A REVISION OF THE AUSTRALIAN *TRIDACNA*.

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(Plates xxvii.-xxxiv., and Figure 1).

From the earliest times the *Tridacna* shells, on account of their huge size, have attracted the notice of naturalists, so that the pioneers of conchology more than a hundred years ago already had collected a large body of information about them. But modern zoologists have not found much more to add, perhaps because the subject was considered to be exhausted. Yet the history of the habits, affinities and nomenclature of this curious genus is still far from complete.

A *Tridacna* occuring abundantly in the Gulf of Suez was examined by Dr. Leon Vaillant. He determined it, probably erroneously, as *Tridacna elongata*, Lamarck, and described it[1] as buried in sand so that the serrate margin of the valves alone projected and as moored by a profuse byssus hawser to the stone beneath; he adds that the bivalve may change its position and even move to a distance. Vaillant concluded that all other members of the genus *Tridacna* have similar habits and disparages those writers and travellers whose observations differ from his own. Thus he doubted the accuracy of the account of the large, fleshy foot given independently by Quoy and Gaimard[2] and by Woodward.[3] In reference to the statement that *T. crocea* lives buried in coral, Vaillant supposes that it could not actually excavate the stone and must therefore have been enveloped by an over growth of the living coral polyps. These views, advanced with so much authority, seemed to have gained general acceptance.

In Australia, *Tridacnidæ* do not behave as Vaillant describes. Certain Pacific species do carve holes in stone just as actively as *Pholas* does on European coasts. Other species remain on the surface, either unfastened or clinging to the rock by the foot.

So *Tridacna* are divisible into the smaller species that burrow and the larger ones that lie on the surface. Australian burrowing species are *T. maxima*, *T. elongata* and *T. crocea*, the great size of the pedal aperture at once distinguishing any borer from any perching species; the non-boring

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[1] Vaillant—Ann. Sci. Nat. 5 Ser. Zool., iv., 1865, p. 71.

[2] Quoy & Gaimard—Voy. Astrolabe, Zool., iii., 1835, p. 490, Moll., Pl. lxxx., fig. 3.

[3] Woodward—Ann. Mag. Nat. Hist. (2), xv., 1855, p. 100.