

NEW SOUTH WALES MARGINELLIDAE.

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(Plates V-VI.)

Marginella is common in, but not confined to Australian seas. About a thousand species have been described, many from the tropics, but the majority from temperate waters of the southern hemisphere. In Australia, particularly in the south, they form a conspicuous element of the marine molluscan fauna.

The most complete list of Australian species is that published by Bernard C. Cotton,¹ of the South Australian Museum. He lists 92 species, including several that are new. Fifteen more new species are now added from New South Wales, and no doubt a number still remain to be described, particularly from Western Australia, north Australia and Queensland. It is interesting to note that most of the described species have a fairly wide geographical distribution, and many are common to several zoo-geographical provinces. As is to be expected, there is a somewhat closer relationship between New South Wales species with those of Tasmania, than with those of the Flindersian fauna (Victoria, South Australia and the southern portion of Western Australia), but many species are common to all three areas. It is very probable that *Marginella*, like *Cypraea*, has a free swimming larval stage of some length, and is thus able to migrate more rapidly and widely than most other molluscs.

The number of species occurring in New South Wales is probably not yet completely known, as no doubt more will be found, particularly on the continental shelf. Hedley's "Check List of New South Wales Mollusca", published in 1917, allowed 27 species. In the present paper 45 species and three varieties are dealt with, and four of Hedley's list are regarded as doubtful. Of these, 23, or practically one-half, occur in Tasmania, 19 in Victoria, while only 10 are found in South Australia. The total number of species in each of these areas is about 50, Australian tropical species are fewer in number, and practically none of them are common with species from the colder waters of the south.

Practically nothing is known of the life history of *Marginella*, and the animals of only two Australian species have so far been described. In 1916, Hedley described both the animal and radula of *M. mustellina* Angas,² and in 1944 Cotton described the animal of his own species, *M. weedingi*.³ As the former inhabits the reefs in shallow water, and the latter is a deep-water dredged species, it is interesting to note that the general characters of each animal are much the same. There is the same long, narrow foot, blunt head, prominent tentacles with eyes at the outer base, long siphon and mantles at either side covering the shell. In *M. mustellina* the mantles are papillate, while in *weedingi* they are covered with small divided processes. These descriptions are very close to that of the animal of the Cypraeidae, with which family Marginellidae is evidently closely related.

M. mustellina and *M. angasi* are inhabitants of the reef, and *M. nympha* is common on seaweed, but most species are essentially sand living, and are found from the edge of the beach to very deep water beyond the continental shelf. It may be noted that the

¹ Cotton.—*South Australian Naturalist*, Vol. 22, No. 4, Nov. 30, 1944.

² Hedley.—*Proc. Linn. Soc. N.S.W.*, xli, 4, 1916, p. 709, Pl. I, figs. 30, 31.

³ Cotton.—*Loc. cit.*, p. 16.