

## **A brief account of the experience of Sabah Fisheries Department in fish larval rearing**

### **CF Komilus**

Tanjong Badak Multi-Species Hatchery, Sabah Fisheries Department, Malaysia

Venturing into the aquaculture sector especially in pond and cage culture is a step that has been taken up by entrepreneurs and traditional fishermen of Sabah. However, shortage in the supply of fish fry is a stumbling block to the progress of the industry.

The Sabah Fisheries Department has taken steps to overcome this problem by setting up a hatchery with the objectives to transfer know-how on hatchery technologies to the private sector besides producing fry for distribution.

The Tanjong Badak multi-species hatchery is a newly established hatchery, completed in mid-1990. The species reared for production purposes are tiger shrimp and finfish which include red snapper, grouper, sea bass and polkadot grouper. The Department has not close to producing sea bass fry. Shrimp fry at juvenile stages (PL 40) are distributed as subsidies to local fish farmers while some are reared at the Department's various cage and pond culture projects. Limited success in producing grouper and red snapper fry have been achieved to date. The incidence of very low fertilization rates of eggs coupled with low survival rates are major problems facing the hatchery.

In conclusion, the Sabah Fisheries Department's experience in fish larval rearing is still limited. Greater scientific research and studies need to be carried out to improve further the performance of the hatchery to achieve the target of fry sufficiency for the aquaculture industry.

## **Survival of newly-hatched larvae of *Epinephelus suillus* at different salinity levels**

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The salinity tolerance of newly-hatched larvae of *Epinephelus suillus* was investigated by abrupt transfer from 32 ppt to test levels of 0, 4, 8, 32, 40, and 56 ppt. Mortalities from the start of the test until 96 h were monitored to determine the median lethal time ( $LT_{50}$ ) for the various treatments. Lowest mean ( $LT_{50}$ ) value was obtained at 56 ppt, followed by the mean  $LT_{50}$  at 0 and 48 ppt. Test salinities of 4, 32, and 40 ppt gave similar  $LT_{50}$  values. However, significantly higher  $LT_{50}$  values were observed at 8, 16, and 24 ppt, indicating response of the larvae to these test salinities.