Research Fellow in Theoretical and Statistical Migration Ecology

School of Biological Sciences

Closing date: 20 November 2023
Interviews (w/c): 11 December 2023
Reference number: SBS152R
INTRODUCTION

This post is part of a collaborative UK NERC-funded research project, aiming to understand links between partial seasonal migration, parasitism, demography and population dynamics.

The post will be based primarily in the School of Biological Sciences, University of Aberdeen. There will be close working collaborations with researchers at Norwegian University of Science and Technology (NTNU, Norway), University of Edinburgh (UK, Professor Emma Cunningham, the overall project lead), UK Centre for Ecology & Hydrology (Edinburgh, UK, Dr Sarah Burthe & Professor Francis Daunt), Universidad Complutense de Madrid (Spain, Dr Ana Payo-Payo) and University of Minnesota (USA, Professor Allison Shaw), with opportunities to visit these collaborating groups as appropriate. Together, these groups hold strong expertise in theoretical and statistical ecology, evolutionary biology, disease ecology and demography, including emphasis on understanding the causes and population dynamic consequences of seasonal migration. They hold thriving PhD and postdoctoral research communities, in which the successful applicant will be embedded.

JOB DESCRIPTION

MAIN PURPOSE OF THE ROLE:
The primary objectives of our overall project are to quantify links between parasitism and expression of seasonal migration versus residence, and to understand the consequences of these links for population demography and dynamics. These objectives will be achieved through combinations of theoretical modelling and advanced statistical analyses of field data collected in a partially migratory bird population (European shags, in Scotland). The successful applicant will lead the development and analysis of theoretical models, and also contribute to the analysis and/or interpretation of field data.

KEY RESPONSIBILITIES:
To build and analyse theoretical models linking occurrences of parasitism and seasonal migration, and resulting population dynamics, primarily using individual-based simulations.

To contribute to statistical analyses and interpretations of field data, either directly and/or through collaborations with colleagues.

To prepare work for high-level dissemination, through manuscripts for publication and conference and workshop presentations.

To maintain, communicate and archive clearly annotated code, thereby ensuring that models and analyses are transparent and replicable.

To work effectively within a large collaborative research programme encompassing multiple research groups and institutions across multiple countries, including maintaining good communication with all colleagues.

The role includes opportunities to contribute to ongoing fieldwork in Scotland.
Travel between the collaborating institutions, including visits working with the different collaborating groups, will be desirable.

**CANDIDATE BACKGROUND**

The ideal candidate will have demonstrated interests in understanding population, evolutionary and/or disease dynamics in wild populations, and in working at the interface between theoretical, statistical and empirical advances. They will have strong quantitative skills, for example including individual-based modelling and/or other forms of simulations, mathematical modelling, and/or advanced statistical analyses. They will ideally have some experience of working on relevant topics, for example involving seasonal migration or other forms of movement, demography and/or parasitism. They will have demonstrated abilities to work effectively as part of a collaborative research team, including excellent written and verbal communication skills. They will also be self-motivated and able to work independently on a day-to-day basis.
TERMS OF APPOINTMENT

Salary will be at the appropriate point on Grade 6, Point 32 £39,347 per annum.

Any appointment will be made subject to satisfactory references and probation period.

For further information on various staff benefits and policies please visit www.abdn.ac.uk/staffnet/working-here

This role is based in the UK and as such the successful candidate will be required to live and work primarily in the UK. The role will be based in Aberdeen, but there will be opportunities for mobility.

Should you require a visa to undertake employment in the UK you will be required to fulfil the minimum points criteria to be granted a Certificate of Sponsorship under the requirements of the Skilled Worker visa. At the time an offer of appointment is made, you will be asked to demonstrate that you fulfil the criteria in respect of qualification and competency in English. For research and academic posts, we will consider eligibility under the Global Talent visa. Please do not hesitate to contact Lucy Redmayne, HR Adviser (e-mail: lucy.redmayne@abdn.ac.uk) for further information.

The candidate appointed to this post may be eligible for homeworking on an occasional or regular basis. For more information please refer to our Homeworking Policy.

AT A GLANCE

SALARY:
Grade 6, Point 32
£39,347 per annum

HOURS OF WORK:
37.5 hours per week

CONTRACT TYPE:
Funding limited: until 30 June 2025

LOCATION:
Aberdeen
## Person Specification

### Education/Qualifications

**ESSENTIAL**
- PhD in a relevant discipline (e.g. pure or applied population ecology, evolutionary ecology, demography, behavioural ecology, disease ecology or other related topics). PhD can be already awarded or expected at the time of application.

### Work and Other relevant experience (including training)

**ESSENTIAL**
- Ability to clearly define scientific questions and knowledge gaps, by critically assimilating existing scientific literature.
- Strong skills in quantitative biology, including population modelling, individual-based modelling and/or advanced statistical analyses.
- Strong skills in R, and/or other appropriate modelling languages and softwares.
- Demonstrated interest in working at the interface between theoretical and empirical population, evolutionary and/or disease ecology.
- Experience of successful high quality dissemination of research, including publications and/or conference presentations.

**DESIRABLE**
- Experience of working on relevant topics, for example links between movement ecology, disease ecology, life-history variation, demography or population dynamics.
- Knowledge of key principles of capture-mark-recapture analyses, demography and population dynamics.
- Knowledge of partial seasonal migration.

### Personal qualities and abilities

**ESSENTIAL**
- Excellent verbal and written communication skills, operating primarily in English.
- Ability to work collaboratively and interactively within a large research team that involves multiple groups in different locations.
- Self-motivated, with ability to efficiently organise own time and activities on a day to day basis.
**ESSENTIAL**

Other
e.g. special circumstances (if any) appropriate to the role such as unsocial hours, travelling, Gaelic language requirements etc.

**DESIRABLE**

- Willingness to spend some time working in different locations, including Edinburgh (UK) and Trondheim (Norway), as well as in Aberdeen, with potential for visits elsewhere.

- Interest in, and ideally experience of, contributing to field data collection involving observations of colour-ringed birds.
The University of Aberdeen is a broad-based, research-intensive University, and we put students at the centre of everything we do. Outstanding in a wide range of discipline areas, Aberdeen is credited for its international reach and commercialisation of research ideas into spin-out companies. The University has over 16,000 matriculated students and 3,600 staff representing 130 nationalities. We encourage bold thinking, creativity and innovation, and we nurture ambition with many opportunities for professional and personal development in an inclusive learning environment which challenges and inspires.

**CURRENT CONTEXT**

The University continues to uphold the principals of the foundational purpose. We remain committed to delivering positive change both locally and globally. We work together and with our partners in an interdisciplinary way, catalysing world-leading research in our areas of strength: Energy Transition; Social Inclusion and Cultural Diversity; Environment and Biodiversity; Data and Artificial Intelligence; and Health, Nutrition and Wellbeing. We are investing in our future and have committed £100m to upgrading our campus, including the new fully digitised Science Teaching Hub, the regeneration of the historic King’s Quarter and a new Business School building. Our commitment to our students, campus and community has led to us being named a Top 20 UK institution in two major league tables¹ and 4th in the UK for overall student satisfaction².

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¹ The Times and Sunday Times Good University Guide 2023 and the Guardian University Guide 2023
² National Student Survey (NSS) 2022

Updated October 2022
ABERDEEN 2040
On our 525th anniversary as a University we launched Aberdeen 2040, our strategic vision for the next 20 years. Four strategic themes will shape our learning and discovery, underlined by 20 commitments we have made against each theme:

- **Inclusive**
  We welcome students, staff and partners from all backgrounds, organisations and communities. We value diversity.

- **Interdisciplinary**
  We innovate in education and research by generating, sharing and applying new kinds of knowledge. We learn together.

- **International**
  We connect with others and extend our networks and partnerships around the world. We think across borders.

- **Sustainable**
  We understand and nurture our environment, and take care of our resources, including our people and finances.
  We work responsibly.

OUR EDUCATION
Recognised as the Scottish University of the Year in the Times and Sunday Times Good University Guide 2019, we remain true to our roots as an ancient Scottish university, combining breadth and depth in our degree programmes and drawing strength from the quality of our research. Our flexible curriculum encourages students to grow as independent learners and therefore to thrive as graduates in the diverse workplaces of the future. Our education is open to all and we are setting ambitious targets to further widen access.

OUR RESEARCH
Researchers at the University of Aberdeen have been at the forefront of innovation and excellence throughout the centuries, generating insights in medicine, science, engineering, law, social sciences, arts and humanities. This research has contributed to five Nobel prizes as well as other awards such as the Queen’s Anniversary prize. Our research is intellectually rigorous working within our established areas of excellence as well as new methods of enquiry. We will continue to generate new knowledge addressing economic and societal issues with ambition and imagination, ensuring that it is globally excellent and locally relevant.

INTERNATIONAL
Aberdeen is increasing its international presence, positioning the University as a global organisation and building on established global partnerships around the world, including Qatar, China, North America, Europe. We feature in the top 50 institutions worldwide for international students.3

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3 Times Higher Education World University Rankings 2021

Updated October 2022
IMPACT
In 2020 the University signed the United Nations Sustainable Development Goals accord, solidifying our commitment to developing the world in a sustainable way. In 2022 we were listed in the global Top 100 for 8 of these goals.

Our highly cited work in zero-carbon technology and global outlooks makes us Scotland’s best institution for environmental research.

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4 Times Higher Education Impact Rankings 2022
5 QS World University Rankings 2022

Updated October 2022
THE SCHOOL OF BIOLOGICAL SCIENCES

The School’s areas of expertise and interest span a wide range of topics across ecology, evolution, physiology and environmental science. Further details can be found at https://www.abdn.ac.uk/sbs/

ABERDEEN AND ABERDEENSHIRE

Scotland’s third largest city, Aberdeen sits on the coast between the mountains of Aberdeenshire and the stunning North Sea coastline. The Aberdeen City region is a can-do place that is actively investing, at scale, in its future.

Renowned as a Global Energy Hub, Aberdeen is a vibrant, entrepreneurial region, home to a unique mix of business opportunities and specialist skills across various sectors including energy, technology, life sciences and food & drink. More than 20% of Scotland’s top businesses are located in this region which is taking great strides to ensure that it continues to compete on a world stage. Investments of more than £10 billion of public and private infrastructure is due to be delivered before 2030, marking an exciting time to be part of a genuine world-class location.

Built from sparkling local granite Aberdeen has earned the name of the Silver City. As the energy capital of Europe, Aberdeen nevertheless retains its old-fashioned charm and character making it an attractive place in which to live, work and study. Due to its global business and international energy industry credentials, Aberdeen is well served by local and national transport infrastructure with excellent rail networks that run both North and South of Scotland and the rest of the UK. It also acts as an international travel hub. Flying time to London is just over one hour with regular daily flights and serves international travel to European centres such as Amsterdam (Schiphol) and Paris (Charles de-Gaulle) as well as flights to other European destinations.

The City and the surrounding countryside provide a variety of urban, seaside and country attractions. Aberdeen has first class amenities including His Majesty’s Theatre, Music Hall, Art Gallery, the P&J Arena, Museums, and Beach Leisure Centre. The City is framed by its accessible beach front which is within a short walk of the city centre and there are an array of activities available across the region such as hill walking; mountaineering; sailing; surfing; salmon, trout and sea fishing; golf; sailing; surfing and windsurfing. The surrounding countryside, known as Aberdeenshire, is also one of Scotland’s most appealing regions. Royal Deeside and the Cairngorms National Park are within easy access of the city, and there are a variety of towns and villages scattered along the coastline.

The city and the surrounding area have ranked consistently highly in nationally recognised quality of life surveys, coming out top 10 as one of the best places to live in Scotland in 2020 in the annual Bank of Scotland survey.

To find out more visit www.visitabdn.com

Updated October 2022
EQUALITY AND DIVERSITY

The University values and celebrates a diverse working and learning environment and recognises the richness this brings, both in terms of contributing to the success of the University and creating safe and inclusive cultures. The University welcomes applications from individuals with diverse lived experiences.

The University supports flexible working, including hybrid working arrangements, and has policies in place to facilitate this where it is appropriate. The policies can be found at https://www.abdn.ac.uk/staffnet/working-here/flexible-working--5607.php.

The University is committed to progressing gender equality across all its functions and has been a proud member of the Advance HE Athena Swan Charter, achieving an institutional Bronze award, one Silver departmental award for the School of Psychology and eleven departmental Bronze awards. LGBTQ+ equality is championed through the University’s membership of the Stonewall Diversity Champions Programme, where the University has achieved a Silver award in the Workplace Equality Index. The University is on a continual journey to respond to, and combat, GBV in our community and beyond. We are proud to be working towards the EmilyTest Charter, in partnership with the charity, EmilyTest. We all have a role to play in knowing how to signpost colleagues and students to support for gender-based violence, and training and support is available to all staff on this topic.

The University is signed up to Advance HE’s Race Equality Charter, affirming the University’s commitment to the Charter’s aim of improving the representation, progression and success of staff and students who identify as belonging to a racialised group. The University launched its Antiracism Strategy in 2022, representing a bold framework for progress on race equality. Recognising the importance of addressing the under-representation of racialised groups in the senior team, the University’s new Recruitment and Selection Policy embeds specific positive action measures to address this.

The University is delighted to be accredited as a Disability Confident employer and strives to ensure that disabled staff and students have the opportunity to work and study in an inclusive, accessible and supportive environment. The University’s Wellbeing Strategy commits it to progressing work to tackle stigma related to mental health and action to promote and improve health and wellbeing for staff and students. Candidates who are British Sign Language (BSL) users can contact us directly by using contact SCOTLAND-BSL.

The University’s work on equality, diversity and inclusion is supported by a range of networks and engagement activities, designed to provide safe spaces and raise awareness of the support available and the steps everyone can take to create inclusive campuses.

www.abdn.ac.uk/staffnet/governance/equality-and-diversity-277
HOW TO APPLY

Online application forms are available at www.abdn.ac.uk/jobs

The closing date for receipt of applications is 20 November 2023

Ideal start date is 1 February 2024.

Should you wish to make an informal enquiry please contact:

Professor Jane M. Reid, Professor of Population & Evolutionary Ecology
jane.reid@abdn.ac.uk

Please do not send application forms or CVs to Professor Reid.

Please quote reference number SBS152R on all correspondence