

GREGORIO MOTTA

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Biosketch

Graduated in Marine Biology in 2015 with an experimental thesis in Marine Ecotoxicology on the study of the dynamics of pollutants in mussels and fish in the bay of the petrochemical center of Augusta-Priolo (Sicily). Through a post-graduate scholarship he spent 4 months at the EFPU (Estación de Fotobiología Playa Unión), Argentina where he dealt with the effect of UV radiation on the metabolism of local amphipods. In 2017 he has been enrolled in the "Master of Marine Studies" in Fisheries Resource Management at the Memorial University of Newfoundland (Canada), suspended in August 2018 due to admission to a doctorate. At the moment, PhD student in Environment and Life with scholarship at the University of Trieste (Tutor Prof. Antonio Terlizzi) joint with the Anton Dohrn Zoological Station of Naples (Co-tutor Dr. Massimiliano Bottaro), during which he carries out his research activity in the Gulf of Trieste and in the Gulf of Naples, evaluating the ecological impacts of jellyfish blooms on the trophic network, in particular on fish larvae and eggs.

Research

His PhD research activity focuses on the study of the ecological and biological relationships between jellyfish bloom and the fish component of ecosystems. Specifically, the doctoral project looks at trophic relationships for the evaluation of the dynamics of predation of gelatinous plankton on ichthioplankton (larvae and fish eggs) and the consequent impact on the recruitment of fish species. These interactions are relevant as they are thought to cause a reduction in the recruitment and abundance of the fish species involved, causing significant damage both at the ecosystem and economic level (fishing and aquaculture activities). Nevertheless, these themes have not yet been adequately studied and the gelatinous component of zooplankton is still considered a secondary character in ecological mechanisms. Currently, organizations such as the EU-DG Mare and the GFCM (FAO) stimulate research and study of these issues in order to fully understand the phenomenon and obtain new tools for the management of marine ecosystems. The objectives of the project are: 1) to estimate the presence and abundance of jellyfish and ichthioplankton in the Gulf of Trieste and Naples,

2) to study the composition and diversity of the stomach contents of the most common species of jellyfish in the study areas,

3) to evaluate the perception of fishermen on the relationship between bloom and fished through LEK (Local ecological Knowledge) questionnaires.

Still in the context of biological relationships between jellyfish and fish, a study is underway in collaboration with the DIMEVET of the University of Bologna on the characterization of parasites in gelatinous plankton and their eventual transfer to the fish component by predation. At the same time, in collaboration with Professor Massimo Avian of the University of Trieste, a study is underway on the internal anatomy of *Rhizostoma pulmo*, the most widespread jellyfish in the Gulf of Trieste.