

Vitamins, Minerals and Flavour Bearing Constituents of Aquatic Organisms

Rafat Khan



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Fish and shrimp require food to supply the energy that they need for movement and all the other activities in which they engage, and the 'building blocks' for growth. In this they do not differ from other farm animals, or humans. However, aquatic animals are 'cold-blooded'. Their body temperature is the same as the water in which they are living. They do not therefore have to consume energy to maintain a steady body temperature and they tend to be more efficient users of food than other farm animals. Global demand for macroalgal and microalgal foods is growing, and algae are increasingly being consumed for functional benefits beyond the traditional considerations of nutrition and health. There is substantial evidence for the health benefits of algal-derived food products, but there remain considerable challenges in quantifying these benefits, as well as possible adverse effects. First, there is a limited understanding of nutritional composition across algal species, geographical regions, and seasons, all of which can substantially affect their dietary value. The second issue is quantifying which fractions of algal foods are bioavailable to humans, and which factors influence how food constituents are released, ranging from food preparation through genetic differentiation in the gut microbiome. Third is understanding how algal nutritional and functional constituents interact in human metabolism. Superimposed considerations are the effects of harvesting, storage, and food processing techniques that can dramatically influence the potential nutritive value of algal-derived foods. The book will be of invaluable help to teachers, students, researchers and all those who are interested in this subject.

Contents: Aquatic Ecosystem; Vitamins in Fish; Aquatic Macrophytes and Food Chain; Fisheries Fatty Acid; Fish Food and Vitamins; Aquatic Plants; Aquaculture Farming; Fishing and Marine Ecosystems; Aquaculture Production in the Seafood Industry.

About the Author



Rafat Khan is assistant professor of Zoology, Department of Zoology, School of Life Science, Khandari affiliated to Dr. Bhim Rao Ambedkar University, Agra, Uttar Pradesh. She has obtained her Ph.D in 2009 with Specialization of Environmental Pollution and Hematology. She has to his credit many research articles/papers published in national and international journals of repute and conference proceedings and attended and organized several national and international workshops. She was fortunate enough to find a career as an editor and writer that allowed her to combine both of her interests.



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4376-A/4B, Gali Murari Lal, Ansari Road, Daryaganj
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