

Getting into... graduate ecology careers

This handout has been produced to complement the separate Careers Network handout, “Getting into careers in the environment”, available through the [Careers Network Canvas pages for your school](#). Close reference is made to the graduate ecologist job profile on the Prospects website:

www.prospects.ac.uk/job-profiles/ecologist

What is an ecologist?

Ecologists are concerned with ecosystems as a whole, the abundance and distribution of organisms (people, plants, animals), and the relationships between organisms and their environment. They usually specialize in a particular area, such as freshwater, marine, terrestrial, fauna or flora and carry out a range of related tasks.

When starting out, ecologists often conduct surveys to identify, record, and monitor species and their habitats. Career progression can lead to broader duties with potential to get involved in policy and management work.

What will I do?

The duties of an ecologist can vary, depending on the employer for whom you work, the species on which you focus, the nature of the project(s) for which you are responsible and the requirements of the customer, amongst other factors. However, some typical responsibilities include:

- conducting field surveys to collect biological information about the numbers and distribution of organisms - this may be for a database such as the National Biodiversity Network (NBN)
- carrying out taxonomy - the classification of organisms
- applying sampling strategies and employing a range of habitat survey techniques
- carrying out environmental impact assessments
- analysing and interpret data, using specialist software programs
- working on habitat management and creation
- writing reports and issue recommendations
- liaising with and advising site managers, engineers, planners and others associated with a survey
- building relationships with stakeholders, including members of the public
- undertaking out research
- teaching in schools or field centres
- keeping up to date with and contributing to new environmental policies and legislation

What do I need to have?

As a minimum, an undergraduate degree in a biological or environmental subject is generally required. Within your degree subject, it can be helpful to have completed relevant modules that will provide you not only with knowledge of the specific subject matter, but relevant fieldwork and laboratory skills.

Further study qualifications are not essential for many roles (although some employers do stipulate that an MSc or PhD is desirable), however research experience gained through further study can be beneficial in some instances, as can specialist knowledge for particular consultancy work or academic research/teaching.

Experience is often crucial. The nature of the experience will vary, depending on the employer and may not be confined to ecology. For example, public bodies such as county councils might seek candidates with an understanding of the planning system, as you may be working on projects that relate to land use and regeneration of public space. Experience of protected species legislation (preferably holding one or more Natural England survey licences) is also a common stipulation.

A full UK driving licence and access to a vehicle can be invaluable; often, surveys will take place outside of “normal” office hours and may in locations that are not served directly by public transport.

Additional skills and experience that you will need to possess and be confident using as an ecologist include:

- enthusiasm about, and fascination for, animals and plants
- an ability to communicate effectively, including giving presentations and writing reports
- ecological knowledge and expertise, including the ability to identify species
- survey and/or mitigation experience
- flexibility, good humour and a preparedness to undertake fieldwork in all conditions
- competence in understanding and using statistics and other ecological data
- the ability to use computer software for recording, analyzing and presenting data and reports
- team working and project-management skills
- self-motivation, energy and drive

It can be helpful to join your local [Wildlife Trust](#) and become a member of a relevant professional body, such as the [Chartered Institute of Ecology and Environmental Management \(CIEEM\)](#), which has reduced membership and conference rates for students. Membership provides the opportunity to meet and network with potential employers and other ecological and environmental professionals.

The [British Ecological Society \(BES\)](#) also offers reduced rate membership for students and provides some excellent [career development resources](#), including the “[Rooting for a career in ecology or environmental management](#)” booklet, developed in collaboration with CIEEM.

You may also find it helpful to review some of the other organizations identified in Careers Network’s “Professional bodies, societies and organizations for GEES students” [handout](#).

Many opportunities are available for ecological work experience and volunteering through a variety of organizations, including several overseas, which can be appealing when making your plans for the summer. However, when deciding on what will benefit you most, do consider how relevant such an experience will be to your long-term career goals. For example, if you intend to work with UK protected species, might you benefit most from spending time gaining experience and licences to work with these?

Helpful resources for work experience include:

- [Careers Connect](#) (University of Birmingham's careers database) – look regularly under the “Environment and conservation” business area, as new opportunities are added regularly by employers
- [Countryside Jobs Service \(CJC\)](#) – You can subscribe free for a daily email update with the latest graduate roles, work experience, seasonal opportunities and volunteering positions. Also provides a helpful [training resource](#), with links to courses nationwide, although these can involve charges.
- Many ecology organizations are small, with few employees; however, they can be a source of great experience and you may be able to take on more responsibility and have a greater impact than you might do with a larger organization. Often, such opportunities aren't advertised, so you will need to approach the organizations speculatively (sending a CV and a cover letter with a request for experience). Advice on how to [approach organisations](#) is provided on [Careers Network's internship web pages](#). Our [CV quick guide](#) and [cover letter quick guide](#) may help, as well. When selecting organizations to approach, the [ENDS directory](#) of UK environmental consultancies may assist.
- The following websites frequently promote ecology internship and volunteering opportunities:
 - www.environmentjob.co.uk
 - www.environmentjobs.com
 - [Natural England](#)
 - [Natural Resources Wales](#)
 - [Northern Ireland Environment Agency](#)
 - [Scottish Natural Heritage](#)
 - [Friends of the Earth](#)
 - [Greenpeace UK](#)
 - [National Trust](#)
 - [Plantlife](#)
 - [Royal Society for the Protection of Birds \(RSPB\)](#)
 - [Scottish Wildlife Trust](#)
 - [The Conservation Volunteers \(TCV\)](#)
 - [The Wildlife Trusts](#)
 - [Wildfowl and Wetlands Trust](#)

- Also see Careers Network’s “Finding work experience in the environmental, regeneration and sustainability sector” handout, for additional suggestions.

Social media can be helpful to identify organizations to approach. Look at the **Twitter** profile for organisations, to see who they follow. If you have a **LinkedIn** account, search the University of Birmingham alumni to identify graduates who are working as ecologists, their previous experience and current employers.

Additional sources of graduate ecology roles

- www.ecologyconsultancy.co.uk/jobs/
- [GreenJobs](#)
- [GreenRoles](#)
- [Natural Environment Research Council \(NERC\)](#)
- [The Marine Biological Association \(MBA\)](#)
- [Freshwater Biological Association](#)

Many large consultancies have regular annual recruitment programmes and several also offer work experience and internships which can contribute to a successful application. E.g: Aecom, [Atkins](#), WSP.