

**CENTRE FOR ECOLOGY AND HYDROLOGY**

**SCIENCE AREA: SOILS AND LAND USE**

**RESEARCH ASSOCIATE ENVIRONMENTAL STATISTICIAN / BAND 6**

**FIXED TERM: 3 YEARS**

**FULL TIME: 37 HOURS**

**SALARY: £29,181**

**LOCATION: BANGOR**

**ABOUT US**

The Centre for Ecology & Hydrology (CEH) delivers world-class solutions to the most complex environmental challenges facing humankind by partnering with governments, industry and society to pursue and apply cutting edge environmental observation and analysis. CEH is the UK's longstanding Centre of Excellence for integrated research in terrestrial and freshwater ecosystems and their interaction with the atmosphere. Operating from four UK locations, CEH employs 360 scientists and has a £40m annual budget. A growing proportion of this budget and staff time is directed overseas and CEH aims to continue this work as an independent, not-for-profit research institute (Company Limited by Guarantee with Charitable status) later in 2019.

**PURPOSE OF THE POST**

We are seeking an enthusiastic and innovative applied environmental statistician to join a research team that uses national monitoring spatial datasets to understand and predict the impacts of environmental and societal change on our natural assets including soil, biodiversity, water and air. The work directly provides an evidence base into government in Wales and the UK as to the ongoing change in our environment and provides critical data for supporting our modelling frameworks for predicting future impacts of land use and climate change. You will provide statistical expertise on a range of existing projects and develop your own areas of specialism in collaboration with a



broad range of data and environmental scientists within CEH and externally. The post will be based at CEH Bangor <https://www.ceh.ac.uk/bangor> working in the Catchment to Coast group. CEH Bangor is located on the North Wales coastline close to the Snowdonia National Park.

The CEH Research Associates' programme provides individuals the opportunity to gain practical experience of working within a Research Institute, whilst acquiring - through a structured 3 year programme - specialist and wider skills that will be valuable in a range of careers.

## **MAIN DUTIES/RESPONSIBILITIES**

- To take responsibility for the statistical analysis of a wide range of data from our rolling, national-scale monitoring programme in Wales comprising soil quality, vegetation composition, pollinators, woodland condition, freshwater quality, cultural features and more.
- To collaborate on developing novel methods for data integration from different sources with other CEH statisticians and data scientists
- To provide advice for a range of other projects covering a broad set of topics including Natural Capital Accounts and human health and well-being.

## **SKILLS/ KNOWLEDGE REQUIRED**

### **Essential**

You will have a degree in a numerate subject (e.g. mathematics, statistics, operational research) and a PhD or relevant experience in applying statistical methodology. A research background in either environmental sciences or statistical methodology development would be advantageous. You will be able to demonstrate experience in the following:

- Understanding of core statistical principles including sampling theory, likelihood inference and Bayesian statistics
- Experience in spatial statistical methods
- Evidence of applying statistical methodology to large scale datasets
- Experience in the use of R and/or other statistical programming packages



- Understanding of environmental science concepts
- Have good verbal and written communication skills that will enable the support of a wide-range of staff and students working on a broad range of projects
- Able to demonstrate a commitment to promote and adhere to CEH values of Excellence, Integrity and Team work.
- An ability to work independently and as part of a team
- Good written and verbal communication skills
- Understanding of the importance of maintaining work audit trails

### **Desirable**

- Up-to-date knowledge of research topics in the areas of environmental change, ecosystem services and/or Natural Capital approaches
- Experience of working with 'Big Data'
- Publication experience in the scientific refereed literature

### **SKILLS AND KNOWLEDGE GAINED**

- A fundamental grounding in a wide range of environmental issues
- Experience in statistical and programming languages benefitting from our network of CEH statisticians and data scientists
- Experience working with 'Big Data' and computational infrastructures such as Hadoop, Spark and Datalabs
- Advanced understanding of CEH data management and QA systems.
- Presentation and writing skills
- Contribution to research proposals

The initial appointment for Research Associates will normally be for a three-year term, however they are able to apply internally for permanent vacancies at any time. Subject to the Research Associate's performance and long term skills needs within their Science Area, appointments may be reviewed and considered for open ended positions.



## **CONDITIONS OF SERVICE**

The basic working week will be 37 hours.

The successful candidate will serve a 9 month's probationary period and an interim report will be made at the end of 6 month's service.

All appointments are subject to receipt of satisfactory references. It is standard procedure to apply for references only for the successful candidates.

Offers of appointment are subject to proof of permission to work in the UK in accordance with the Immigration, Asylum and Nationality Act 2006 and original documentary evidence will be required.

To enable us to hire the very best people we will conduct a full and comprehensive background and pre-employment check as an essential part of the recruitment process. This will include a security check and an extreme organisations affiliation check.

## **ADDITIONAL INFORMATION**

### **Benefits**

We offer a flexible and supportive working environment and will encourage your continuing professional development as part of our career support. NERC has an equal opportunities policy and welcomes applications from all sections of the community.

