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Larval Development of *Pandalus gracilis* Stimpson
(Decapoda: Pandalidae) Reared in the Laboratory

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The family Pandalidae has been reported at least 160 species representing 21 genera and inhabited from tidal zone to abyssal zone deeper than 4000 m (Chace, 1985).

An ovigerous female was caught on 10th February 2001, using a trawl at Yongcho Island, Tongyong (34° 30'N; 128° 40'E), Korea.

Sixty-four larvae hatched on 27th April 2001. Of these 60 larvae were reared individually in 50 ml glass bottles placed in an incubator at 15°C.

Larvae were fed on newly hatched *Artemia* nauplii. Moulting and mortality were checked daily. And then the larvae were transferred to fresh bottles filled with filtered sea water. At each stage, dead larvae and exuviae were fixed and preserved with 3% neutralized formalin solution.

Four live specimens of each stage were dissected for drawing. Drawings were made with the aid of a drawing tube.

Measurements were based on 10 exuviae. Carapace length (CL) was measured from the base of the eye socket to the posteromedian margin of the carapace, and total length (TL) was measured from the base of the eye socket to the posteromedian margin of the telson, excluding telson processes.

Morphological characteristics of five zoeal stages and a postlarval stage were described with illustrative figures.

- * First zoea Duration: 3~5 days.
 Eye: Sessil.
 Telson: Distally rounded; posterior margin fringed with 8 pairs
 plumose setae.
 Mandible: Without palp.

- * Second zoea Duration: 3~5 days.
 Eye: Stalked and movable.
 Mandible: Mandibular palp represented by a small bud.

- * Third zoea Duration: 4~6 days.
 Pleopods: Biramous but not functional.
 Telson: Uropods differentiated.

- * Fourth zoea Duration: 5~8 days.
 Pleopods: Well developed but still not functional appeddages.

- * Fifth zoea Duration: 7~11 days.
 Gill: Arthrobranchs on thoracic somites are developed.

- * Postlarva Duration: 7~15 days.
 Pleopods: Enlarged, the number of setae on them increased.

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