

Expedition on June 3, 1874, on the shore, and at from 2 to 10 fathoms at Port Jackson, South Australia. Lamarck, who first described the species, does not refer to any figure, and seems to have been ignorant as to its real habitat, for he states, "Habite les mer des Indes à Java." Quoy and Gaimard found it in 1834 in immense numbers at Port Western, Bass Strait. They observe that hundreds were brought up at each haul of the dredge, either grouped among themselves or attached to other shells. At Port Jackson they were obtained in great numbers in four feet depth of water. Professor J. Beete Jukes collected any number while boating in South Australia among the reefs near Port Jackson. They were merely washed up by the tide, and he gathered them with his hand like limpets on the shore. The Rev. J. E. Tenison Woods observes, in his Census of Marine Shells of Tasmania, that *Wald. flavescens* is found in all Southern Australia, but only on the north coast of Tasmania.

*Observations.*—The animal of this species, selected by Professor W. King as the type of his excellent genus *Waldheimia*, has been admirably described by several eminent anatomists. First by Professor R. Owen in 1853, in the first chapter of the introduction to my work on British Fossil Brachiopoda; subsequently in 1857 by Pièrre Gratiolet, in his memoir, *Études Anatomiques sur la Terebratule Australe*, *Journal de Conchyliologie*; and in the following year by Albany Hancock, in his classical memoir on the Organisation of the Brachiopoda, *Phil. Trans. of Roy. Soc.*, vol. cxlviii., part 2, 1858, to which works the reader is referred for all anatomical details. We may, however, here reproduce an admirable diagram by Albany Hancock showing the arrangement of the muscular system. Its intimate shell structure has likewise been investigated by Professor Carpenter in chapter ii. of my general introduction already referred to.

Quoy and Gaimard had also given some brief anatomical details in the description of their *Terebratula australis* (3d vol. of the *Voyage de l'Astrolabe*), "Ces mollusques," they add, "doivent vivre longtemps hors de la mer, par la

faculté qu'ils ont de conserver de l'eau dans leurs valves hermetiquement fermées. La quantité relatif en est considerable car l'animal ne parait occuper qu'une petite place dans la cavité qui semble à demi vide, nous n'avons aperçu d'autres mouvements que celui des lamelles ciliées encore est il assez obscurs."

*Waldheimia flavescens* has received four or five different names, but that of *flavescens*

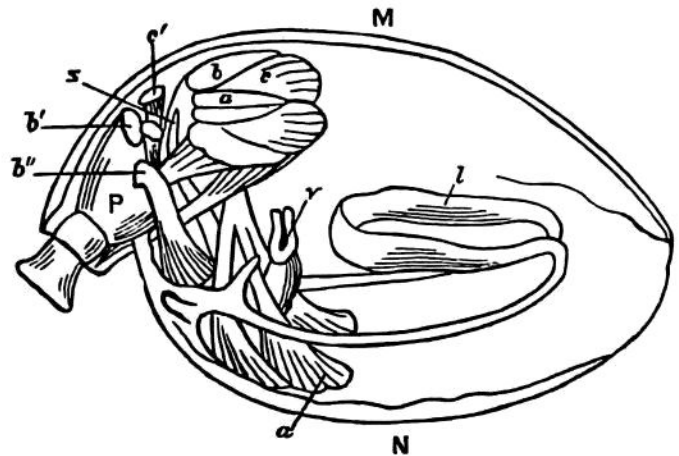


Fig. 3. *Waldheimia flavescens* (after Hancock).

Diagram showing the muscular system. *M* ventral, *N* dorsal valve, *l* loop, *v* mouth, *s* extremity of intestine, *a*, *a* adductor, *c* divaricators, *c'* accessory divaricators, *b* ventral adjustors, *b'* peduncular muscle, *b''* dorsal adjustors, *P* peduncle.