

portions being in all essentials of the same type—that is of a sclerogorgic basis. In the harder portions (internodes) the separate elongated spicules are in the young state of the axis very clearly seen; the calcareous particles increase at the expense of the horny ones; with a result that the internode becomes of a stony hardness, and in some cases, especially in *Parisis*, almost homogeneously calcareous. In the softer portions (nodes) the sclerogorgic state is more permanent, as the spicules retain a great deal of their horny framework, and though to a large extent inosculated with each other, never altogether lose their individuality. In some forms the nodal portions, as Lamarck long ago pointed out, are much more swollen (nodiform) than the internodal portions; but this is not always the case, as in *Parisis* the diameter of these two portions is more or less uniform, and in very old stems of some species of *Mopsella* and *Melitodes* the very reverse, as is well known, is to be found.

The branches arise either from the nodal or internodal regions; in some exceptional cases even in the same colony from both.

While there is no doubt a resemblance to the family of the *Isidæ*, yet we have been unable to detect in any of the species belonging to the *Isidæ* the appearance of any sclerogorgic tissue, and we therefore think it better to keep the *Melitodidæ* in close sequence to the *Sclerogorgidæ*.

In some species an apparent dimorphism occurs, as has already been pointed out by Ridley. So far as our investigations on a very limited material have gone—the larger polyps have always been found full of ova—and we have found no such difference in structure as would point to the existence of auto- and siphonozoids, but we think it possible that, as is well seen among the autozoids of some of the *Dasygorgidæ*, the difference in size is solely the result of an effective fertilization.

Genus *Melitodes*, Verrill.

- Isis* (in part), Linnæus, Ellis, Esper.
Melitæa (in part), Lamouroux (1812) [preoccupied *Melitæa*, Fabricius, 1808].
 " " Lamarck, Mém. Mus. Hist. Nat. t. i. p. 410, 1815.
 " " Milne-Edwards, Hist. Nat. des Coralliaires, t. i. p. 199.
Melitodes, Verrill, Bull. Mus. Comp. Zoöl., vol. i. p. 38, 1865.
Melithæa (in part), Kölliker, Icones Histiologicæ, Abth. i. p. 142.
Anicella (?), Gray, Cat. Lithophytes, p. 9.
Melitella, Gray, Proc. Zool. Soc. Lond., p. 485, 1859.
Acabaria, Gray, Proc. Zool. Soc. Lond., p. 484, 1859.
Psilacabaria, Ridley, Zool. Coll. H.M.S. "Alert," p. 363, 1884.

While agreeing with Verrill (*loc. cit.*) in taking *Isis dichotoma*, Lamarck, as the type of this genus, and including in it all those species in which the spicules of the cœnenchyma are warty or kneed spindles; and in which "Blattkeulen" are not present;