Description of a New Species of *Murex* s.s. (Gastropoda: Muricidae) from Taiwan

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The Recent and fossil species of *Murex* s.s. were revised by Ponder & Vokes (1988) and a few Recent species were named or commented on afterwards by Parth (1990, 1994), Neubert (1998), Houart & Dharma (2001) and Houart (2010). At least six species are known from Taiwan: *Murex aduncospinosus* Sowerby, 1841, *M. pecten* Lightfoot, 1786, *M. tenuirostrum* Lamarck, 1822, *M. ternispina* Lamarck, 1822, *M. trapa* Röding, 1798 and *M. troscheli* Lischke, 1868 (Lai, 1977, 1987; Ponder & Vokes, 1988). None of these is related to the new species described below.

The four examined specimens studied here were collected dead, empty and worn by shrimp trawlers, however they are well preserved and can certainly be described and compared carefully. No Recent species is closely related, but two fossils species described from the Pliocene of Java are compared.

The standard terminology used to describe the spiral cords was established by Merle (1999, 2001) (Fig. 1) for each major sequence of appearance of the primary, secondary and tertiary cords. The terminology noted in parentheses is erratic.

**Abbreviations** (Fig. 1): P – primary cord; s – secondary cord; t – tertiary cord; ad – adapical; ab – abapical; IP – infra-sutural primary cord (primary cord on subsutural ramp); adis – adapical infra-sutural secondary cord (on subsutural ramp); abis – abapical infra-sutural secondary cord (on subsutural ramp); P1 – shoulder cord; P2–P6 – primary cords of the convex part of the teleoconch whorl; s1–s6 – secondary cords of the convex part of the teleoconch whorl (example: s1 = secondary cord between P1 and P2; s2 = secondary cord between P2 and P3, etc.); ADP – adapertural primary cord on the siphonal canal; EABP – extreme adapertural primary cord on the siphonal canal; IRSNB – Institut royal des Sciences naturelles de Belgique, Bruxelles, Belgium; MNHN – Muséum national d'Histoire naturelle, Paris, France; RH – Collection of the author; SL – shell length.

**Taxonomy**

*Family Muricidae* Rafinesque, 1815

*Subfamily Muricinae* Rafinesque, 1815

*Genus Murex* Linnaeus, 1758

*Subgenus Murex* s.s.

-Type species by subsequent designation (Montfort, 1810): *Murex tribulus* Linnaeus, 1758, as *Murex pecten* Montfort, 1810 (not Lightfoot, 1786).

*Murex (Murex) huangi* n. sp. (Figs. 3–7)

**Type material**: Holotype MNHN 22817, 77.5 mm SL (Figs. 3–4), 1 paratype IRSNB 1G31498/MT2251, 61.0 mm SL; 2 paratypes coll. RH, 69.5 and 53.8 mm SL (Figs. 1, 5–7).

**Type locality**: Pengchiayu Island, Northeast Taiwan, between 80 and 200 m (Fig. 2).

**Distribution**: Pengchiayu Island, northeast of Taiwan.

**Etymology**: Named for Yu-Lin Huang, the fisherman who provided the four specimens studied here.

**Description**: Shell of medium size for the genus, up to 77.5 mm in length at maturity (siphonal canal broken), broad, heavy, weakly nodose. Subsutural ramp weakly sloping, weakly convex. Shell greyish-white. Spire high, teleoconch up to 6 or 7 broad,
strongly shouldered nodose whorls. Suture impressed. Protoconch unknown (eroded in all specimens). Axial sculpture of teleoconch whorls consisting of low, strong, broad, weakly spinose varices, producing short, broad spines. First whorl eroded, second whorl with 9 or 10 strong axial ribs, second to fifth whorls with 3 varices and 2 strong intervarical elongate nodes, Sixth and last whorls with 3 broad, heavy varices and one strong, elongate, low intervarical node. Spiral sculpture of low, weak primary, secondary and tertiary cords, and numerous weak additional threads. Last teleoconch whorl with s, adis, IP, (s), abis, s, (t), P1, s1, P2, s2, P3, s3, P4, P5, P6, s6, ADP, MP, ABP, (EABP), with additional spiral threads on and between cords. Spiral cords extending as short, blunt open spines on varices. P1 bearing broadest and longest spine, P2–P4 short, P5 small, P6 narrowest, second longest spine. P2, P4 and P5 obsolete in holotype. Aperture large, broad, roundly ovate. Columellar lip broad, smooth, rim adherent, weakly erect at abapical extremity. Anal notch shallow, narrow. Outer lip erect, crenulated, smooth within, with a broad, short labral tooth between P4 and P5. Siphonal canal partly broken in all specimens but relatively short with ADP, MP, ABP, EABP. Spines decreasing in length abapically, short, straight, narrowly open. Operculum and radula unknown.

Remarks: Ponder & Vokes (1988: 49, fig. 23; 55, fig. 27) designated and illustrated two lectotypes of fossil species which can be reasonably compared with the new species: *Murex ejectus* Martin, 1895 (Figs. 10–12) and *M. lebacanus* Martin, 1895 (Figs.
8–9). *M. lebacanus* is considered a synonym of *M. occa* Sowerby, 1834 by Ponder & Vokes (1988: 52) which may be correct, although *M. lebacanus* differs in having fewer and shorter spines. The morphology of the protoconch of *M. lebacanus* is unknown. *Murex huangi* n. sp. differs in having a broader and heavier shell with more strongly shouldered teleoconch whorls, broader and lower axial varices, more numerous tertiary cords and threads, fewer and broader intervarical axial nodes and different, more obvious primary and secondary cords and spines.

*Murex huangi* n. sp. differs from *M. ejectus* in having a broader, comparatively larger and more massive shell with a more strongly sloping subsutural ramp. It also has more numerous and shorter spines on the last teleoconch whorl and on the siphonal canal, *Murex ejectus* having a long, broad and acute shoulder spine and only two additional, broad, shorter abapical spines, probably P3 and P5.

*Murex lebacanus* (as junior synonym of *M. occa*) and *M. ejectus* are both included in the *Murex scolopax* group by Ponder & Vokes (1988) but no
other species of that group is close to the new species.

*Murex huangi* n. sp. also resembles the species of the *Murex brevispina* group, namely *M. brevispina brevispina* Lamarck, 1822, *M. brevispina macgillivrayi* Dohrn, 1862, *M. brevispina senilis* Jousseaume, 1874 and *M. brevispina ornamentalis* Ponder & Vokes, 1988. However, the shells in that group differ from *M. huangi* in having a spineless or nearly spineless and long siphonal canal, a longer and narrower labral tooth, a strongly erect columellar lip and fewer secondary and tertiary cords and threads.

The 19 volumes of a synthesis on fossil molluscs of Taiwan (in Chinese) were also checked. Only one (Hu & Tao, 1991) contains the description of a new Muricidae, actually a species of *Nipponotrophon*. All other volumes including species of Muricidae only deal with already known and described species.

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**References**


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台灣産アッキガイ属の新種の記載

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**要 旨**

台湾北東沖の彭佳嶼水深 80 ～ 200 m からアッキガイ属の新種 *Murex (Murex) huangi* n. sp. を記載した。得られた 4 個体の標本はいずれもエビ底曳き網で得られた死殻であった。本種はこれまで知られている同属のすべての現生種とは明瞭に異なるが、インドネシア・ジャワ島の鮮新世から記載された 2 種 *Murex ejectus* Martin, 1895 と *M. lebacanus* Martin, 1895 にはやや近似する。しかし、本種の殻はより太く、重厚で、肩が張り、異なる形刻を持つことで区別できる。また、台灣の化石貝類のモノグラフ（Hu & Tao, 1991）にも比較されるべき種類は見当たらない。