

This species, originally described and figured by Bowerbank (*loc. cit.*) from Freemantle, Australia, is fairly well represented in the Challenger collection. Bowerbank obtained two specimens, now in the British Museum, both of which are very considerably larger than any of the Challenger examples. The largest of the latter is only about 43 mm. in greatest diameter, while the smaller of Bowerbank's specimens has a greatest diameter of about 57 mm. Both of Bowerbank's specimens are imperfect, the lower surfaces having been very much abraded; hence, perhaps, arises Carter's diagnosis:—"Tubular appendages 'above only,'" <sup>1</sup> which certainly does not apply to the Challenger specimens (Pl. VIII. fig. 2). The spicules of the Challenger specimens agree closely in size and form with those of Bowerbank's specimen.

Three of the examples obtained by the Challenger, including the largest, are of doubtful locality; the outside label says "off Bermuda," and the inside label "off Bahia, shallow water." Sixteen small specimens, varying from about 6 mm. to about 37 mm. in maximum diameter, and in shape from fusiform to globular, were obtained by the Challenger off the south-west corner of New Guinea, giving a remarkably wide distribution for this species. With the exception of the specimens from off the Azores, the species does not appear to range to any great depth.

*Localities.*—Station 73, June 30, 1873; lat. 38° 30' N., long. 31° 14' W.; depth, 1000 fathoms; bottom, Pteropod ooze; bottom temperature, 39°·4. A number of broken fragments of tubes and portions of the outer rind of the body, with a yellowish, amorphous mass, containing loose spicules, adhering to them.

Station 188, September 10, 1874; lat. 9° 59' S., long. 139° 42' E.: off south-west corner of New Guinea; depth, 28 fathoms; bottom, green mud. Sixteen specimens.

*Habitat.*—Freemantle, Australia (Bowerbank); Arafura Sea, north-west coast of Australia (Ridley); off south-west corner of New Guinea (Challenger); (?) off Bahia (Challenger); west of Azores (Challenger).

*Rhizochalina putridosa* (? Lamarck, sp.) (Pl. VIII. figs. 5, 5a; Pl. IX. figs. 1, 7).

1815. ? *Alcyonium putridosum*, Lamarck, *Mém. Mus. Hist. Nat. Paris*, vol. i. p. 168.

1886. *Rhizochalina putridosa*, Ridley and Dendy, *Ann. and Mag. Nat. Hist.*, ser. 5, vol. xviii. p. 332.

Sponge (Pl. VIII. fig. 5) massive and lumpy, subspherical. An upper and a lower half are distinguishable; from the upper half arise very numerous short fistulæ, scattered irregularly over the surface and all pointing more or less vertically upwards, not radiating in all directions as in the preceding species. Lower half almost without trace of fistulæ. Fistulæ nearly all broken off close to the surface; usually (when perfect) short, broad, finger-like (Pl. VIII. fig. 5a), closed at the ends, measuring about 25 mm. in length by 6 to 12 mm. in width, *Size of body*, 93 to 137 mm. in diameter. *Colour* in spirit, pale yellow. *Texture*, solid and very dense throughout, penetrated by

<sup>1</sup> *Ann. and Mag. Nat. Hist.*, ser. 5, vol. x. p. 121.