 vogelwarte.ch

The Swiss Ornithological Institute in Sempach is a non-profit foundation supported by the public and focuses on a wide range of research topics on wild birds within and beyond Switzerland. We aim at acquiring the scientific basis for the understanding of biological systems and for the conservation of birds and their habitats.

Fully funded by a Swiss National Science Foundation grant, the Population Biology group of Michael Schaub & Marc Kéry is looking for

Two post-doctoral researchers in statistical and mathematical population modeling (100%)

Job 1: Statistical population modeler

You will develop demographic models from long-term, large-scale territory occupancy data of raptors and owls. These models will likely be a hybrid between an occupancy model and a demographic (e.g., matrix population) model and will integrate information from multiple types of data in an integrated population model. A focus of ecological interest will be in the exploration of our ability to learn about dispersal from such models.

We expect a completed PhD in either ecology, wildlife science or a related field, or in statistics, computation or a similar field. A deep understanding of population models (including occupancy, capture-recapture), hierarchical models, computation (e.g., R or Python), and Bayesian modeling software (e.g., JAGS, NIMBLE or STAN) is required, as is a proven desire and ability to publish excellent papers.

Job 2: Mathematical population modeler

You will develop statistical reaction-diffusion models based on citizen-science data from ornitho, eBird or similar databases. A focus of ecological interest will be in the modeling of the dispersal process in avian populations. This is a collaborative project with the group of **Dr. Trevor Hefley** at Kansas State University.

A completed or soon to be completed PhD in applied mathematics, statistics, or closely related field (e.g., data science, quantitative ecology) is required. This job will require combining computational algorithms from applied mathematics (e.g., finite element methods, finite difference approximations), statistical estimation algorithms (e.g., MCMC), and geographic information systems. The successful candidate will have experience in, or a strong interest in learning, about Bayesian statistical models, partial differential equations, and quantitative ecology, and a proven desire and ability to publish excellent papers. A solid grounding in population ecology as well as some GIS skills will both be a big plus.

What we offer

Both positions are offered initially for **2** years, but there is money for an extension. Salary is according to the regulations of the Swiss Ornithological Institute. Starting date is **1 February 2023** or by agreement. Working place is Sempach, Switzerland.

Application and contact

The Swiss Ornithological Institute is committed to promoting diversity and looks forward to receiving applications from as many qualified individuals as possible. For more details on either position, please contact **Marc Kéry** (marc.kery@vogelwarte.ch).

We look forward to receiving your online application by **10 November 2022**. Please upload your application documents (cover letter with statement of motivation, CV, list of publications, copies of diplomas, and contact details of three references) in a single pdf file to https://my.jobalino.ch/de/jobpreview/3705.