

HEIGHT (estimated): 80 mm; width 42 mm (holotype). Height, 60 mm (TM 3080).

LOCALITIES: Clifden, Southland, north bank, Clifdenian (GS 2155), lower sand of Lillburnian (GS 2939), shellbed near base of Waiauan (holotype and GS 7704). Stream bank by road bend, $\frac{1}{2}$ mile south of Alton Mill (GS 5624, S 167/594, Waiauan). Ormond Beds, Waitohu Survey District (GS 1332, Lower Tongaporutuan).

AGE: Clifdenian to Tongaporutuan (upper Lower Miocene to lower Upper Miocene).

REMARKS: As pointed out by Finlay (1930: 77), the closest Australian species is *P. calvus* (Tate) from the Miocene of South Australia and Victoria. This type of *Pterynotus*, with a single intervariceal tubercle, is not uncommon in the Eocene of Europe (*P. tripteroides* Lamarck, Lutetian) and persisted into the Miocene (*P. latilabris* Bellardi, *P. swainsoni* Michelotti, Vienna Basin) but does not seem to have been recorded in the western Pacific before the Miocene.

Pterynotus (*Pterynotus*) cf. *laetificus* Finlay

Finlay (1930: 77) recorded fragments of a new species of the *laetificus* group from Target Gully. The only specimen available (Finlay Coll., Auckland Museum, AM 7970), is a damaged juvenile, originally about 7 mm high, that differs from *P. laetificus* of the same size in its more slender build and more prominent, narrowly elongated intervariceal tubercle. More material is needed to test the systematic significance of these differences.

LOCALITY: Target Gully, Oamaru, coll. C. R. Laws.

AGE: Awamoan.

Subgenus PTEROCHELUS Jousseauime

1879. *Rev. Mag. Zool.* (Ser. 3) 7: 335.

TYPE SPECIES (? by original designation, *vide* Iredale, 1913: 470): *Murex acanthopterus* Lamarck (see Fig. 22). Recent, Northern Australia.

Pterynotus in which the outer lip is interrupted by a spinous and deeply channelled adapical digitation, fringed by extensions of the fimbriated varix.

The type species represents a group of *Pterynotus* that can be recognised in such Eocene species as *P. contabulatus* Lamarck, is present in the Miocene of Australia and New Zealand, and persists in the Recent fauna of the latter countries (*P. acanthopterus* (Lamarck), *P. triformis* (Reeve), *P. angasi* (Crosse). In the Australasian species the siphonal canal and the apertural channelled spine are either open, (*triformis*, *awamoanus*), partly closed (*acanthopterus*, some forms of *angasi*), or completely closed to form tubes like those of *Typhis* (*zealandicus*). The extreme form, *P. zealandicus* (Hutton) in which the canals are closed and a false holostomatous aperture produced by the meeting of the lips, was therefore classed by Finlay in the subgenus *Poropteron* Jousseauime, of which the type species *P. uncinarius* Lamarck, South Africa (see Fig. 21) also shares these characteristics. On the other hand, *P. zealandicus* is so similar in other features to the forms of *P. angasi* that link it with normal species of *Pterochelus* in the same area (compare Figs. 12, 13 and 16) that it must be derived from them. Its resemblance to *Poropteron*, which presumably developed in the same way in South African seas, is therefore considered due to convergence, and *Poropteron* is here restricted to two African species, *P. (Poropteron) uncinarius* and *P. (P.) mitriformis* (Sowerby). The siphonal canal has, in fact, become closed in several other independent lineages of Muricidae (*Cerastostoma*, *Pterynotus trialatus* (Sowerby), *Ocinebrellus*).