PONDERIA GEN. NOV. with discussion of related genera, and description of
Ponderia abies SP. NOV. (GASTROPODA MURICIDAE MURICINAE).

Roland HOUART
St. Jobsstraat, 8, B-3330 Landen (Ezemaal) Belgium.
Scientific collaborator at the Institut Royal des Sciences Naturelles de Belgique.

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ABSTRACT:

Ponderia gen. nov. is here named with Typhis zealandicus Hutton as type species
Also included are two other species: Murex canalisferus Sowerby and Ponderia abies
sp. nov. Pterynotus iredalei Fleming is synonymized with Murex canalisferus Sowerby
and separated from Murex cancellatus Sowerby.

RESUME:

Un nouveau genre, Ponderia, est nommé; Typhis zealandicus est désigné comme espè-ce type. Deux autres espèces y sont incluses: Murex canalisferus Sowerby et Ponderia abies sp. nov. Pterynotus iredalei Fleming est mis en synonymie avec Murex canalisferus Sowerby et séparé de Murex cancellatus Sowerby.

INTRODUCTION.

Dr. Ponder (Australian Museum) recently sent to me an unidentified muricid which proved to belong to an undescribed species. A new genus is proposed for this new species and two others which are all endemic to the West Pacific (approximately between 30° and 40° S; 150° and 180° E). The genus is similar to Prototyphis Ponder, 1972 and two other genera, recently transferred from the Typhinae to the Muricinae by D'Attilio (1982: 94): Pterotyphis Jousseaume, 1880 and Tripterotyphis Pilsbry and Lowe, 1932 (= Nototyphis Fleming, 1962). The genus Poropteron Jousseaume, 1880, although belonging to the subfamily Ocenebrinae is also compared; Poropteron has a similar shell to the new genus, but this is due to convergence rather than true relationship, the species belonging to the Ocenebrinae having a purpuroid operculum and a different radula.

GENUS: Ponderia gen. nov.
TYPE - SPECIES: Typhis zealandicus Hutton, 1874.
ETYMOLOGY: named for Dr. Winston F. Ponder without whom this work would not have been possible.

DIAGNOSE.

Shell small, up to 35 mm in length; bearing three winged varices, each with a medium to long carinal spine. Siphonal canal and carinal spines closed, forming hollow tubes. Spiral and axial sculpture smooth. Aperture rounded slightly erect, forming an entire peristome, smooth inside.
## COMPARISON TABLE WITH RELATED GENERA.

<table>
<thead>
<tr>
<th>Carinal spine</th>
<th>Ponderia</th>
<th>Medium to long. Closed, joined on its lower side, forming a hollow tube. Carinal spines of preceding whorls closed and rounded.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 2</td>
<td>Poropteron</td>
<td>Medium, closed, joined on its middle.</td>
</tr>
<tr>
<td>3 - 4</td>
<td>Prototyphis</td>
<td>Short, strongly upward recurved, grooved by a narrow, open channel.</td>
</tr>
<tr>
<td>5</td>
<td>Tripterotyphis</td>
<td>Strongly upward recurved, sealed on its midline, generally wider than for Ponderia.</td>
</tr>
<tr>
<td>5</td>
<td>Pterotyphis</td>
<td>No carinal spine.</td>
</tr>
<tr>
<td>Aperture</td>
<td>1 - 2 - 3 - 5</td>
<td>Rounded to ovate, smooth.</td>
</tr>
<tr>
<td>4</td>
<td>Poropteron</td>
<td>Ovate, outer lip weakly undulate.</td>
</tr>
<tr>
<td>Operculum</td>
<td>1 - 3</td>
<td>Muricine, apical nucleus.</td>
</tr>
<tr>
<td>2</td>
<td>Prototyphis</td>
<td>Ocinebrine, lateral nucleus.</td>
</tr>
<tr>
<td>4 - 5</td>
<td>Tripterotyphis</td>
<td>Unknown.</td>
</tr>
<tr>
<td>Siphonal canal</td>
<td>1 - 2 - 4</td>
<td>Closed, joined on its midline, forming a hollow tube.</td>
</tr>
<tr>
<td>3</td>
<td>Murex canaliciferus</td>
<td>Open.</td>
</tr>
<tr>
<td>5</td>
<td>Pterotyphis</td>
<td>Partially closed.</td>
</tr>
<tr>
<td>Intritacalx</td>
<td>1 - 2 - 3</td>
<td>Absent.</td>
</tr>
<tr>
<td>4 - 5</td>
<td>Tripterotyphis</td>
<td>Elaborate intritacalx.</td>
</tr>
<tr>
<td>Radula</td>
<td>1 - 3</td>
<td>Muricine.</td>
</tr>
<tr>
<td>4</td>
<td>Pterotyphis</td>
<td>Muricopsine.</td>
</tr>
<tr>
<td>2</td>
<td>Prototyphis</td>
<td>Ocinebrine.</td>
</tr>
<tr>
<td>5</td>
<td>Tripterotyphis</td>
<td>Unknown.</td>
</tr>
<tr>
<td>Tubes</td>
<td>1 - 4</td>
<td>Within the varices.</td>
</tr>
<tr>
<td>5</td>
<td>Pterotyphis</td>
<td>Between the varices.</td>
</tr>
<tr>
<td>2 - 3</td>
<td>Tripterotyphis</td>
<td>Absent.</td>
</tr>
<tr>
<td>Size</td>
<td>1 - 2</td>
<td>Up to 35 mm.</td>
</tr>
<tr>
<td>3</td>
<td>Pterotyphis</td>
<td>Up to 25 mm.</td>
</tr>
<tr>
<td>4 - 5</td>
<td>Tripterotyphis</td>
<td>Generally not exceeding 20 mm.</td>
</tr>
</tbody>
</table>

From this table, Tripterotyphis, although near Ponderia, can be maintained as a separate genus. The shells of species of Tripterotyphis are much stouter and relatively smaller; the suture of spines is different and the radula, illustrated by Radwin and D'Attilio (1976: 203) has a muricopsine outline. Moreover, the shells of all the species belonging to Tripterotyphis show an elaborate intritacalx while the Ponderia have none.

The genus Pterotyphis, to which Murex canaliciferus Sowerby is assigned by Cernohorsky (1978: 72), is closer to Tripterotyphis than to Ponderia and its shell characters do not agree with the three species included in the new genus: it has strong spiral sculpture, a wider siphonal canal with large flaring wing, an elaborate intritacalx and has the tubes between the varices, no within.

Other similar genera are Pterynotus Swainson, 1833 and Pterochelus Jousseaume, 1880. Species in this genus have much larger shells, up to 100 mm in length and show
open carinal spines and siphonal canal. Species of *Purpurellus* Jousseaume, 1880 have larger shells, up to 70 mm in length, close carinal spines and siphonal canal, but these are closed in a different way, the upper side of the shoulder spines overlapping the right margin.

Differences in the construction of the spines and the siphonal canal, in the position of the hollow tubes, added to the other minor differences (see table) justify the erection of this new genus.

**DISCUSSION.**

Three species are included: *Typhis zealandica* Hutton, 1873; *Murex canaliferus* Sowerby, 1841 (= *Murex iredalei* Fleming, 1962); and *Ponderia abies* sp. nov. *Typhis zealandica* (type-species) was described as a fossil from the Pleistocene of New Zealand. However, a living specimen has been dredged from Cook Strait, New Zealand (Dell and Fleming, 1962).

Gertman (1969 : 186) was the first to notice the relationship between *Murex canaliferus* and *Pterynotus iredalei*, suggesting they could be the same species. The illustration of Sowerby (1841 : fig. 74) is good and it is sufficient to state that *Murex canaliferus*, although named from an unknown locality and probably described from a dead specimen with its siphonal canal showing an open channel, is the shell later named by Fleming.

*Murex canaliferus* is here considered as a valid species and not as a subspecies of *Typhis zealandica* as has been done by most recent authors, under the name *Pterynotus iredalei* Fleming, 1962.

*Murex cancellatus* Sowerby, 1841 (not *Murex canceellatus* Gmelin, 1791) is not a form of *M. canaliferus* as stated by Sowerby (1879 : 26) and by most recent authors (except Gertman, 1969 and Cernohorsky, 1978) and is a *Tripterotyphis*, probably the species named later as *Typhis triangularis* A. Adams, 1856. A specimen in the Dautzenberg collection (I.R.S.N.B., Brussels), purchased from Sowerby and Fulton, is here illustrated. It is labelled "*Murex canaliferus* Sowerby", but clearly is what Sowerby named *Murex canceellatus*. Fair (1976 : 29, text fig. 13) illustrated *Murex cancellatus* as *M. canaliferus*; Radwin and D'Attilio (1976 : 95) synonymized *T. zealandica* and *P. iredalei* with *Typhis angasi*, a totally different species belonging to *Prototyphis* Ponder, 1972.

**PONDERIA ABIES** sp. nov. . . . . . figs. 3 - 3a.

**DESCRIPTION.**

Shell medium sized for the genus, fragile. Aperture roundly ovate with entire peristome; columellar lip completely detached from the shell, smooth. No apparent anal notch. Outer lip smooth and erect, inner side smooth. Spire moderately low with a protoconch of unknown nature (broken) and 5 rounded nuclear whorls. Suture impressed. Body whorl bearing 3 fine varices ornamented with long, flat, closed and hollow carinal spines of the same size than the siphonal canal, followed by a varical flange consisting of 3 spinelets: the first one recurved upwards, the second one straight and the third one recurved downwards. Spire whorls ornamented with long carinal, closed and hollow spines. No axial nor spiral sculpture apparent.
Siphonal canal long and hollow, sealed from the aperture to the 2/3 of its length, recurved backwards on its tip and bearing a small sharp spine on its base. Mottled with white and light brown, small spinelets and siphonal canal mostly glossy white. Radula and operculum unknown.

**TYPE MATERIAL.**

Holotype, CI44982, Australian Museum, Sydney.

Size of shell: 20 x 19.5 mm (spines included).

Aperture: 3.5' x 2.2 mm; longest carinal spine: 9.5 mm; siphonal canal: 9.2 mm.

**TYPE LOCALITY.**

Off Newcastle, N.S.W., 7 Oct. 1982, 33°06.2'S, 156°09.3'E, 154-164 m.

R.V. "Tangaroa", stn U212.

**ETYMOLOGY.**

Named abies for its outline, which resembles a fir-tree.

**DISCUSSION.**

The new species may be compared with the two others species included in the new genus. It differs from *P. sealandica* in being more slender and having a narrower aperture. Moreover, *P. abies* is smooth while *P. sealandica* has a shallow spiral sculpture. Its siphonal canal is long, bearing one small spinelet, while the canal of *P. sealandica* shows a flaring wing, extending from the shoulder spine almost to the extremity of the siphonal canal.

*P. canaliferus* differs in having shorter and more upward recurved shoulder spines, a shallow spiral sculpture and a shorter siphonal canal with three short spines. It has also a comparatively larger aperture.

Judging from the illustration of *Murex tenuicornis* Tate, 1888 (Ludbrook, 1973: pl. 25, fig. 43), the reader could observe a striking resemblance with *P. abies*, however, *M. tenuicornis* has more angulate whorls with a well-marked carina on the last whorl. The body whorl is ornamented with a long open carinal spine (closed and forming a hollow tube for the new species), followed by 5 small spinelets. The carinal spine is more rounded and finer and the body whorl bears 2 to 3 spiral threads. The aperture is more angulate and the siphonal canal is narrowly open. The correct genus for *Murex tenuicornis* is probably *Pterochelus* Jousseaume, 1880.

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**BIBLIOGRAPHY.**


Sydney.


PLATE.

Fig. 1. *Ponderia zealandica* (Hutton, 1874), Pleistocene, Castle Cliff, New Zealand, 25.5 x 19 mm, R. Houart collection.

1A. Detail of varical spine and siphonal canal.

2. *Ponderia canaliferus* (Sowerby, 1841), Norfolk Island, 19 x 10 mm, Australian Museum C.59391.

2A. Detail of varical spine and siphonal canal.

2B. Operculum (X 10).

2C–2D. Protoconch (X 40).


3A. Detail of varical spine and siphonal canal.


Original label: "*Typhis cancellatus* Sow. var. *canaliferus* Sow. hab?, Sow. & Fulton ex coll. Mc Andrew XI.1917".