



Two PhD positions on ECO-EVO-DEVO dynamics in threespine stickleback of lake Mývatn, Iceland

Hólar University, Iceland, seeks two PhD students for a Grant of Excellence (RANNIS) project to study the dynamics of *Ecological (ECO)*, *Evolutionary (EVO)* and *Developmental (DEVO)* processes

The phenotype is an important determinant of the dynamic interactions between ecological and evolutionary processes (eco-evolutionary dynamics) and the processes that shape biological diversity in face of global change. This project will study the interplay among ECO, EVO and DEVO to understand 1) the dual role of ecology in evolution (as driver of natural selection and phenotypic plasticity), 2) the molecular mechanisms underlying phenotypic variation, and 3) the feedbacks between phenotypic change and ecosystem function. The project uses threespine stickleback (*Gasterosteus aculeatus*) from lake Mývatn, Iceland, as a model. The project is led by Prof. Bjarni K. Kristjánsson (lead PI, Hólar University, Iceland) and Dr. Katja Räsänen (Swiss Federal Institute of Aquatic Sciences, Eawag, Switzerland). It is part of a large collaboration across Hólar University (Prof. Skúli Skúlason), Eawag (Dr. Blake Matthews), Univ. of Wisconsin-Madison, USA (Prof. Anthony R. Ives), Univ. of Iceland (Prof. Zophonías O. Jónsson) and the Mývatn research station (Dr. Árni Einarsson).

We are looking for two excellent PhD students to work on two complementary aspects of the project: *i) the determinants of phenotypic variation and ii) consequences of phenotypic and genetic variation for ecosystem processes*. Which of these aspects each student specifically focuses on will depend on their interests as well as expertise (to be stated in application, see below). These student projects are an integral part of research that includes long-term field data, laboratory, mesocosm and field experiments, genomics and mathematical modelling. We are an international research team dedicated to high quality training. The students will have the opportunity to conduct part of their research at the collaborative institutions.

Location: The students will be based at the Dept. of Aquaculture and Fish Biology (DAFB - http://holar.is/en/department_of_aquaculture_and_fish_biology) at Hólar University (North Iceland) and registered at the Univ. of Iceland (Reykjavik). HU is situated in the beautiful Hjaltadalur (Skagafjörður), with offices and research laboratories in the nearby town Sauðárkrókur. DAFB is an active research centre and the students will become part of a dynamic international team of graduate students and faculty. The beautiful natural setting and central location in North of Iceland offer both outdoor and cultural activities.

Requirements: The candidates must hold a MSc degree in a relevant field (e.g. Ecology, Molecular Biology, Evolution, or Development). The ideal candidates have a strong interest in evolutionary ecology, enjoy working in a dynamic group, and have experience from fieldwork and laboratory work (with relative importance depending on the project specifics). Expertise and interest in molecular genetics (transcriptomics and/or genomics) is preferable. Peer-reviewed publication(s), previous experience with animal experiments (fish in particular) will be a plus.

The working language is English. A valid driving license is a requirement.

This is a 100% position for three years. Salary is in accordance with the agreement between HU and Rannís. Rights and obligations follow the Act 70/1996 on the Rights and Obligations of Civil Servants.

Applicants should send an application letter, with a statement of research interests (incl. statement on favoured topic of PhD) and relevant experience (max. 2 pages), *curriculum vitae* with a list of publications, copies of academic qualifications and the names and e-mail addresses of three referees, **as a single pdf** to ecoevodevo@holar.is The positions are open until filled and suitable candidates will be interviewed on regular basis until the position is filled.

For further information contact Bjarni K. Kristjánsson (Head of the Dept. of Aquaculture and Fish Biology, Hólar Univ. College) (bjakk@holar.is) or Dr. Katja Räsänen (katja.rasanen@eawag.ch).