

Nutrition, growth and resilience of tiger grouper(*Epinephelus fuscoguttatus*) 3 giant Grouper (*Epinephelus lanceolatus*) hybrid- a review

ABSTRACT

The hybrid grouper discussed in this paper is a cross between female tiger grouper (*Epinephelus fuscoguttatus*) and male giant grouper (*Epinephelus lanceolatus*). Performed for the first time at this institute, the hybridization was motivated by the need to meet grouper demand. The hybrid has been a subject of thorough scientific investigations ever since it was produced. Qualities such as dietary needs, efficiency in growth and production and environmental resilience are of considerable aquaculture advantage, and account for interest in its commercial-scale farming in the wider Asia-Pacific region. This paper reviews scientific evidences on tolerance of hybrid grouper to environmental variability, nutrition, growth and genetic and other aspects. It makes serious attempt to summarize the pertinent data published on specific research questions to improve understanding of the diverse evidences, and to be able to identify gaps in knowledge. This has helped in articulating the current state of research and defining topics for future studies on the hybrid. From the analysis of published data it is obvious that hybrid has a higher production potential and resilience. Nevertheless, the hybrid is vulnerable to health problems linked to nutritional deficiencies and other factors. More comprehensive data on dietary requirements of the hybrid, especially larval stages, will help in formulating feeds that cater to metabolic requirements and improve the survival and biomass gains. Information on hybrid's dietary flexibility can be used in developing feeds for grow-out stages comprising ingredients from sustainable sources. The hybrid could be a suitable candidate for adapting aquaculture to climate change.