

THE RECENT MOLLUSCA OF TASMANIA.

By MARY LODDER.

TASMANIA may be considered fairly rich in recent molluscan species, as she possesses nearly 700 marine forms, with about 100 terrestrial and fresh-water kinds besides. Very many of the species in all branches are extremely small, requiring much careful search in order to obtain them, and microscopical examination to reveal their characteristics, their beauties of form, sculpture, and colouring. But such work is well repaid by the results, whilst, doubtless, there are still various species to be discovered in the less well-known parts of the island, for many of the recognised forms are very local in their habitats, and, in numerous cases, their minuteness renders them so difficult to find that even an experienced collector may overlook them. On the other hand, some of the marine species afford a strong contrast by the great size to which they attain, the most remarkable being *Voluta mamilla* (Gray), which is a foot long when full grown, and broad in proportion; but adult specimens are rarely found in good preservation. The young examples are much prettier as regards colour and markings, having brown bands and dashes on a creamy-yellow ground externally, while the interior is of a rich yellow, and highly enamelled; the large mamillary nucleus (which was thought to be a deformity in the first specimen discovered) is always a striking characteristic, giving a curious appearance to the very young shells. This species is chiefly found on the North Coast, where *V. fusiformis* (Swainson) and *V. undulata* (Lamarck), with the rarer *V. papillosa* (Swainson) are also to be had.

Megalatractus maximus (Tryon) is another fine shell, also somewhat scarce in perfect condition. The finest specimen I have seen was in the collection of the late Mr. C. E. Beddome, who dredged it in the Derwent; it measured $7\frac{1}{2}$ inches in length, and $2\frac{3}{4}$ inches in breadth. *Triton spengleri* (Chemnitz) attains a length of 5 inches, its solid structure and thick varices making it a weighty shell. *Cypræa umbilicata* (Sowerby) is another remarkable shell found on

the North Coast, but not very plentifully nowadays, its size and elongated form distinguishing it from any other recent *Cypræa* found in Tasmania, whilst it resembles the fossil *C. eximia* (Sowerby), which occurs at Table Cape and elsewhere in this Island; but *C. umbilicata* is much larger.

The well-known "Mutton-shells"—one would be hardly complimentary to the goddess in calling the large representatives of the *Haliotidae* "Venus' Ears," the name that some of the smaller species bear in Europe—may also be numbered among the giant molluscs of our shores. *Haliotis albicans* (Q. and G.), with *H. naevosa* (Martyn), probably afforded many a good feed for the aborigines in days gone by. Some white folks profess a liking for this "marine mutton," but opinions differ as to the desirability of adding such an item to the usual bill of fare. Scallops, mussels, and "Warreners" are more favoured, while many other species would probably be found very good if one had but the courage to try them. Oysters, which, apparently, were plentiful in the days of the aborigines, are sadly scarce now. A former resident of Stanley, Circular Head, told me of an enormous number having once been washed up on the beaches in that neighbourhood, when he was a boy.

Fasciolaria coronata (Lamarck), *Siphonalia dilatata* (Q. and G.), *Ranella argus* (Gmelin), *Purpura textiliosa* (Lamarck), *Conus anemone* (Lamarck), *Scutus anatinus* (Donovan), *Murex triformis* (Reeve), *Nerita punctata* (Q. and G.), *Cassis achatina* var. *pyrum* (Lamarck), *C. semigranosa* (Wood), *Columbella semiconvexa* (Lamarck), *Cypræa angustata* (Gmelin), *Trivia australis* (Gray), *Marginella muscaria* (Lamarck), *Turritella tasmanica* (Reeve), *Phasianella australis* (Gmelin), *P. ventricosa* (Q. and G.), *Turbo undulata* (Martyn), *Cantharidus badius* (Wood), *Cantharidus fasciatus* (Menke), *Calliostoma meyeri* (Menke), *Clanculus undatus* (Lamarck), *C. limbatus* (Q. and G.), *Patella limbata* (Philippi), *Acmaea crucis* (Tenison-Woods), *A. alba* (Ibid), *Submarginula rugosa* (Q. and G.), *Macroschisma weldii* (Tenison-Woods), *Megatebennus trapezinus* (Sowerby), *Mitra glabra* (Swainson), and many other species of these and other genera of *Gasteropoda*, are to be found more or less in profusion.

Of *Polyplacophora*, *Chitons*, we have several species, the prettily-marked *Ischnochiton crispus* (Reeve) and *Chiton pellisserpentis* (Q. and G.) being abundant. The handsomest representative of the order is the scarce *Callochiton lobatus* (Carpenter), with its smooth shell and broad mantle of dark reddish-brown contrasting well with the rich orange colour of the animal.

Of the naked, or shell-less, mollusca, there are a few that have been described, and many yet to be identified. *Allportia expansa* (Tenison-Woods) is a curious and interesting form that is rather plentiful among the rocky pools at low water. Of the *Doris* family, there are surely many, and of *Onchidium* at least one, species to be found in similar situations.

Of the class *Scaphoda*, two species of *Dentalium* and one of *Cadulus* are recorded, whilst no *Pteropoda* are as yet listed for Tasmania, I believe. Of *Cephalopoda*, we have some ten known species, the internal shells, or, more familiarly known, "Cuttle-bones," of the *Sepiæ*, being plentiful on the beaches; while the shell of the curious little *Spirula peronii* (Lamarck) is not uncommon at times on the East Coast. The beautiful "Paper Nautilus," *Argonauta nodosa* (Solander), is occasionally found on the mainland of Tasmania, but is more plentiful on the islands in Bass Straits, where it is said to come in shoals about every five or seven years, though it is difficult to obtain the larger specimens, as the gulls break them so often in their eagerness to devour the animal.

The largest of the *Pelecypoda* is *Pinna tasmanica* (Tenison-Woods), which is found a foot long, and sometimes covered with barnacles (*Serpulæ*) and fair-sized oysters. The young specimens are very pretty, of a pale greenish or horny tint, semi-transparent, with curiously raised fluted scales at the broader end. *Venus lamellata* is a beautiful shell when its pink frills are perfect. *Cochlodesma angasi* (Crosse and Fischer) is sometimes plentiful, and of a large size, on the sandy beaches, but the gulls are fond of these too. *Anatina creccina* (Valenciennes) is also to be found in the North; *Mactra rufescens* (Lamarck) is often so abundant at Port Sorell that it becomes a weariness to the collector; *Venus gallinula* (Lamarck), *V. roborata* (Hanley), *Tapes fabagella* (Deshayes), *Gari zonalis* (Lamarck), *Tellina albinella* (Ibid), *Dosinia cærulea* (Reeve), *D. grata* (Deshayes), *Cytherea rutila* (Sowerby), *C. diemensis* (Hanley), *Crassatella kingicola* (Lamarck), *Cardium tenuicostatum* (Ibid), *Barbatia carpenteri* (Dunker), *Axinæa striatularis* (Lamarck), *Mytilus ater* (Frauenfeld), *Modiola australis* (Gray), *Vulsella ovata* (Lamarck), with five species of *Pecten*, are among the most attractive of the bivalves usually to be found on the Tasmanian beaches. *Trigonia margaritacea* (Lamarck) is somewhat local, Bruny Island being a good place for it. The rare *Choristodon rubiginosum* (Adams and Angas) occurs in the East and South. Several species of *Myodora* are also found, and *Panopæa australis* (Sowerby)

is at times found alive on the East Coast, while *Spondylus tenellus* (Reeve) occurs on the North Coast, but seldom as a perfect shell.

Of *Brachiopoda*, the best known is the so-called "Roman Lamp," *Waldheimia flavescens* (Lamarck), which is washed up amongst seaweed on the Northern beaches, and is also found alive in rock-pools in favourable situations, where the tiny *Megerlina lamareckiana* (Davidson) is also found clinging in numbers to the under-sides of the stones. *Terebratella rubicunda* (Solander) has been introduced into the Derwent amongst oysters from New Zealand.

Among the terrestrial, or pulmonate, *Gasteropoda*, *Bulimus dufresnii* (Leach) is one of the most widely-distributed, varying greatly in size and texture, according to the locality. *B. tasmanicus* (Pfeiffer) is our sole arboreal species, being found on wattles and boobyallas on the East Coast only. *Helix launcestonensis* (Reeve), from the Scottsdale district, is the finest representative of the genus in Tasmania; *H. stephensi* (Cox) being another good one. The European *H. aspersa* (Muller) and *Zonites cellarius* (Muller) are plentiful in some of the gardens in Hobart and Launceston. There are two *Vitrinas*, of which *V. verreauxi* (Pfeiffer) is the most widely distributed throughout the Island. One tiny species of *Pupa*, *P. lincolniensis* (Angas), found also in Australia, has been discovered, near Swansea, by Mr. R. M. Johnston. The small grey slug, *Limax legrandi* (Tate), is abundant in the North, and there are some very large spotted slugs, notably, *Cystopelta petterdi* (Tate), with various smaller kinds in different parts of the Island. Of fresh-water mollusca, there are several minute forms that are of interest, especially the curious little *Gundlachia*, of which two species are recorded for Tasmania; the genus is only found in Trinidad and Cuba besides. There are some forms of *Amnicola* and *Hydrobia*, one of which, *Potamopyrgus*, is common with New Zealand only. *Ancylus irvinæ* (Petterd), from the Great Lake, is an unusually large form, while *Physa eburnea* (Sowerby), from lagoons near Ross, is a fine shell. *Unio legrandi* (Petterd) and *U. depressus* (Lamarck) inhabit only the rivers that empty themselves eventually into the Tamar.

Most of the land shells are peculiar to Tasmania, whilst many of the marine species are common to Australia, especially the Southern and Eastern shores of the continent; and some have a world-wide distribution, whilst a few appear to be found now in a semi-fossil state only, such as *Potamides ebeninum* (Bruguère), *Ranella epitrema* (Tenison-Woods),

and *Arca trapezia* (Deshayes). The rare *Astele subcarinata* (Swainson) was first described from Tasmanian specimens, and on one occasion, at least, in recent years it has been washed up in abundance at Marion Bay. The beautiful *Modiola arborescens* (Chemnitz) was thrown up plentifully on the Port Sorell beaches, North Coast, a few winters ago, not having been seen there before, though occasionally it had been dredged in D'Entrecasteaux Channel. The type specimens came from the West Indies; the species extends to China also. *Ianthina communis* (Lamarck) and *I. exigua* (Ibid), the violet floating sea-snails, are sometimes washed on to Tasmanian shores.
