

Genus *Leptochiton*, Gray.

"Lamina insertionis nullis; zona minutissime sabulosa; sinus lævis; haud laminatus; branchiæ breves" (Dall).

Leptochiton benthus,¹ n. sp. (Pl. I. fig. 1; Pl. II. figs. 1a-1m).

Habitat.—Station 241. June 23, 1875. Lat. 35° 41' N., long. 157° 42' E. 2300 fathoms. Red clay. Bottom temperature 35°·1.

Shell.—Delicate, brittle, surface with minute inconspicuous short ridges more or less radially disposed, and studded with small tubercles. The sides meet at a rounded angle of about 100°. Sutural laminæ small.

Anterior valve.—With minute scattered tubercles, which pass towards the apex into low tubercular ridges, having a concentric arrangement.

Intermediate valves.—*Central areas*: the minute surface ridges, when visible, are longitudinally disposed on the jugum, but become radial or oblique on the pleura. The tubercles are round on the jugum, but become somewhat oval on the pleura, and there appear to be concentrically arranged, although in some valves they seem to more or less regularly diverge from the apex. *Lateral areas*: the surface ridges are radial, and more pronounced than elsewhere. On the upper portion of the areas there are transverse low ridges placed further apart than the former; these ridges by being interrupted gradually pass into tubercles. The tubercles are round, distinctly smaller than in the central areas, and more scattered.

Posterior valve.—With a small central umbo. *Anterior area*: with concentric tubercles, as in the lateral areas. *Posterior area*: similar to the anterior valve.

Girdle.—Narrow, with delicate scales, which form a minute fringe at the edge.

Colour.—Greyish white, with one or two irregular reddish brown flecks.

Size.—Length, 8 mm.; breadth, 3·5 mm.

Gills.—Seven in number, extending between the prominent anus and postero-lateral angle of the foot. The gill row is one-seventh of the total length of the body, the proportion with regard to the length of the foot is 1 : 4·5. They are of moderate size, the middle being the largest, slightly decreasing behind but much more so in front.

Leptochiton belknapi, Dall (Pl. I. fig. 2; Pl. II. figs. 2a-2d).

Leptochiton belknapi, Dall, Proc. U.S. Nat. Mus., 1878, pp. 1, 317.

"L. t. elongatâ, valde elevatâ, dorsaliter angulatâ; albidâ plus minusve cinereo et nigrotinctâ; valvis elevatis, apicibus distinctis; mucrone centrali conspicuo; sculptura ut in *Leptochiton alveolo*, sed granulis in areis dorsalis sparsim et quincuncialiter dispositis.

¹ The specific name is derived from *βιθος*, depth, especially of the sea.