

Incubation period and hatching rate of bigfin squid, *Sepioteuthis lessoniana*, in 24 to 38 ‰ salinity

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Together with *Sepiella inermis* and *Loligo* spp., the bigfin squid *Sepioteuthis lessoniana* Lesson, 1830) is one of the important species, which have high value in Indonesia. In the present study, the effect of salinity on the incubation period and hatching rate of *Sepioteuthis lessoniana* was done at the Bojonegara Research Station for Coastal Aquaculture, Indonesia. Squid eggs were collected from Banten Bay waters. Eight salinities from 24-38 ‰ were tested at 2 ‰ intervals. 40 ‰ salinity was lethal. The highest hatching rate (97 %) was found in 32 ‰ and the lowest (20%) in 38 ‰. The mantle length of the larvae ranged from 5.29 to 5.91 mm and the weight from 0.028 to 0.031 g.

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INTRODUCTION

Together with *Sepiella inermis* and *Loligo* spp., the bigfin squid *Sepioteuthis lessoniana* Lesson, 1830 has high value in Indonesia. Bigfin squid occurs in coastal waters of eastern Sumatra, northern Java, around Lombok Island, North Sulawesi, South Sulawesi, Moluccas and West Irian. Fishing gear used to catch this species are liftnet (locally called 'bagang', the coastal liftnet operated from a static bamboo-platform with kerosene lamps for fish attraction) and jigs (Andy Omar 1999).

Since 1992, total landing of Indonesian squid started to increase because of intensified fishing with the risk of overfishing as a result. If feasible, one way increase the production could be to culture this squid. Several reports

have been published on the biology and culture of *S. lessoniana* in Indonesia, e.g., on spawning season (Danakusumah *et al.* 1995), feeding studies (Mangawe *et al.* 1996, Marthinus & Ahmad 1996), fecundity (Sudjoko 1989), and stocking density (Danakusumah 1999). Ahmad & Usman (1997) reviewed big fin squid culture in Indonesia. In this paper, investigations were made on the incubation period and hatching rate of the bigfin squid eggs in various salinities in indoor aquaria.

MATERIALS AND METHODS

The research was conducted from 1 to 25 August 2000, at the Bojonegara Research Station for Coastal Aquaculture, Cilegon, West Java, Indonesia. Egg capsules were collected