

Postdoctoral research position

About the position

Reversible seasonal migration is a key trait that allows many animal populations to inhabit seasonally varying environments. Yet, the rate at which seasonal migration could potentially evolve in contemporary populations, and thereby facilitate 'evolutionary rescue' from changing seasonal environments, has scarcely been considered. This is despite the fact that the occurrence of seasonal migration versus year-round residence commonly varies substantially among individuals within populations, implying that some combination of genetic and proximate environmental variation in migration propensity commonly exists. Progress requires estimation of key components of additive genetic variation and covariation in free-living populations, which in turn requires development of statistical methods and major datasets. Accordingly, the overarching aims of the postdoctoral position will be to develop statistical models that can rigorously estimate key quantitative genetic parameters from mark-resighting data, and to apply these methodologies to spatially-extensive data from a system of partially-migratory European shags.

Main duties and responsibilities

The postdoctoral researcher will be involved with two primary scientific objectives. The first objective will be to devise and validate new statistical models that allow estimation of key quantitative genetic parameters regarding seasonal movement from multi-state mark-resighting/recapture data. These models will allow parameter estimation from datasets where focal individuals can be observed in multiple seasonal locations, but not all individuals are observed on any occasion (as commonly occurs in field studies of seasonally-mobile species). The second objective will be to implement such analyses using the European shag dataset, which affords a currently unrivalled opportunity to provide first estimates of key evolutionary parameters. This objective will also involve major components of data-checking and validation, and may include some molecular genetic analyses. The researcher will be expected to publish results in the form of high-quality papers that appeal to a wide scientific audience.

The successful applicant will work primarily with Professor Jane Reid at NTNU, and will be further supported by Professors Bob O'Hara, Ingelin Steinsland and Steffi Muff (NTNU) for development of statistical methods, and by Dr Francis Daunt (UK Centre for Hydrology & Ecology) regarding the dataset. The post therefore provides an exciting opportunity for the researcher to work within an outstanding team of statisticians and ecologists. They will further benefit from being embedded within the stimulating wider research environment of the Centre for Biodiversity Dynamics. There will also be opportunities to participate in aspects of teaching and student supervision, and thereby gain wider professional experience, as desired.

Qualification requirements

A postdoctoral research fellowship is a qualification position in which the main objective is qualification for work in academic positions.

We seek candidates who have a strong academic record, strong interests and demonstrated expertise in statistical ecology and/or quantitative genetics, and enthusiasm for the challenges of confronting ecological and evolutionary theory with complex field datasets. Key attributes are as follows:

- Essential: PhD in quantitative ecology or evolutionary biology with strong statistical and data-modelling components, or a PhD in statistics with application to ecological or evolutionary questions and datasets.
- Essential: Enthusiasm to undertake and extend complex statistical models, and to make new models accessible for other users.
- Essential: Strong conceptual background in population and/or evolutionary ecology.
- Essential: Demonstrated capability to bring projects to conclusion in the form of high-quality primary papers.
- Highly desirable: Expertise in multi-state or multi-event mark-recapture analyses, including capability to code, analyse and validate such models in diverse platforms (ideally including Bayesian approaches).
- Desirable: Familiarity with quantitative genetic approaches in evolutionary ecology, in particular 'animal models'.
- Desirable: Experience of collecting, managing and analysing complex mark-resighting datasets from wild populations. Experience of, or demonstrated enthusiasm for, working in the context of seasonal movement ecology would be a further advantage.

The appointment is to be made in accordance with the regulations in force concerning State Employees and Civil Servants and [national guidelines for appointment as PhD, postdoctor and research assistant](#)

NTNU is committed to following evaluation criteria for research quality according to [The San Francisco Declaration on Research Assessment - DORA](#).

Personal characteristics

- Essential: Excellent team-working skills. Desire to work closely as part of a research team spanning ecology, evolution and statistics. Desire to contribute substantially to the working environment of the Centre for Biodiversity Dynamics, alongside capability to make progress independently.
- Essential: Excellent communication skills in written and oral English.

In the evaluation of which candidate is best qualified, emphasis will be placed on education, experience and personal suitability, as well as motivation, in terms of the qualification requirements specified in the advertisement

We offer

- an exciting and stimulating project in a strong international academic environment, providing major opportunities for career development
- an open and [inclusive work environment](#) with dedicated colleagues
- favourable terms in the [Norwegian Public Service Pension Fund](#)
- [employee benefits](#)

Salary and conditions

Postdoctoral candidates are remunerated in code 1352, and are normally remunerated at gross from NOK 523 200 before tax per year. From the salary, 2 % is deducted as a contribution to the Norwegian Public Service Pension Fund.

The engagement is to be made in accordance with the regulations in force concerning State Employees and Civil Servants, and the acts relating to Control of the Export of Strategic Goods, Services and Technology. Candidates who by assessment of the application and attachment are seen to conflict with the criterias in the latter law will be prohibited from recruitment to NTNU. After the appointment you must assume that there may be changes in the area of work.

General information

A good work environment is characterized by diversity. We encourage qualified candidates to apply, regardless of their gender, functional capacity or cultural background. Under the Freedom of Information Act (offentleglova), information about the applicant may be made public even if the applicant has requested not to have their name entered on the list of applicants.

Enquiries about the position are very welcome, and can be directed to Prof. Jane Reid, e-mail: jane.reid@abdn.ac.uk

About the application:

Publications and other academic works that the applicant would like to be considered in the evaluation must accompany the application. Joint works will be considered. If it is difficult to identify the individual applicant's contribution to joint works, the applicant must include a brief description of his or her contribution.

Please submit your application electronically via jobbnorge.no with your CV, diplomas and certificates. Applicants invited for interview must include certified copies of transcripts and reference letters. Please refer to the application number NV-79/19 when applying.

Application deadline: 31.08.19

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The Norwegian University of Science and Technology (NTNU) creates knowledge for a better world and solutions that can change everyday life.

The Faculty of Natural Sciences

[The Faculty of Natural Sciences](#) is a key player in national and international research and education programmes in natural sciences and technology. Our research focuses on global challenges in the areas of energy, climate, the environment, food, water, health and welfare. The Faculty consists of eight departments as well as the Faculty Administration.

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