



UCL

Job Description

Lecturer / Associate Professor in Quantitative Ecology

Research Department: Genetics, Evolution and Environment

Division: Biosciences

Faculty: Life Sciences

Grade 8 or 9

Location: London, UCL East Campus

Reports to:

Head of Research Department of Genetics, Evolution and Environment (GEE)

Context

University College London (UCL) is one of the world's top universities. Based in the heart of London, it is a dynamic, outward-looking institution. At its establishment in 1826, UCL was radical and responsive to the needs of society, and this ethos—that excellence should go hand-in-hand with enriching society—continues today.

The [Faculty of Life Sciences](#) is an exciting and dynamic environment driving forward ambitious and challenging plans for future development. We are committed to enhancing research and teaching in relation to major global challenges, including disease, climate change, sustainability, technological change and the data revolution, and inequality. Ranked No. 1 in London and No. 10 in the world (QS World University Rankings 2021) the Faculty offers an outstanding and diverse portfolio of Undergraduate and Postgraduate programmes in biological and biomedical sciences, pharmacy, pharmacological and pharmaceutical sciences.

The Faculty is made up of five academic Divisions; the School of Pharmacy, Biosciences, the Laboratory for Molecular Cell Biology, the Sainsbury Wellcome Centre for Neurocircuits and Behaviour and the Gatsby Computational Neuroscience Unit. In addition it is home to a specialist teaching facility; the Cruciform Teaching Facilities Unit. Some of the constituent parts of the Faculty have long and distinguished histories that can be traced back to the early 19th century when UCL was

founded and we are proud to have nine Nobel Laureates associated with Life Sciences.

[Biosciences](#) is one of the world's foremost centres for research and teaching in the biological sciences, and one of the largest Divisions within UCL. The Division has a diverse portfolio addressing all areas of biology, including evolutionary and population genetics, the environment, cell and developmental biology, computational biology, cellular and circuits neuroscience, and structural and molecular biology. Much of our research crosses traditional boundaries and activity is underpinned by high calibre science technology platforms and state of the art equipment, and a substantial number of postgraduate research students integrated within doctoral research programmes. The Division offers a range of undergraduate programmes and an expanding number of Masters Programmes. Research is integrated into our degrees giving students the opportunity to experience original contributions to their field of study.

The Research Department of [Genetics, Evolution and Environment \(GEE\)](#) provides a stimulating and diverse research and training environment of international standing, where important and exciting areas of ecology and biodiversity, biology of aging, microbiology, computational biology, evolution and development, evolutionary genetics and human evolution are investigated. GEE traces its origins to the Department of Comparative Anatomy founded in 1826. It was the first to offer a Zoology degree in Britain, helped to establish the British Ecological Society in 1913, and was the first institution in the world to study human genetics.

UCL's People and Nature Laboratory expands GEE's [Centre for Biodiversity and Environment Research](#)

[\(CBER\)](#) at UCL's new campus within The Queen Elizabeth Olympic Park, Stratford: [UCL East](#). CBER was established in 2013 by Prof Georgina Mace as a world leading centre of excellence for the study of the impact of rapid environmental change on biodiversity, how species are adapting to anthropogenic change, and how the degradation of nature impacts people and society. CBER's expansion at UCL East represents an exciting new chapter with the recruitment of a number of new research group leaders into the People and Nature Laboratory—a cross-disciplinary applied research and teaching partnership that brings together academics from GEE with expertise from Departments across UCL in computer science; social science, engineering and the built environment. This unique interdisciplinary environment will develop innovative approaches to tackle the challenges posed by biodiversity loss, global ecosystem degradation and climate change, to support a more sustainable relationship between people and nature.

The new purpose-built [People and Nature Laboratory](#) is located at the heart of the UCL's new state-of-the-art East campus, representing the single biggest expansion in UCL's history. New staff will be expected to form strong research and teaching links with colleagues across Departments and in Bloomsbury. Opening to staff and students from 2022, the new campus is dedicated to finding solutions to the biggest global challenges, thinking across academic disciplines and beyond academic walls. It will unite cross-faculty research and teaching activities, and will be home to more than 50 new degree programmes supporting approximately 4,000 students. UCL East has transformed nearly 11.5 acres into two buildings with state-of-the-art research and teaching facilities, along with student accommodation and public engagement spaces.

Main purpose of the job

We seek up to three outstanding individuals in the area of quantitative ecology at the interface of biodiversity and wildlife conservation with statistics, data science, mathematics, or computer science to join CBER's People and Nature Laboratory at UCL East. Post-holder's research interests will address global challenges through world-class independent and collaborative research in areas including, but not restricted to:

1. Statistics, data science, mathematics or computer science as applied to understanding how anthropogenic change impacts biodiversity and ecosystems
2. Design and use of innovative technologies to understand wildlife population changes (e.g. machine learning, artificial Intelligence, genetics and genomics, sensor systems)
3. Design and use of citizen science approaches and methodologies to study ecological and socio-ecological systems.

We particularly welcome applicants using empirical field and experimental systems, and/or with expertise in plant ecology. We also particularly welcome female applicants

and those from an ethnic minority, as they are under-represented within UCL at these levels.

The successful candidates will complement and build on our existing research and teaching strengths in [genetics](#), [evolution and the environment](#). They will contribute teaching on our new cross-disciplinary research-led Masters programmes starting in 2022 ([MSc Ecology and Data Science](#) and [MSc Citizen Science](#)) and GEE's wider portfolio of undergraduate and graduate teaching. The post-holders will work with colleagues across UCL as well as partner institutions including the [Zoological Society of London](#) and the [Natural History Museum London](#). They will also have the opportunity to be affiliated with UCL Departments of [Computer Science](#); [Geography](#); [Civil, Environmental and Geomatic Engineering](#); or [The Bartlett Faculty of the Built Environment](#).

The successful applicants will have a growing track record of well-funded excellent research with the potential to make substantial contributions to their fields of research. They will be expected to develop and maintain funding for a world-class research programme and supervise and mentor postdoctoral and PhD researchers. They will be able to evidence that their educational work is held in high esteem and be expected to further develop and maintain an excellent teaching profile. This includes development of curricula or teaching methodologies, achieving Faculty/institutional goals.

The successful applicants will provide research leadership, fostering synergy and catalysing collaborative research initiatives between research groups. They will enable activity through research activity, promoting enterprise and external engagement, providing academic mentorship for staff and facilitating exchange of good practice in all areas of academic undertaking. The post will initially be based at UCL's Bloomsbury campus, or remotely according to COVID-19 restrictions. It will move to the UCL East campus in September 2022.

Duties and responsibilities:

Leadership & Management

- Enable research and collaborative partnerships in the People and Nature Lab, CBER, GEE and across the Division and Faculty and the wider UCL community
- Contribute to Divisional, Faculty and UCL working groups or committees as required

Research

- Develop and maintain an internationally competitive research group applying approaches to areas of quantitative ecology at the interface of biodiversity and wildlife conservation, complementing and expanding current research activities
- Support their research group by acquiring the necessary external funding

- Organise regular individual and group supervision of research group members
- Recruit, train, supervise and support post-doctoral researchers, research fellows and PhD students
- Lead and coordinate research activity including determining relevant research objectives and preparing research proposals
- Develop productive links with staff undertaking relevant research elsewhere in UCL and establish external collaborations both nationally and internationally
- Initiate bids for research, consultancy, equipment and other additional funds
- Write and contribute to publications or disseminate research findings using other appropriate media
- Make presentations at national and international conferences and similar events

Education

- Deliver and develop modules for undergraduate and/or postgraduate courses in areas allocated and reviewed from time to time
- Encourage the development of innovative approaches to curriculum development and ensure that teaching design and delivery comply with the quality and educational standards and regulations of the Division, Faculty and UCL
- Add expertise and provide leadership in the development of degree programmes
- Encourage the ability of students to engage in critical discourse and rational thinking and develop and foster debate
- Supervise student projects and where appropriate, placements
- Set, mark and assess work and examinations and provide high quality and timely feedback to students
- Ensure that the teaching content and methods of delivery are in accordance with equal opportunities and respond to issues relating to staff and student needs

Enterprise and External Engagement

- Engage in a range of knowledge transfer and/or public engagement activities
- Negotiate successful complex partnerships and relationships
- Make substantial engagements with national or international partners in the public dissemination of information to the benefit of the community, or the population at large or to the commercial sector
- Make considerable contributions to peer review bodies/committees, professional organisations, learned societies, government committees, Research Councils or similar

Institutional Citizenship

- Effective personal contributions through membership of departmental and/or faculty committees and working groups
- Contribution to UCL's Research Ethics and integrity activity and committees
- Contribution to UCL's Equality Diversity and Inclusion groups and committees
- Contribution to departmental recruitment and widening participation activities
- Effective mentoring and support of colleagues
- Successful and effective contribution to the achievement of UCL's strategic goals

Other

- The post-holders will carry out any other duties as are within the scope, spirit and purpose of the job as requested by the line manager Head of Research Department, Divisional Director, Faculty Dean or other appropriate colleagues.
- Maintain a good working knowledge of UCL, Faculty and Divisional policy and procedures, referring to appropriate colleagues for advice where necessary.
- In addition to these duties the post holder will be expected to be flexible in their approach, as well as support and work collaboratively with academic and Professional Services colleagues within the Division and Faculty, and beyond.
- Actively participate in UCL networks, meetings and committees relevant to the role, as required.
- Attend staff meetings and training as required.
- Demonstrate zero tolerance towards bullying, harassment and discriminatory behaviour.
- The post-holder will actively follow and promote all UCL policies including those on Equality, Diversity and Inclusion.
- The post-holders will maintain an awareness and observation of current UCL Fire and Health & Safety Regulations and procedures.
- The post-holders, like all academic, research and teaching staff, are expected to demonstrate their ongoing commitment to excellence in line with the academic careers framework <https://www.ucl.ac.uk/human-resources/policies/2021/feb/academic-career-framework>
- Meet UCL's expectations set out in the the UCL Core Behaviours Framework <https://www.ucl.ac.uk/human-resources/policies-advice/core-behaviours-framework>

Person Specification

Applications to this post will be scored on how well a candidate meets the following criteria. **Please use your experience to date to explain, with evidence, how you meet this person specification.**

Criteria – Lecturer Grade 8	Essential or Desirable
Qualifications, experience and knowledge	
Possession of a PhD or equivalent qualification in a relevant subject area	Essential
Evidence of the ability to undertake and publish internationally excellent research in a relevant subject area	Essential
An innovative personal research agenda in quantitative ecology that enhance's the Department's existing profile and interests and is linked with the People and Nature Laboratory activities	Essential
Effective supervision and mentoring of PhD students	Essential
Evidence of contributions to peer review bodies/committees, professional organisations, learned societies, government committees or Research Councils etc.	Desirable
Experience of research-based teaching at undergraduate and/or postgraduate levels	Essential
Demonstrate effective and tangible contribution to promoting and supporting equality and diversity	Essential
Higher education or other relevant teaching qualification, or willingness to gain Fellowship of the Higher Education Academy	Essential
Evidence of academic leadership and a proven ability to lead, develop and motivate colleagues collaboratively and in line with the relevant departmental/institutional goals	Desirable
Evidence of significant and positive contributions to work promoting or translating research, teaching and innovation to non-academic communities	Desirable
Experience of an active role in widening participation initiatives, e.g. sharing ideas and experience through organising seminars and workshops	Desirable
Skills and abilities	
Evidence of successful collaboration with research teams/institutions and success in obtaining research grants	Essential
Evidence of leadership in the development of the teaching curriculum at undergraduate and/or postgraduate levels	Desirable
Evidence of a significant and positive collegiate contribution to the management or administration of an academic Department or Faculty	Desirable
Demonstrate successful management and strategic planning to meet targets and achieve deliverables	Essential
Develop appropriate team based solutions to challenges, demonstrating positive outcomes (in immediate team, research dept, Division and Faculty)	Essential
Excellent computer skills (Microsoft packages, platforms and software commensurate with a research focus)	Essential
Personal attributes & UCL Core Behaviours	
Commitment to continuing personal & team professional development	Essential
Inspirational; in respect of teaching and supervision, acting as a positive 'role model' for students	Essential
Adaptable and flexible with a constructive and collegiate approach	Essential
Work collaboratively with colleagues at all levels across UCL	Essential
Organisational Citizenship	Essential
Open to change, considering new approaches and ideas in all aspects of UCL life and leading by positive example	Essential

To be appointed to Associate Professor, in addition to the above you will need to demonstrate:

Additional Criteria – Associate Professor Grade 9	Essential or Desirable
Experience	
An outstanding international research profile with substantial and sustained contributions to knowledge or other outcomes appropriate to the discipline	Essential
Evidence of contributions to peer review bodies/committees, professional organisations, learned societies, government committees or Research Councils etc.	Essential
Evidence of academic leadership and a proven ability to lead, develop and motivate colleagues	Essential
Evidence of successful completion of PhD supervision	Essential
Evidence of significant and positive contributions to work promoting or translating research, teaching and innovation to non-academic communities	Essential
Experience of an active role in widening participation initiatives, e.g. sharing ideas and experience through organising seminars and workshops	Essential
Evidence of leadership contribution to the management or administration of an academic Department, or Faculty	Essential
A proven track record of sustained success in obtaining research grants to support a group of research workers	Essential
A proven track record of excellent research-based teaching at undergraduate and/or postgraduate level, with evidence of responsibility for course delivery, and administration	Desirable