Module Proforma

Approved, 2023.01

Summary Information

Module Code	7513CATSCI
Formal Module Title	Restoration Ecology
Owning School	Biological and Environmental Sciences
Career	Postgraduate Taught
Credits	15
Academic level	FHEQ Level 7
Grading Schema	50

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Colm Bowe	Yes	N/A

Module Team Member

Contact Name	Applies to all offerings	Offerings

Partner Module Team

Contact Name	Applies to all offerings	Offerings

Teaching Responsibility

LJMU Schools involved in Delivery
LJMU Partner Taught

Partner Teaching Institution

Institution Name
Centre for Alternative Technology

Learning Methods

Learning Method Type	Hours
Lecture	13
Practical	11
Seminar	6

Module Offering(s)

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

Aims and Outcomes

Aims	Study the role of ecosystems in sustainability with a focus on their role in biogeochemical cycling, as a sink for carbon and for providing other ecosystem functions. Investigate methods of restoration of habitats, including at landscape and global scales. Appreciate methods of setting restoration goals and assessing the success of restoration projects. Analyse the theoretical science and practical implications of species reintroductions, rewilding and invasive species control. Examine the value of policy, community involvement and public support, health and wellbeing, in habitat restoration and management.

Learning Outcomes

After completing the module the student should be able to:

Code	Description
MLO1	Critically evaluate methods for restoring ecological functions and debate restoration goals at local, national and international scales and in natural, semi natural and peri-urban environments.
MLO2	Undertake complex analyses of the theory, practical implications and complexities around restoring habitats with a focus on the effectiveness of rewilding projects, the reintroduction of species and removal of invasive species.
MLO3	Evaluate real-world habitat and ecosystem scale restoration projects, taking into account conservation biology targets as well as social, political and economic implications to critically evaluate their success.

Module Content

Outline Syllabus
Ecosystem change over time and space, biodiversity and connectedness, stabilization wedges, land sparing v land sharing debate. The science behind rewilding, reintroduction and management of invasive species, phytoremediation and restoration of peri-urban spaces. The role of communities, impact of restoration on communities and economies, and the impact of national and international legislation.

Module Overview

Additional Information
Indicative References:Corlett, R.T., 2016. Restoration, reintroduction, and rewilding in a changing world. Trends in ecology & evolution, 31(6), pp.453-462.Isbell, F., Craven, D., Connolly, J., Loreau, M., Schmid, B., Beierkuhnlein, C., Bezemer, T.M., Bonin, C., Bruelheide, H., De Luca, E. and Ebeling, A., 2015. Biodiversity increases the resistance of ecosystem productivity to climate extremes. Nature, 526(7574), p.574.Leitao, R.P., Zuanon, J., Villéger, S., Williams, S.E., Baraloto, C., Fortunel, C., Mendonça, F.P. and Mouillot, D., 2016. Rare species contribute disproportionately to the functional structure of species assemblages. Proc. R. Soc. B, 283(1828), p.20160084.Miller, J.R. and Hobbs, R.J., 2007. Habitat restoration—Do we know what we're doing?. Restoration Ecology, 15(3), pp.382-390.POST (2016) Rewilding and Ecosystem Services, report http://researchbriefings.files.parliament.uk/documents/POST-PN-0537/POST-PN-0537.pdf

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Learning Outcome Mapping
Report	Management Report	60	0	MLO2, MLO1
Essay	Essay	40	0	MLO3