Module Definition Form (MDF)

Module code: MOD007177	**Version:** 4 **Date Amended:** 13/Jun/2024

1. Module Title
Introduction to Ecology and Conservation

2a. Module Leader
James Littlemore

2b. School
School of Life Sciences

2c. Faculty
Faculty of Science and Engineering

3a. Level
4

3b. Module Type
Standard (fine graded)

4a. Credits
30

4b. Study Hours
300

5. Restrictions

Type	Module Code	Module Name	Condition
Pre-requisites:	None		
Co-requisites:	None		
Exclusions:	None		
Courses to which this module is restricted:	BSc: Zoology, Marine and Terrestrial Conservation, Animal Behaviour – including all variants. BSc (Hons) Ecology and Conservation		

LEARNING, TEACHING AND ASSESSMENT INFORMATION

6a. Module Description

Ecology is the science of how organisms relate to each other and their surroundings. Without a thorough understanding of ecology, we cannot develop effective conservation actions to ensure species and habitat protection. You will be introduced to the key aspects of these crucially important issues, building your knowledge of terminology and the role of ecological science in creating a sustainable planet.

You will explore organisms and their environment, the interactions between them and the concept of the ecological niche. To start with you will consider key taxonomic groups such as birds, mammals, amphibians and reptiles, with some focus on species found in Britain. You will then explore the key conservation and management issues for each major group and for exemplar species. You will also consider changes in the distribution and abundance of wildlife, for example the challenges around invasive species, climate change, pollution and habitat loss and fragmentation. Next you will take a broader look at ecology across a range of taxa including plants, invertebrates and vertebrates.

You will learn through a variety of lectures, practical lab work and team-based learning. You will enjoy hearing from guest speakers and participating in field trips, such as visiting nature reserves and a grey seal colony. You will therefore build the basic skills and knowledge required for a range of careers in ecology, conservation or wildlife biology.

6b. Outline Content

- Taxonomy, identification and ecology of vertebrate fauna, with a focus on British species

- Conservation issues, including themes such as introduced species, invertebrate conservation and species reintroductions

- Land management issues affecting wildlife, e.g. in woodland and in agricultural land

- Introductions to mammalogy, ornithology and herpetology

- Introduction to population ecology

- Field methods – e.g. introduction to tracks and signs

- Introduction to population ecology - e.g. quantifying grey seal abundance

- Introduction to wildlife legislation

- Identifying key skills for employment in ecology and conservation

- Ecology of a range of taxa including plants, invertebrates and vertebrates

- Ecological terminology

- Ecological niche and limits of tolerance

- Biotic limiting factors such as competition, predation, mutualism

- Abiotic limiting factors such as light, temperature and soils

- Ecosystem processes: trophic structure

- Techniques for quantifying the distribution and abundance of organisms

- Ecosystem services

6c. Key Texts/Literature
The reading list to support this module is available at: https://readinglists.aru.ac.uk/

6d. Specialist Learning Resources
For some sessions, standard laboratory technical support; for some sessions, field trip logistical support

7. Learning Outcomes (threshold standards)

No.	Type	On successful completion of this module the student will be expected to be able to:
1	Knowledge and Understanding	Describe the basic concepts of ecology, e.g. ecological niches; limits of tolerance; biotic and abiotic limiting factors; interactions between organisms
2	Knowledge and Understanding	Recognise the key features of selected taxonomic groups of vertebrates
3	Knowledge and Understanding	Discuss key changes that have affected the conservation of wildlife and habitats
4	Intellectual, practical, affective and transferrable skills	Interpret ecological and conservation data and report findings
5	Intellectual, practical, affective and transferrable skills	Apply quantitative techniques to ecological and conservation questions, such as the distribution and abundance of organisms
6	Intellectual, practical, affective and transferrable skills	Demonstrate field skills useful in ecology and conservation, such as sampling techniques

8a. Module Occurrence to which this MDF Refers

Year	Occurrence	Period	Location	Mode of Delivery
2025/6	ZZF	Template For Face To Face Learning Delivery		Face to Face

8b. Learning Activities for the above Module Occurrence			
Learning Activities	**Hours**	**Learning Outcomes**	**Details of Duration, frequency and other comments**
Lectures	51	1-4	17 x 3 hrs lecture/active learning
Other teacher managed learning	20	1-6	4 x 2 h practicals ; 3 X 4h field trips
Student managed learning	229	1-5	Background reading, online activities, preparation for lectures and practicals, and completion of assessments
TOTAL:	300		

9. Assessment for the above Module Occurrence					
Assessment No.	**Assessment Method**	**Learning Outcomes**	**Weighting (%)**	**Fine Grade or Pass/Fail**	**Qualifying Mark (%)**
010	Coursework	1-6	30 (%)	Fine Grade	30 (%)
Live brief project (1800 words equivalent)					
Assessment No.	**Assessment Method**	**Learning Outcomes**	**Weighting (%)**	**Fine Grade or Pass/Fail**	**Qualifying Mark (%)**
011	Coursework	2-5	20 (%)	Fine Grade	30 (%)
Portfolio of coursework assessments (1200 words equivalent)					

Assessment components for Element 011				
Component No.	**Assessment Title**	**Submission Method**	**Weighting (%)**	**Components needed for Mark Calculation?**
011/1	Computer based assessment	Scheduled Activity: Timetabled assessment task	60 (%)	All
011/2	Weekly test	Scheduled Activity: Timetabled assessment task	5 (%)	
011/3	Weekly test	Scheduled Activity: Timetabled assessment task	5 (%)	
011/4	Weekly test	Scheduled Activity: Timetabled assessment task	5 (%)	
011/5	Weekly test	Scheduled Activity: Timetabled assessment task	5 (%)	
011/6	Weekly test	Scheduled Activity: Timetabled assessment task	5 (%)	
011/7	Weekly test	Scheduled Activity: Timetabled assessment task	5 (%)	
011/8	Weekly test	Scheduled Activity: Timetabled assessment task	5 (%)	
011/9	Weekly test	Scheduled Activity: Timetabled assessment task	5 (%)	

Assessment No.	**Assessment Method**	**Learning Outcomes**	**Weighting (%)**	**Fine Grade or Pass/Fail**	**Qualifying Mark (%)**
012	Coursework	1 3-6	50 (%)	Fine Grade	30 (%)
Portfolio of coursework assessments (3000 words equivalent)					

Assessment components for Element 012				
Component No.	**Assessment Title**	**Submission Method**	**Weighting (%)**	**Components needed for Mark Calculation?**
012/1	Coursework	Canvas	50 (%)	All
012/2	In class test	Scheduled Activity: Timetabled assessment task	40 (%)	
012/3	Coursework	Canvas	10 (%)	

In order to pass this module, students are required to achieve an overall mark of 40% (for modules at levels 3, 4, 5 and 6) or 50% (for modules at level 7*).

In addition, students are required to:
(a) achieve the qualifying mark for each element of fine graded assessment as specified above
(b) pass any pass/fail elements

[* the pass mark of 50% applies for all module occurrences from the academic year 2024/25 – see Section 3a of this MDF to check the level of the module and Section 8a of this MDF to check the academic year]