inhalation takes place as usual by minute pores in the interstices between the spicules of the skeleton."

Carter says in his treatise On Hexactinellidæ,[2] "*Alcyonellum speciosum* and *Alcyonellum corbicula* appear to me to belong to one and the same species," which opinion I assent to.

The genus *Habrodictyum* probably also includes *Eudictyum elegans*, Marshall, which Marshall has briefly described from a hollow, canal-like form (preserved in the Museum of the Amsterdam Zoological Garden), agreeing with *Habrodictyum speciosum*, Quoy and Gaimard, in the form and structure of its irregular, lattice-like skeleton, though exhibiting in the interior a looser spicular work (of interstitial connective tissue—Flockengewebe). The latter consists, according to Marshall, chiefly of long (up to 1 cm.) rod-like spicules, between which slender, sword-shaped hexradiate forms occur, besides more delicate six-rayed and five-rayed spicules, with irregularly developed prickles, and further, small crowded forms, with six, five, four or three rays, which, like the two-rayed so-called compass spicules, probably form wreaths round the dermal ostia. Particularly characteristic are the six-rayed spicules, 0·2 to 0·3 mm. in axial length, which bear on the extremity of each ray a disc with seven prongs. Marshall's bristle-like spicules also occur, as well as the well-known "floricomo-hexradiate rosettes," which do not differ essentially from those of *Euplectella*.

In the memoir which appeared in 1876,[3] Marshall characterised the family of the Euplectellidæ as follows:—"Pollakid Hexactinellidæ of tubular form, monozoic, osculum closed by a sieve-plate; in the parietal tissue longitudinal, circular and spiral bundles. Dermal skeleton chiefly formed of hexradiate spicules, between which lie the smaller dermal pores. Large crateriform elevations of the parietal tissue also occur. There are also a considerable number of dermal ostia which lead directly into the body cavity, and which may be closed by compass spicules. The rosettes belong to the 'floricomo-hexradiate' type."

In the genus *Euplectella*, Marshall notes two species, namely, *Euplectella aspergillum*, Owen, and *Euplectella oweni*, Marshall and Herklots, and in the genus *Habrodictyum*, Wyville Thomson, only the single species *Habrodictyum speciosum*, Quoy and Gaimard, leaving it undecided whether the sponge (*Eudictyum elegans*) he had described, from the Amsterdam Museum, is an independent form, or belongs to the *Habrodictyum speciosum*.

[1] British Spongiadæ, vol. i. pp. 176, 177.
[2] *Ann. and Mag. Nat. Hist.*, ser. 4, vol. xii. p 368.
[3] Ueber die Verwandtschaftsverhältnisse der Hexactinelliden, *Zeitschr. f. wiss. Zool.*, Bd. xxvii. p. 128.