

*Microcyphus.**Microcyphus*, Agassiz, 1841, Val., Anat. Genre. Ech. (non Mon. Scut.).*Microcyphus zigzag.**Microcyphus zigzag*, Agassiz, 1846, C. R. Ann. Sc. Nat., vol. vi.

Station 161. April 1, 1874. Off entrance to Port Philip; 38 fathoms; sand.

Station 162. April 2, 1874. Off East Moncœur Island, Bass Strait; 38 to 40 fathoms; sand.

*Trigonocidaris.**Trigonocidaris*, A. Agassiz, 1869, Bull. Mus. Comp. Zool., vol. i.

Laube has figured among the fossil Echinoidea of Murray Cliffs in Southern Australia a small Sea-urchin (*Paradoxechinus novus*), of which he gives an enlarged view of a part of the ambulacral and interambulacral areas. I am inclined to consider this interesting fossil as the Tertiary representative of *Trigonocidaris*. Laube's genus is probably identical with *Trigonocidaris*, but not having an authentic specimen I am unable to settle this point, and here merely call attention to their probable identity. The difference in the structure of the connecting ridges between the primary tubercles may be due to the state of preservation of the fossil. Laube's genus was described in the Sitzungsber. Akad. Wien., February 1869, while my preliminary description of *Trigonocidaris* did not appear till October of the same year.

According to the description of the ornamentation and the detail figures the ridges of *Paradoxechinus* are double zigzag lines of small tubercles, while in *Trigonocidaris* the zigzag lines uniting the tubercles are smooth ridges forming an irregular network of pits very unlike the regular triangles formed by the ridges connecting the primary tubercles. The only other genus of Echinids presenting such a structural feature is *Pleurodiadema* of Loriol (an oolitic form), in which, however, this arrangement of the granules or miliaries is in distinct ridges, but in this genus always running horizontally.¹

* *Trigonocidaris monolini* (Pl. VI.^a figs. 8-10).

Trigonocidaris monolini, A. Agassiz, 1879, Proc. Am. Acad., vol. xiv. p. 203.

A single specimen from Station 170, measuring 8 mm. in diameter. This species is readily distinguished from *Trigonocidaris albida* by the structure of its actinal membrane (Pl. VI.^a fig. 8), and also by the striking ornamentation of the genital ring (Pl. VI.^a fig. 9) and by the relatively smaller number of primary coronal plates and their coarser pitted reticulation (Pl. VI.^a fig. 10). The ten ambulacral buccal plates of the actinal membrane occupy nearly the whole of the distal edge of the actinal ring, while in specimens of the same size of *Trigonocidaris albida* the pairs of plates are separated not only from each

¹ See Cotteau, *Echinides Nouveaux*, Rev. Mag. Zool., No. 97, pl. xxvi.