

COST Action FA1205: AQUAGAMETE - Assessing and improving the quality of aquatic animal gametes to enhance aquatic resources. The need to harmonize and standardize evolving methodologies, and improve transfer from academia to industry.

Applicant: Martim Magro

STSM title: Effect of different temperatures on the embryonic development of *Octopus vulgaris*

Dates: 1st December 2014 to 31st January 2015

Local: Oceanographic center of Canary Islands-IEO (S/C de Tenerife, Spain)

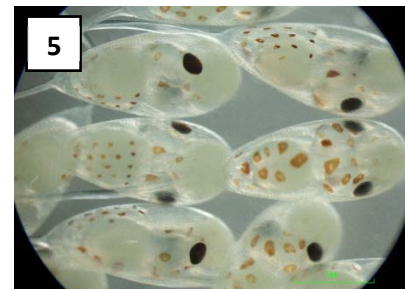
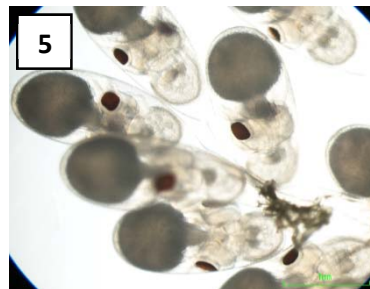
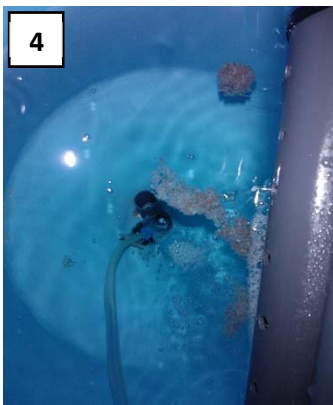
Host: Dr. Eduardo Almansa, IEO, S/C de Tenerife, Spain (eduardo.almansa@ca.ieo.es)

Description of the work

During this short stay and together with Dr. Eduardo Almansa and his working team, I developed incubation systems with different temperatures for the *Octopus vulgaris* eggs. In the first place, I learned how to make an incubation system with all the necessary elements: pumps, filters, different tank volumes, regulation of the water flow, control of temperature with coolers, etc. When female spawned, I collected the eggs and introduce them in the system, getting practice in the manipulation of these fragile eggs. Daily, besides controlling the system, I visually checked the appearance of the eggs and I collected samples for analysis. At the magnifying glass, I verified the embryonic stage, took photos and measurements of the total and mantle length of each egg. Finally, it was able to observe non-fertilized eggs and some infections as parasites and bacterias.

The main results obtained can confirm the hypothesis that at lower temperatures the embryonic development is longer and the embryos are more developed when they hatch. At higher temperatures eggs develop and hatch faster but the development is inferior.

The knowledge and results acquired in Tenerife will contribute both for my master thesis and future studies in cryopreservation developed with Dr. Elsa Cabrita in the University of Algarve. The skills I gained with this STSM are in accordance with the objective of the WG1: development of new protocols for field, lab and industry applications.



1. Incubation systems. 2. Collection of the eggs from the female. 3. Introduction of the eggs in the systems. 4. Egg line. 5. Different embryonic phases.

The Fifth Call for STSM (Short-Term Scientific Missions)



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Confirmation by the host institution of the successful completion of the STSM

Dr. Eduardo Almansa (IEO) certifies that Martim Magro has completed a Short-Term Scientific Mission awarded by the COST Action FA1205 between 1st December, 2014 to 31st January, 2015.

Dr. Eduardo Almansa
(IEO – Host institution)

Martim Magro
(STSM applicant)



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