

**Cystechinus wyvillii* (Pl. XXIX. figs. 5-8; Pls. XXIX.^a, XXIX.^b; Pl. XXXIX. fig. 28; Pl. XL. figs. 59, 60; Pl. XLI. figs. 23-27; Pl. XLII. figs. 13, 14; Pl. XLV. figs. 25-28).

Cystechinus Wyvillii, A. Agassiz, 1879, Proc. Am. Acad., vol. xiv. p. 208.

In a large specimen figured on Plate XXIX.^b the outline of the test seen from above is elliptical, broadly rounded anteriorly, and having the posterior extremity somewhat more pointed than the anterior (Pl. XXIX.^b fig. 1). Seen from the actinal side the actinostome is transversely elliptical, eccentric, placed anteriorly; the actinal surface is quite flat. An indistinct, low, broad, actinal keel is formed by a slight swelling of the posterior interambulacral space between the actinostome and the anal system. The anal system is placed near the ambitus in a slightly bevelled plane, passing to the broad, indistinct, rounded, abactinal anal hood (Pl. XXIX.^b fig. 3). The apical system is slightly eccentric posteriorly, so that when seen in profile the anterior extremity slopes out more gradually from the rounded apex, which is coincident with the apical system, than the more suddenly sloping posterior extremity.

The abactinal part of test, sloping uniformly for a short distance from the apex (Pl. XXIX.^b figs. 3, 4), forms a slight re-entering curve before it passes into the gibbous ambitus, which, when seen in profile, is specially prominent in the anterior extremity of the test owing to the eccentric position of the apex. Seen facing the odd posterior interambulacrum the test has an uniformly arched and re-entering curve (Pl. XXIX.^b fig. 4). This species has a comparatively stout test, and, to judge from the fragments of some incomplete specimens from Station 296, it must have attained a diameter of at least 130 mm., and a proportional height. The coronal plates are of very uniform size (Pl. XXIX.^b figs. 1-4), gradually becoming smaller towards the apex on the abactinal surface, and towards the actinostome on the actinal surface, there is but little difference in the size of the plates of the ambulacral system, and those of the interambulacral areas, as in this genus the former are comparatively large. The odd posterior interambulacral area is somewhat narrower than the other; the lateral interambulacral areas are slightly the broadest. Seen from the actinal side, the plates towards the ambitus (Pl. XXIX.^b fig. 2) become very much elongated, but become again quite hexagonal on the actinal floor towards the actinostome. The whole test is covered with very small, sharp, cylindrical, spines (Pl. XXIX. figs. 5-8), these and the miliaries are sufficiently thick to hide completely the sutures of the plates, and the lines separating the ambulacral and the interambulacral zones (Pl. XXIX. figs. 5-8). Minute pointed pedicellariæ are scattered irregularly over the whole test.

Each coronal plate (Pl. XXIX.^b figs. 1-4, 9) carries but few primary tubercles, supporting thin short delicate cylindrical spines, the intertubercular space being covered with irregularly scattered miliaries (Pl. XXIX.^b fig. 9). Each coronal plate is also ornamented by ridges radiating from the angles of the plate (Pl. XXIX.^b fig. 9) towards the central