

ambulacral system (Pl. VI. figs. 8, 14), the absence or smaller number of the more prominent secondaries and miliaries, the proportionally narrower poriferous zone, the indistinctness of the S-shaped bands of the median interambulacral spaces, the slighter, less deep, actinal cuts, and the comparatively smaller size of the genital openings; these last, as I have shown in the smaller specimens of another species from the West Indies, are perforated quite late. The tentacles of the abactinal part of the test are flattened pouches, pointed at the extremity, resembling those of our common *Arbacia pustulosa*, and evidently, from their size in alcoholic specimens, capable of as great expansion as those of that species figured in Revision of the Echini, pl. v. figs. 1, 2, 6-8.

The pedicellariæ of *Cælopleurus* agree well in the main with those characteristic of the Arbaciadæ, consisting of the two types, the short-headed, long-stemmed, globular pedicellariæ (Pl. XLV. figs. 3, 4), so characteristic of the abactinal portion of the test in *Podocidaris* and *Arbacia*, and the large-headed ones (Pl. XLV. figs. 1, 2) occurring nearer the ambitus.

Station 201. October 26, 1874. Lat. $7^{\circ} 3' N.$, long. $121^{\circ} 48' E.$; 82 fathoms and 102 fathoms; stones and gravel.

Amboyna; 100 fathoms. October 8, 1874.

Station 192. September 26, 1874. Lat. $5^{\circ} 42' S.$, long. $132^{\circ} 25' E.$; 129 fathoms; mud.

DIADEMATIDÆ.

Family DIADEMATIDÆ, Peters, 1853, Monatsb. Akad. Berlin (*emend.*).

Diadema.

Diadema, Schynv., 1711, Thes. Imag. (*Peters, emend.*).

Diadema setosum.

Diadema setosa, Gray, 1825, Ann. Phil. (non Rumph).

St Vincent, Cape Verde Islands.

Cebu, Philippine Islands. January 1875.

Papeete Reef. September 1875.

St Thomas.

**Aspidodiadema.*

Aspidodiadema, A. Agassiz, 1879, Proc. Am. Acad., vol. xiv. p. 199.

This is a most interesting genus, intermediate between the Cidaridæ proper and the Diadematidæ. It has like the latter a thin test, with long hollow primary spines nearly straight, and strongly verticillate, especially in the young. The miliary and secondary spines are like the primary radioles, only shorter and proportionally slender (Pl. VIII.