

4 YEAR PhD POSITION IN EVOLUTIONARY BIOLOGY

Catholic University of Leuven, Leuven (B)

A 4 year PhD position for an evolutionary biologist is vacant at the Laboratory of Animal Diversity and Systematics (Catholic University of Leuven) in the research group of Prof. Filip Volckaert to perform a study entitled: "Strong selection pressures and micro-evolutionary responses in the three-spined stickleback".

Project description: The project investigates the conceptual and methodological integration of ecology and evolutionary biology. The successful candidate will study the evolutionary response of the three-spined stickleback to strong selection pressures (predation and parasitism) in an ecological context. Patterns of phenotypic variation will be explored in natural populations and phenotypic adaptation tested experimentally. The rapid evolutionary response at the genomic level will subsequently be studied under natural and experimental conditions. The stickleback is a prime model for evolutionary research with access to an impressive molecular toolbox, enabling the understanding of the link between phenotypic and genomic responses to environmental and anthropogenic factors. Evolution in sticklebacks has been studied in our team over the past five years (Raeymaekers et al. 2005 and 2007, *Molecular Ecology*; Raeymaekers et al. 2008, *Evolutionary Applications*). The project starts on 1 October 2008 and is supervised by prof. Filip Volckaert and dr. Joost Raeymaekers.

The research team: The Fish Genetics Team has a strong expertise in phenotypic, neutral and adaptive evolution, including field monitoring, experimental design, medium-throughput genotyping, the analysis of genetic, genomic, and phenotypic data with up-to-date statistical approaches, and modeling for heuristic and operational analyses. Topics addressed include phylogeny, barcoding, phylogeography, the study of hybridisation, population genetics, local adaptation and rapid evolution (natural and fisheries induced), enhanced selection in aquaculture (aquaculture genomics), bioinformatics, co-evolution between host and parasite, spatio-temporal dynamics of nursery grounds and the sustainable management of aquatic habitats. Our team comprises 6 PhD students, 4 postdocs, 2 technicians and a team leader. The historic KULeuven, founded in 1425, has a very stimulating research environment. The modern city of Leuven with its medieval roots offers a high quality of life.

Candidate profile: Strong motivation, background in evolutionary biology, interest or experience in field based experimental research, open to international contacts with other research groups, is strongly recommended. Research will be carried out in collaboration with a multidisciplinary team of ecologists, parasitologists, evolutionary biologists and population geneticists. Importantly, this position is only vacant for prospective students fluent in the Dutch language.

Financing: The successful candidate's fellowship (approximately 1600 € / month netto) is funded by a national project of excellence granted by the KULeuven (GOA). The candidate is expected to apply for a national IWT fellowship by September 2008.

Application deadline: Please send a letter of motivation, C.V., and two letters of reference to Filip Volckaert by June 15 2008. For more information contact joost.raeymaekers@bio.kuleuven.be or filip.volckaert@bio.kuleuven.be.

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