

MSc Land and Ecological Restoration

2025 Reading List

Try before you buy – we have all of these in the Learning Centre and most available as eBooks or free downloads. As a student member you will be able to purchase books / eBooks from the Society for Ecological Restoration (SER) published by Island Press at 25 % discount, and you will receive a subscription to Restoration Ecology journal. Our Teams site and Moodle page are updated regularly with many more resources and if you find a resource that you think will be useful then please do let us know so that we can order for the Learning Centre.

Journals

You must use peer-reviewed academic journals throughout your MSc as these contain the most up to date thinking. Several places have strong specific emphasis on restoration ecology (the science) and ecological restoration (the practise). These include Restoration Ecology (SER - global), Ecological Restoration (University of Wisconsin - North American focus) and Ecological Management and Restoration (Ecological Society of Australia – Australasian emphasis). There are many other journals publishing relevant sociological and ecological research. These include the journals published by the British Ecological Society – People and Nature, the Journal of Ecology, Journal of Animal Ecology, and Journal of Applied Ecology.

Your credentials as a University of Plymouth student will allow you to read journal articles without paying. For background reading before starting your MSc, you can view articles in open access journals such as PLOS One, and you can find many full text articles using Google Scholar.

Books by Module

CORC406 – Planning and Implementing a Restoration Programme

- Gann, G., McDonald, T., Wader, B., Aronson, J., Nelson, C., Jonson, J., Hallett, J., Eisenberg, C., Guariguata, M., Liu, J., Hua, F., Echeverria, C., Gonzales, E., Shaw, N., Decler, K., and Dixon, K. (2019). International principles and standards for the practice of ecological restoration (2nd edition). Society for Ecological Restoration. Available as a free download from [International Standards for the Practice of Ecological Restoration - Society for Ecological Restoration \(ser.org\)](https://ser.org/International-Standards-for-the-Practice-of-Ecological-Restoration)
- Wildteam UK (Barlow, A., Skeats, A., Robinson, B., Barlow, C., and Boddam-Whetham, L.) (2018). Project management in wildlife conservation v3. Cornwall UK: WildTeam. Available as a free download from [Free best practice | Project Management for Wildlife Conservation | WildTeam](#).
- Rieger, J., Stanley, J., and Traynor, R. (2014). Project planning and management for ecological restoration. Washington DC: Island Press. ISBN: 9781610913621.
- Egan, D., Hjerpe, E., and Abrams, J. (Eds.). (2011). Human dimensions of ecological restoration. Washington DC: Island Press. ISBN: 9781597266901.
- Maschinski, J. and Haskins, K. (Eds.). (2012). Plant reintroduction in a changing climate. Washington DC: Island Press. ISBN: 9781597268318.

CORC407 – Principles and Practice of Ecological Restoration

- Blythe, C., and Jepson, P. (2020). Rewilding: The Radical New Science of Ecological Recovery. London: Icon Books. ISBN: 9781785786273.
- Holl, K. (2020). Primer of Ecological Restoration. Washington DC: Island Press. ISBN: 9781610919739.
- Falk, D., Palmer, M. and Zedler, J. (Eds.). (2017). Foundations of restoration ecology (2nd edition). Washington DC: Island Press. ISBN: 9781610916974.

The 1st edition is available as a free download from: [\(4\) \(PDF\) Foundations of Restoration Ecology \(researchgate.net\)](#)

- Cabin, R. (2011). Intelligent tinkering: bridging the gap between science and practice. Washington DC: Island Press. ISBN: 9781597269643.
- Tongway, D., and Ludwig J. (2011). Restoring disturbed landscapes: putting principles into practice. Washington DC: Island Press. ISBN: 9781597265720.
- Morrison, M. (2009). Restoring Wildlife: Ecological Concepts & Practice of Applications. Washington DC: Island Press. ISBN: 9781597264938.
- Aronson, J., Milton, S.J., and Blignaut, J. (2007). Restoring natural capital: science, business, and practice. Washington DC: Island Press. ISBN: 9781597260770.
Available as a free download from : [\(4\) \(PDF\) Restoring natural capital: science, business, and practice \(researchgate.net\)](#)
- Cramer, V., and Hobbs, R. (Eds.) (2007). Old Fields: Dynamics and Restoration of Abandoned Farmland. Washington DC: Island Press. ISBN: 9781597260756.
- Murcia, C. (2018). Routledge handbook of ecological and environmental restoration.
- Palmer, M. A., Zedler, J. B., & Falk, D. A. (Eds.). (2016). Foundations of restoration ecology (pp. 3-26). Washington, DC: Island Press.
- Bonn, A., Allott, T., Hubacek, K., & Stewart, J. (2009). Drivers of environmental change in uplands. Routledge.

CORC408 – Biosecurity and Invasive Species Management

- Clout, M., and Williams, P. (Eds.) (2009). Invasive species management: a handbook of principles and techniques. Oxford: Oxford University Press. ISBN: 0199216339 / 9780199216338.
- Gordh, G., and McKirdy, S. (Eds.) (2014). The handbook of plant biosecurity. Amsterdam: Springer. ISBN: 9789402402520.
- Booy, O., Wade, M., & Roy, H. (2015). Field guide to invasive plants and animals in Britain. Bloomsbury Publishing.
- Fennell, M., Jones, L., & Wade, M. (2018). Practical Management of Invasive Non-Native Weeds in Britain and Ireland. Liverpool University Press.
- Rotherham, I. D., & Lambert, R. A. (Eds.). (2012). Invasive and introduced plants and animals: human perceptions, attitudes and approaches to management. Routledge.

Also see GB Non-Native Species Secretariat for many helpful resources, ID sheets, and eLearning course. ([NNSS eLearning \(nonnativespecies.org\)](#)).

CORC409 – Postgraduate Research Methods

- Baarda, B. (2019). This is it! Guidelines for setting up, doing and evaluating quantitative and qualitative research. Routledge.
- Barnard, C. J., Gilbert, F. S., & McGregor, P. K. (2007). Asking questions in biology: A guide to hypothesis-testing, analysis and presentation in practical work and research. Pearson Education.
- Barnes, J. (2017). The Literature Review: Six Steps to Success, 3e, 2016. AU-GSB E-Journal, 10(2), 117.
- Bell, J., & Waters, S. (2018). Ebook: doing your research project: a guide for first-time researchers. McGraw-hill education (UK).
- Hart, C. (2004). Doing your master's Dissertation. Sage.
- Gardener, M. (2017). Statistics for ecologists using R and Excel: data collection, exploration, analysis and presentation (data in the wild) (2nd edition). Exeter: Pelagic Publishing. ISBN: 9781784271398.
- Greenfield, T., and Greener, S. (2016). Research methods for postgraduates (3rd edition). Chichester: Wiley. ISBN: 9781118341469.
- Gilbert, F., and McGregor, P. (2011). Asking questions in biology: A guide to hypothesis testing, experimental design and presentation in practical work and research projects (4th edition). London: Benjamin Cummings. ISBN: 9780273734680.

CORC410 – GIS and Survey Techniques in Land Restoration

- Wegmann, M., Leutner, B., and Dech, S. (Eds) (2016). Remote sensing and GIS for ecologists using open-source software (data in the wild). Exeter: Pelagic Publishing. ISBN: 9781784270223.
- Heywood, I., Cornelius, S., Carver, S. (2011). An introduction to geographical information systems (4th edition). Harlow: Pearson Education.
- Longley, P., Goodchild, M., Maguire, D., and Rhind, D. (2015). Geographical information science and systems. Chichester: Wiley.
- Zhu, X. (2016). GIS for environmental applications: a practical approach. Routledge.

CORC411 – Wetland Ecosystem and Riparian Zone Restoration

- Brierly, G., and Fryirs, A. (Eds) (2008). River futures: an integrative scientific approach to river repair (2nd edition). Washington DC: Island Press. ISBN: 9781597261135.
- Craft, C. (2016). Creating and restoring wetlands: from theory to practice. Oxford: Elsevier. ISBN: 9780124072329
- Dodds, W. K. (2002). Freshwater ecology: concepts and environmental applications. Elsevier.
- Keddy, P. A. (2010). Wetland ecology: principles and conservation. Cambridge university press.
- Riley, A. (2016). Restoring neighborhood streams: planning, design and construction. Washington DC: Island Press. ISBN: 9781610917407.
- Roman, C., and Burdick, D. (Eds) (2012). Tidal marsh restoration. Washington DC: Island Press. ISBN: 9781597265768.

CORC412 – Work Placement

- Clewell, A., and Aronson, J. (2013). Second Edition: Principles, Values, and Structure of an Emerging Profession (2nd edition). Washington DC: Island Press. ISBN: 9781610911689.

Also see the competency frameworks for relevant professional bodies, for example the Chartered Institute for Ecology and Environmental Management (CIEEM)

[CIEEM's Competency Framework | CIEEM](#)

General ecology, plant and soil science

- Weil, R., and Brady, N. (2017). The nature and properties of soils (15th edition). Harlow: Pearson. ISBN: 9781292162232.
- Eichhorn, M. (2016). Natural Systems: the organisation of life. Chichester: Wiley. ISBN: 9781118905920.

The 1st edition is available as a free download from : [\(4\) \(PDF\) Natural Systems \(researchgate.net\)](#)

(the author, Markus Eichhorn, has kindly made this available as a free download, and requests that if you are in a position to do so you make a donation to Survival International, who support marginalised indigenous peoples worldwide - [Home - Survival International](#)

- Rowell, D. (1994). Soil science methods and applications. Harlow: Longman. ISBN: 0582087848.
- Begon, M., Townsend, C., and Harper, J. (2005). Ecology: from individuals to ecosystems (4th edition). ISBN: 9781405111171.

Available as a free download from: bio-nica.info/biblioteca/begon2006ecology.pdf

Selected inspiring and enjoyable popular science / essays / novels:

- Eden by Tim Smit - Enough said!
- Rewild Yourself by Simon Barnes - 23 Spellbinding ways to make Nature More Visible.
- Braiding Sweetgrass by Robin Wall Kimmerer - Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants.
- Dark Emu by Bruce Pascoe - Aboriginal Australia and the Birth of Agriculture.
- Wilding by Isabella Tree - The Return of Nature to a British Farm.
- Feral by George Monbiot - Rewilding the Land, Sea and Human Life.
- Rebirding by Benedict MacDonald – Rewilding Britain and its Birds.
- Earth Matters by Richard Bardgett – How Soil Underlies Civilization.
- Bringing Back the Beaver by Derek Gow - The Story of One Man's Quest to Rewild Britain's Waterways.
- The New Wild: Why Invasive Species will be Nature's Salvation by Fred Pearce, environmental reporter exploring the role of invasives for nature recovery.