

Larval development of the Pygmy crab
Cancer oregonensis Dana
(Decapoda: Brachyura: Cancridae)
reared in the laboratory

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The Pygmy crab *Cancer oregonensis* (Dana) typically inhabits protected rocky area from the intertidal to the subtidal, ca. 400 m, where it can generally find nestling in holes, large barnacle shells, and kelp holdfasts (Kozloff, 1976a, 1987b; Jensen, 1995; O'Clair and O'Clair, 1998). The brachyuran crab genus *Cancer* is entirely marine and represented by 25 living species in the Atlantic and Pacific Oceans (Nations, 1979; Quintana and Saelzer, 1986). At the present, larval development of eighteen *Cancer* species have been published, but the complete larval development has been described for only 10 species (Rice, 1980; Quintana and Saelzer, 1986).

On 22 May 2001, an ovigerous female of *Cancer oregonensis* was collected by SCUBA diving, from the waters of Auke Bay in Juneau, Alaska, U.S.A. (58° 20'N, 134° 27'W). The berried female was transported to the laboratory, and isolated in a 3000 ml jar was filled with natural sea water of 8°C and 28.9‰ under aeration. On 28 May 2001, the larvae hatched from the female. Sixty of the newly hatched larvae were individually reared in glass jars each with ca. 50 ml of natural sea water. The remainders were maintained in mass culture jar, each with ca. 3000 ml of sea water. These jars were kept in an aquarium of running sea water to maintain the constant temperature (8°C).

The larval development of *C. oregonensis* includes five zoeal stages and a megalopa stage. The megalopa stage metamorphoses into the first crab stage. A detailed morphological characteristics were described with illustrative figures.

- First zoea

Eye: Sessile

Abdoment: Five somites, with pair of minute setae on posterodorsal margin of second-fifth somites.

Telson: Posterior concave, armed with 3 pairs of setae; outmost with stout tooth-like spinules.

- Second zoea

Eye: Now stalked and movable.

- Third zoea

Third maxilliped: Biramous with distinct and exopod bud.

Abdomen: Six somites.

- Fourth zoea

Pereiopods: Chelipeds bilobed.

Pleopods: Uniramous; small buds.

- Fifth zoea

Pereiopods: well developed, but not functional appendage.

Selected References

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- Quintana, R. and H. Saelzer. 1986. The complete larval development of the Edible crab, *Cancer setosus* Molina and observations on the prezoal and first zoeal stages of *C. coronatus* Molina (Decapoda: Brachyura, Cancridae). Journal of the Faculty of Science, Hokkaido University, Series IV, Zoology, 24: 267-303.