

B429

Numerical Variation of Embryos and Spontaneous Developmental Abnormality of Korean Salamander *Hynobius leechii* Collected from Agricultural Habitat

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A numerical variation was surveyed and abnormalities were studied on egg bags and embryos of Korean salamander, *Hynobius leechii*. We collected 126 egg bags from the agricultural habitat of Changwon-city of Korea, and egg bags contained 5330 early embryos. The lengths of egg bags were varied from 11 to 29 cm and average length was 19 cm. The most frequent length was 20 cm. The number of embryos were varied from 19 to 98, and the most frequent range was 39 to 43. Spontaneous abnormalities were occurred in 323 embryos of 84 egg bags, and 23 kinds of abnormalities were identified. Individuals showing severe external defect were histologically studied and they showed retinal hypopigmentation, degeneration of cephalic neuron, thyroid adenocarcinoma and organic dysplasia.

B430

Development and Reproduction of *Eucyclops serrulatus* (Copepoda: Cyclopoid) in Laboratory Culture

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Four cyclopoids (*Macrocyclus fuscus*, *Macrocyclus albidus*, *Tropocyclops prasinus*, and *Eucyclops serrulatus*) were tested for laboratory culture. Among these animals, only *Eucyclops serrulatus* was successfully cultured in the laboratory. Under the laboratory culture condition, nine kinds of diet were tested for the suitability of nauplius development. And then development and reproduction of *E. serrulatus* were investigated. *Chlamydomonas reinhardtii* was the only one which could induce complete development from nauplii to adults. It was found that *E. serrulatus* had relatively short generation time, could produce lots of progenies, and could be handled easily, allowing to obtain many individuals during a short period. With these characteristics, this species may be a candidate for a good test organism for evaluating freshwater pollution.