



Post-doc position on the fish reproduction and feeding in Lorraine University (Nancy) and INRA (St Pée sur Nivelles), FRANCE

A two-year post-doctoral position will be available to investigate the relationships between the diet, the intrinsic lipid storage of the Eurasian perch (*Perca fluviatilis*) females and the lipid incorporation in the eggs during the oogenesis. This multi disciplinary project mainly aims at 1/ determining the lipid composition and the carbon and nitrogen stable isotope values of various organs all along the oogenesis, 2/ investigating the chronology of lipid incorporation in the eggs during this period and 3/ identifying relationships between the lipid composition of the eggs and their quality by analysis of the embryogenesis success with a microscopic approach and the follow up of genes expressions by qPCR.

The project has been written in collaboration between the Domestication in Inland Aquaculture (DAC) team of the URAFPA research unit of Lorraine University in Nancy and the Nutrition, Metabolism and Aquaculture (NuMEA) team of the INRA center in St Pée sur Nivelles. The applicant will work in both teams and should thus be ready to travel between both sites.

The post-doc position is for 2 years and available from May 2018.

Project description

The position is part of a FEAMP project (European Fund for Fisheries and Marine Affairs) : PERCIHATCH.

As in all animal species with external development, the egg composition is crucial for the proper embryonic development of the offspring in fish. Among the incorporated molecules, the lipids are particularly important. They are incorporated either from the peri-visceral reserves stored before the beginning of the oogenesis or from the females food diet during that period. In the *Eurasian perch* few studies investigated this question that remains open.

Several groups of perch will be fed with pellets the composition of which varies between the groups. The follow up of the carbon and nitrogen stable isotope values of various tissues will allow us to better understand the origins and the kinetic of the lipids incorporation in the oocytes at each step of the oogenesis from the beginning of the induction of the reproduction cycle to the spawning period.

The egg quality will be assessed by studying the embryonic survival, deformities occurrence and tissue differentiation at different steps of the embryogenesis. The researcher will also be able to identify relationships between the egg lipid compositions before the fertilization and the embryogenesis success.

Based on obtained results, a second experiment aims at optimizing a feeding regime of the breeders during reproductive cycle.

Contact

For further information, contact Dr Bérénice Schaerlinger (berenice.schaerlinger@univ-lorraine.fr) and Dr Stéphanie Fontagné (stephanie.fontagne-dicharry@inra.fr)

Application

Applicants should have a PhD degree in biochemistry or biology with a strong scientific and technical expertise in lipid biochemistry and carbon and nitrogen stable isotope analysis. The successful candidate should be proficient in English (oral and written), should be autonomous and demonstrate his/her ability to organize efficiently the work in a multidisciplinary team.

Interested candidates should send a motivation letter with research experience, curriculum vitae and the names of three references (with address, phone number and email) to Dr. B. Schaerlinger (berenice.schaerlinger@univ-lorraine.fr).