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The influence of algal rich food in natural condition to increase fat content and umami taste in *Etroplus suratensis* a fresh water fish from Ashtamudi lake Kerala, India

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“Pearl spot” an Asian Cichlid, *Etroplus suratensis* is an important delicious food fish used in aquaculture. This fish naturally get acclimated to fresh water and capable of withstanding wide variation in salinity thus making its culture in enclosed and brackish water quite feasible. *Etroplus* is predominantly a herbivore feeding mainly an aquatic micro and macrovegetation. Ashtmudi Lake is in the Kollam District of Kerala state in India. *Etroplus* is distributed all over the Lake. This species show difference in palatability aspects available from different sites of the lake. Kanjiracode area of this lake is famous for its special taste of pearl spot. Hence an attempt was made to evaluate and confirm how far the food habits of this species on ecologically different areas of this lake have an influence on the proximate composition. Five site of the lake were selected for the present study. Different biochemical variables of the muscle and gut content analysis was done and results were statistically analyzed. Fishes from the Kanjiracode site at all seasons show higher level of filamentous algae (43%) consumption that always predominately present naturally at this site and high level of fat content(2.87%) compared to other sites. Aromatic amino acids tyrosine and phenylalanine present in this fish especially at site1 was significantly at higher level. Phenylalanine was found to significantly enhance the umami taste. The fishes from Kanjiracode area showed most palatable due to the high value in fat content. Lipid content is an aspect affecting the flesh taste in many fish species. The fat content difference and amino acid differences due to the algal feed consumed by the fish and that those consuming maximum algal feed have more fat content which was contributed by this feed.

Biography

Mano Mohan Antony is currently working as Assistant Professor in Department of Zoology, University College Thiruvananthapuram. He has completed his PhD from the University of Kerala and has published about 12 papers in the fish, biochemistry and ecophysiology. He has edited two books. His area of interest is research in Fish Biochemistry and Physiology.

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