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NEW RECORDS OF MARINE MOLLUSCA FROM TASMANIA

By

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ABSTRACT

Recent collecting in southern Tasmania has produced three interesting species of marine molluscs not previously recorded from Tasmania. Two of these, Maoricolpus roseus (Quoy & Gaimard), and Paphirus largillierti (Philippi 1849), were previously know only from New Zealand. The third, Soletellina donacioides Reeve 1857, occurs in southern Australia. Except where otherwise stated, the specimens were collected by the author.

CLASS: GASTROPODA

Family: TURRITELLIDAE

Maoricolpus roseus (Quoy & Gaimard)
(Pl., fig. 1.)

Turritella rosea Quoy & Gaimard 1834, *Voy. Astrolabe* (iii), p. 136, pl. 55, f. 24-26.

This distinctive species, previously thought to be restricted to New Zealand, has been found in large numbers in the D'Entrecasteaux Channel, Southern Tasmania.

Localities:

(i) Two dead shells from the Macquarie Harbour area, West Coast, Tas., collected by A. M. Olsen. (Miss J. H. Macpherson—pers. comm.)

(ii) One dead shell collected near Gordon, D'Entrecasteaux Channel, in June 1963, by Mr. Ralph C. Robertson, Cygnet. (Tasmanian Museum No. 18328/E2804).

(iii) One worn specimen from Brabazon Point (locally known as One Tree Point) (T.M. 18399/E2864), and one from Randalls Bay, both in the Huon Estuary, collected in 1963 by Mr. R. C. Robertson.

(iv) Numerous live specimens dredged from D'Entrecasteaux Channel, from August to October, 1964 by Mr. John Farnell, Kettering. (Many of these specimens have been given to the Tasmanian Museum and the National Museum of Victoria by Mr. Robertson and Mr. Farnell. Live specimens have been kept under observation at the latter Museum.)

Remarks:

Powell (1961) states that the species is common in New Zealand, on sandy or muddy bottoms, in inter-tidal or shallow water. He mentions that where conditions are favourable, such as at Devonport, Auckland Harbour, the mollusc occurs in vast beds, in 6 to 8 fathoms, with several hundred individuals to each square yard.

Similarly Mr. Farnell, who has dredged for scallops in the D'Entrecasteaux Channel for many years, says that he has dredged this species from sandy or muddy bottoms throughout the Channel, in depths ranging from 2 to 10 fathoms, and in large quantities. However, no inter-tidal specimens have been recorded.

Dimensions of the Tasmanian specimens compare well with those of New Zealand specimens of Maoricolpus roseus given by Powell (1931, p. 100), and differ from those of Mr. roseus manukauensis Powell 1931.

Specimens from D'Entrecasteaux Channel, Tas.

Height	Diameter	Spire Angle
41.6 mm	14.0 mm	21 degrees
60.0 mm	17.8 mm	19 degrees
66.5 mm	21.4 mm	22 degrees
75.5 mm	23.2 mm	21 degrees

M. roseus roseus (New Zealand, various localities, from Powell, 1931).

Height	Diameter	Spire Angle
42.00 mm	14.00 mm	22 degrees
62.00 mm	18.25 mm	21 degrees
70.00 mm	21.50 mm	22 degrees
74.00 mm	22.50 mm	21 degrees

M. roseus manukauensis (Holotype)

Height	Diameter	Spire Angle
59.00 mm	13.00 mm	14 degrees

The colouring also is similar to that given by Suter (1913, p. 271) for New Zealand specimens—"yellowish or reddish-brown, faintly marbled with dark brown, the raised cinguli usually of darker brown".

M. roseus probably became established in the Channel from 20-40 years ago, since Mr. Farnell has specimens collected over 20 years ago, and the species was not recorded by W. M. May, who dredged for molluscs in the Channel in the 1920's. Judging by the number of specimens taken in his scallop dredges, Mr. Farnell believes that the species is rapidly increasing in numbers.

It is interesting that despite its abundance in relatively shallow water, dead shells are very rare on beaches. This may be due to the action of small hermit crabs which are common in dredged material from this area, and inhabit Maoricolpus and similar shells.

CLASS: **PELECYPODA**

Family: VENERIDAE

Paphirus largillierti (Philippi 1849)
(Pl., figs. 2, 3.)

Venus intermedia Q. & G. 1835, *Voy. Astrolabe* (iii), p. 526, pl. 84, f. 9, 10.

Paphia intermedia Q. & G. 1835: Suter 1913, *Manual N.Z. Moll.*, p. 995, pl. 61, f. 6a.

Venus largillierti Philippi 1847, *Zeitsch.f.Malak.*, p. 87.

Paphirus largillierti (Phil.), Finlay 1927, *Trans. N.Z. Inst.*, Vol. 57, p. 633.

Tapes fabagella Deshayes 1853, *Cat. Conch. Brit. Mus.*, p. 182. (For full synonymy see Suter 1913.)

This New Zealand species, described by Powell (1961) as being common on sandy beaches, has recently been found in southern Tasmania. It occurs on several sandy beaches in the Derwent Estuary, and is very common on the Spit, behind Gellibrand Point, Ralphs Bay. Sometimes large numbers are washed ashore at Long Point, Sandy Bay.

The first specimens brought to my notice were collected at Blackmans Bay by the Rev. P. Noonan in early 1963.

Localities:

(i) Blackmans Bay, Derwent Estuary. Several specimens collected in early 1963 and on 27th November, 1963 by Rev. P. Noonan. (T.M. Nos. 18326/E2802, 18736/E3130).

(ii) Richardsons Beach, Ralphs Bay, Derwent Estuary. Collected in early 1963 by Miss E. J. Howard.

(iii) Pirates Bay, Eaglehawk Neck. A single specimen, 7th November, 1963. (T.M. 18329/E2805).

(iv) Beaches at Sandy Bay, near Hobart, Derwent Estuary. Various dates from 14th December, 1963. Collected by Misses E. Aves and E. J. Howard, and the author. (T.M. collection).

(v) Mary Ann Beach, Derwent Estuary, October, 1964.

(vi) The Spit, Gellibrand Point, Ralphs Bay, Derwent Estuary. Numerous specimens collected 17th January, 1965. (T.M. E3849).

(All these specimens were dead shells.)

Remarks:

The colouring of the Tasmanian specimens agrees with that described for New Zealand shells by Suter (1913, p. 995), but there is considerable variation among the specimens. A fairly large shell from Eaglehawk Neck resembles young shells from other areas in being rather lightly built and having brown zig-zag markings, as described by Suter for young N.Z. specimens. The large shells from Sandy Bay and Ralphs Bay, however, are very robust, coarse shells with no zig-zag markings, but often with an olive-green epidermis. (It is interesting that Suter (p. 996) remarks that "specimens from the Auckland Islands are brown, very large and solid.").

Suter (1913) and Powell (1961 pl. 15) give 57 mm. x 41 mm. as the dimensions of P. largillierti. This agrees with the local specimens, one from Sandy Bay measuring 59.3 mm. x 42.9 mm. The largest shell collected is 61.3 mm. x 44.0 mm.

The numbers of P. largillierti present, and their size and wide distribution in the Derwent Estuary indicate that the species has been established for some time. The approximate age of the largest shells, estimated by counting annual growth rings (Powell 1961, p. 197), varies from 8 to 10 years.

The robust specimens common at Sandy Bay bear a superficial resemblance to Katelysia rhytiphora Lamy 1937, and this may be the reason they have been overlooked by recent workers. However, they are oval-oblong in shape, rather than the wedge-shape of typical K. rhytiphora. Young specimens also may resemble Pullastra fabagella (Deshayes 1853), a species with which they have been confused in New Zealand (Marwick 1927, p. 633), and which occurs at the same localities in Tasmania.

Kershaw (1958, p. 68) says "Katelysia scalarina is generally found, and at Sandy Bay near Hobart is a robust shell associated with K. corrugata", (= K. rhytiphora). Again he says (p. 80) "near the entrance to Pipe Clay Lagoon a typical sandy exposed beach fauna was obtained . . . . A similar fauna exists at Sandy Bay near Hobart, and here Katelysia scalarina and K. corrugata are robust shells".

May (1923) lists K. scalarina as very common in sheltered inlets, and K. rhytiphora as common in sheltered bays, and Nielsen (1963, p. 224) says K. scalarina is usually found in quiet, sheltered sandy bays. Kershaw also describes K. scalarina as a "sheltered" bivalve (p. 79) and in Table 2 (p. 92), lists both K. scalarina and K. corrugata (= K. rhytiphora) as occurring only in sheltered areas in the south. It is therefore surprising that he includes these species in a "typical sandy exposed beach fauna" such as he states exists at Sandy Bay.

The writer has found no specimens of Katelysia spp. at Sandy Bay, and these facts suggest that Kershaw may have mistaken specimens of P. largillierti for Katelysia spp.

Family: SANGUINOLARIIDAE

Soletellina donacioides Reeve 1857.
(Pl., Fig. 4.)

Soletellina donacioides Reeve 1857, *Conch. Icon.*, 10, pl. 3, sp. 11.

Flavomala donacioides Reeve 1857: Macpherson & Chapple, 1951. *Mem. Nat. Mus. Vict.*, Vol. 17, p. 153.

This species, previously known from Victoria and South Australia, has been found to be common at Sandy Bay, particularly at Nutgrove Beach and Derwentwater Beach (also known as Wrest Point Beach). Live specimens are sometimes washed ashore.

Localities:

(i) Sandy Bay, near Hobart, Derwent Estuary, Tas. Various dates from 26th January, 1963. (T.M. Collection).

(ii) Coles Bay, Freycinet Peninsula, E. Tasmania. A single specimen collected by R. C. Robertson, 23rd October, 1963. (T.M. E3848).

Remarks:

Specimens from this area show some variation in colouring. Some are purple, as described by Macpherson & Gabriel (1962) for Victorian specimens, but others are predominantly cream, both internally and externally, with varying amounts of purple. The epidermis also varies from the typical semi-transparent horn colour, some specimens having the epidermis thick and blackened towards the edges, while in others it is reddish-brown.

The largest specimen collected measures 44 mm. x 24 mm.

ACKNOWLEDGMENTS

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ADDENDUM

Since this paper went to press, another New Zealand species which is established in southern Tasmania has been found.

Family: NUCULANIDAE.

Neilo australis (Quoy & Gaimard 1835)

Nucula australis Q. & G. 1835, Voy. Astrolabe (iii), p. 471, pl. 78, f. 5-10.

Neilo cumingii A. Adams 1852 (1854), *Proc. Zool. Soc. Lond.*, p. 93.

Ctenoconcha navicula Valenciennes, Voy. "Venus", Moll., pl. 23, f. 7.

Neilo australis (Q. & G.); Smith, 1874, "Ereb. & Ter.", p. 6, pl. 2, f. 13.

Solenella australis (Q. & G.); Hutton 1884, Proc. Linn. Soc. N.S.W. (ix), p. 529.

Malletia australis (Q. & G.); Suter 1913, Man. N.Z. Moll., p. 837, pl. 58.

Locality: Derwent Estuary at Hobart, 29th March, 1965. (Nos. E3991-3993).

A series of bottom grabs was made across the Derwent Estuary from Howrah to Long Point, Sandy Bay. Living and dead specimens were obtained from the mud bottom, from depths of 20 to 80 feet. The only other live molluscs taken in the grab were a few specimens of Scaeoleda crassa (Hinds 1843). Numerous dead specimens of N. australis were also obtained from a single haul with a dredge off Long Point, in about 20 feet.

Remarks:

The habitat is similar to that given by Powell (1961, pl. 10) for New Zealand specimens—"deep water, mud bottom". However, as Powell (1961) and Suter (1913) both describe the species as rare or very rare, it is surprising that in the section of the Derwent Estuary investigated Neilo australis was present in large numbers. The largest shell collected was 32.7 mm. x 17.0 mm. This is smaller than the type, which is 36 mm. x 18 mm. (Suter, op. cit.) Local specimens agree with Suter's description.

ACKNOWLEDGEMENT

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Plate.

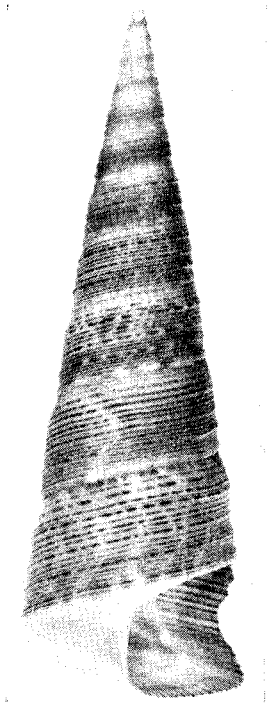

Fig. 1.—Maoricolpus roseus (Q. & G.).

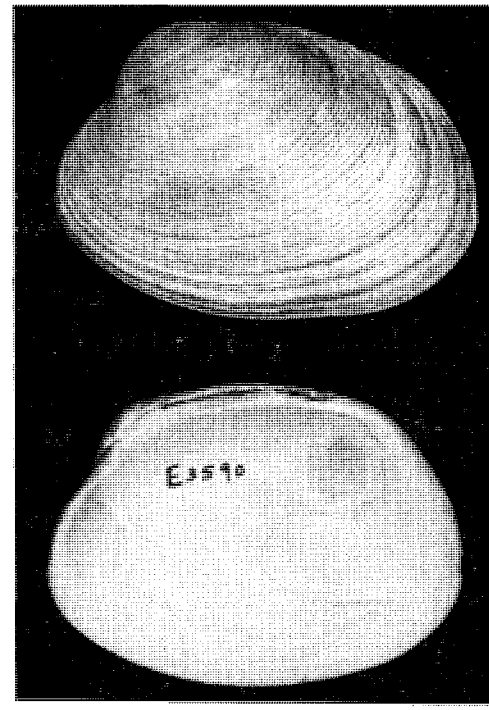

Fig. 2.—Paphirus largillierti (Phil.).

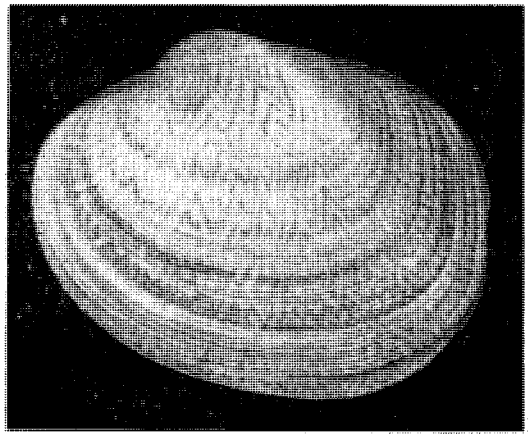

Fig. 3.—Paphirus largillierti (Phil.). Young specimen. 27.4 mm. x 21.0 mm.

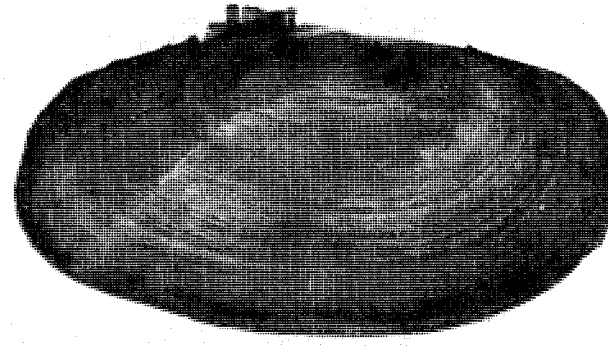

Fig. 4.—Soletellina donacioides, Reeve 1857.