

Jereopsis, applied to an apparently similar sponge obtained from the Gulf of Mexico, in water from 80 to 90 fathoms deep.¹ Differences in detail, no doubt, exist between the desmas of the Fiji sponge and the Cretaceous *Siphoniæ*; in the latter they appear, for instance, somewhat smaller and not so freely branched as in the former. Such differences, however, are of no more than specific importance, and a generic distinction can only be maintained on the ground of our ignorance of some of the more important characters of the fossil forms, such for instance as the form of the microscleres and of the ectosomal megascleres. The dimensions of the sponge under description are as follows:—the total height is 46 mm., the diameter of the body 39 mm., the length of the pedicel is about 15 mm., the size of the base 23 by 10 mm.; the excurrent canals are 1.5 mm. wide near their distal ends; the incurrent canals 1 mm. and less where they commence at the surface.

Family II. CORALLISTIDÆ.

Triænophora in which the desma is monocrepid and tuberculated.

Genus 1. *Corallistes*, O. Schmidt.

Corallistidæ in which the ectosomal megasclere is a dichotriæne, and the microscleres are spirasters. The pores are simple.

Corallistes typus, O. Schmidt (Pl. XXXIV. figs. 14–18a).

Corallistes typus, O. Schmidt, Spong. Atlant. Gebiet., p. 22, pl. iii. fig. 3, 1870.

Corallistes bowerbanki (*pars*), Carter, Ann. and Mag. Nat. Hist., ser. 4, vol. xviii. p. 460, 1876.

” ” ” Zittel, Abhandl. d. k. baier. Akad. d. Wiss., p. 103, 1878.

Sponge (Pl. XXXIV. figs. 14, 15).—A thick transversely oval plate with well-rounded edges, erect, attached by an expanded incrusting base. Oscules small, somewhat numerous on the convex side. Pores dispersed over the concave side, singly perforating the poral areas. The rounded margin of the sponge is devoid both of oscules and pores.

Spicules.—I. Megascleres. 1. *Desmas* (Pl. XXXIV. fig. 16), these present the usual *Corallistes* form, and are studded with the characteristic capstan-shaped tubercles, as well as with simple conical and cylindrical forms; the ends are expanded to form foliated plate-like processes, which adapt themselves to the sides and ends of neighbouring desmas.

2. *Dichotriæne* (Pl. XXXIV. figs. 18, 18a), rhabdome short, conical, with rounded end; deuterocladi also with rounded ends, rhabdome from 0.238 to 0.32 by 0.032 mm., protocladi 0.02 mm., deuterocladi 0.116 mm. long. These spicules are of very various size, and the largest differ in the length of the rhabdome in different regions of the ectosome.

¹ O. Schmidt, Spong. Meerb. von Mexico, p. 20, pl. ii. fig. 10, 1879.