with Carter's *Fibularia massa*,[1] which is possibly also a *Gellius*. The hair-like spicules in our sponge are, however, much longer than in *Fibularia massa*, and in the latter they appear to originate in trichite bundles.

Locality.—Station 320, February 14, 1876; lat. 37° 17′ S., long. 53° 52′ W.; off the mouth of the Rio de la Plata; depth, 600 fathoms; bottom, green sand; bottom temperature, 37°·2. One specimen.

Genus *Gelliodes*, Ridley (Pls. X., XII., XLVII.).

1884. *Gelliodes*, Ridley, Zool. Coll. H.M.S. "Alert," Brit. Mus., p. 426.

A distinct and well-developed skeleton fibre is present, containing more or less spongin. Microsclera sigmata.

Ridley's original diagnosis runs—"Desmacidinidæ of erect habit and well-defined form, fibre distinct and compact; outer surface of sponge beset with pointed eminences. Spicules smooth; skeleton acerate and bihamate."

This diagnosis must now be enlarged, in order to admit *Gelliodes licheniformis*, Lamarck, sp., and *Gelliodes poculum*, nobis, and, omitting all description of external form, we may say that the genus differs from *Gellius* merely in the possession of a distinct and well-developed fibre with more or less horny matter, and from *Toxochalina* in the presence of sigmata in the place of toxa as microsclera. It is perhaps doubtful whether the last character is of generic value, and whether *Toxochalina* and *Gelliodes* should not be merged in one genus, but as no species is yet known whose spicular complement comprises both toxa and sigmata, they may at present be kept apart.

Gelliodes fibulata, Ridley (Pl. XII. fig. 2).

1813. *? Spongia rubispina*, Lamarck, Ann. Mus. Hist. Nat. Paris, vol. xx. p. 450.
1881. *? Axos fibulata*, Carter, Ann. and Mag. Nat. Hist., ser. 5, vol. vii. p. 383, pl. xviii. fig. 4.
1884. *Gelliodes fibulata*, Ridley, Zool. Coll. H.M.S. "Alert," Brit. Mus., p. 427, pl. xxxix. fig. 1; pl. xli. figs. *bb*–*bb*″.

The Challenger obtained four good specimens of this sponge in Torres Strait, where also it was obtained abundantly by the "Alert." It is not necessary to redescribe the species here, but we give a figure of one very beautiful specimen, illustrating how the spines on the surface may bear secondary smaller spines, a feature which appears to have been overlooked hitherto (*vide* Pl. XII. fig. 2).

Locality.—Cape York, Torres Strait, August 7, 1874; depth, 3 to 11 fathoms. Four specimens.

Habitat.—? Bass Strait (Carter). Torres Strait ("Alert" and Challenger).

[1] *Ann. and Mag. Nat. Hist.*, ser. 5, vol. ix. p. 282.