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Nota di contenuto	1. The Perspective of climate change on aquatic environment and fish production -- 2. Climate Change: Stressor on Marine Buffer System -- 3. Climate Change: Impact on Fauna and Fishing Activity 0f River -- 4. Possible Impact of Climate Change on Fisheries -- 5. Impact of global warming on changing pattern of biodiversity and fish production in inland open waters -- 6. Climate Change and Coral Reef Ecosystem: Impacts and Management Strategies -- 7. Implications of Climate Change on Fisheries and Food Security -- 8. Nexus of climate change with fish production and its implications on livelihood and nutritional

security -- 9. Gut microbes and its physiological role in fish: adaptive strategies for climatic variability -- 10. Metabolic adaptation of fishes under different consequences of climate change -- 11. Argulus Parasitism in Aquaculture: An Elevated Temperature Scenario -- 12. Effect of environmental variability on the pigmentation of Fishes -- 13. Climate Change and stress Response in Teleost. 14. Impact of Climate Change on Emergence of Biotoxin in Fish and Shellfish -- 15. Metabolomic response to high temperature stress in murrel Channa striatus and insights for designer feeds -- 16. Feed and feeding management for sustainable growth and health of fish in varying climatic condition -- 17. Vulnerability and Mitigation Approach to Nutritional Pathology for Sustainable Fish Growth in Changing Climatic Conditions -- 18. Technology Prioritization For Climate-Resilient Nutritive Fish -- 19. Role of Dietary supplements in stress amelioration of teleost fishes -- 20. Dealing the hardship in aquaculture nutrition in a changing climatic condition -- 21. Strategies to mitigate climate change-imposed challenges in fish nutrition -- 22. Duckweed-based circular aquaculture for climate resilience and carbon foot-print reduction of fed Aquaculture -- 23. Nutraceuticals in aquaculture: a prospective climate change adaptation strategy -- 24. Broodstock development, induced breeding, and seed production of climbing perch Anabas testudineus: An alternative aquaculture species for changing environment -- 25. Effect of changing environmental factors on reproductive cycle and endocrinology of fishes -- 26. Impact of climate change on fish reproduction and climate-resilient broodstock management -- 27. Nutrition and environment interactions in aquaculture -- 28. Reproductive and maternal nutrition in changing climatic conditions.

Sommario/riassunto

The edited book covers the climate change impact broadly across the ecosystems including increasing pressure on livelihood and food supplies to the society. Climate change, in particular, rising temperatures, can have both direct and indirect effects on global fish production. Fisheries and aquaculture is one of the important sectors of agriculture for livelihood and nutritional security. Fish, being poikilothermic in nature are very sensitive to any change in the ecosystem. In commercial aquaculture, it is crucial to ensure that environmental rearing conditions are adequate, if not optimal, for fish growth, welfare and profitability. Thus, the book develops an understanding regarding changes in relevant environmental parameters and its affect in the growth and physiological performance of fish. Fish feeds on natural food organisms, but the adverse changes in the ecosystem attracts nutritionists to provide better food and feeding strategies for optimum growth and survival of the fish. it is become necessary to develop preparedness about the changes and their mitigation strategies through fish nutrition and feeding strategies. This book address the potential impact of climate change on the aquaculture sector under sections - Assessment of Global Warming Impact on aquatic resources and fish production, Adaptation in Fish Digestive Physiology and Biochemistry under Changing Environment, Prioritization of fish feed technology with respect to changing climate for adaptation and mitigation, Strategies and planning on reproductive physiology and feed management for biodiversity conservation. The chapters are contributed by the experts in the field of fish nutrition and physiology. The book assists fish farmers, entrepreneurs, planners and advisors specifically related to nutritional and physico-biochemical changes in fishes to adapt or mitigate the adverse effect of climate change.