Ph.D. studentship in Rock ptarmigan ecological genomics at the University of Akureyri, Iceland.

We are seeking a highly motivated Ph.D. student to work on a fully funded project on evolutionary genomics and ecology of rock ptarmigan (Lagopus muta) in Iceland. The project is funded for 36 months, starting in autumn 2020.

The project
Ecological genomics encompasses ecology, genomics, and evolutionary biology, and utilizes genomic approaches to address consequential ecological questions. In this the project we will apply an ecogenomic approach, by analysis of genome diversity and gene expression, assessing the association of genetic variants to population cycling or intermediate phenotypes of rock ptarmigan. Within the frame of the recently completed comprehensive project, "Rock ptarmigan health and population change" spanning the years 2006-2018, a unique tissue and dataset have been created by the annual collection from this wild bird population. We aim to explore the impact of trophic interactions such as diversity of the gut microbial community, plant-herbivore interactions, and role of toxins. The health parameters and tissue collection of Icelandic rock ptarmigan are unique with no such comparable dataset available elsewhere. The ecogenomic approach will involve generating genomes, transcriptomes, and miRNAomes from the rock ptarmigan followed by comparative genomics and tissue-specific expression analysis with the goal to map and characterize genomic regions involved in selection/adaption and to examine how genes are involved in various biological processes such as abiotic and biotic stress responses.

The main supervisor of the Ph.D. student is Professor Kristinn Pétur Magnússon at the Faculty of Natural Resource Sciences, University of Akureyri (UNAK, www.unak.is), and Icelandic Institute of Natural History (IINH). Other advisors are Professor Jacob Höglund at the Institute of Ecology and Genetics, University of Uppsala, Sweden, Professor Snæbjörn Pálsson, Faculty of Life and Environmental Sciences, University of Iceland, Dr. Eva Charlotte Halapi, Faculty of Natural Resource Sciences, UNAK, and Professor Jennifer Forbey, Department of Biological Sciences, Boise State University, Boise, USA. The bulk of the work will be carried out at the UNAK/IINH laboratories in Akureyri, but the student will also attend secondments in Uppsala, Sweden, and Idaho, USA.

The role of the doctoral student
In accordance with the rules and regulations for doctoral studies at the University of Akureyri, the student will prepare and submit their own study plan, and otherwise submit to the obligations and attain the rights of doctoral students at UNAK. The doctoral studies will conclude with the public defense of a Ph.D. thesis consisting of peer-reviewed publications in internationally recognized academic journals.
Qualifications
A successful applicant will have a first-class M.Sc.-degree or equivalent in a relevant field, such as evolutionary biology, genomics, bioinformatics, population genetics, or molecular genetics. The applicant will furthermore have a genuine, interest in science, as well as a willingness to learn new methods of research and excellent interpersonal and collaborative skills. Documented reading, writing, and communication skills in English are an absolute must.

The application deadline is September 15th, 2020. The applicant should be able to commence employment in fall 2020.

Application process
The application process for doctoral student positions at the University of Akureyri is divided in two steps: Firstly, the applicant submits an formal application to the relevant research project through the application portal.

The application should consist of:

1. A cover letter, wherein the applicant states the reasons for their interest in the project, explains how they fulfill the eligibility criteria, and outlines their proposed contribution to the project.
2. A curriculum vitae, listing all relevant qualifications and work experience.
3. A copy of any relevant diplomas and/or transcripts.
4. Contact information for at least two reference persons.

Secondly, once the successful applicant has been offered a position in the research project, a formal application for admission into the doctoral studies program should be prepared under the supervision of the main advisor. Guidance can also be obtained from the doctoral studies program at doktorsnam@unak.is.

Further Information
Salaries and benefits are according to the Collective Agreement on Salaries and Work Conditions between the Union of University Teachers at the University of Akureyri (FHA) and the Minister of Finance. Incomplete applications will not be considered. The University of Akureyri reserves the right to reject all applications. Every application will receive a reply after a decision on appointment to the position has been made. The University of Akureyri is an equal opportunities employer and encourages women as well as men to apply for all vacant positions.

For further information, please contact Prof. Kristinn Pétur Magnússon at kpm@unak.is.