

*Podocidaris.**Podocidaris*, A. Agassiz, 1869, Bull. Mus. Comp. Zool., vol. i.**Podocidaris prionigera* (Pl. XXXIV. figs. 14, 15).*Podocidaris prionigera*, A. Agassiz, 1879, Proc. Am. Acad., vol. xiv. p. 199.

Although *Podocidaris sculpta*, A. Agassiz, was not uncommon in the dredgings of Mr Pourtalès, and in those of the "Blake," yet the Challenger obtained only two specimens of this species. They both differ from the West Indian species, also collected by the Challenger at Station 24, in having a more conical test; the primary spines are not so distinctly limited to the ambitus (Pl. XXXIV. fig. 14) as in *Podocidaris sculpta*, some of the primary tubercles encroaching irregularly upon the test above the ambitus. The test above the primary spines is much more closely packed with small pedicellariæ differing from those figured for *Podocidaris sculpta* in the Revision of the Echini (pl. iv. fig. 15), in having a shorter stem and a stouter head. The large specimen had also a single large tridactyle, pyramidal pedicellaria, with slender valves leaving large openings between them above the base. The arrangement of the miliaries, as we find it in this species of *Podocidaris* (Pl. XXXIV. fig. 14), recalls the somewhat more regular arrangement of the secondaries and milliaries in horizontal rows in some species of *Magnosia* and of *Codiopsis* as does the presence of large primaries near the ambitus or towards the actinostome.

The most characteristic differences, however, between the two species are those of the spines and the structure of the abactinal system. The spines are nearly as long as the diameter of the test, flattened, and comparatively quite slender compared to the broadly lanceolate shaped spines of *Podocidaris sculpta*. The shaft of the spines of *Podocidaris prionigera*, although slightly contracted beyond the milled ring, and a trifle broader at a short distance from it, immediately below that part of the shaft where the marginal serrations commence, yet decreases very gradually in width, tapering more or less rapidly to a point towards the extremity of the shaft. The serrations of the primary spines are prominent, alternating on opposite edges of the flattened shaft; there are not more than twelve on each edge of a spine measuring 10 mm. in length; the serrations commence only at a distance of from one-quarter to one-third the length of the shaft from the milled ring. The spines in alcohol were of a brilliant transparent semi-silvery lustre, with a yellowish-brown basal portion. The test brownish-yellow; it is not ornamented with deep pits in the median interambulacral area as in *Podocidaris sculpta*, and the coronal plates carry above the primary tubercles only the miliaries, irregularly arranged, upon which are supported the short-stemmed large-headed pedicellariæ. The plates of the genital ring (Pl. XXXIV. fig. 15) are arranged much as in *Podocidaris sculpta*, the ocular plates, however, are very much larger than those of *Podocidaris sculpta*; they are elongated vertically, and