

CAPTIVE BREEDING OF TWINE SPOT DAMSEL

Chrysiptera biocellata (Quoy And Gaimard, 1824)

BREAKTHROUGH AT CAPTIVE BREEDING HISTORY OF LAKSHADWEEP ISLANDS



Introduction

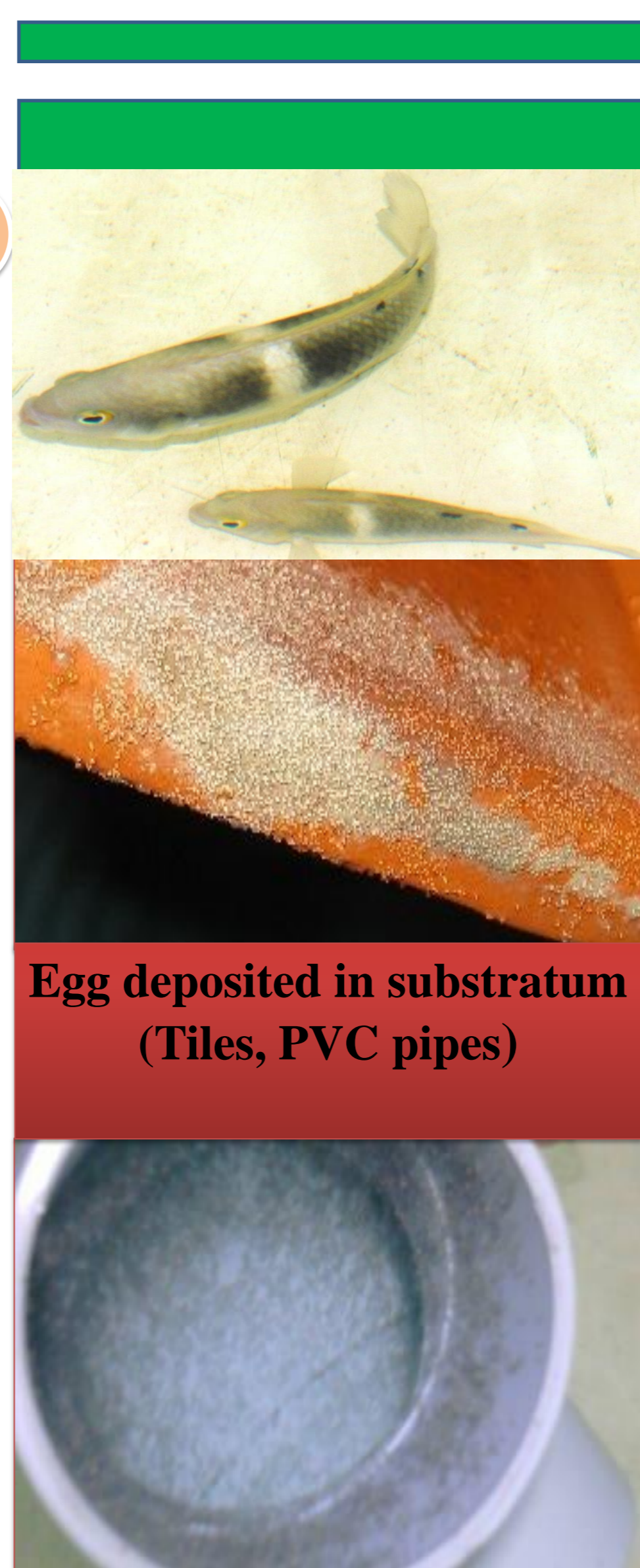
Chrysiptera biocellata which is originated in Maldives, Sri Lanka & Lakshadweep Islands. Since the juvenile stages of this fish have high trade value among the aquarists because high blue and yellow colouration, first priority is given for scaling up of its hatchery production and it as a first of its kind work done in India by Centre for Marine Living Resources & Ecology, Ministry of Earth Sciences, Field Research Station, Agatti Island.

Courtship Behaviour

Initiative in courtship being taken by the male. first by performing a violent swimming motion while clinging with the pelvic cup to the bottom of the aquarium. Males actively cleaned the nest site by rubbing it with their pelvic fins and picking off any loose particles or algae with their mouths. On the spawning day, the females come in the nest with a swollen vent and contributed in a brief courtship consisting of side to side trembling motions and contact with the males. For their part, the males butted the females in the genital region and spanked them on the head with their caudal fins. After about 30 min, all the females began to spawn, laying the eggs on the clean site; this usually occurred in the early morning, just as the lights were turned on. The eggs, about 2000-3000 in number, were immediately fertilized by the males, who usually guarded the nest and chased away the female if she entered it. The embryo development of *C. biocellata* occurs within approximately 96 h at 28 °C. During this period, the male stands in front of the entrance to the cave, defending the embryos or fanning them with the pectoral fins and the tail. The parents do not care for the fry after they hatch.

Spawning

Two spot damsel deposits demersal adhesive eggs on hard substrates. Eggs are elliptical & attached by adhesive filaments. 5 to 6 days after fertilization, hatching of the planktonic larvae takes place right after sunset, when potential diurnal predators have retired to the reef structure. Hatching times for two spot damselfish is 3-4 days



Egg deposited in substratum (Tiles, PVC pipes)

Hatching

Hatching takes place 4 days post-fecundation during the first 2 h of darkness. Tail has wrapped completely around the egg,. The larvae that emerge from the capsule still possess a small yolk sac. The mouth is well developed. At 24 h, the larvae are very active and swim near the surface of the water; the yolk sac is completely absorbed. Pigmentation is very light

