Orange-Spotted Grouper

*Epinephelus coioides* (Hamilton, 1822)

- Orange-spotted grouper is a reef-associated marine fish, distributed along the east and west coast of India and considered an important fish of high value for mariculture.
- It breeds during October - November and March - April.
- Adult fishes weighing 2.0-2.5 kg are raised in concrete tanks @ 1 kg/m³ and fed with squid, supplemented with vitamin-mineral mixture twice a day in re-circulating aquaculture system (RAS).
- Groupers are protogynous hermaphrodite and hence sex reversal for getting males is carried out by hormonal implantation using a combination of 17-α methyl testosterone and letrozole at 5 mg and 0.2 mg/kg body weight, respectively.
- Gravid female is identified when around 65% of the ova are more than 400 µm in size and sex-reversed gravid males are identified when they are found in milt oozing stage.
- Natural spawning is observed for 3-15 days in every month with laying of 1-2 lakhs egg/spawner.
- Eggs are hatched after 18-22 h of incubation at 28-30ºC with average fertilization and hatching rates of 80% and 85%, respectively. Newly hatched larvae measure 1.2-1.6 mm in total length.
- Larvae are stocked in green water at 10 nos/l and are fed a combination of rotifers, copepod nauplii and artificial feed. Larvae metamorphose to juveniles at about 33-37 days post hatch, by which time it reaches a size of 1.5-2.0 cm.
- The technology is being extended in Tamil Nadu and Andhra Pradesh.

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