New Zealand Molluscan Systematics with **Descriptions of New Species: Part 5**

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ABSTRACT.

In this part five new species and five genera new to the New Zealand Recent fauna are described or recorded; a surprise item is a new species of the Mediter-ranean architectonicid genus Gyriscus. Of special note is the great increase of the subtropical element, represented by the recording of the first New Zealand Recent occurrence of a true cypraeid, a large porcellanous Polinices and the subtropical or tropical Annaperenna verrucosa, Pomiscala perplexa, Bulla (Quibulla) sub-tropicalis n.sp. and Atys naucum. The large North Queensland Latirus gibbulus, recorded on the basis of one empty shell is noted but further records are required before this evotic species can be admitted as a natural occurrence in the New before this exotic species can be admitted as a natural occurrence in the New Zealand fauna.

Family EPITONIIDAE

Genus POMISCALA Iredale, 1929

Type (o.d.): Scala perplicata Iredale, 1929.

Pomiscala perplexa (Pease, 1867). Plate 22, fig. 4.

1867—Scalaria perplexa Pease, Amer. Journ. Conch., 3(4), p.288. 1915—Epitonium perplexum (Pease): Oliver, Trans. N.Z.Inst. 47, p.530.

This is a new record for New Zealand; based upon a fresh but empty and slightly damaged shell, found in a rock pool at Paxton Point, an isolated locality near the southern end of Great Exhibition Bay, Northland, by Mr Norman Douglas, 16th July, 1964. It measures 22.5 mm. in height and 10.75 mm. in width.

The New Zealand shell is identical with specimens in the Auckland Museum from Sunday Island (Raoul Island), Kermadecs, taken by Mr R. S. Bell about 1910, and both are inseparable from a series in the author's collection, from the type locality, Hawaiian Islands.

The New South Wales shells recorded by Hedley (Journ.Roy.Soc. N.S.W.51,pM65) as this species were renamed *perplicata* nov. by Iredale (1929, Austr. Zool. 5(4), p. 344), on the basis of more varices per whorl, 12-13, as against 9-10 for perplexa, which always has a dark brown subsutural band, this being absent in perplicata.

This signifies that the species owes its presence in New Zealand waters to some south west Pacific current, rather than the East Australian Current, the factor responsible for most of the recently acquired exotic elements in our fauna.

Family ARCHITECTONICIDAE Subfamily TORINIINAE Genus GYRISCUS Tiberi, 1867

Type (monotypy) Gyriscus jeffreysiana Tiberi, 1867.

Gyriscus asteleformis n.sp. Plate 22, fig. 11.

Shell trochiform, with a broadly conical spire of lightly rounded whorls and a broadly rounded periphery. Base with a very deep and

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narrow umbilicus. Aperture subcircular or transversely broadly-ovate; peristome continuous only as a thin callus across the parietal wall. Columellar-lip free and broadly reflected, partially encroaching upon the umbilical area. Protoconch relative large, smooth and almost completely inverted, so that the nuclear umbilicus shows as a small pit, only slightly off top centre. Adult sculpture of linear spaced finely and closely gemmulate spiral cords, 6-8 on the spire-whorls and continuing over the bodywhorl and base to just within the umbilical cavity. One of the cords, just below the level of the aperture, is slightly stronger than the rest, and those over the middle part of the base alternate between wider and narrower somewhat flatter spirals, less distinctly granulated. Colour uniformly buff. Operculum externally horny, multispiral, with a central nucleus as a small smooth sunken pit, remaining whorls with lamellate raggedly sinuous upcurved edges; internally calcified, with a bounding broad raised spiral ridge and a central projecting sharply tapered peg. The operculum resembles a drawing-pin or "thumb tack", and is exactly like the one figured for the Mediterranean jeffreysiana, type of the genus (Tyron, 1887, Manual of Conch.9, pl.1, fig.17). The shell of the Mediterranean species differs only in having a taller spire and coarser spiral sculpture.

Height 8.0 mm.; width 7.5 mm.

Locality: Between the Three Kings Islands and Cape Maria, van Dieman, 50 fathoms, in the cavity of a cup-sponge.

Holotype-Presented to the Auckland Museum by Mr K. Hipkins.

This is a remarkable addition to our fauna since the type species of the genus belongs to the Mediterranean.

Family CYMATIIDAE

Genus ANNAPERENNA Iredale, 1936

Type (o.d.) Ranella verrucosa Sowerby, 1825 = Murex papilla Wood, 1828.

Annaperenna verrucosa (Sowerby, 1825). Plate 22, figs., 5,6.

1825-Ranella verrucosa Sowerby, Cat. Coll. Tankerville, Append., p.18.

1828—Murex papilla Wood, Supp. Index Test.p.14,pl.5(Murex),fig.2. 1910—Argobuccinum papilla (Wood),Iredale,Proc.Malac.Soc.9,p.73; 1915—Bursa papilla (Wood), Oliver,Trans.N.Z.Inst.47,p.528. 1936—Annaperenna verrucosa (Sowerby), Iredale,Rec.Aust.Mus.19,p.310.

Type locality: Probably Norfolk Island (Iredale, 1936). Also known from Lord Howe Island, Kermadec Islands, and from Sydney Harbour dredge spoil.

This is another subtropical genus and species, that can now be added to the New Zealand faunal list on the basis of two fresh specimens taken by the Whangarei underwater group at the Poor Knights Islands.

The species is most distinctive on account of the heavy rounded tubercles which are dark brown, against a pale cream ground. The maculations have slightly diffused edges which imparts a scorched look to the tubercles. One of the Poor Knights Islands specimens (fig. 6) is not fully adult, which shows in the nature of the maculations on the tubercles, for they are dashes rather than heavy rectangular spots, as shown in a Kermadec topotype (fig. 5). However, the second specimen, taken off the southern tip of the Poor Knights, is adult and has the large maculations.

Height, 35.0 mm.; width, 22.5 mm. Raoul Island, Kermadec Islands.

Height, 35.0 mm.; width, 21.5 mm. Poor Knights Islands.

Localities (New Zealand)—Poor Knights Islands, off the northern tip of Tawhiti Rahi Island, at the foot of a steep cliff-face at about 150 feet, in sand and rubble (Mr J. Voot, 1965); off the southern tip of Aorangi Island, at about 50 feet (Mr B.Anderson, 1965).

Family NATICIDAE Genus POLINICES Montfort, 1810

Type (o.d.) Polinices albus Montfort, 1810 = Nerita mammilla Linnaeus, 1758.

Polinices tawhitirahia n.sp. Plate 22, figs. 1-3.

Another striking find by the Whangarei members of the Underwater Club, from off the Poor Knights Islands, was this large solid porcellanous *Polinices*, which is very similar to the common tropical South West Pacific shell, long known as "mammilla Linnaeus, 1758". It is very doubtful, however, if the name mammilla can be retained for the tropical Pacific shells since Linnaeus quoted the locality of his species as "Habitat ad Barbados", which if correct, would make this a prior name for the West Indian shell known as *Polinices lacteus* (Guilding, 1834), and the Indo-Pacific mammilla auct. would then become pyriformis (Recluz, 1844). This latter action has already been taken by Rippingale and McMichael (1961, Queensland and Great Barrier Reef Shells, p. 91).

Other tropical Pacific shells, approaching mammilla auct. in size, solidity and porcellanous appearance are albula Recluz, 1851 and flemingiana Recluz, 1844, the former from Amboina and Wallis Island, the latter from the Philippines. However, not one of these species matches the Poor Knights material, which is characterised by a low bluntly conical spire, is never umbilicate and shows an unusual tendency for the callus pad to completely cover the umbilical area in juvenile and half grown examples, but to exhibit a crescentic cleft or deep groove around the lower edge of the callus in mature shells.

A large white *Polinices* recently described by Mr T. A. Garrard (1961, Journ. Malac. Soc. Austr. 5, p. 18), as *putealis*, resembles the Poor Knights shells in outline but the parietal callus is relatively slight, leaving a deep umbilical cavity which extends right through to the spire.

It is not certain that the Poor Knights species is a recent derivitive from tropical Pacific stock, for this type of naticoid was very abundant in New Zealand in the middle and upper Tertiary to as late as the Otahuan stage of the lower Pliocene. Therefore, the Poor Knights species could represent a northward straggling relict from a local warmer water upper Tertiary fauna. The Norfolk Island record is of intertst in this connection also, for local stock could have been driven northward during cooling post-Pliocene times, and may now be in the process of repopulation southward, under present assumed more favourable conditions.

Description: Shell large, 25-30 mm. in height, very solid, porcellanous-white, rather wide, with a low broadly conical spire. Aperture semilunar. Parietal callus heavy, entirely sealing the umbilicus in juvenile and half-grown examples, but in mature shells, there is a well marked crescentic groove defining the outer edge of a large funicle that is entirely covered with callus; in no example is there a perforate umbilical cavity.

rieight	width	
30.0 mm.	26.5 mm.	Norfolk Island.
28.0 mm.	26.0 mm.	Poor Knights Islands (holotype).
27.0 mm.	25.0 mm.	Poor Knights Islands (paratype).
25.5 mm.	23.0 mm.	Poor Knights Islands (paratype).
20.0 mm.	18.0 mm.	Poor Knights Islands (paratype).

Localities: New Zealand, at the northern tip of Tawhiti Rahi, Poor Knights Islands, off the Northland east coast, at about 120 feet, in sand and rubble at the foot of a steep cliff face (Mr W. Palmer and his associates, February, 1965) (no living examples were taken but all are in a fresh uneroded state) (holotype and paratypes); Norfolk Island, one dead shell from the cable in 45-50 fathoms, just south of the island (Mr W. Foster,C.S."Recorder",1934).

Family CYPRAEIDAE Genus EROSARIA Troschel, 1863

Type (s.d. Jousseaume, 1884): Cypraea erosa Linnaeus, 1758.

Erosaria cernica tomlini Schilder, 1930. Plate 23, figs. 15-19.

1915-Cypraea flaveola Linnaeus: Oliver, Trans. N.Z. Inst. 47, p.526 (not of Linnaeus, 1758).

1930—Erosaria cernica tomlini Schilder, Proc. Malac. Soc. 19, p. 51. 1939—Erosaria tomlini prodiga Iredale, Austr. Zool. 9 (3), p. 307.

1956—Ravitrona tomlini Schilder: Allan, Cowry Shells of World Seas, p.93. 1958—Ravitrona tomlini kermadecensis Powell, Rec. Auck. Inst. Mus. 5 (1-2), p.79,

pl.10,fig.5.

1962-Cypraea (Erosaria) cernica viridicolor Cate, Veliger,4(4),p.175,pl.40, figs.1-9.

Type localities:-tomlini (Lifu,Loyalty Island); prodiga (Newcastle, New South Wales); kermadecensis (Raoul Island,58-60 metres, Kermadec Islands); viridicolor (Northwest Cape, Western Australia).

Mr W. Palmer and his associates of a Whangarei underwater club, have added this interesting new record to our fauna, the first true cypraeid to be found in New Zealand waters. These specimens were taken in a very fresh state, but not actually living, at a depth of about 120 feet, at the northern extremity of the Poor Knights Islands, off the Northland east coast. Since then a badly worn specimen was located in an assortment of beach shells from the island at Cape Maria van Diemen, collected by Mr F. Young in 1933.

The New Zealand specimens seem to be identical with the Kermadec shells, one from Lord Howe Island and others from New South Wales localities. There is a name available for the New South Wales shells in Iredale's tomlini prodiga but it seems that all the above-mentioned material is not significantly different from Schilder's tomlini, from the Island of Lifu. Again, there is little tangible evidence to segregate Cate's viridicolor from Western Australia.

Measurements and apertural denticle counts, as shown in the following table, indicate these features to be quite variable, even within local populations, and would thus appear to have no significance.

On the other hand, cernica is readily distinguished by its broadly arched dorsum, with laterally spread sides, pale coloration with a white spotted honey coloured dorsum, and rather pale and more sparse lateral brown spots. Typical cernica is represented in the Australian Museum collections from Mauritius (type locality), Bombay, India, New Hebrides and Bampton Reefs, Coral Sea. Schilder considered cernica to be precinctive to the Lemurian Region. I am indebted to Dr D. F.

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McMichael for the opportunity of examining the fairly extensive material of this group in the Australian Museum collections.

Two other geographic subspecies of cernica have been described: ogasawarensis Schilder, 1945 from Japan and marielae Cate, 1960 from Hawaii, but neither of these names have direct bearing upon the identity of the New Zealand shell.

Measurements in mm.				Denticles	
Length	width	height	outer lip	columellar lip	locality
31.00	20.00	16.00	-	19	Poor Knights Islands
30.50	18.00	14.75	18	18	Kermadec Islands
30.00	18.00	-	19-20	14	Type of prodiga
29.00	18.5	15.00	18	19 -	Poor Knights Islands
28.75	19.00	15.00	20	18	Kermadec Islands
28.20	18.50	13.80	20	17	viridicolor (paratype)
28.00	18.00	15.00	15	18	Broken Bay, N.S.W.
27.75	17.50	14.00	16	15	Lord Howe Island
27.50	18.50	14.75	20	19	Kurnell, N.S.W.
27.50	18.00	15.00	18	18	Poor Knights Islands
27.50	17.00	14.00	18	14	Kermadec Islands
27.50	17.50	14.00	19	19	Poor Knights Islands
24.50	16.00	12.50	18	18	Sydney, N.S.W.
24.00	15.00	11.75	18	18	Type of kermadecensis
23.75	14.25	11.50	17	16	Paratype of kermadecensis
21.40	14.40	10.80	18	14	Holotype of viridicolor
21.00	13.00	10.75	16	16	Cape Maria van Dieman

Description of Poor Knights Islands material.—Shell shining, rather highly polished. Dorsum dark honey-coloured to organe-brown with evenly sprinkled but irregularly sized pale spots. Sides, base, teeth and interior, porcellanous white. Margins coarsely pitted, and others sparsely and irregularly distributed along the sides. Outer lip denticles varying between 18 and 19, columellar denticles also 18 and 19 and fossula denticles 4 to 6. The columellar teeth are rather evenly graded, not stepped, and extend about one-fifth of the way across the base. In the holotype of kermadecensis the columellar teeth extend over one third across the base but in other Kermadec material, a quarter to a fifth is the usual extent.

Localities-NEW ZEALAND: Poor Knights Islnds, northern end of Aorangi at entrance to cave at about 60 feet, on sand amongst rubble and boulders (Mr W. Palmer; 4 specimens examined but over 20 examples known to have been taken by his associates); amongst beach debris at Cape Maria van Dieman (island) (Mr F. Young, 1933; one very worn and bleached specicen).

Family FASCIOLARIIDAE Genus LATIRUS Montfort, 1810.

Type (o.d.): Murex filosus Lamarck (based upon Martini Chemnitz, Conch. Cab. 4, pl. 141, figs. 1308, 1309 = Murex gibbulus Gmelin, 1790)

Latirus gibbulus (Gmelin, 1790). Plate 23, fig. 12.

- 1790-Murex gibbulus Gmelin, Syst. Nat.ed. 13, p.3557 (based upon Knorr, 5, pl.10, fig.4).
- 1816—Fusus filosus Lamarck, Ency, Meth.vers., pl.429, Liste, p.7. 1840—Fusus filosus Lamarck; Kiener, Icon.Coq.Viv.p.40, pl.21, fig.1. 1847—Turbinella gibbula (Gmelin), Reeve, Conch.Icon.4, pl.7, fig.36 (New Hol-
- land).
- 1881-Latirus gibbulus (Gmelin); Tryon, Man. of Conch. 3, p. 88, pl. 67, fig. 117 and pl.68, fig. 126.
- -Latirus gibbulus (Gmelin); Hedley, Austr. Assoc. Adv. Sci. sect. D, Biology. Presid. Address, p.365 (recorded Queensland). 1909-

A well preserved example of this handsome shell, three inches in height (76 mm.), was picked up on Mimiwhangata Beach, east coast, north of Whangarei, by Mrs B. C. le Clerc of Helena Bay, in 1963. There is some doubt as to whether this shell was a natural occurrence, or whether it originated from some vessel. Mrs le Clerc mentioned that HMNZS Lachlan anchored in the vicinity for some days after a Pacific cruise, and just prior to the finding of the shell, which came ashore amongst storm wrack. The species is evidently quite rare and seems to belong exclusively to the North Queensland fauna, an area not visited by the Lachlan during the above mentioned cruise.

However, unless corroborative evidence is forthcoming it is not advised that the species be added to our faunal list at present.

The shell is very solid with a broadly rounded submedian angulation, and sculptured with broadly rounded axials, 8-9 per whorl, more or less confined to the peripheral area. The external colour of the shell is brown-orange, narrowly spirally lined in dark chocolate. Interior of aperture and parietal callus pale pink to salmon.

Family VOLUTIDAE Genus PACHYMELON Marwick, 1926. Subgenus PALOMELON Finlay, 1927.

Type (o.d.) Cymbiola lutea Watson, 1882.

Pachymelon (Palomelon) grahami n.sp. Plate 23, fig. 14.

Shell very small for the genus, solid, ovate, with a short spire, about two thirds the height of the aperture. Whorls evenly rounded except for the last whorl which is very faintly shouldered. Aperture sublunate with a thick rounded lip, especially thickened over the shoulder area to the suture. Protoconch large, blunt, cylindrical of $2\frac{1}{2}$ smooth whorls. Adult sculpture of numerous rounded axial folds, extending from suture to suture and over the whole of the body-whorl, but becoming progressively weaker over the lower part of the base. Anterior notch wide and shallow; fasciole weak and not margined. Columella with four evenly developed slightly oblique folds. Colour uniform pinkish-buff.

Height, 32.5 mm.; width, 15.3 mm.

Locality: Off Oamaru in 50 fathoms, trawled by Mr. J. Graham of Oamaru.

This is a dwarf species, far smaller than any other Recent species, and only exceeded in smallness by the Opoitian, lower Pliocene *powelli* Laws, 1936, (fig. 13) from Kaawa Creek. The Kaawa shell, which measures 28 mm. in height, differs from the Recent species in having an excavated shoulder slope, a less flared outer-lip, and much weaker axial sculpture, which is reduced over the shoulder sulcus and subobsolete over most of the body-whorl.

Holotype: Presented to the Auckland Museum by Mr J. Graham.

Family TURRIDAE Genus AUSTRODRILLIA Hedley, 1918. Subgenus REGIDRILLIA Powell, 1942.

Type (o.d.) Austrodrillia (Regidrillia) sola, Powell, 1942.

Austrodrillia (Regidrillia) secunda n.sp. Plate 22, fig. 7.

Shell of moderate size, strong, elongate-claviform, with a tall

turreted spire, slightly greater than height of aperture plus canal. Protoconch of about $2\frac{1}{2}$ whorls, the first $1\frac{1}{2}$, a broad depressed tip, smooth except for a low-set prominent narrowly rounded carina; succeeding whorl taller and with regular widely spaced narrow crisp axials, additional to the carina, which gradually rises to a median position. The protoconch passes imperceptibly into the adult sculpture, except for the gradual development of a subsutural fold, which becomes obsolete before the penultimate is reached. Adult sculpture of slightly oblique heavy rounded axials, strongest at the median weak angulation, extending over most of the base, but weak over the shoulder slope and not quite reaching the suture. Spiral sculpture overriding the axials, consisting of fine crisp crowded threads on the shoulder slope, two stronger cords on the spire whorls, one peripheral, the other below, towards the lower suture, and six additional cords on the base, plus five more closely spaced, on the slight anterior fasciole. Body-whorl rather long and narrow, gradually tapered to a short anterior canal, with a wide but not emarginate termination. Aperture rather narrow, with a thin edged outer lip, which, however is very heavily variced behind. Sinus deep, U-shaped, occupying the lower half of the shoulder slope, constricted above by a very massive callus, adjoining the suture and the parietal wall. Colour buff to light brown, conspicuously banded with a broad subperipheral reddish-brown zone and another at the anterior end. The species differs from sola Powell, 1942, the only other known species of the subgenus in being of a much more slender shape, with a more depressed and more strongly carinated protoconch, and a much more massive parietal callus pad.

Height, 10.5 mm.; width 4.0 mm.

Localities: Great Barrier Island (N. Gardner) (holotype); trawled, Bay of Plenty (collection of Mr N. Gardner).

Holotype: In the Auckland Museum, presented by Mr N. Gardner.

Family BULLIDAE

Genus BULLA Linnaeus, 1758

Subgenus QUIBULLA Iredale, 1929.

Type (o.d.) Bulla botanica Hedley, 1918.

Bulla (Quibulla) subtropicalis n.sp. Plate 22, figs. 8, 9.

A shell picked up on Ocean Beach, Whangarei Heads, by Mr J. R. Penniket, and three beach specimens from the island at Cape Maria van Dieman, differ from the common local *quoyi* (Gray, 1843) at sight; they are of more cylindrical form, with the outer lip bent inward above and medially, and the apical cavity is a minute straight-sided perforation, not slightly perspective as in *quoyi*. The colour pattern differs also in being irregularly pale speckled on a light reddish-brown ground, and only obscurely banded in the form of moderate to large diffused blotches in darker reddish brown. Interior of aperture and columellar callus white. No spiral striae on the base, a characteristic feature of *quoyi*.

This is the shell found commonly at Norfolk Island and at the Kermadecs, from whence it was recorded by Oliver (1915, Trans. N.Z. Inst. 47, p. 542) as *Bullaria peasiana* Pilsbry (1893, Man. of Conch. 15, p. 348), which was a new name for the preoccupied *Bulla marmorea* Pease, 1860 (Proc.Zool.Soc., p. 431), type from the Hawaiian Islands.

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The Hawaiian peasiana is a much more elongated shell, with flatter sides and a considerable taper to the rather narrow apical area.

Height	width	(Measurements in mm.)
30.00	19.00	Norfolk Island
28.00	18.00	Norfolk Island
27.00	17.00	Norfolk Island (holotype)
24.00	15.25	Kermadec Islands
24.25	15.50	Kermadec Islands
22.00	14.00	Ocean Beach, Whangarei Heads
21.00	13.00	Kermadec Islands

Localities: Norfolk Island (A.W.B.P.coll., Auck.Mus.); Sunday Island (Raoul Island), Kermadecs (A.W.B.P.coll., Auck.Mus.); New Zealand, Ocean Beach, Whangarei Heads (Mr J. R. Penniket); Cape Maria van Dieman (island) (Mr F. Young, 1933); the island, Kapowairua, Spirits Bay (N. Gardner, 1964).

Holotype: Auckland Museum (Norfolk Island).

Family ATYIDAE

Genus ATYS Montfort, 1810.

Type (o.d.): Atys cymbulus Montfort, 1810 = Bulla naucum Linnaeus, 1758.

Atys naucum (Linnaeus, 1758).

1758—Bulla naucum Linnaeus, Syst. Nat., 10th.ed., p.726 (Asia). 1810—Atys cymbulus Montfort, Conchyl. Sys.2, p.343. 1855—Bulla naucum Linnaeus, Sowerby, Thes. Conch.2, p.584, pl.124, figs. 107-109

(Philippines and Borneo; Cuming).
1929—Atys naucum (Linnaeus), Iredale, Austr.Zool.5(4), p.348 (New South Wales, Sydney Harbour dredgings).
1952—Atys naucum (Linnaeus), Habe, Illustr.Cat, Japanese Shells, no. 20, p.137

(Japan).

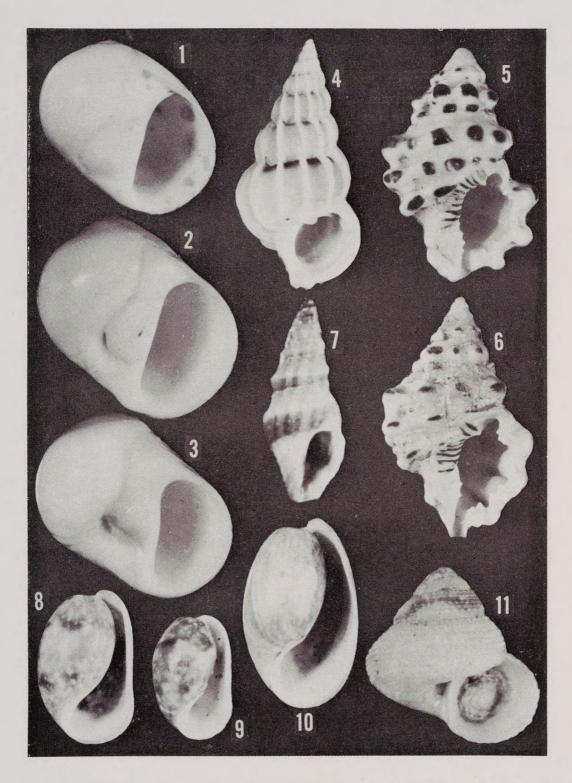
This comparatively large white-shelled opisthobranch is usually associated with the tropics, but Iredale (1929) recorded it from as far south as Sydney Harbour, where it was taken in spoil from dredging operations. Now I am able to record the finding of two specimens from New Zealand. These were not fully grown, but were in a fresh condition, although not containing the animal. They were washed up at about twelve months interval, at Snell's Beach near Warkworth, north of Auckland. I am indebted to Mr J. R. Penniket, the finder, for permission to publish this interesting record.

In addition to the localities cited in the synonymy, Philippines, Borneo, Japan and New South Wales, the species was recorded from Amboina (Rumphius, 1741). and is represented by material in the writer's collection from Magnetic and Dunk Islands, Queensland, and Kandavu, Fiji.

Height	width	
42.0 mm.	31.50 m.m.	Dunk Island (fully grown)
25.5 mm.	17.75 mm.	Shell's Beach, New Zealand.
25.0 mm.	17.50 mm.	Dunk Island, Queensland.

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PLATE 22



Figs. 1-3 Polinices taxchitirahia n.sp. Poor Knights Islands; holotype (fig. 2) and paratypes. Fig. 4 Pomiscala perplexa (Pease, 1867), Great Exhibition Bay. Figs 5, 6. Annaperenna verrucosa (Sowerby, 1825), Poor Knights Islands (fig. 6) and Kermadec Islands (fig. 5). Fig. 7 Austrodrillia (Regidrillia) secunda n.sp., Great Barrier Island (holotype). Figs. 8, 9. Bulla (Quibulla) subtropicalis n.sp., Norfolk Island (holotype) (fig. 8), Whangarei Heads (fig. 9). Fig. 10. Bulla (Quibulla) quoyi (Gray, 1843), Cheltenham, Auckland. Fig. 11. Gyriscus asteleformis n.sp., between Three Kings and Cape Maria van Dieman, 50 fathoms (holotype).

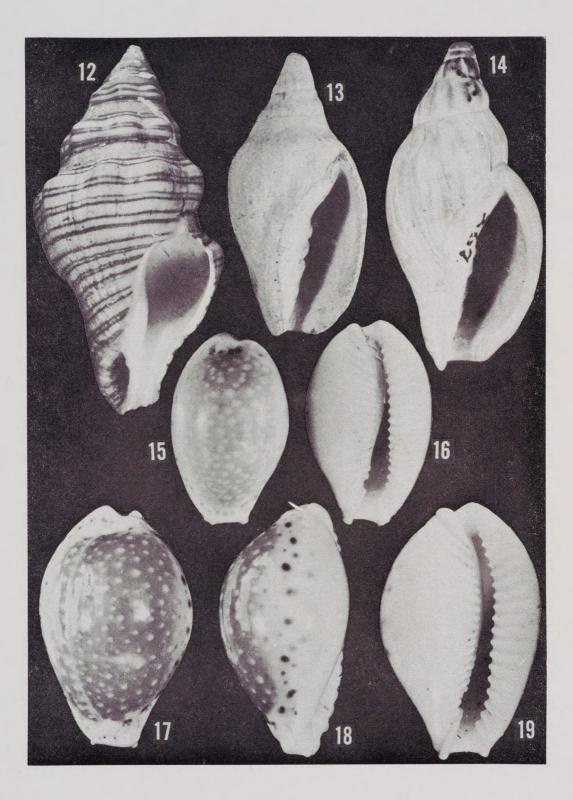


Fig. 12. Latirus gibbulus (Gmelin, 1790), Mimiwhangata, Northland. Fig. 13 Pachymelon (Palomelon) powelli Laws, 1936, Kaawa Creek, Opoitian lower Pliocene (holotype). Fig. 14. Pachymclon (Palomelon) grahami n.sp., off Oamaru, 50 fathoms (holotype). Figs. 15-19. Erosaria cernica tomlini Schilder, 1930, Raoul Island, 58-60 metres, Kermadec Islands (figs. 15, 16, holotype of kermadecensis Powell, 1958); Poor Knights Islands (figs. 17-19.).



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