

Ecology and conservation

Essentials

What ecology and conservation degree is there?

Ecology and Conservation

See also

Biology (p37), Geography (p75)

What A levels/IB scores do I need?

(For other qualifications information, refer to pages 125-129)

Typical A level offer range: ABB-BBB

A levels (or equivalent) must include at least one approved science subject other than Mathematics. (Contact us at the address below for further information)

Typical IB diploma offer range: 32-34 points including at least one Higher Level science subject other than Mathematics

What else do I need?

GCSE (or equivalent) in Mathematics and either Chemistry or Double Science, grade C

Fees

Refer to pages 137-138 for information on fees

English language requirements

IELTS 6.5 overall and not less than 6.0 in both the Listening and Writing sections. Internet-based TOEFL with 90 overall, including at least 24 in Speaking and 25 in Writing. For alternative English language requirements, refer to page 130

Foundation year for UK and EU students

Refer to Biosciences (with a Foundation Year) on page 36

Foundation year for non-EU students

If your qualifications (including English language) do not yet meet our entry requirements for admission direct to the first year of these degree programmes, we offer an international foundation year entry route. Refer to pages 26 and 131 for details

How do I find out more?

For more information, contact:

E lifesci@sussex.ac.uk

T +44 (0)1273 678057

School of Life Sciences, University of Sussex,
Falmer, Brighton BN1 9QG, UK

www.sussex.ac.uk/biology

When can I visit?

Our Open Day dates for 2011 are 11 June and 8 October. We also run regular campus tours.

Please book online at www.sussex.ac.uk/visitors or call 01273 876787

Why ecology and conservation?

As the human population continues to grow, the natural environment is put under ever-increasing pressure. Losses of biological diversity and major environmental changes are occurring as a direct result of human exploitation of resources. Growing public concern over issues such as degradation and destruction of coral reefs and tropical rain forests, species extinctions and the impacts of global climate change make ecology and conservation one of the most relevant areas of science today. The need to find solutions to these problems means that there is a growing demand for professional ecologists and conservation biologists, and that they have a key role to play in protecting the environment for future generations.

To be successful, conservation action should be based on a good understanding of the ecological processes and relationships that are being impacted by environmental change. What makes some species and habitats more vulnerable than others? How can degraded ecosystems be improved? What are the implications of increased ecotourism for tropical ecosystems? The study of ecology and conservation has a key role to play in answering these and many other questions posed by practical conservation issues around the world.

Why ecology and conservation at Sussex?

- In the 2008 Research Assessment Exercise (RAE) 80 per cent of our research was rated as recognised internationally or higher, and over one-third rated as internationally excellent or higher.
- You will be taught by lecturers who are leaders in ecological research, with a broad range of experience and expertise, including plant, mammal, bird and insect ecology.
- You will have opportunities throughout your degree programme to meet professional ecologists, many of whom are our own graduates.
- Our campus, surrounded by the South Downs National Park, gives ready access for practical work in a rich variety of habitats and protected areas.
- Two residential courses teach you key field skills in ecology and conservation.
- You will have options of field courses in Portugal, or studying rainforest in Ecuador.
- There are collaborative conservation projects with Papua New Guinea, Fiji and Ecuador.

What sort of career could I have?

- ecological consultant (for many companies including Cresswells Associates, RPS, Carter Ecological, Thomsons)
- conservation advisor (Natural England)
- biodiversity officer (Sussex Wildlife Trust)
- programmes officer (RSPB)
- projects officer (Birdlife International)
- reserve warden (East Sussex County Council)
- environmental or wildlife journalism (BBC)
- teaching
- business and industry.

About one in five of our graduates goes on to further study.



Nesting sea birds. As part of your degree you will have the opportunity to undertake practical work in a rich variety of habitats and protected areas

Szymon's career perspective

'I chose to study Ecology and Conservation at Sussex because I was looking for a degree that would offer me more than just a general biology curriculum. With courses covering topics from animal behaviour and conservation in practice to environmental economics, this criterion was definitely met. The numerous field excursions and lab sessions meant that the degree also provided a fine balance between theory and practice. Most important, however, was the excellence of the professors at Sussex – being taught by people who are passionate about their field of study was a real pleasure. My degree equipped me with the confidence and knowledge base to pursue a career in the environmental markets. After graduating from Sussex, I went on to pursue a Masters abroad and now work in the emissions trading business, where I advise clients on renewable energy project implementation in developing countries.'

Szymon
Mikołajczyk
Carbon Market
Consultant,
Climate Focus



Core courses

Courses currently include:

Year 1

You will concentrate on the study of whole organisms, with courses on animal behaviour, evolution and the diversity of life. You will also take an ecology field course

Year 2

You will begin to put the knowledge and skills acquired in Year 1 into practice by studying subjects such as animal diversity, biodiversity conservation, climate change science and policy, methods in ecology, statistics, and wildlife and habitat conservation. There is a field course in conservation biology, and the option of a biology field course based in southern Portugal

Year 3

The final year consists entirely of options and your own research project. There is a wide variety of options to choose from including Animal-Plant Interactions

- Biodiversity
- Conservation in Practice
- Co-operation and Conflict in Animal Societies
- Polar Regions and Environmental Change

There is the option of a tropical rainforest field course in Ecuador. Your final-year project will give you first-hand experience of the development and execution of a piece of scientific research, presenting your findings to fellow students and writing up a detailed report on your work



Japanese monkeys cause extensive damage to crops following loss and degradation of their forest habitats. The conflicting needs of wildlife and local people is one of the themes addressed in our Year 2 and 3 conservation courses

How will I learn?

The programme begins with an exploration of some of the major themes in biology and environmental sciences including evolution, the diversity of life and ecology, environmental cycles, animal behaviour and cellular biochemistry. Lectures are supplemented with small-group tutorials where you have an opportunity to discuss issues raised by the programme. There are also practical classes, both in the laboratory and in the field, to gain direct experience of some of the techniques discussed in lectures.

Second-year courses introduce you to key issues in conservation, looking both at the problems and remedies designed to tackle them, and to a variety of practical field survey methods.

In the final year you choose from a range of options and you also do your own research project, supervised by a member of faculty, working in the field, in the laboratory, or both. This gives you first-hand experience of working in an active research environment alongside professionals.

What will I achieve?

- comprehensive training in the science of ecology and its application to current issues in conservation
- an appreciation of the diversity of biological and environmental processes and the impact that human activity is having on them at different scales, including molecular, individual organisms, populations, and communities considered locally, regionally and globally
- a wide range of practical field skills, including methods for surveying biodiversity in a variety of habitats, and a thorough understanding of the National Vegetation Classification

- familiarity with a range of current conservation issues, as conveyed in lectures by guest speakers from conservation organisations and from meeting practitioners of conservation management in the field
- skills required to plan and carry out your own research project through all stages, from project development, design of methodology, data collection, and data analysis and interpretation, through to writing the final report and giving a presentation about it
- the ability to evaluate critically information and ideas in the scientific and popular literature, to debate contentious issues, to present your own ideas to others in a concise and informative way, and to make decisions as part of a small group.

Degree

Ecology and Conservation BSc (Hons), 3 years UCAS Code: CD94

This degree will give you an understanding of the processes affecting the distribution and abundance of organisms and the conservation of their habitats.

It provides you with the knowledge and skills required for a career in ecology or conservation, beginning in the first year with a solid foundation in the biology of animals and plants, including their biochemistry, physiology, behaviour and evolution, as well as their ecology.

In the second year, you will move on to study more specialist courses in animal diversity, ecological methods, and wildlife and habitat conservation, which will equip you with the techniques to study and conserve biodiversity.

In the third year, you will choose options from a range of advanced courses in ecology, as well as undertaking a research project in an area that particularly interests you.