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Titolo	Xenobiotics in Aquatic Animals : Reproductive and Developmental Impacts / / edited by Mohd Ashraf Rather, Adnan Amin, Younis Ahmad Hajam, Ankur Jamwal, Irfan Ahmad
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Nota di contenuto	1. Pesticide and xenobiotic metabolism in aquatic organisms -- 2. Endocrine disrupting activity of xenobiotics in aquatic animals -- 3. Water contamination through xenobiotics and their toxic effects on aquatic animals -- 4. Cypermethrin induced reproductive toxicity in zebrafish: biochemical and molecular perspective -- 5. Impact of Pesticides Application on Aquatic Environments And Biodiversity -- 6. Impact of microplastics on reproductive and physiological aspects of aquatic inhabitants -- 7. The Impact of Xenobiotics in Development & Reproduction of fresh water Fishes -- 8. Mixtures and Reproduction in Aquatic Organisms – benefits and challenges -- 9. Phytoestrogens as Endocrine-Disrupting Agents In Aquaculture -- 10. A Proteomic Approach to Studying the Effects of Xenobiotics on Aquatic Living Organisms -- 11. Role of Cytochrome P450 in xenobiotic metabolism in fishes -- 12. Pharmacokinetic-Pharmacodynamic modelling of Xenobiotics: Fate and effect in Aquatic Animals -- 13. Occurrence of xenoestrogen alkylphenols (Octylphenols and Nonylphenol), and its

impact on the aquatic ecosystem -- 14. Xenobiotics' effect on fish reproduction and development -- 15. Scientometric analysis of ecotoxicological investigations of xenobiotics in aquatic animals -- 16. Toxic effects of nanomaterials on aquatic animals and their future prospective -- 17. Microplastic Contamination in Aquatic organisms: An Ecotoxicological perspective -- 18. Effect of xenobiotics and their degradation in aquatic life -- 19. Transcriptome analysis of aquatic species exposed to endocrine disruptors -- 20. Fundamentals of genotoxicity and antiparasitic drugs associated with genotoxicity in fish -- 21. Endocrine disrupting compounds (EDCs) as emerging aquatic contaminants: Emphasis on Reproduction and Development.

Sommario/riassunto

This book summarizes the latest understanding of the impact of xenobiotics on the developmental and reproductive processes of aquatic animals, particularly nektonic forms, which comprise an important group of aquatic ecosystems. Aquaculture is quickly becoming the largest contributor of fish protein for human consumption. As the aquaculture business expands, farmed fish will be exposed to more environmental toxins, necessitating the use of chemical therapeutic drugs for fish. This book brings together experts on the regulation of environmental toxins and food chemicals from around the world, as well as researchers looking into the metabolism and disposal of foreign chemicals (xenobiotics) in fish species. The impact of xenobiotics on reproductive and developmental biology of all living forms has become of prime importance at the current time. As the effect of these xenobiotics on aquatic animals is an emerging area for research and development, several groups across the world are working on these aspects, targeting different groups of fishes in both marine and freshwater ecosystems. This collective work highlights several key and updated recent aspects of different types of xenobiotics entering aquatic ecosystems, impacts of these agents on reproductive physiology, developmental biology, breeding biology, hormonal imbalance, aquatic ecology, and pollution on the aquatic ecosystem. The unique aggregation of different types of stressors to aquatic animals under a single volume will be a useful reference for readers, including scientists, teachers, students, researchers and policymakers and those involved in aquaculture and environment conservation.
