

A NEW LARGE SPECIES OF *PSEUDOVERTAGUS*
(GASTROPODA, CERITHIIDAE) FROM
WESTERN AUSTRALIA

B. R. WILSON*

[Received 1 September 1974. Accepted 4 September 1974. Published 31 December 1975.]

INTRODUCTION

Cerithiids are generally gregarious and abundant within their habitat. It is a surprise therefore to discover a large and hitherto unknown species from the Western Australian coast near Perth. In February 1964 Mrs Gladys Hansen of Perth found a shell near Point Peron, Cockburn Sound, which she brought to me for identification. Provisionally I identified it as *Pseudovertagus clava* (Gmelin, 1791), but since then I have seen specimens of that species and I am now satisfied that Mrs Hansen's shell is new. I have seen only two other specimens, both shells occupied by hermit crabs taken from lobster pots in the Fremantle area and now in the collection of the late Mr Harry Baker of Fremantle. Although there is so little material and no live-taken specimen, the species is so distinctive that I have no hesitation in describing and naming it as follows.

Pseudovertagus peroni sp. nov.
(Pl. I, figs. 1-4)

Holotype

WAM 324-73, a shell without operculum collected by Mrs G. Hansen, February, 1964.

Type locality: Point Peron, Western Australia, 32°16'S, 115°42'E.

Description of the holotype

Large, solid, attenuate with almost straight sides. Protoconch broken off, teleoconch comprising 13 whorls, sutures sharply incised grooves, thin and shallow, with a prominent broad pre-sutural band comprising posterior 1/4 — 1/3 of spire whorls. On badly worn early spire whorls (1 to 6) pre-sutural band flat and smooth, on whorls 7 to 10 pre-sutural band cast into irregular low axial folds becoming broad, low but prominent axial ribs on the pre-sutural band of 3 remaining whorls. In front of pre-sutural band early spire whorls sculptured, first with 2 contiguous, nodulose spiral ribs, followed by

*Western Australian Museum, Perth, Western Australia 6000

6 narrow, rather flat spiral cords separated by finely incised spiral grooves, and finally by another spiral rib immediately behind suture of next whorl. On 10th, 11th and penultimate whorls central spiral cords quite flat and smooth and distinguishable only by thin lines representing positions of spiral grooves. Penultimate whorl bears a distinct and rather steeply sloping post-sutural ramp. Spiral sculpture more pronounced on body whorl with two weakly nodulose, contiguous spiral ribs in front of pre-sutural band, followed by 2 weaker, more widely separated spiral ribs, anterior one located on periphery, and 3 others around anterior slope of whorl. Weak growth lines prominent, crossing spiral sculpture on all whorls. Weak axial folds on body whorl, especially down anterior slope. A conspicuous axial swelling on left side of body whorl resembling a broad, poorly defined varix.

Outer lip flared, sharp-edged anteriorly, much thickened and reflected upwards posteriorly, with 6 indistinct denticles along inner edge. Anterior siphon canal high, rather straight but slightly posteriorly reflected at its tip. Posterior canal conspicuous, constricted at its base, leading back into a groove, bordered by tongue of callous which crosses suture and adheres to side of penultimate whorl as in strombids of genus *Rimella*, though much shorter than in that genus, Parietal and columellar walls thickly calloused, smooth except for prominent, angular parietal nodule bordering posterior canal. Prominently flared ramp or lip on columella behind anterior canal. No trace of umbilicus.

Shell exterior shiny, especially on ventral surface, ivory white with chestnut brown blotching between ribs and axial folds of pre-sutural band, and sharply defined chestnut brown spiral lines. Aperture and parietal — columellar callous glossy-white except for brown patch on parietal nodule and another on calloused left-hand edge of anterior siphon canal.

Length 13.49 cm, width 3.95 cm.

Remarks

The 2 specimens owned by the late Mr Harry Baker agree well with the description of the holotype though one is very battered and the other juvenile.

The nearest living relative of this species is probably *P. clava* (Gmelin, 1791) [Pl. II, figs. 5-8] which is found in New Calendonia and the islands of French Polynesia. (Records of the species from the Galapagos Islands are probably erroneous; pers. comm. Dr Harald A. Rehder). I have examined a series of specimens of the latter species collected by Dr Rehder and myself at Oeno Atoll, Tuamotu Archipelago and Pitcairn Island. In that species the shell is stouter and more heavily nodulose; there are prominent axial ribs on the early whorls which are absent in the new species; the pre-sutural band is much less conspicuous; and the spiral ribs are stronger, especially on the anterior slope of the body whorl. In *P. clava* there is a prominent angular fasciole on the left side of the anterior siphon canal and a low plait on the posterior part of the columella deep within the aperture which are absent in *P. peroni*; there are pits representing both a true umbilicus and a false umbilicus, and a horizontally flared lip or ramp anteriorly behind the anterior siphon canal.

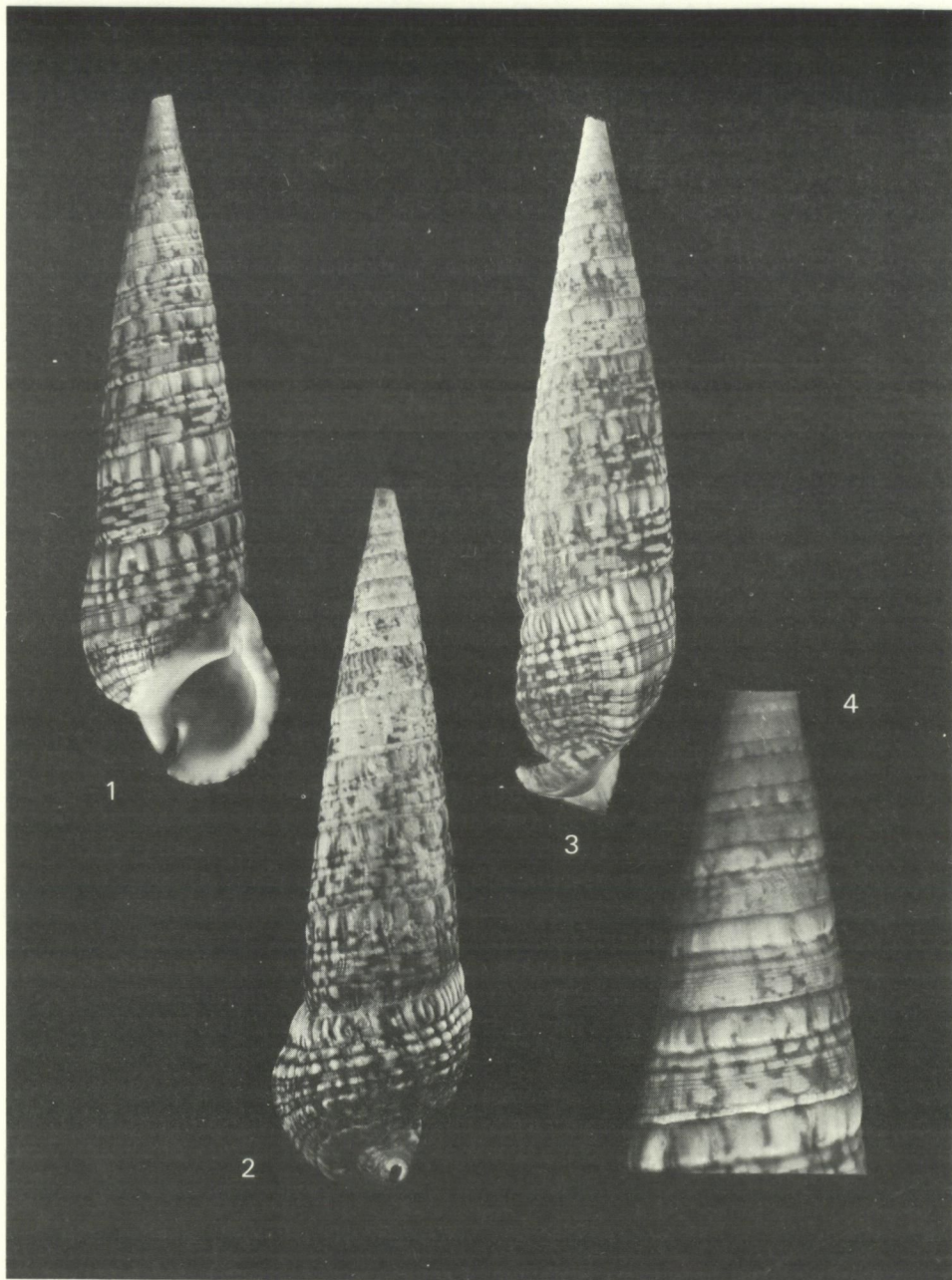


Plate I, figs. 1-4: *Pseudovertagus peroni* sp. nov. Holotype, WAM 324-73. Point Peron, Western Australia. (Figs. 1-3 one-third nat. size, fig. 4 two-third nat. size).

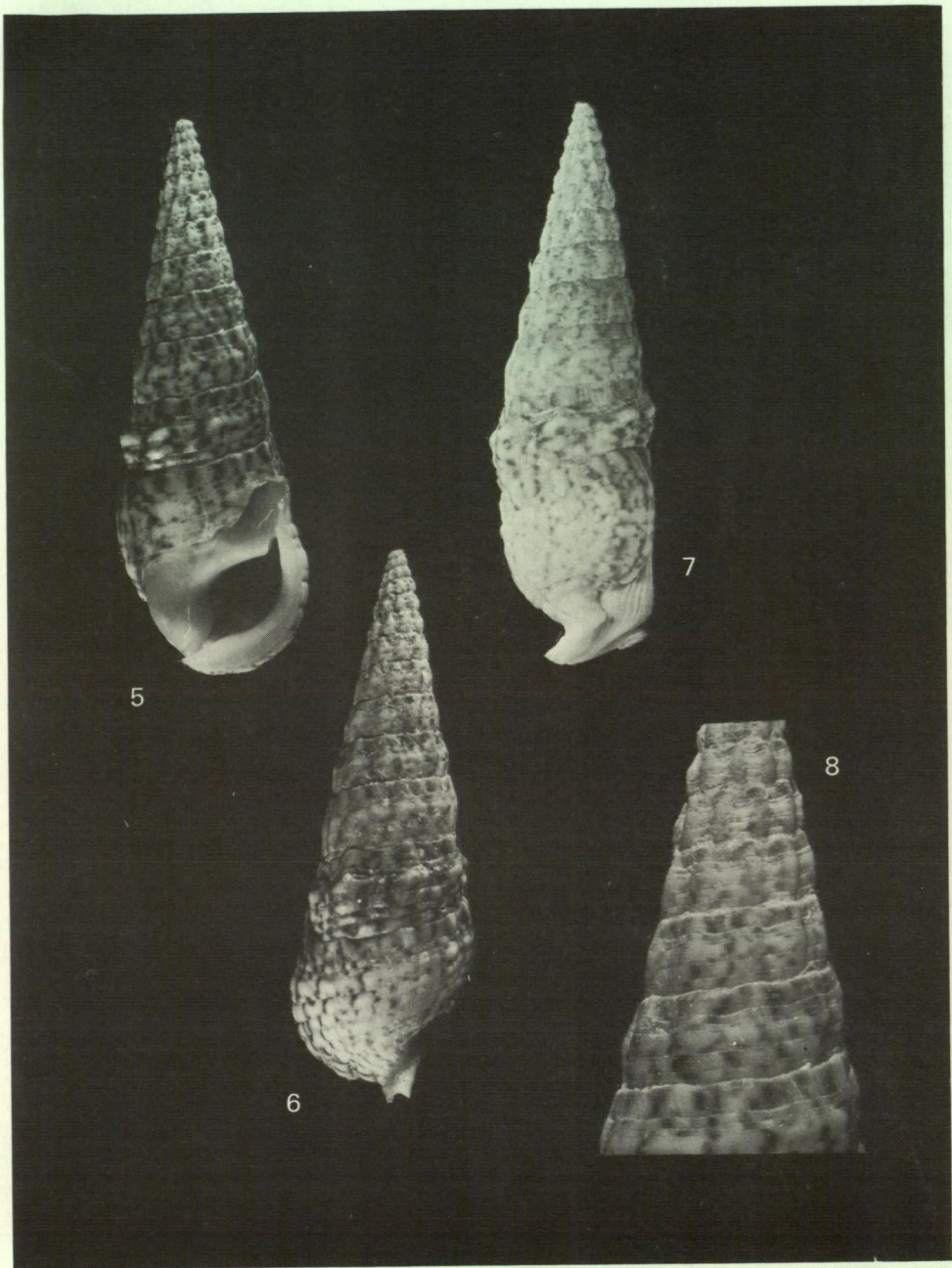


Plate II, figs. 5-8: *Pseudovertagus clava* (Gmelin, 1791). WAM 490-74. SW side Oeno Atoll, Tuamotu Arch., Pacific. (Figs. 5-7 one-third nat. size, fig. 8 two-third nat. size).

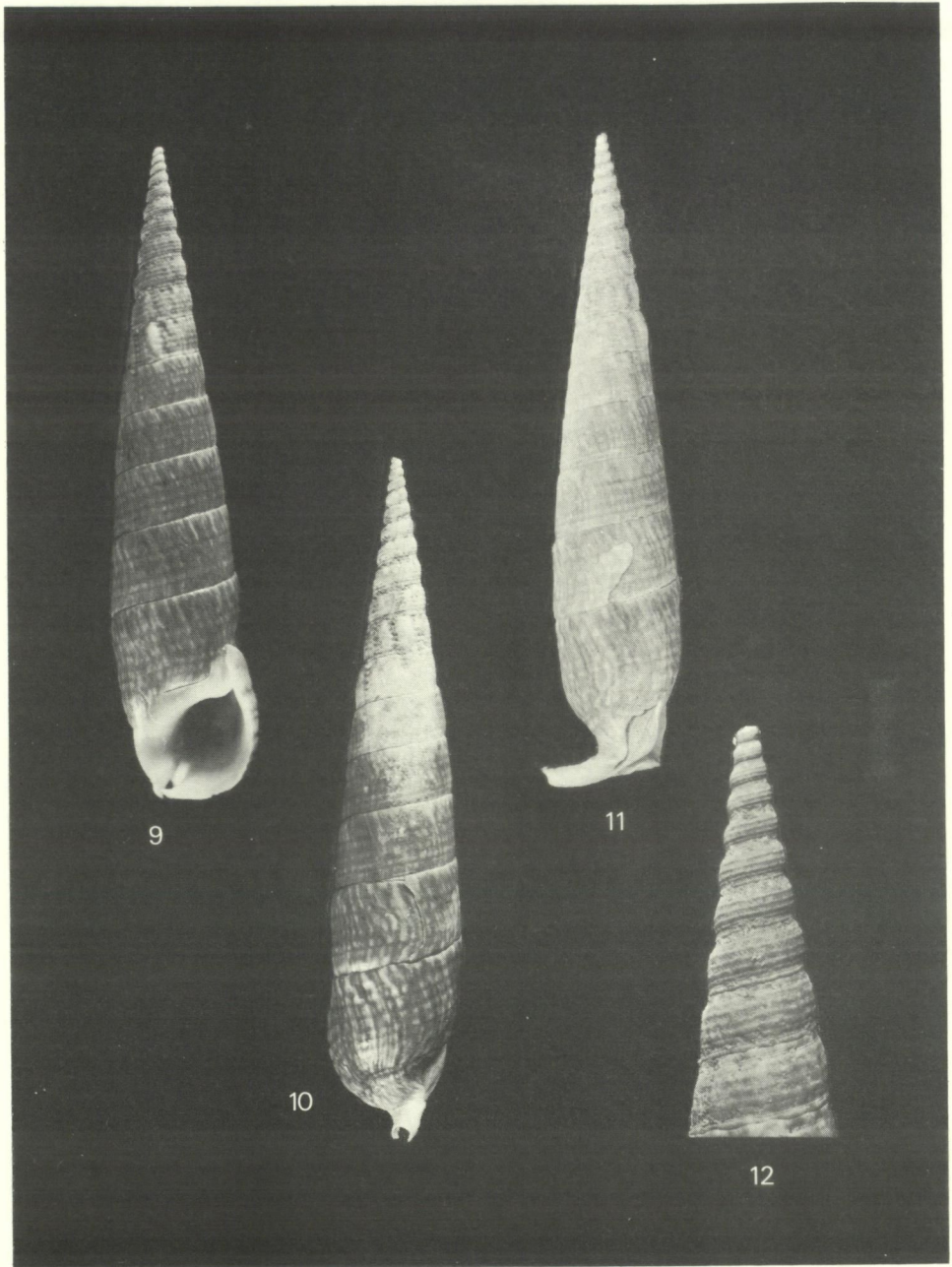


Plate III, figs. 9-12: *Pseudovertagus nobilis* (Reeve, 1866). WAM 322-73. Puerto Galera, Mindoro I., Philippines. (Figs. 9-11 one-third nat. size, fig. 12 two-third nat. size).

P. nobilis (Reeve, 1866) [Pl. III, figs. 9-12] of the Philippines and other parts of the Western Pacific is probably another relative but in that species the shell is quite long, attenuate and almost smooth except for strong spiral cords and axial striae on the earlier spire whorls. Spiral ribs are lacking except near the lip and on the anterior slope of the body whorl, and the anterior siphon canal is very high and straight. There is also a prominently flared, sharp-edged columellar lip just behind the anterior siphon canal in *P. nobilis* which is lacking in *P. peroni*.

The only other comparable species known to me is *P. sowerbyi* (Kiener, 1842) which also comes from the Philippines and northern Australia, but it is immediately distinguished by its conspicuous chestnut spots; it cannot be confused with the present species.

A number of medium and large fossil cerithiids occur in Tertiary and Quaternary sediments in southern Australia (Ludbrook, 1971) but none of them bear any close resemblance to *P. peroni*.

Salvat (1967) referred *clava* to *Pseudovertagus* Vignal, 1904, though noting the reflection or low columellar plait deep within the aperture, a character absent in *P. nobilis*, *P. sowerbyi* and *P. aluco* which are the other species he cites as congeners. This character is also absent in *P. peroni*. Although Salvat ranked *Pseudovertagus* as a subgenus of *Cerithium* s.s., Drs Joseph Houbricks and Harald Rehder advise me that it is better accorded full generic rank. I follow their opinion here.

The apparent rarity of *P. peroni* is anomalous for a cerithiid because species of this family are usually gregarious and abundant. I have delayed reporting on this species for several years in the hope that the habitat would be discovered and that a larger series would become available. Although the holotype was found in shallow water near the 'Turtle Factory' on the lee side of Point Peron, a popular, well-collected locality, I doubt whether the species actually lives there. Mr Baker's specimens from lobster pots suggest a deeper off-shore habitat and that Mrs Hansen's shell may have been discarded where she found it by one of the lobster fishermen who moor their boats at that spot. These fishermen lay their pots among the limestone ledges west of Point Peron, most commonly at depths of 40 to 80 metres, and it is my belief that one day divers will find this large cerithiid crawling in abundance in sand patches between the rocky ledges.

The new species, like the type locality, is named after Francois Péron, the distinguished French naturalist who visited the west coast of Australia aboard the ship *Geographe* in 1801.

ACKNOWLEDGEMENTS

Special thanks are due to Mrs Gladys Hansen who generously presented her shell to the W.A. Museum so that the species might be described, and the late Mr Harry Baker who lent his specimens for study. Dr Harald A. Rehder kindly read and modified the original manuscript and provided information on the distribution of *P. clava*. Mrs Shirley Slack-Smith helped in many ways to prepare the manuscript.

REFERENCES

- KIENER, L.C. (1842). *Species general et iconographie des coquilles vivantes*. 5: 18, pl. 7, fig. 2.
- LUDBROOK, N.H. (1971). Large gastropods of the families Diastomatidae and Cerithiidae (Mollusca: Gastropoda) in southern Australia. *Trans. R. Soc. S. Aust.* 95 (1): 29-42, pls. 1-6.
- QUOY, J.R.C. & GAIMARD, J.P. (1834). *Voyages de découvertes de L'Astrolabe* 3: 1-954, and atlas.
- REEVE, Lovell (1866). *Vertagus*, *Conchologia Iconica* 15: pl. 2, fig. 8.
- SALVAT, Bernard (1967). *Cerithium (Pseudovertagus) clava* (Gmelin, 1791) (= *Clava maculata* Martyn, 1784) Taxonomie et distribution géographique. *J. de Conchyliologie*, 106: 130-137.
- TRYON, George W. (1887). *Manual of Conchology*, 9: 112-228.
- VIGNAL, L. (1904). Liste de coquilles de la famille des Cerithides recueillies par M. Ch. Gravier aux environs de Djibouti et d'Obock (1904). *Bull. Mus. Hist. nat., Paris*, 10: 354-359.