





Indian researchers achieve giant trevally breeding and seed production breakthrough

31 July 2024

By Responsible Seafood Advocate

CMFRI overcame obstacles to meet the specific needs of Caranx ignobilis

The Indian Council of Agricultural Research (ICAR) Central Marine Fisheries Research Institute (CMFRI) has succeeded in induced breeding and seed production of the giant trevally (*Caranx ignobilis*), a popular food fish that is a good candidate for aquaculture.

Giant trevally is a fast-growing, important food fish that can be farmed in marine and estuarine cages, pens and coastal ponds. This fish can grow faster than pompanos and can tolerate wider salinity ranges and water quality conditions.

"The achievement is a breakthrough in mariculture and is a significant advancement in the efforts to sustainably manage and conserve giant trevally as a new candidate species in the mariculture sector", said Dr. A Gopalakrishnan, Director of ICAR-CMFRI.

Captive breeding of this species faced significant obstacles, the research team said, including its preference for open waters, specific breeding requirements and a complex reproductive biology.



The Central Marine Fisheries Research Institute said it has achieved captive breeding and seed production of the giant trevally.

This breakthrough was followed by extensive research and trials conducted by scientists at Vizhinjam Regional Centre of ICAR-CMFRI, Vizhinjam, Thiruvananthapuram, Kerala, India, with the funding support of the Department of Biotechnology, Ministry of Science and Technology, Govt. of India. Research was carried out under the leadership of scientists Ambarish P Gop, Dr M Sakthivel, and Dr B Santhosh.

The research included behavior monitoring, hormone administration and precise environmental controls to better understand the best reproductive biology, breeding and seed production techniques for the species. Initial cage farming trials showed that trevally reaches up to 500 grams in five months and up to 1 kg in eight months.