

Gonosome.—Gonophores adelocodonic; gonangia springing from one side of the hydrocaulus, no marsupium present in either sex.

The genus *Thuiaria* was separated by Fleming from *Sertularia* on grounds derived from the supposed immersion of the hydrothecæ in the hydrocaulus, instead of their being as in *Sertularia* merely adnate to its surface.

The character, however, thus relied on has really no existence. The hydrothecæ of the species separated on this ground from *Sertularia* are not more deeply immersed in the hydrocaulus than are the hydrothecæ of most species of *Sertularia*, and the appearance of immersion is given by the greater extent in which the walls of the hydrothecæ are in some species adnate to the hydrocaulus, while even this is never greater than what occurs in many species which are allowed to remain in *Sertularia*.

There can, however, be no doubt that the general aspect of *Thuiaria* contrasts strongly with that of the species with which it had been previously associated, but the true source of this is to be found in a character very different from that of the supposed immersion of the hydrothecæ in the hydrocaulus.

In the species of *Sertularia* with opposite hydrothecæ every pair of hydrothecæ has an internode of the stem to itself, being separated on each side from the adjacent pair by a joint. In those species in which the hydrothecæ are alternate the internodes carry each, sometimes two alternate hydrothecæ, but most frequently a single one. In these various cases the intervals between the joints are constant, every internode in the same colony carrying the same number of hydrotheca.

In *Thuiaria* it is different. The internodes here always carry many hydrothecæ, whether in pairs or alternate. The joints moreover are in most cases so decided as to form well-marked constrictions in the stem, a character which in combination with the length of the internodes confers upon *Thuiaria* an aspect very striking and distinctive. Moreover, the internodes are often of variable length, the number of hydrothecæ carried by each frequently varying in different parts of the same colony.

It is true that in *Sertularia* we may sometimes meet with examples in which for a considerable length of the stem no joints are apparent. This, however, is a secondary condition resulting from the effacement in the older parts of the hydrocaulus of the joints which had been present in an earlier period;¹ while in *Thuiaria* the very well marked joints are at all times separated from one another by intervening series of many hydrothecæ.

If the diagnostic characters of *Thuiaria* be such as are here contended for, some species which had been hitherto referred to *Sertularia* must be removed to *Thuiaria*. *Sertularia cupressina*, Linn., and *Sertularia argentea*, Ellis and Solander, will thus find their places in *Thuiaria*. Indeed there is not a single character which would justify the inclusion of these Hydroids in *Sertularia* rather than in *Thuiaria*.

¹ I believe that the *Thuiaria sertularoides* of The Hydroids of the Gulf Stream is a case of this kind, and that the species is truly a *Sertularia* which, on account of the effacement of the joints, I have erroneously referred to *Thuiaria*.