Module Specification

Advanced Ecosystem Conservation in Practice

Version: 2023-24, v3.0, 15 Jun 2023

Contents

Part 1: Information

Module title: Advanced Ecosystem Conservation in Practice

Module code: USSKDD-30-M

Level: Level 7

For implementation from: 2023-24

UWE credit rating: 30

ECTS credit rating: 15

Faculty: Faculty of Health & Applied Sciences

Department: HAS Dept of Applied Sciences

Partner institutions: None

Delivery locations: Not in use for Modules

Field: Applied Sciences

Module type: Module

Pre-requisites: None

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: Not applicable

Features: Not applicable

Educational aims: See Learning Outcomes

Outline syllabus: This module provides a grounding in the concepts and methods for conserving ecosystems. Topics covered will include:

What is Natural? Concepts of wilderness and discussions around re-wilding.

Ecosystem Structure and Function: General principles of ecosystem structure and function including recent advances in ecological theory that impact on ecosystem function and conservation.

Key threats to species and ecosystems: Identification of the key threats to biodiversity and ecosystem protection: habitat loss and fragmentation, global climate change, invasive species, wildlife disease, mis-management, pollution.

Ecosystem (re-) creation and restoration: General principles of ecosystem (re-) creation and restoration; species conservation, habitat loss mitigation, revision of ecosystem services; natural succession vs. active restoration; re-introducing plants and animals; dealing with sites with special problems (fertility, toxicity, industrial waste etc); evaluation of success in restoration projects.

Habitat Management: What is habitat management and why is it necessary? General principles and techniques of habitat management. Setting aims and objectives and writing management plans.

Module learning is underpinned by a range of subject-specific knowledge and skills, including:

Techniques for habitat mapping and assessment
Remote sensing, GIS, aerial photography etc.
Sources and uses of archive material and data
Policy and legislation relating to aspects of ecosystem conservation
Project management (and other client-facing activity)
Advanced statistics eg. multivariate techniques
Report writing

Part 3: Teaching and learning methods

Teaching and learning methods: Teaching will be a mixture of scheduled, independent, and distance learning.

Scheduled learning includes lectures, seminars, tutorials, practical classes and workshops; fieldwork; external visits; external speakers
Independent learning includes hours engaged with essential reading, assignment preparation and completion etc.

All students will be encouraged to make full use of the print and electronic resources available to them through membership of the University. These include a range of electronic journals and a wide variety of resources available through web sites and information gateways. The University Library's web pages provide access to subject relevant resources and services, and to the library catalogue. Many resources can be accessed remotely. Students will be presented with opportunities within the curriculum to develop their information retrieval and evaluation skills in order to identify such resource effectively.

Any essential reading will be indicated clearly, along with the method for accessing it, e.g. students may be expected to purchase a set text, be given or sold a print study pack or be referred to texts that are available electronically, etc. This guidance will be available either in the module handbook, via the module information on Blackboard or through any other vehicle deemed appropriate by the module/programme leaders.

If further reading is expected, this will be indicated clearly. If specific texts are listed, a clear indication will be given regarding how to access them and, if appropriate, students will be given guidance on how to identify relevant sources for themselves, e.g. through use of bibliographical databases.

Module Learning outcomes: On successful completion of this module students will achieve the following learning outcomes.

MO1 Demonstrate an in-depth and advanced knowledge of ecosystem structure and function, and relate ecological theory to the practice of ecosystem protection and species management in real world situations

MO2 Develop conservation aims, objectives, and agreed management strategies for ecosystem conservation

MO3 Evaluate a range of survey methods available for the collection of ecological data in the field, including novel and cutting-edge techniques where appropriate

MO4 Critically discuss the effectiveness of a range of ecosystem management strategies in the context of the wider landscape

MO5 Assess the range of threats and propose relevant habitat interventions to a defined landscape

Hours to be allocated: 300

Contact hours:

Independent study/self-guided study = 228 hours

Face-to-face learning = 72 hours

Total = 300

Reading list: The reading list for this module can be accessed at readinglists.uwe.ac.uk via the following link https://uwe.rl.talis.com/modules/usskdd-30-m.html

Part 4: Assessment

Assessment strategy: The assessments are designed to allow students to demonstrate the breadth and depth of their understanding of ecological principles and practice by applying their knowledge and skills to a real-world conservation problem. Students will work with a 'client' (e.g. land-owner or nature reserve manager) to review a management plan for a nature reserve or ecosystem restoration project that is local to them and consider the opportunity for increasing its function within the landscape ecological context.

Assessment 1: Ecological network modelling (2500 words)

Students will map the landscape context of a reserve using remote sensing data and GIS and identify areas of core, buffer and linking habitats as well as priority restoration zones. They will subsequently provide a critical analysis of a range of potential mechanisms for instigating habitat restoration within the wider landscape.

Assessment 2: Review of Conservation Management Plan and Gap Analysis (1000 words).

Students will review a reserve management plan and carry out a gap analysis. They will then validate sections of the management plan by designing, implementing and analysing a habitat survey of key areas of the reserve. The results will be designed to be fed back to a client.

Assessment 3: Habitat Conservation Report (2000 words)

Students will undertake a review of management techniques for habitats of conservation concern.

Assessment components:

Written Assignment (First Sit)

Description: Ecological network modelling

Weighting: 50 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO4, MO5

Written Assignment (First Sit)

Description: Review of Conservation Management Plan and Gap Analysis

Weighting: 10 %

Final assessment: No

Group work: No

Learning outcomes tested: MO2, MO5

Written Assignment (First Sit)

Description: Habitat Conservation Report

Weighting: 40 %

Final assessment: No

Group work: No

Learning outcomes tested: MO3

Written Assignment (Resit)

Description: Ecological Network Modelling

Weighting: 50 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO4, MO5

Written Assignment (Resit)

Description: Review of Conservation Management Plan and Gap Analysis

Weighting: 10 %

Final assessment: No

Group work: No

Learning outcomes tested: MO2, MO5

Written Assignment (Resit)

Description: Habitat Conservation Report

Weighting: 40 %

Final assessment: No

Group work: No

Learning outcomes tested: MO3

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Advanced Wildlife Conservation in Practice [Zoo] MSc 2023-24

Advanced Wildlife Conservation in Practice [Zoo] MSc 2023-24

Applied Wildlife Conservation [Zoo] MSc 2023-24

Applied Wildlife Conservation [Zoo] MSc 2023-24