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Nationality: Spanish

Orientation: Sustainable Use of Marine Resources
Specialization Area: Aquaculture
Research Area: 2.11 Biotechnology applied to aquaculture



PhD project: **Cryobiology of complex marine invertebrate larvae**

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Summary: The ocean provides more than 60% of available ecosystem services and is a fundamental source of resources. The exponential increase in the pressure to which coastal marine resources have been subjected in recent years, because of overexploitation, pollution and/or climate change, makes it essential to find methods to guarantee the conservation of marine biodiversity, as well as its correct exploitation and protection. Cryopreservation is presented as a viable method for the biological and genetic conservation of different marine species. Currently, there are successful protocols for cryopreservation of sperm, oocytes and larvae of different marine species. However, research is mainly focused on fish, and there are hardly any successful protocols for the cryopreservation of marine invertebrates and even fewer for their larvae. Marine invertebrate larvae play a fundamental role in the marine ecosystem, as well as having a high biotechnological value, serving as model organisms in different scientific branches, such as the evaluation of marine pollution, cellular development studies, neuroscience, etc. The aim of the present work is to successfully develop different cryopreservation protocols for complex larvae of different marine invertebrate species.

