

# First Record of *Peregrinamor ohshimai* (Mollusca: Bivalvia) from Korea

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## ABSTRACT

The specimens of *Peregrinamor ohshimai*, an ecto-commensal species to *Upogebia major*, were collected from the mudflat of Chilcheondo Is., Geoje-si, Gyung-sangnam-do, Korea and diagnostic characters of *P. ohshimai* were analyzed. The genus *Peregrinamor* is reported in Korean fauna for the first time.

**Key words:** Mollusca, Bivalvia, *Peregrinamor ohshimai*, Korea

## INTRODUCTION

The genus *Peregrinamor* Shoji, 1938 is commonly known as an ecto-symbiont group with species belonging to the genus *Upogebia* Leach, 1814 (Decapoda: Crustacea). Studies on the ecto-commensal relationship of *Peregrinamor ohshimai* Shoji, 1938 with its host, *Upogebia major* (De Haan, 1849), were carried out by Kato and Itani (1995) and Itani et al. (2002). Kato and Itani (1995) described the attachment of a bivalve on the ventral side of a host and suggested that the bivalve grows on the same host body according to the high correlation between body sizes of a bivalve and its host. Itani et al. (2002) described particular behavior of *P. ohshimai* that reattached onto the newly emerged body of the host to survive during the period of host molting.

The genus *Peregrinamor* of montacutid bivalve is characterized by the heart shaped shell depressed dorso-ventrally, thin shell wall, edentulous hinge, beaks apart each other, compressed ventral margin with opened anterior part (Shoji, 1938). *Peregrinamor ohshimai* was firstly described from Japan by Shoji (1938), after that, *Peregrinamor gastrochaenans* was added by Kato and Itani (2000). Two species of the genus *Peregrinamor* were reported from worldwide. *P. ohshimai* was reported only in the Far East Asia including Japan and China (Qi et al., 1989) so far.

The genus *Peregrinamor* was firstly reported to Korean fauna through this paper and we redescribed *P. ohshimai* with its ecological notes.

## MATERIALS AND METHODS

The specimens were collected with the host, *U. major*, from the mudflat of Chilcheondo Is., Geoje-si, Gyung-sangnam-do of Korea, by digging the mud deep down to 50 cm with shovel in 24 July 2007. Specimens were instantly fixed with 95 % ethyl alcohol. *P. ohshimai* was isolated from the host and identified under a stereomicroscope (Nikon SMZ 1500) based on Habe (1977) and Okutani (2000).

## SYSTEMATIC ACCOUNTS

Phylum Mollusca Linnaeus, 1758

Class Bivalvia Linnaeus, 1758

Order Veneroida H. and A. Adams, 1856

Family Montacutidae Clark, 1855

Genus <sup>1</sup>\**Peregrinamor* Shoji, 1938

<sup>2</sup>\**Peregrinamor ohshimai* Shoji, 1938 (Fig. 1)

*Peregrinamor ohshimai* Shoji, 1938, p. 124; Habe and Okutani, 1975, p. 117; Qi et al., 1989, p. 213; Bernard et al., 1993, p. 63; Kato and Itani, 1995, p. 941; Higo et al., 1999, p. 466; Kato and Itani, 2000, p. 309; Itani et al., 2002, p. 69.

*Peregrinamor oshimai* (sic): Habe, 1977, p. 231; Okutani, 2000, p. 992.

*Materials examined.* 5 inds., Chilcheondo Is., Geoje-si, Gyung-sangnam-do, 24 July 2007.

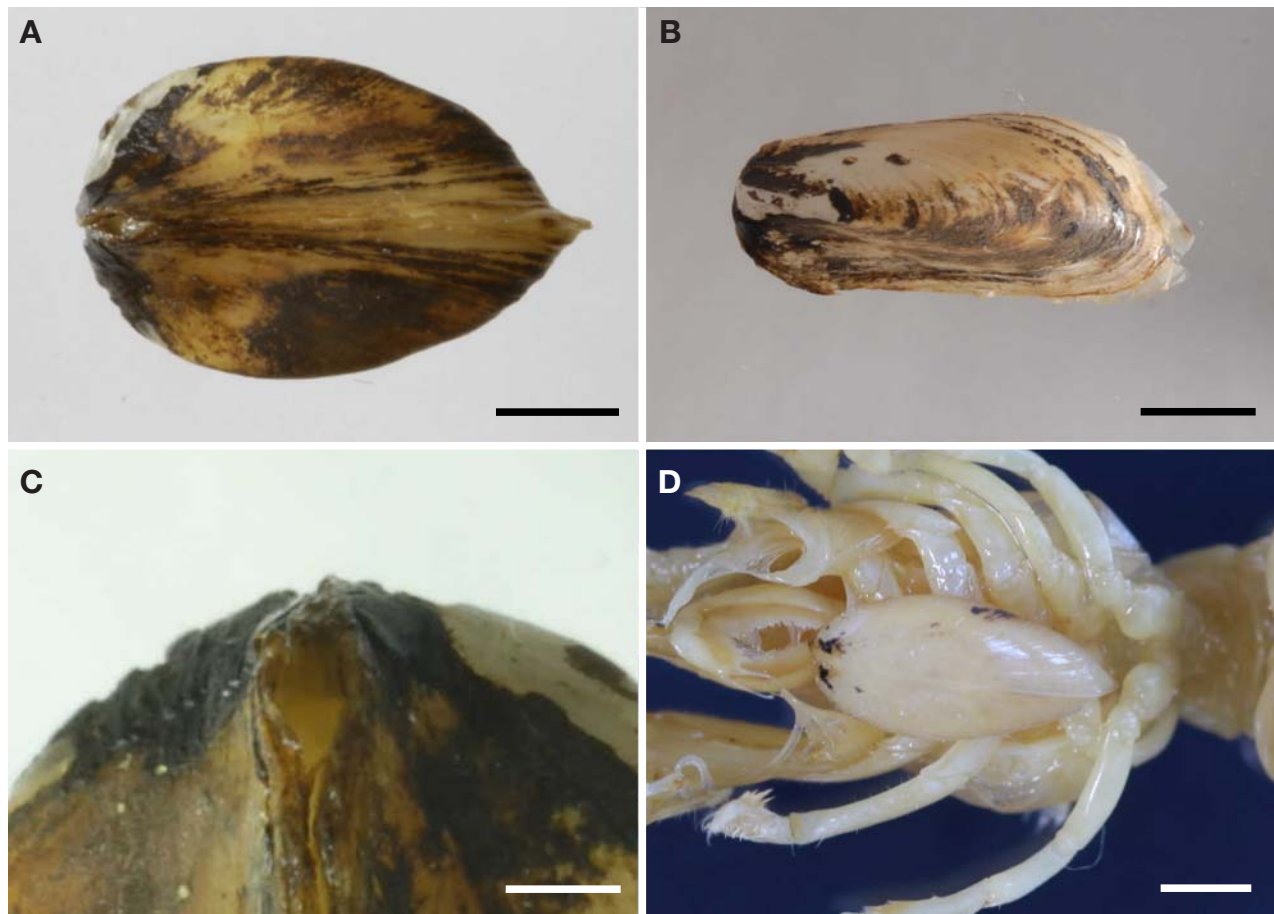
*Description.* Shell mytilid form, small size of 10.1 mm long, 4.2 mm high and 6.1 mm wide. Laterally inflated, dorso-ventrally depressed (Fig. 1A). Shell wall thin, fragile and translucent. Periostracum pale yellow in color with black staining,

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**Fig. 1.** *Peregrinamor ohshimai*. A, ventral view; B, lateral view of left valve; C, byssal pore opening of anterior ventral side; D, *P. ohshimai* attached to the host *Upogebia major*. Scale bars=3 mm (A, B, D), 1 mm (C).

covered with fine growth lines and several number of ribs irregularly arranged. Umbo located anterior terminal and worn out. Low-triangular shaped ligament flat and transversally long, placed between both valves. Hinge structure thicken and vestigial. Diagonal ridge runs diagonally from umbo to posteroventral part. Width of anterior ventral part of the shell ascent steeply (Fig. 1B). Byssal opening longitudinally narrow, formed by the protrusion of anterior ventral margin (Fig. 1C). Inner surface without nacreous color, transparent to be seen outside black stains. Inner rib just below hinge runs parallel to byssal opening with same length.

**Ecology.** This species lives in the burrow of *U. major* at intertidal mudflat and byssally attached to the longitudinal groove of ventral cephalothorax of *U. major* with anterior part towards the head of the host (Fig. 1D). Filter feeding of this species carried out by the water current made by the host movement. The position of the byssus attachment is between the bases of the 2nd and 4th pereopods. Thin shell wall take capability to endure the dorso-ventral pressure made by host

movement (Kato and Itani, 1995).

**Distribution.** Korea (South Sea), Japan (Mie prefecture, Kii, Osaka bay, Northern and western Kyushu), China (Shandong, Yellow Sea).

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Received May 25, 2009  
Accepted June 15, 2009