

characters, which when fully investigated will undoubtedly prove of great interest. The exceptional mode in which the ultimately round and densely spinose horny axis is produced is especially worthy of note.

SAVAGLIIDÆ (= GERARDIIDÆ).

The single species constituting the genus *Savaglia*, Nardo (*Gerardia*, Lacaze Duthiers), was separated by Lacaze Duthiers in 1864 from the Antipathidæ on account of the structure of the polyps, which very closely resemble those of Hexactiniæ. His observations refer to living specimens, and bring out many points showing the most interesting relations of the genus. The following is a summary of his results :—

The sclerenchyma in fresh specimens has a bronzed coppery black colour ; when dry it is jet-black. The mode of branching in young colonies, which are always parasitic, varies with the species of Gorgonidæ, which acts as its support ; usually the branches extend in one plane without touching or fusing. Later, with greater development, bridges are often thrown across from one branch to another, and fusions take place without regularity. These fusions are produced by fractures or abrasions, and cannot be considered characteristic of the species. Lacaze Duthiers points out that it was want of knowledge on this point which led Haime to consider the mode of branching as a specific character. The base is often very large, sometimes "as thick as a man's leg," whilst the branches are only 1 to 2 dem. long. This is an abnormal growth due to the constant working of the coral fishers over the ground, by which the branches are repeatedly broken off. Specimens which have been allowed to grow undisturbed, such as were brought to Lacaze Duthiers from a bank not previously worked, are very large, fine, and much branched, without such a great base. In such cases, where the sclerenchyma extends beyond the Gorgonid basis, the growth becomes bushy. Very old specimens frequently have a number of anastomosing branches, sometimes descending from a superior part to fuse with one below, at others very long branches may unite with those of the opposite side of the sclerobasis and form transverse connections, the origin of which is due to a primary fracture and subsequent fusion. The branches are not cylindrical, but flattened on one side, along which there is a well-marked groove. The branchlets are usually swollen at the tip, and are never thread-like or pointed as in the Gorgonidæ. Tuberles often occur on the sclerobasis, which indicate the point of origin of new branches, or the bases of broken ones. Under a low magnifying power the sclerobasis is seen to be covered with very small mammiform tubercles, with a depression in the centre. Lacaze Duthiers describes one specimen parasitic on a grey, flexible, striated axis, undoubtedly that of *Muricea placomus*. In this specimen the zoanthodema consisted solely of sarcosome on a borrowed axis, and no sclerenchyma had as yet been deposited. In another specimen of the same Gorgonid two or three patches of *Gerardia* were present on the