

Station 300. December 17, 1875. Lat.  $33^{\circ} 42' S.$ , long.  $78^{\circ} 18' W.$ ; 1375 fathoms; bottom temperature,  $1.5^{\circ} C.$ ; globigerina ooze.

Station 164a. June 13, 1874. Lat.  $34^{\circ} 13' S.$ , long.  $151^{\circ} 38' E.$ ; 410 fathoms; grey ooze.

Station 235. June 4, 1875. Lat.  $34^{\circ} 7' N.$ , long.  $138^{\circ} 0' E.$ ; 565 fathoms; bottom temperature,  $3.3^{\circ} C.$ ; mud.

\**Phormosoma uranus* (Pl. XVIII.° fig. 12).

*Phormosoma uranus*, Wy. Thomson, 1877, Voyage of the Challenger, Atlantic, vol. i. p. 146, fig. 33, p. 147, fig. 34.

Thomson has figured in the Voyage of the Challenger (vol. i. p. 146, fig. 33, p. 147, fig. 34), a species of *Phormosoma* differing greatly from that collected by the Porcupine and named by him *Phormosoma placenta* (Trans. Roy. Soc., 1874, vol. clxiv. part 2, p. 732, Pls. lxii. lxiii.); the latter species was remarkable for the large tubercles of the actinal surface occupying with their areolas the greater part of the ambulacral and interambulacral plates. The present species is more closely related to *Phormosoma tenue*, in which the large tubercles are not closely packed but irregularly arranged and limited to a comparatively narrow edge of the abactinal surface immediately adjoining the ambitus. It differs also from specimens of *Phormosoma tenue* in the arrangement of the poriferous zone, which is well shown by Thomson on fig. 34; the intercalated ambulacral plate is proportionally large and still extends to the outer edge of the ambulacral area, the poriferous zone thus forming a nearly vertical line (somewhat irregular) of pores extending from the actinal opening to the abactinal area; the species holds, as Thomson has noticed, an intermediate place between *Phormosoma* and *Asthenosoma*.

The extreme tenuity of the test of this species is very remarkable, the coronal plates of the abactinal area of the only specimen collected are so thin that the test can be rolled up without injury to the specimen. The shape of the plates of the ambulacral zone on the abactinal side at once distinguish this species from *Phormosoma tenue*, in which the corresponding plates are comparatively narrower, while the primary ambulacral plates of *Phormosoma uranus* are fully as high as the corresponding interambulacral plates. This is not the case in *Phormosoma tenue* (see Pl. XIV. fig. 1).

Among the Echinoidea dredged by the last "Blake" expedition there are a number of specimens of a species closely allied if not identical to *Phormosoma uranus*; as these are of all sizes I may be able to ascertain how far the characters which I have used to distinguish *Phormosoma uranus* and its Pacific representative are constant.

Station 6. January 30, 1873. Lat.  $36^{\circ} 23' N.$ , long.  $11^{\circ} 18' W.$ ; 1525 fathoms; bottom temperature,  $1.6^{\circ} C.$ ; globigerina ooze.

Station 78. July 10, 1873. Lat.  $37^{\circ} 24' N.$ , long.  $25^{\circ} 13' W.$ ; 1000 fathoms; globigerina ooze.