

**Note on the type series of *Parvamussium liaoi* and *Scaeochlamys squamea* (Bivalvia: Pectinoidea) from Taiwan**

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**Abstract**

Pectinoidea is a superfamily of marine bivalve mollusks. Type series of the two new Pectinoidea species, *Parvamussium liaoi* (Propeamussiidae) and *Scaeochlamys squamea* (Pectinidae), collected during deep-sea cruises off south and northeastern Taiwan in 2000 and 2001, respectively, were relocated from the Muséum national d'Histoire naturelle, Paris, France and the National Museum of Natural Sciences, Taichung, Taiwan (NMNS) to the Mollusca collection of National Museum of Marine Biology and Aquarium, Pingtung, Taiwan (NMMBM). A catalog denoted of the original NMNS and the new registered NMMBM codes, scientific names in Chinese, and color plates of the type series are provided.

**Key words:** Deep-sea, Bivalvia, Taiwan, type series

Superfamily Pectinoidea of Class Bivalvia is grouped by the Pectinidae, Propeamussiidae, Entoliidae and Spondylidae (Bieler et al., 2010; Dijkstra and Maestrati,

2010). In contrast with the sedentary spondylids mostly in shallow waters, pectinids colonize hard or soft substrates at all depths of the ocean, from littoral to

abyssal plains. They are generally attached by a byssus or are free-moving, and can swim by clapping their valves. Propeamussiids are bathyal or cryptic, free-living and having small-sized, thin and translucent valves (Kay, 1979; Okutani, 2000). In Taiwan, species of nine propeamussiids, 19 spondylids, and about 60 pectinids were recorded (Wu, 2011).

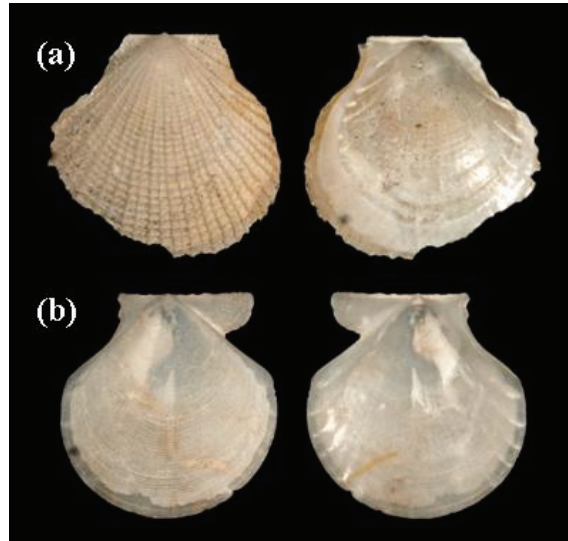
Dijkstra and Maestrati (2009) described two new species of Pectinoidea from Taiwan. *Parvamussium liaoi* (Propeamussiidae) was collected at 305-m water depth off the Bashi channel, southern Taiwan, and *Scaeoclamys squamea* (Pectinidae) 115-170-m water depth off Tashi, northeastern Taiwan by the jointed Taiwanese and French deep-sea biodiversity expeditions, “TAIWAN 2000” (July 26 to

August 4, 2000) and “TAIWAN 2001” (May 5-10 and 18-21, 2001), respectively. Type series of the two new species were partially registered in the National Museum of Natural Sciences, Taichung, Taiwan (NMNS) as well as in the Muséum national d'Histoire naturelle, Paris, France (MNHN) (Dijkstra and Maestrati, 2009). The type series were recently relocated to the Mollusca collection of the National Museum of Marine Biology and Aquarium, Pingtung, Taiwan (NMMBM). As part of this relocation, the original NMNS and the new registered NMMBM codes, scientific names in Chinese (Tab. 1) and color plates (Figs. 1 & 2) of the type series, including two holotypes and two paratypes, were provided in this study.

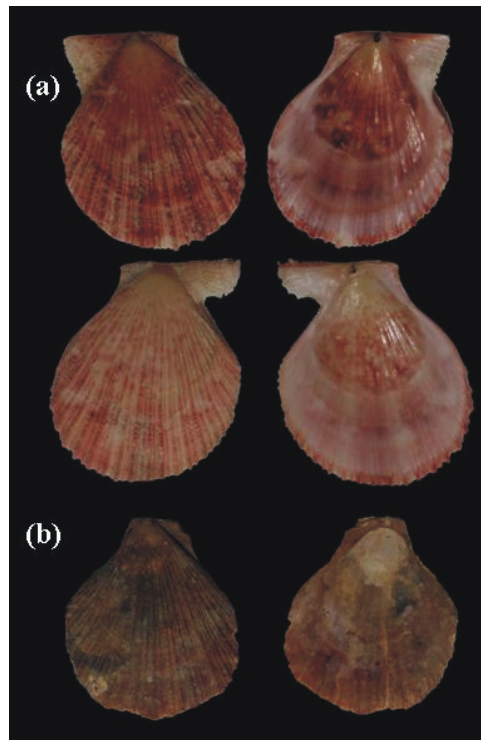
**Tab. 1.** Type series of two new Pectinoidea species denoted of the original National Museum of Natural Sciences (NMNS) and the new registered National Museum of Marine Biology and Aquarium Mollusca collection (NMMBM) codes. n: number of shell.

Type series	NMNS	NMMBM	n*	Type locality
<b>Propeamussiidae</b>				
<i>Parvamussium liaoi</i>	Holotype	5903-001	5343	1 lv Taiwan (Bashi channel, S Taiwan)
Dijkstra & Maestrati, 2009	Paratype	5903-002	5344	1 rv TAIWAN 2000, stn DW36, 21°55'N, 120°36'E, 305 m
廖氏光芒海扇蛤				
<b>Pectinidae</b>				
<i>Scaeoclamys squamea</i>	Holotype	5904-001	5345	1 pr Taiwan (off Tashi, NE Taiwan)
Dijkstra & Maestrati, 2009	Paratype	5904-013	5346	1 lv TAIWAN 2001, stn CP76, 24°57'N, 122°02'E, 115-170 m
鱗櫛海扇蛤				

\*lv: left (upper) valve; rv: right (lower) valve; pr: paired (articulated) valves



**Fig. 1.** *Parvamussium liaoi* Dijkstra and Maestrati, 2009. (a) Holotype (NMMBM5343, H 8.9 mm, W 9.0 mm): left valve. (b) Paratype (NMMBM5344, H 8.7 mm, W 8.4 mm): right valve. Exterior in left, interior in right.



**Fig. 2.** *Scaeoclamys squamea* Dijkstra and Maestrati, 2009. Holotype (NMMBM5345, H 22.6 mm, W 18.5 mm): paired specimen, left valve in upper, right valve in lower. Paratype (NMMBM5346, H 22.7 mm, W 19.4 mm): left valve. Exterior in left, interior in right.

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### **References**

- Bouchet, P., Rocroi, J.P., Bieler, R., Carter, J.G. & Coan, E.V. 2010. Nomenclator of bivalve families with a classification of bivalve families. *Malacologia*, 52(2): 1-184.
- Dijkstra, H.H. & Maestrati, P. 2009. New bathyal species and records of Pectinoidea (Bivalvia: Propeamussiidae and Pectinidae) from Taiwan. *Bulletin of Malacology, Taiwan*, 33: 37-54.
- Dijkstra, H.H. & Maestrati, P. 2010. Pectinoidea (Mollusca, Bivalvia, Propeamussiidae, Entoliidae and Pectinidae) from the Austral Islands (French Polynesia). *Zoosystema*, 32 (2): 333-358.
- Kay, E.A. 1979. Hawaiian marine shells. Reef and shore fauna of Hawaii: Section 4. Mollusca. Bernice P. Bishop Museum Special Publication 64(4), 653 p.
- Okutani, T. 2000. Marine mollusks in Japan. Tokai University Press, Tokyo, 1173 p.
- Wu, W.L. 2011. The Taiwan Malacofauna Database. WWW web electronic publication. <http://shell.sinica.edu.tw/> (2011-7-30)

## 記臺灣產廖氏光芒海扇蛤及鱗櫛海扇蛤 (雙殼綱：海扇蛤超科) 之模式標本

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### 摘 要

軟體動物門之雙殼綱、海扇蛤超科、光芒海扇蛤科的廖氏光芒海扇蛤 (*Parvamussium liaoi*)，以及海扇蛤科的鱗櫛海扇蛤 (*Scaeochlamys squamea*) 等二個新種，於2000年及2001年分別採集自臺灣南部及東北部海域。其模式標本自法國國立自然史博物館，以及國立自然科學博物館 (NMNS)，轉移至國立海洋生物博物館之軟體動物典藏 (NMMBM)。本文提供該批模式標本的原NMNS與新NMMBM編號之對照目錄、中文學名及彩色圖版。

**關鍵詞：**深海，雙殼綱，臺灣，模式標本