

spreading lamina arise large funnel-shaped calices with wide mouths. The basal lamina, in the case of the single specimen in the collection, covers a large, but very uneven surface; it averages about 4 mm. in thickness; this is also the thickness of the walls of the calices. The specimen bears in all five calices of various sizes, the largest measuring about 50 mm. in height, and 25 to 62 mm. in greatest width of mouth (which is compressed). *Colour* in spirit brownish-yellow. *Texture* soft, spongy, but very tough and fibrous. *Surface* very uneven but fairly smooth. More or less numerous, very small openings on the inside of the calices appear to be the true *oscula*.

Skeleton.—(a) *Main*; a reticulation of stout horny fibre, cored sparsely by oxeote spicules arranged uniseriably. (b) *Dermal*; a similar but much closer reticulation of stout horny fibre, with very few axial spicules, but echinated very abundantly by tufts of oxea which project outwards.

Spicules.—(a) *Megasclera*; short, fusiform oxea, usually slightly curved, sharply and gradually pointed, measuring about 0.2 by 0.014 mm. (b) *Microsclera*; rather large and slender, much curved sigmata, not very abundant, measuring about 0.12 by 0.004 mm.

This interesting species is distinguished chiefly by its remarkable external form. It resembles a Chalinine sponge, described by Ridley under the name *Tuba* (*Siphonochalina*) *bullata*,¹ but is distinguished as regards external appearance by the absence of the numerous sharp conuli on the surface, and microscopically, of course, by the presence of the sigmata. Dr. R. von Lendenfeld also obtained a specimen of *Gelliodes poculum* from the east coast of Australia.

Locality.—Port Jackson, 30 to 35 fathoms. One specimen.

Genus *Toxochalina*, Ridley.

1884. *Toxochalina*, Ridley, Zool. Coll. H.M.S. "Alert," Brit. Mus., p. 402.

A distinct, rectangularly arranged horny fibre present, cored by oxeote spicules, as in typical Chalininæ. *Microsclera toxa*.

Ridley's original diagnosis runs "Chalinidæ with well-developed horny fibre arranged rectangularly. Spicules, a skeleton acerate and a tricurvate acerate ('Bogen,' German) flesh-spicule."

Having regard to the close relationship of this genus to *Gelliodes* as indicated by the presence of the toxa, in conjunction with a distinct horny fibre, we have decided to remove it from amongst the "Chalininæ" and place it in the "Gelliinæ," amongst the Heterorrhaphidæ. It has appeared to us preferable throughout to classify rather by the presence or absence and the form of the microsclera than by the greater or less amount of spongin present.

¹ Zool. Coll. H.M.S. "Alert," Brit. Mus., 1884, p. 399, pl. xxxix. fig. a.