Embryonic and Larval Development of Cobia *Rachycentron canadum*
Linnaeus, 1766

Arkom Singhabun*Paiboon Bunlipatanon Samart Desathit
Pritsana Klingsukklai and Pikun Chairut
Krabi Coastal Fisheries Research and Development Center

Abstract

Embryonic and larval development of cobia (*Rachycentron canadum*) was conducted at Krabi Coastal Fisheries Research and Development Center. Eggs from natural spawning of wild broodstock in cement tank were studied. The eggs were floating type with diameter of 1.29±0.02 mm At Clevage stage occurred during the first 30 min after spawning, the fertilized eggs developed to morular stage at 3 hr 5 min, blastula stage at 4 hr 5 min, closing blastopore stage at 10 hr 55 min and hatching out in 22 hr 20 min after spawning. At the water temperature was 28-29°C and salinity was 30 ppt Total length of newly hatched larvae was 3.53±0.15 mm, yolk sac volume was 3.15±0.99 mm³ and diameter of oil globule was 0.35±0.03 mm Larval mouth opened at 36 hr and food were found in stomach at 48 hr after hatching. Yolk sac and oil globule were completely absorbed at 54 hr and 7 day after hatching, respectively. About 45 days after hatching the larvae developed to juvenile stage.

Experiment on nursing of cobia larvae 1-15 days old with different densities (5, 10 and 15 individuals/L) were carried out. The results showed non significant in growth and survival rate (p>0.05) which average length were 2.09±0.06, 2.14±0.04 and 2.18±0.11 cm, average weight were 0.39±0.01, 0.53±0.12 and 0.50±0.05 g and survival rate were 24.31, 12.48 and 30.13 %, respectively.

Experiment on nursing of cobia larvae 15-30 days old with different densities (1, 2 and 3 individuals/L) were carried out. The results showed significantly different in growth and survival rate (p<0.05) which average length were 6.14±0.10, 5.60±0.27 and 5.47±0.19 cm, average weight were 0.82±0.05, 0.62±0.09 and 0.59±0.02 g and survival rate were 79.44, 64.56 and 63.15 %, respectively.

**Key words**: Cobia *Rachycentron canadum*, embryonic, larval development

*Corresponding author : 141 Moo 6, Saithai Sub-district, Muang District, Krabi Province, 81000.
Tel. 0 7569 5150 E-mail: arkomsinghabun@yahoo.com