

Summary Information

Module Code	5203NATSCI
Formal Module Title	Behavioural Ecology
Owning School	Biological and Environmental Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 5
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Biological and Environmental Sciences

Learning Methods

Learning Method Type	Hours
Lecture	22
Off Site	14
Online	2
Workshop	17

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
SEP-CTY	CTY	September	12 Weeks

Aims and Outcomes

Aims	To study the effects of evolutionary & ecological selection pressures on the behaviour of animals.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Evaluate behavioural strategies of wild animals in natural and captive environments by considering data from empirical studies and theoretical approaches (e.g. game theory) to determine how they may be interpreted as adaptive.
MLO2	2	Discuss the design, analysis and presentation of a time budget study on wild animals in captivity.

Module Content

Outline Syllabus	Introduction to behavioural ecology. Design & implementation of a time budget study relevant to the behavioural ecology of zoo animals. Evolution of cooperative behaviour. The ecology of social relationships with reference to current frameworks (e.g. Hinde & Kummer). Role of game theory (e.g. Hawk-Dove, Sequential Assessment Model, Wars of Attrition) and empirical studies (assessing the influence of e.g. resource ownership, resource value, resource holding potential) to the understanding of the outcomes of animal contests. Optimal foraging theory. Evolutionary arms races: Red-Queen evolution in relation to e.g. predators & prey; cuckoos and their hosts). Sexual conflict and the evolution of variable mating systems. Parental care: ecological & physiological constraints; parental investment theory.
Module Overview	This module enables you to examine how ecological and evolutionary factors affect the survival and reproductive behaviour of animals. The role of ecological and evolutionary selection pressures to maximise inclusive fitness in wild animals is stressed. Particular emphasis is placed on the design and interpretation of a behavioural time budget study on zoo animals.
Additional Information	This module examines how ecological and evolutionary factors affect the survival and reproductive behaviour of animals. The role of ecological and evolutionary selection pressures to maximise inclusive fitness in wild animals is stressed. Particular emphasis is placed on the design and interpretation of a behavioural time budget study on zoo animals.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Report	Zoo Project Report	50	0	MLO1, MLO2
Test	Online tests	50	0	MLO1

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Penny Oakland	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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