



**Faculty of Environment
School of Geography**

Research Fellow

Fixed term until 31 May 2019

We are seeking to appoint a talented and highly motivated Research Fellow to join a Horizon 2020 project entitled "EcoPotential: improving future ecosystem benefits through earth observations" (ECOPOTENTIAL; <http://www.ecopotential-project.eu/>). ECOPOTENTIAL aims to improve effective monitoring and modelling of the state and trends in ecosystem conditions and services, in particular using existing and incoming Earth Observation and field monitoring data, complemented by appropriate interpretation tools, data services and ecosystem models able to use these data. ECOPOTENTIAL project focuses its activities and pilot actions on a targeted set of internationally recognised protected areas (PA) in Europe, European Territories and beyond, including mountain, arid and semi-arid, and coastal and marine ecosystems. Building on the knowledge gained in individual PAs, the ECOPOTENTIAL project will address cross-scale ecological interactions and landscape-ecosystem dynamics at regional to continental scales, using geostatistical methods and the emerging novel approaches in Macrosystems Ecology.

Working within Work Package 6 (EO-based Ecosystem Modelling), your research will help shed light on fundamental relationships between nature and people's cultural preferences, and build models and decision-support tools for PA managers to help maintain or enhance cultural value of internationally renowned PAs. This will be done mainly via modelling and mapping of Cultural Ecosystem Services using diverse data sources (Flickr photos, Citizen Science data, existing/new surveys), remote sensing data (provided by WP4 of ECOPOETNIAL) and geo-statistical and/or numerical simulation models.

You will have a PhD (or near completion at time of application) or equivalent postdoctoral research experience in a relevant environmental/economic/social science field (e.g. Geography, Environmental Science and Management, Economics, Conservation Biology, Social Sciences, etc.). Experience of geo-statistical methods, spatial sciences, ecosystem services mapping/modelling, using remote-sensed products and processing of large datasets is essential. You will also have knowledge and use of Geographical Information Systems and associated spatial information technologies. The ideal candidate would also have knowledge and experience with computer scripting languages (e.g. Python).

The University of Leeds' commitment to women in science has been recognised with a national accolade. The University has received the Athena SWAN Bronze Award and the Faculty of Environment holds the Athena SWAN Bronze Award in recognition of our success in recruiting, retaining and developing/promoting women in Science, Engineering and Technology (SET). We are proud of our commitment to equality and inclusiveness.

The University also offers family friendly policies including generous maternity and paternity leave; full details of the policies can be found here <http://hr.leeds.ac.uk/homepage/4/policies>.

University Grade 7 (£32,004 - £38,183 p.a.)

Informal enquiries may be made to Dr Guy Ziv, tel: +44 (0)113 343 7994, email g.ziv@leeds.ac.uk

Closing Date: 11 December 2016

Ref: ENVGE1044

Click here for further information about working at the University of Leeds www.leeds.ac.uk/info/20025/university_jobs

Job Description

Responsible to: Head of School

Reports to: Dr Guy Ziv

Background

You will support the running of Work Package 6 (led by Dr. Guy Ziv, University of Leeds), and be leading the coordination of Task 7.1 on the development of ecosystem services indicators. You will join a research team led by Dr Guy Ziv, and be an active member of the Ecology and Global Change (EGC) cluster at the School of Geography, University of Leeds. ECOPOTENTIAL is a large consortium project, with 47 partner institutions across Europe, and you will take part in virtual and face-to-face meetings and workshops organized by the project, as well as the ECOPOTENTIAL Annual Meetings. Your research will contribute to ongoing work within the GEO-BON Ecosystem Services working group, and you will may take part in virtual and/or face-to-face meetings of that WG.

Some relevant research questions you may address during the appointment include:

1. How can publicly available data be used to quantify and map the importance of specific locations within PAs for recreation?
2. What is the anthropogenic, biotic and/or abiotic contributions to cultural value within PAs?
3. How would aesthetic value be effected by scenarios such as climate change, socio-ecological shifts in preferences etc.?

Main duties and responsibilities

- Carry out a literature review on previous studies using remote sensing data to quantify and map Cultural Ecosystem Services
- Search, harvest and collate comparable secondary data on recreational use, visitation data, demographic and socio-economic patterns of tourists etc for different PAs within ECOPOTENTIAL
- Support/lead the development, adapt existing and use computer codes (probably written in Python) that harvest Flickr data, map photos, tag and prepare semantic and thematic subsets of photos etc
- Collaborate/lead efforts to collate or produce new Citizen Science (CS) data about Cultural Ecosystem Services within selected ECOPOTENTIAL PAs, as part of CS task led by Professor Aletta Bonn
- Communicate, liaise and work with remote-sensing experts within ECOPOTENTIAL WP4 partners on the delivery of new RS data related to Cultural Ecosystem Services for selected PAs
- Use a variety of GIS techniques to reconcile point data and remote sensed products

- Undertake appropriate numerical and/or statistical modelling techniques (e.g. regression, ordination, agent-based modelling) linking observed data on recreational and cultural use within PAs to remote-sensed and other variables, quantifying uncertainty and projecting based on different future scenarios
- Lead the development of 'mind-maps' and a report on Ecosystem Services Indicators across ECO-POTENTIAL (Task 7.1), chair teleconference meetings with a number of partners working on the task across Europe, coordinate writing, review and due submission of Deliverable to the European Commission with the support of the project officer (Carmela Marangi, Italy)
- Plan and manage own research activity in collaboration with other members of the project team
- Liaise with other project staff, stakeholders and potential 'users' of the research
- Contribute to the preparation of regular written progress reports and research papers
- Maintain your own continuing professional development and acting as mentor to less experienced colleagues as appropriate
- Where appropriate contribute to funding proposals
- Ensure satisfactory University compliance in your work with respect to health and safety policy etc
- Any other duties as may reasonably be required, consistent with the grade of the post

University Values

All staff are expected to operate in line with the University's values and standards, which work as an integral part of our strategy and set out the principles of how we work together. More information about the University's strategy and values is available at <http://www.leeds.ac.uk/comms/strategy/>.

Person Specification

Essential

- A PhD (or near completion at time of application) and/or equivalent postdoctoral research experience in an environmental/economic/social science field (e.g. Geography, Geography, Environmental Science and Management, Economics, Conservation Biology, Social Sciences)
- Experience with tools in spatial studies, geo-statistics, ecosystem services mapping/modelling, use of remote-sensed products and processing of large datasets
- Advanced knowledge and experience in the use of Geographical Information Systems (GIS)
- Advanced knowledge and experience of general purpose statistical software (e.g. Stata, R, Minitab, Matlab etc.)
- Ability to work independently and as part of a team
- Ability to work flexibly, professionally, accurately and to tight deadlines
- Have excellent interpersonal and communication skills
- A demonstrated record of publication in the peer-reviewed literature, including leading and contributing to co-authored publications
- Demonstrate competencies in, and a willingness to carry out, everyday project management and administrative duties
- Willingness to travel within the UK and internationally to attend residential international conferences, project meetings and dissemination events

Desirable

- Advanced knowledge and experience with general scripting language (e.g. Python)
- Experience of computer programming language (e.g. C++)
- Evidence of giving conference presentations
- Experience with working in a collaborative project involving remote partners

Additional Information

The University offers generous terms and conditions of employment, a wide range of benefits, services, facilities and family friendly policies. Full details are available on the Human Resources web pages accessible at www.leeds.ac.uk/hr

The Partnership

The Partnership has been developed by students and staff and describes the mutual expectations of us all as members of the University of Leeds community. More information about the Partnership is available at <http://partnership.leeds.ac.uk>

Criminal Record Checks

This post is covered by the Rehabilitation of Offenders Act 1974 and as such, applicants who have 'unspent' convictions, cautions, reprimands and warnings, including any pending criminal proceedings, must declare this in the 'other personal details' section of the application form and send details to the Recruitment Officer at disclosure@leeds.ac.uk.

Criminal record information will be held securely by the University and in accordance with the Data Protection Act and the University's Data Protection policy, available at http://www.leeds.ac.uk/secretariat/data_protection_code_of_practice.html

Any offer of appointment will be in accordance with our policy, a copy of which is available at http://hr.leeds.ac.uk/criminal_records

Disabled Applicants

The post is located in the School of Geography. Disabled applicants wishing to review access to the building are invited to contact the department direct. Additional information may be sought from the Recruitment Officer, email disclosure@leeds.ac.uk or tel + 44 (0)113 343 1723.

Disabled applicants are not obliged to inform employers of their disability but will still be covered by the Equality Act once their disability becomes known.

Further information for applicants with disabilities, impairments or health conditions is available in the applicant guidance.