

Jitima Suwanmala 2007: Some Aspects on Life History and Behaviour of Two-Row Pygmy Squid, *Idiosepius biserialis* Voss, 1962. Master of Science (Marine Science), Major Field: Marine Science, Department of Marine Science. Thesis Advisor: Assistant Professor Teerapong Duengdee, M.S. 92 pages.

Live specimens of adult the Two-row pygmy squid, *Idiosepius biserialis* were collected from seagrass beds at Bangrong River, Phaklok, Talang, Phuket province. Mantle length of males was 4-6 mm and females 4-10 mm. The distal part of dorsal mantle was equipped with the adhesive organ. The squids were reared in aquariums for life history and behaviour studies. Behaviour of pygmy squid was associated by adhering behaviour such as camouflage behaviour was displayed by attaching to the substrate and changing colour. Feeding behaviour was observed in two patterns, swimming to seize the prey and adhering for attack. Pair formation was not observed. Copulation behaviour was observed in 3 patterns, 1) hovering male to adhering female 2) adhering male and female and 3) hovering male and female. The male stretched out his tentacles to fix the spermatophores in buccal region of the female. Copulation was within a period of 3-7 seconds, average 7.4 ± 0.6 times per day. The female started to spawn in about 48 hours after mating, totalling 1-8 batches with average 174.5 ± 83.2 eggs per individual. The egg capsules were single type covering with 14-20 jelly layers. The development of eggs was separated into 30 stages and 3 periods, 1) cleavage 2) formation of the germ layer and 3) organogenesis. The incubation period was 6-10 days at 30.6 ± 1.6 °C. Hatching occurred all day. Hatchlings were planktonic. They could seize the hatchling of mysid shrimp, (*Mesopodopsis orientalis*) for food. Adults were fed with palaemonid shrimp, *Palaemon styliferus*.

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