

ONCHIDIIDÆ FROM AUSTRALIA AND THE SOUTH-WESTERN PACIFIC ISLANDS

BY

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(Plate xxxviii.)

I.—INTRODUCTION.

From the following historical review of the family, it will be seen that, since the discovery of *Onchidium typhæ* by Buchanan in 1800, the biological affinities of the Onchidiidæ have received the attention of many of the eminent authorities of Malacology.

While much remains to be done to bring the knowledge of this group into line with that we have of other groups, this paper may serve as a convenient summary for the use of Australian students, and since it has had for its foundation the excellent works of Semper, Plate, Joyeux-Laffaie and many others, no apology need be offered for the more or less extensive quotations from these authors.

The bulk of the material examined is preserved in alcohol in the collections of the Australian Museum. The absence of marine aquaria has made the much needed observations on the life and habits of even the commonest forms almost impossible.

Onchidium dämeli is fairly common on the shores of Port Jackson, living either below water, or under rocks between tide marks. *O. chameleon* was not plentiful when search was made for it in its habitat on the Lane Cove River in March, June and October, 1918. Both these forms exhibited the chameleon-like property of changing their colours, especially when disturbed, or changed to a position of which the background was a different colour to that formerly occupied. From this habit *O. chameleon* received its appropriate name from its author, but this property is not remarked on by other authorities of the group. It may yet be shown that the function of the dorsal eyes may be attributed to this property, rather than their value to the animal in discerning attacks from such enemies as *Periophthalmus*, as was suggested by Semper. This fish, it may be mentioned, is not an habitant of Port Jackson. Further, my observations have not shown that either *O. dämeli* or *O. chameleon* possess the homing habit that is attributed to *Onchidium* by recent authors¹. The distribution of the family is usually tropical and continental, but one form, *Onchidella patelloides*, Quoy and Gaimard, ranges to the cold waters of South New Zealand, and an un-named species has been mentioned by Woodward² from the Ellice Islands in the Central Pacific.

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¹ Arey and Crozier—Proc. Nat. Acad. Sci. Wash., iv., 11, 1918, p. 319.

² Woodward—Proc. Malac. Soc., iv., 1900, p. 102.