







Special Issue Reprint

Oxidative Stress in Aquatic Organisms

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Robust stress from the external environment does not only induce severe oxidative stress for aquatic animals, but also restricts the health and sustainable development of aquaculture. Oxidative stress is ubiquitous in aquatic animals, and excessive oxidative stress could induce cell and tissue damage. These phenomena manifest primarily as DNA hydroxylation, protein denaturation, lipid peroxidation and cell apoptosis. In general, endogenous and exogenous factors are the main elements that induce oxidative stress, including temperature, oxygen, life history, nutrition, food deprivation, industrial and agricultural pollutants.

This Special Issue highlights and discusses the causes of oxidative stress, elucidates the underlying physiological mechanisms, and develops antioxidant resistance strategies that are of great importance for the development of aquaculture. More importantly, this Special Issue offers fresh perspectives on the expanding knowledge related to and research possibilities in the creation of antioxidant resistance in aquaculture





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