



FISH AND FISHERIES

NEWS LETTER OF THE FISHERIES TECHNOCRATS FORUM, CHENNAI

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PROPOSED WORKSHOP ON SUSTAINABLE DEVELOPMENT OF INLAND CAPTURE AND CULTURE FISHERIES IN TAMIL NADU

The Fisheries Technocrats Forum, Chennai has planned to conduct a 2-day Workshop on Sustainable Development of Inland Capture and Culture Fisheries in Tamil Nadu in collaboration with Central Institute of Brackishwater Aquaculture and Coastal Aquaculture Society of India during August/September 2010. The objective of the present workshop is to assess the present status of inland capture and culture fisheries of the state and to adapt some new methods carried out within the state and in the neighbouring states, in order to utilize the limited and seasonally available water resources for increasing the fish production.

A BREAKTHROUGH IN CAPTIVE BROODSTOCK DEVELOPMENT AND LARVAL PRODUCTION OF COBIA IN INDIA



The scientists of Regional Centre of CMFRI at Mandapam Camp has successfully bred and reared the larvae of Cobia (*Rachycentron canadum*) in captivity for the first time in India. The adults were reared in cages moored in the inshore off Mandapam and fed with maturation diets. Two fully matured males (100 cm in total length-TL/ 11 kg in weight and 103 cm in TL/13.5 kg) and one female (120 cm in TL/23 kg) were brought to shore facility where these fishes were subjected to induced breeding by injecting with HCG at doses of 500 IU per kg body weight of female and 250 IU per kg body weight of males. Successful spawning was observed and a total of 2.1 million eggs were released, of which, 1.9 million were fertilized. After an incubation period of 22 hours at water temperature of 28-30 °C, larvae emerged and the percentage of hatching was 80 %. The larvae measured 2.2-2.7 mm in TL. The larvae are being reared on live feeds such as enriched rotifers. In Taiwan, intensive and super-intensive recirculation systems for nursery (from 2 to 100-150 g) were developed in recent years, with survival rates of more than 90%. In nursery and grow-out offshore cages, 100-600 g cobia were cultured within 1-1.5 years when they reached 6-8 kg for export to Japan, or 8-

10 kg for the domestic market. According to FAO, activities related to cobia production have also been reported in the Bahamas, Belize, the Dominican Republic, Mexico, Puerto Rico, the Philippines, United States of America and Viet Nam. This achievement in captive broodstock development and larval production in our country will go a long way in enhancing Indian marine fish farming in the near future.

**NINETEENTH ANNUAL GENERAL BODY
MEETING OF THE FISHERIES TECHNOCRATS
FORUM, CHENNAI HELD ON 12-06-2010**

The Nineteenth Annual General Body Meeting of the Fisheries Technocrats Forum, Chennai-6, was held on 12-6-2010 in the Library Hall of the Directorate of Fisheries, Teynampet, Chennai, in which 26 members attended the meeting. Mr. V. Venkatesan, Chairman presided over the meeting and expressed thanks for the active participation of the members in the monthly meetings and the deliberations on several important fisheries news. The annual meet has considered all the agendas circulated among the members, 21 days ahead of the meeting. The following were elected as the Executive Council of the Forum for 2010-11.

Chairman : Mr. V. Venkatesan
Vice Chairman: Dr. P. Gandheeswari
Secretary: Mr. M. Kathirvel
Treasurer : Mr. K. Rajappan
Member: Mr. V. Ramamoorthy :
 Dr. D.B. James
 Dr. R. Soundararajan
 Mr. K.D. Sundaramurthy
 Dr. M. Vijayakumaran

**DNA FINGERPRINTING FOR INDIAN
SHARKS**

The Central Marine Fisheries Research Institute, Kochi, and the Kochi Regional Centre of the National Bureau of Fish Genetic Resources, Lucknow have jointly studied the DNA genetic fingerprinting of 85 species of sharks occurring in Indian waters.



This study will help in the identification of threatened species from the fins and meat of sharks utilised for illegal trade as the International Union for Conservation of Nature (IUCN) has included some of the Indian shark species in the Red List. As per the present study, the number of species occurring in Indian waters are 110. At present, data on species-wise and regional-wise exploitation are lacking. It is hoped that considerable data on species exploited in different regions could be collected for drawing up future conservation policies by using the genetic fingerprinting technology.

KILLER WHALE – *ORCINUS ORCA*

Killer whales or Orcas are the largest of the dolphins and one of the world's most powerful predators. They feast on marine

mammals such as seals, sea lions, whales, fish, squid, and seabirds. The average life span in the wild is 50 to 80 years and size attained is 7 to 9.7 m (up to 6 tonnes).



They move in groups (known as pods) comprising 40 animals and are found from the polar regions to the Equator. Killer whales protect their youngones, and other adolescent females often assist the mother in caring for them. Mothers give birth every three to ten years, after a 17-month pregnancy. Orcas are immediately recognizable by their distinctive black-and-white colour marks and are the intelligent, trainable attractive animals which are being used in many aquarium shows.

STRANGE DEEP SEA FISHES OFF GREENLAND

The recent surveys conducted in deep waters around Greenland have brought to light the occurrence of some rare species of fish.

***Longhead dreamer anglerfish -
Chaenophryne longiceps***



It grows to a maximum size of 17 centimeters in length, which is one of thirty eight species found around the Arctic island for the first time.



This small shark new to Greenland has been found in other oceans at depths of between 2,645 to 4,625 feet (800 and 1,410 meters), where it feeds on fish, marine worms, and crustaceans such as lobster and crabs.



A large female angler fish from the deep ocean off Greenland in which the males attach themselves like parasites. The tiny male, a little more than a sperm donor, is nourished by the female until her eggs are fertilized.

OIL FROM SHARKS FOR SWINE FLU VACCINE

Vaccines are being made to protect people from swine flu, which may affect some of the threatened species of sharks. The doses of the pandemic H1N1/09 vaccine contain a substance called squalene, which is extracted from shark livers. More commonly found in beauty products such as skin creams, squalene can be used to make an adjuvant, a compound that boosts the body's immune response. The World Health Organization recommends adjuvant-based vaccines, because they allow drug makers to create doses that use less of the active component, increasing available supplies.

Olive oil, wheat germ oil, and rice bran oil also naturally contain squalene in smaller amounts. Now squalene is primarily harvested from sharks caught from commercial operations, especially from deep water region. According to Shark Network Safe, 440 million doses of vaccine would require at least 4,400 kg of shark oil, based on the stated squalene content of 10.69 mg in a dose. The International Union for Conservation of Nature's (IUCN's) Red List has included several species of coastal and deep water species of sharks as threatened species, meaning these species

faces a high risk of extinction. Some cosmetics firms have stopped using shark squalene or are phasing it out following pressure from conservation groups. The drug companies are currently looking at non-animal squalene sources, including olive oil. But at the moment, they are unable to find an alternative of high enough grade.

STAMPS ON BRACHYURAN CRABS

