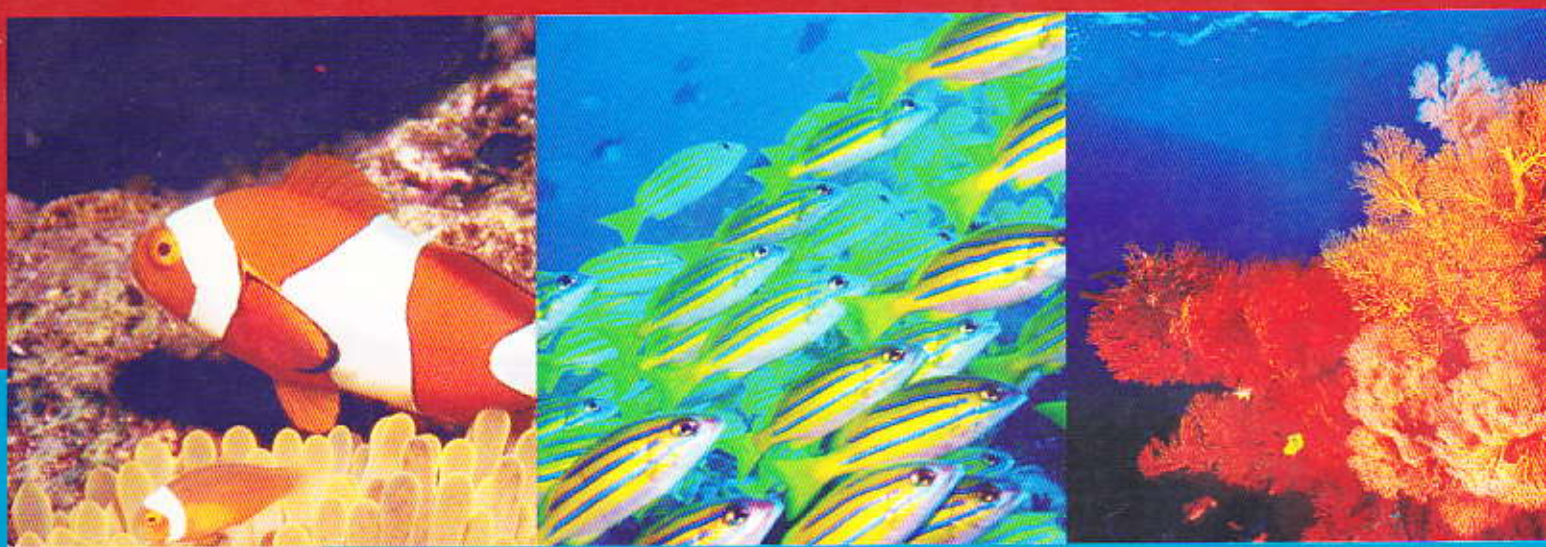
WORLD OCEAN CONFERENCE

CORAL TRIANGLE SUMMIT 2009

WORLD OCEAN CONFERENCE SIDE EVENT

INTERNATIONAL SYMPOSIUM ON OCEAN SCIENCE, TECHNOLOGY AND POLICY

MAY 12-14, 2009
MANADO, NORTH SULAWESI
INDONESIA



ABSTRACTS

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PRESENTATION OF ABSTRACTS

Abstracts are listed alphabetically by abstract title. Each topic represents one Chapter. Only abstracts of confirmed oral presenters which have been received by 24 April 2009 are included in this book. Some abstracts have been reformatted and edited to allow for clearer presentation.

Abstracts are presented in the following order:

CHAPTER I
AQUACULTURE

Contents

culture technology for the oceanic sea horse, *Hippocampus kuda,* from breeding to larval rearing and growout. In addition, research and development work is ongong *H. comes* and *H. reidi*. This paper reports on the results of a recent study on the mass production technology for oceanic seahorse, done at MCMD from January to November 2007. The main problem encountered during the study is the insufficient supply of copepods, the principal feed for the young seahorse. Therefore, another study will be carried out to focus on copepod mass culture technology to support the mass culture of young sea horse.

Minute Rotifer, *Proales similis* de Beauchamp: A Promising New Candidate as Live Food for Fish Larvae

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Proales similis is among the smallest rotifers ever cultured. Its body size is 1.6 times smaller and 2.5 times narrower than the SS-type rotifer, *Brachionus plicatilis*, a common food type for rearing fish larvae. The potential of *P. similis* as live food for fish larvae was investigated in the laboratory. The research focused on culture, HUFA content, and the effect of feeding *P. similis* on fish larvae. *P. similis* produced first offspring 2.5-2.8 days after hatching and produced 4.3-7.8 female^{-1} offspring during its reproduction period (2.9-3.4 days). Its population growth rate (r) was higher at <15 ppt (0.73-0.78 day^{-1}) and decreased to 0.29-0.68 day^{-1} at 20-30 ppt. *P. similis* grew faster at temperatures higher than 25^{0}C (r = 0.68 day^{-1}) and reached 0.81 day^{-1} at 35^{0}C. In mass culture, the population density of *P. similis* in 2 L diluted seawater (25 ppt) reached 2,405 ind./ml (r = 0.56 day^{-1}) on day 11. HUFA enrichment for *P. similis* resulted in a higher total lipid content: 2.6% (per dry weight) for enriched group vs. 2.4% (per dry weight) for the unenriched batch. Composition of 22:6n–3 (DHA) in percent total lipid increased from 0.0 to 17.5% after HUFA enrichment. The compositions of 20:4n–6 (AA) and 20:5n–3 (EPA) after HUFA enrichment were 0.5 and 11.0%, respectively. The ratio of DHA/EPA increased from 0:1 to 1.59:1 after HUFA enrichment. Higher survival of the seven-band grouper larvae was observed when *P. similis* was used in combination with SS-type *B. plicatilis* as initial larval food. Significantly higher initial feeding was detected in dietary treatments containing *P. similis* compared to SS-type *B. plicatilis* alone. Larvae fed with *P. similis* in combination with SS-type *B. plicatilis* demonstrated significantly faster initial growth and higher tryptic enzyme activity.

Mud Crab Fisheries Trade in India – Challenges and Opportunities

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Among the commercially important crabs, the genus *Scylla* ranks first because of its large size, high meat quality, delicacy, greater demand, and price. The East and West coasts of the 8,118-km Indian coastline are an enormous resource for mud crabs because of their many estuaries, lagoons, bays, and mudflats. The markets for Indian live mud crabs (*Scylla tranquebarica* and *S. serrata*) are Singapore, Malaysia, Hong Kong, Taiwan, Japan, South Korea, USA, Belgium, France, and The Netherlands. Due to their nutritional content (viz., high protein, amino acids, fatty acids, vitamins, and minerals), mud crabs have a high consumer demand.