

*Modiola*, Lamarck.*Modiola barbata* (Linné).

*Mytilus barbatus*, Linné, Syst. Nat., ed. 12, p. 1156.

*Mytilus barbatus*, Jeffreys, Brit. Conch., vol. ii. p. 114, vol. v. pl. xxvii. fig. 3.

*Modiola barbata*, Forbes and Hanley, Brit. Moll., vol. ii. p. 190, pl. xlv. fig. 4.

*Habitat.*—Station 233A, Kobé, Japan, in 50 fathoms sand.

The European *Mytilus modiolus* is already known as an inhabitant of Japanese waters, but this is, I believe, the first record of the occurrence of *Modiola barbata*, another well-known form on many parts of the coast of Europe.

*Modiola capax*, as figured by Reeve, is very closely related to, if not identical with, this species.

*Modiola glaberrima* (Dunker).

*Volsella glaberrima*, Dunker, Proc. Zool. Soc. Lond., 1856, p. 363.

*Modiola glaberrima*, Reeve, Conch. Icon., vol. x. pl. viii. fig. 48.

*Perna glaberrima*, Angus, Proc. Zool. Soc. Lond., 1867, p. 929.

*Modiola glaberrima*, Smith, Report "Alert" Mollusca, p. 108.

*Habitat.*—Port Jackson, Sydney, in 6 to 15 fathoms.

This species has not, I believe, been recorded from any other locality than the Sydney district.

*Modiola watsoni*, n. sp. (Pl. XVI. figs. 5-5c).

Testa fragilis, subpellucida, albida, marginem dorsalem versus inferneque viridi tincta, polita, incrementi lineis striata, pone umbones subfortiter corrugata. Valvæ in medio convexæ, postice compressæ, latæ, arcuatæ, antice angustatæ. Margo dorsi posterior leviter convexus, ventrali medio levissime incurvato. Umbones parvi, approximati, iridescentes. Pagina interna alba, parum nitida.

This species is very fragile, semitransparent, white, stained with pale olive-green along the dorsal margin, and upon the lower portion of the valves. The valves are moderately convex at the centre and become compressed behind. They are very narrow at the anterior end and sharply rounded, gradually widen posteriorly, and terminate in a broadly arcuate end. The dorsal margin rises considerably behind, and is faintly convex, the ventral, on the contrary, being feebly incurved.

The sculpture consists of fine concentric lines of growth, and excessively minute radiating lines, not incised striæ. In addition to this, the dorsal surface for some distance behind the umbones exhibits several plications or wrinklins. The beaks are small, incurved, somewhat iridescent, situated at a short distance from the anterior extremity.