



Assoc. Prof. Emily Nicholson

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Visiting Scholar

School of Forestry and Resource Conservation, National Taiwan University (January-July 2020).

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Emily's research focusses on solving problems in nature conservation, including measuring change in biodiversity, predicting the impacts of change on species, ecosystems and the benefits they provide, and making conservation decisions. A key element of her work over the last decade has been developing and evaluating a new framework for understanding, quantifying and predicting risks to ecosystems: the IUCN Red List of Ecosystems. This work has had substantial impacts at global and national levels, including changing policy, legislation and conservation outcomes. Emily has been awarded multiple grants and fellowships, including a Future Fellowship, Discovery Grant and four Linkage grants from the Australia Research Council, and an Inspiring Women Fellowship from the Victorian Government. Before joining Deakin in 2015, Emily was a Centenary Research Fellow at The University of Melbourne (2012-2015), a Marie Curie Fellow at Imperial College London (2007-2012), and a postdoc at Princeton University (2006-2007), after completing her PhD at the University of Queensland in 2006.

Abstract:

Effective conservation action requires as a basis an understanding of the state of and trends in biodiversity at species and ecosystem levels. The Red List of Ecosystems (RLE) was adopted in 2014 as the global standard for ecosystem risk assessment by IUCN (International Union for Conservation of Nature), the world's largest environmental organization, and by researchers, NGOs and governments worldwide, including Australia. In this seminar, Dr. Nicholson will present an overview of the criteria that underpin the Red List of Ecosystems, with case studies from terrestrial, marine, and freshwater ecosystems. She will demonstrate the outcomes and impacts of the IUCN RLE since its inception, using an established impact evaluation framework. One outcome has been the development of indices based on RLE data, which can be used as indicators in global conservation targets, such as the UN Sustainable Development Goals, and the post-2020 targets of the Strategic Plan for Biodiversity. Finally she will discuss how ecosystem risk assessment can inform socio-economic information, such as ecosystem accounts or assessments of ecosystem services.