

Genus 9. *Symphylia*, Milne-Edwards and Haime.

*Symphylia*, Milne-Edwards and Haime, Cor., ii. p. 369.

The genera *Symphylia*, *Isophyllia*, and *Ulophyllia* are accepted as defined by Milne-Edwards and Haime. They are closely related to one another, and to *Mussa* on the one hand and *Tridacophyllia* on the other, but their differences seem sufficiently well marked to rank them as distinct. Very different opinions have been expressed by different writers as to their relationship, and it is certain that in some cases the forms on which these opinions have been based have not been rightfully referred to the genus under which they were placed. It was thus a necessary consequence that the genus under which they were wrongly placed by a misinterpretation of characters, and the genus to which they should have been referred, should not seem distinct, and should therefore have been united.

The numerous species described by Duchassaing and Michelotti from the West Indies, and placed by them under the genus *Symphylia*, are all forms of *Isophyllia*, and, as Brüggemann has stated, the genus *Symphylia* is not found in the West Indies.

Pourtalès, keeping *Mussa* distinct, considered that *Symphylia* and *Isophyllia* were synonymous, and retained *Isophyllia* to include them both.

Verrill, on the other hand, has maintained that *Isophyllia* is distinct from *Symphylia*; while he has united *Symphylia* with *Mussa*.

Brüggemann, following Verrill, united *Symphylia* with *Mussa*, maintaining *Isophyllia* to be distinct from them; he, however, united *Isophyllia* with *Ulophyllia* under the latter name.

Duncan, following Pourtalès, regards *Mussa* and *Symphylia* as distinct, but unites *Symphylia* with *Isophyllia* under the former name, *Ulophyllia* remaining distinct.

It seems to me, however, after a careful study of a large number of species of the different genera, that the treatment of these genera given by Milne-Edwards and Haime is an accurate one; and they have therefore been all retained, with their original signification.

The essential distinction of *Symphylia* from *Mussa* is to be sought in the nature of the wall. In *Mussa* the walls are normally distinct, a condition which, although most clearly seen in those colonies in which the calicles are rapidly isolated, is yet clearly evidenced in the development of the seriate forms in which the walls of the developing series are found to be free from those of neighbouring series. In *Symphylia*, on the other hand, the walls throughout are simple, those of neighbouring series forming a simple, solid ridge between the valleys, and originating as such in the earliest stages of development.

The opinion that these two genera should be united, seems to have been based on the condition found in such a species as the *Mussa regalis*, Dana, in which the walls of the