1. Record Nr. UNINA9910557785703321

Autore	Julián Magnoni Leonardo
Titolo	Welfare and Stressors in Fish: Challenges Facing Aquaculture
Pubbl/distr/stampa	Frontiers Media SA, 2020
Descrizione fisica	1 electronic resource (199 p.)
Soggetti	Science: general issues Physiology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Consumers, producers, stakeholders, governmental regulatory agencies and NGOs are becoming increasingly concerned with the conditions in which aquatic organisms are reared worldwide. High demand for fish for human consumption represents a challenge that has to be fulfilled by an ever-growing aquaculture production. In this scenario, animal care over the entire life and production cycle must be guaranteed while avoiding significant economic losses. As a result, research is needed to maximize yields and minimize adverse outcomes by optimizing rearing conditions while keeping in mind the welfare of cultured fish. In this Research Topic we will focus on relevant aspects related to fish response to both biotic and abiotic stressors as a means of improving their welfare, integrating both physiological and behavioral responses. In fish the adaptive responses to rearing may differ depending on several factors, including the characteristics of the stimuli and the intrinsic properties of the species or the selected line. If complete adaptation is missing, the application of single or multiple stimuli may result in a stress response. Stress responses have been linked to systemic adjustments which negatively impacts the immune system of fish, as well as their growth and reproductive performance. Therefore, one of the main interests of this Topic is to understand the allostatic responses of aquatic organisms to several stimuli/ factors that may be present during rearing. An additional focus of this Topic will be on

conditions that may improve fish welfare by decreasing the stress response, such as implementing adequate swimming conditions. The focus of the Topic is to contribute to our present knowledge to better understand the physiological response of aquatic organisms, which is central to improving aquaculture practices. Emphasis will be placed on potentially existing interactions between physiological and endocrine pathways to build an overall stress response. Another aspect that will be considered in this Topic is how intraspecific variability may affect the stress response.