Module Proforma

Approved, 2022.02

Summary Information

Module Code	5207NATSCI
Formal Module Title	Wildlife and Ecosystem Management
Owning School	Biological and Environmental Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 5
Grading Schema	40

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Lucia Galvez Bravo	Yes	N/A

Module Team Member

Contact Name	Applies to all offerings	Offerings
Robert Fitt	Yes	N/A
Begona Martinez Cruz	Yes	N/A
Sheelagh Conlan	Yes	N/A
Christopher Williams	Yes	N/A
Richard Webster	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings

Teaching Responsibility

LJMU Schools involved in Delivery
Biological and Environmental Sciences

Learning Methods

Learning Method Type	Hours
Lecture	19
Off Site	21
Workshop	8

Module Offering(s)

Offering Code	Location	Start Month	Duration
JAN-CTY	CTY	January	12 Weeks

Aims and Outcomes

Aims	a) To provide an advanced course in general ecology and wildlife populationmanagement.Page 2 of 4b) Illustrate the inter-linkages between flora and fauna populations andbiogeochemical cycles on different spatial and temporal scales.c) Relate key wildlife population, ecology and ecosystem theories to the appliedmanagement of populations, habitats and ecosystems.

Learning Outcomes

After completing the module the student should be able to:

Code	Description
MLO1	Describe complex interrelationships occurring within biological populations and ecological systems and explain how these might vary spatially and temporally.
MLO2	Explain how biotic and abiotic interactions may influence ecosystem functioning.
MLO3	Critically evaluate the value of understanding population, community, and ecosystem dynamics in the management of wildlife and ecosystems.
MLO4	Adopt a practical analytical approach to the study of habitats managed and restored for nature conservation or ecosystem functioning.

Module Content

Outline Syllabus

Summary of relevant ecological, ecosystem, and wildlife population theories.Large scale patterns: biogeography, historical and evolutionary contexts for plantand animal distributions, macroecology, classical island biogeography, colonizationand extinction. Island endemism and its conservation management implications.Smaller scale patterns: sources versus sink populations, metapopulations and theirstructure and dynamics. Conservation implications of metapopulations.Applications of population ecology to wildlife management. For example, gamemanagement and/or fisheries management.Species abundance, diversity, analysis of diversity. Niche concept, competition,displacement or co-existence and maintenance of diversity. Trophic interactions.Conservation and management implications of these factors.Role of species in ecosystem structure and function, maintenance and restoration ofecosystem function.Vegetation change, community assembly and succession. the historical perspectiveand timescales. primary and secondary community assembly, climax versus nonclimaxcommunities. Community change during succession, implications for revegetationand implications for management.Energy flow and cycling, biomass production, nutrient circulation, decomposition,biogeochemical cycles.Global scale biotic and abiotic interactions, biogeochemical cycles and Gaia theory.

Module Overview

This module is an advanced course in general ecology and wildlife population management and seeks to draw linkages between populations and biogeochemical cycles. This is placed within the context of applied wildlife and ecosystem management by using a mix of case studies, workshops, and fieldtrips to a site managed and restored for wildlife or wider ecosystem functioning.

Additional Information

This module is an advanced course in general ecology and wildlife populationmanagement and seeks to draw linkages between populations and biogeochemicalcycles. This is placed within the context of applied wildlife and ecosystemmanagement by using a mix of case studies, workshops, and fieldtrips to a sitemanaged and restored for wildlife or wider ecosystem functioning.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Learning Outcome Mapping
Report	Field Report	60	0	MLO4
Centralised Exam	Examination	40	2	MLO1, MLO2, MLO3