



The Netherlands Institute of Ecology (NIOO-KNAW) is a top research institute of the Royal Netherlands Academy of Arts and Sciences (KNAW). NIOO-KNAW focuses on fundamental and strategic research on individual organisms, populations, communities and ecosystems.

The department of Animal Ecology at NIOO-KNAW offers a position for a

Post-doc on *Predicting the evolution of beak size*

Vacancy PostDoc-AnE-017010

Project description:

In a recent study (Bosse et al., 2017, Science), we studied genetic differentiation and genomic signatures of selection by comparing the genomes of great tits (*Parus major*) from our Dutch long-term study populations with those from a UK population. Several genes that underlie beak size were found to have been under recent selection in the UK population but not in the Netherlands. This is concordant with an observed phenotypic change in beak size and more fledglings raised by the genotype for longer bills in the UK. We proposed human-induced natural selection as the cause of selection on beak size, as field data show that UK birds with large beaks make more use of artificial feeders. Garden feeding has more recently also become common in the Netherlands, therefore it is expected that there will be directional selection on beak size in Dutch great tits over the coming decades.

This project aims to predict the genetic and phenotypic changes of beak size in Dutch great tits. The candidate is expected: (1) to identify the network of genes shaping beak size and to understand how variation in this network affects beak size phenotypes, and (2) to measure and predict how selection favours certain beak phenotypes over others. The combination of the two may allow us to predict genetic and phenotypic changes in beak size in the great tit. This research will include bioinformatics (GWAS, RNA data, network analysis), data collection and analysis (phenotype-fitness associations) on our long-term field data, as well as behavioural observations on feeder use in our aviaries.

Requirements:

We are looking for a candidate with a PhD degree in molecular or evolutionary genetics or related areas, who is highly motivated and committed to pursuing interdisciplinary research and with experience with genomics and bioinformatics tools. Good communication skills in English (written and spoken) and the ability to work in a team environment is essential as this project is in close collaboration with other Dutch and UK groups.

Appointment:

This is a temporary appointment, initially for one year and upon satisfaction to be prolonged for a maximum of three years total at the NIOO-KNAW Animal Ecology Department (full time). Starting date is 1 March 2018.

Salary:

Salary depends on training and work experience. The gross salary starts at € 3.111,- (scale 10.4) per month to the maximum gross monthly salary of a full-time appointment at € 4.048,- (scale 10.12) per month, Collective Agreement for Dutch Universities (CAO Nederlandse Universiteiten), excluding 8% holiday pay and a year-end bonus. We offer an extensive package of fringe benefits.

Information:

Additional information is available upon request from Prof Dr Marcel E. Visser (m.visser@nioo.knaw.nl or +31 (0)317-473439). Information on NIOO-KNAW can be found here: <http://www.nioo.knaw.nl>

Applications:

Please send your application letter including a complete curriculum vitae, names of three referees and vacancy number (AnE-017010) to vacature@nioo.knaw.nl

Closing date for application: 20 December 2017

Interviews will take place on: 10 January 2018