Rewilding Tasmania

Symposium: 20 February 2015

UNIVERSITY OF TASMANIA
Rewilding Tasmania

Symposium: University of Tasmania, 20 February 2015

With thanks to:
- UTAS Faculty of Law
- UTAS Institute for Marine and Antarctic Studies (IMAS)

To register:
- There is no cost to attend the symposium, though places are limited.
- Register by contacting the organiser, Professor Benjamin Richardson, at B.J.Richardson@utas.edu.au
- Lunch and morning / afternoon teas provided, at no cost.

The venue:
- All sessions of the symposium will be held in the Aurora Lecture Theatre, Institute for Marine and Antarctic Studies, Waterfront Building, 20 Castray Esplanade, Battery Point, Hobart
## The Symposium Program

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<td>8.30am</td>
<td>Venue opens</td>
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<tr>
<td>9.00 – 9.15am</td>
<td><strong>Introductions and Welcome</strong>&lt;br&gt;Prof. Benjamin J. Richardson, Professor of Environmental Law, Faculty of Law and IMAS, UTAS</td>
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<td>9.15 – 10.00am</td>
<td><strong>The Anthropocene Demands the Rethinking of Conservation Biology</strong>&lt;br&gt;Prof. David Bowman, Professor of Environmental Change Biology, School of Plant Science, UTAS</td>
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<td>10.00 – 10.45am</td>
<td><strong>Rewilding with Bite: Large Predators and Ecological Restoration</strong>&lt;br&gt;Prof. Chris Johnson, Professor of Wildlife Conservation and Dr Menna Jones, ARC Future Fellow, School of Zoology, UTAS</td>
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<td>10.45 – 11.15am</td>
<td>Health break</td>
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<td>11.15am – 12.00pm</td>
<td><strong>Ecological Restoration as Key Nature Conservation Strategy</strong>&lt;br&gt;Todd Dudley, President, Northeast Bioregional Network</td>
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<td>12.00 – 12.45pm</td>
<td><strong>Is It Really Better to Protect What we Have Than Restore What We have Lost? Essential Elements for Future Nature Conservation</strong>&lt;br&gt;Jane Hutchinson, CEO, Tasmanian Land Conservancy</td>
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<td>12.45 – 1.30pm</td>
<td>Lunch and networking time</td>
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<td>1.30 – 2.15pm</td>
<td><strong>Kelp and Climate Change and Rewilding in Eastern Tasmania</strong>&lt;br&gt;Prof. Craig Johnson, Head, Ecology &amp; Biodiversity Centre, IMAS, UTAS</td>
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<td>2.15 – 3.00pm</td>
<td><strong>Rewilding and Novel Ecosystems: Reforming Nostalgic Laws to Promote Adaptive Conservation</strong>&lt;br&gt;Phillipa McCormack, PhD candidate, Faculty of Law, UTAS</td>
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<td>3.00 – 3.15pm</td>
<td>Short health break</td>
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<td>3.15 – 4.00pm</td>
<td><strong>Mega Ripples – The Implications of a Restored Lake Pedder</strong>&lt;br&gt;Adam Beeson, lawyer, Environmental Defender's Office and Lake Restoration Committee</td>
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<td>4.00 – 4.45pm</td>
<td><strong>The Politics of ‘Rwilding’ Tasmania</strong>&lt;br&gt;Assoc. Prof. Kate Crowley, School of Politics, UTAS</td>
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<td>4.45 – 5.00pm</td>
<td><strong>Closing remarks</strong>&lt;br&gt;Prof. Benjamin J. Richardson</td>
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Speakers’ biographies and abstracts of presentations:

Adam Beeson, *Mega ripples – the implications of a restored Lake Pedder*

**Abstract:** Lake Pedder is a glacial lake in South-West Tasmania. It is a unique geomorphological feature that was visited by plane and foot by large numbers of visitors in the mid-20th century. One of the astonishing features of the Lake was the series of mega-ripples, created by wind and water on the eastern beach. In summer the beach was up to 350 metres wide. In 1972 the Lake was inundated, together with the valley in which it lies, to create the Huon-Serpentine Impoundment. This impoundment provides water to the Gordon Dam and in turn to the Gordon Power station. From the day the Lake went under, until the present, there has been a campaign to restore the Lake. This presentation will look at the history of Lake Pedder and the campaign to restore it. The technical, political and economic challenges of restoration will be considered, as well as the potential long-term benefits for Tasmania.

**Bio:** Adam returned to Tasmania in 2013, after a stint in the Solomon Islands working for the Public Solicitor. The Environmental Defenders Office Tasmania recruited Adam as its second solicitor and litigation specialist. Adam is a passionate advocate for good governance, rigorous environmental assessment and public participation in decision making. He is also a trained mediator. Adam’s previous experience includes working in private practice and as a senior compliance officer with the EPA Division, as well as his role as Legal Coordinator for the Gunns 20.

David M.J.S. Bowman, *The Anthropocene demands the rethinking conservation biology*

**Abstract:** There is growing acceptance amongst conservation biologists that the orthodox ‘conservation reserve’ model is insufficient to stem the biodiversity crisis and that more radical interventions are required. These include off-reserve conservation, public-private partnerships, assisted migration, construction of artificial habitat islands (through replanting or construction of physical barriers), modification of fire regimes, and incorporation of non-native animals (both herbivores and carnivores) and plants (weeds or crop plants) into food webs. Paralleling the rethinking of philosophical principles of conservation biology in the applied field of restoration ecology there is increasing discussion of the need to rethink this principle and explore the construction of ‘novel’ ecological systems. The motivations for this strategic shift are mixed, including recognition that reconstruction of natural systems is unfeasible, and that novel ecosystems may be more cost effective, sustainable and resilient. The convergence of rethinking philosophical principles in these two disparate branches of applied biology is no coincidence: it is a consequence of historically unprecedented biogeochemical scope and global scale of environmental change increasingly known as the ‘Anthropocene’.

**Bio:** Professor David Bowman holds a research chair in Environmental Change Biology in the School of Biological Sciences at the University of Tasmania. The primary motivation for his research understands the effects of global environmental change, natural climate variability and
Aboriginal landscape burning on bushfire activity and landscape change across the Australian continent. After completing his PhD in forest ecology and silviculture at the University of Tasmania in 1984, he spent two decades undertaking full time research in rainforest and savanna ecology throughout northern Australia. Bowman received a DSc in 2002 from University of Tasmania, and has received travelling fellowships from the Australian Academy of Science, Harvard (USA), Kyoto (Japan), Leeds (UK) and Arizona (USA) universities.

Kate Crowley, *The politics of ‘rewilding’ Tasmania*

**Abstract:** Tasmania is a uniquely wild island state, with nearly 50% of its natural environment protected in reserves, national parks and world heritage areas alone, with additional protection in private reserves and properties. Behind this extraordinary level of protection is an extraordinary, divisive history of environmental political effort stretching back generations, including the founding of the world’s first green party. Environmental political conflict continues today on many levels over many issues and continues to be bitterly contested and divisive with the legacy of past disputes still too raw for many. To rewild Tasmania would therefore be to embark upon a very different exercise than say to reintroduce forest in denuded areas of Scotland or central Europe, or to reintroduce wolves or to create wildlife corridors in North America. Rewilding is breathtaking for its proposition that conservation should be re-thought at a continental scale, that reserved or reclaimed areas should be connected, and that top predators should be reintroduced into the food chain. It is a proposition that would cut across and confound the well-established environmental battle lines in Tasmania, but it also has the potential to do the opposite, to knit together diverse communities in novel conservation endeavours. The politics of rewilding Tasmania can therefore be interrogated at various levels, by revisiting past efforts to preserve, protect and restore nature environments, and by considering potential future challenges and opportunities.

**Bio:** Associate Professor Kate Crowley (UTAS School Of Social Sciences) teaches and researches environmental policy, climate policy, public policy generally, and green politics, with a focus on greens and government. She has widely published, and editor of *Australian Environmental Policy: Studies In Decline And Devolution* (with Ken Walker), and *Environmental Policy Failure: The Australian Story* (with Ken Walker), and *Minority Government: The Liberal Green Experience In Tasmania*. Kate is active in the Australasian Public Policy Network and engages regularly with the Greenpolitics Standing Group of the European Consortium of Political Research. Her most recent project is co-editing *Policy Analysis In Australia: The State of the Art* with Professor Brain Head. She was the inaugural Chair of the Tasmanian Climate Action Council. She is also a recipient of the Vice Chancellor’s Award For Outstanding Community Engagement [Climate Change and Sustainability].

Todd Dudley, *Ecological restoration a key nature conservation strategy*

**Abstract:** Through high standard well funded ecological restoration programs we can increase the extent and improve the condition of natural areas in Tasmania. Apart from the
considerable environmental benefits restoration can offer it also provides opportunities for people to develop knowledgeable and caring relationships with native places, plants and animals. This connection can help establish and maintain a nature conservation culture in the community. These themes will be illustrated with regard to the work of Tasmania’s North East Bioregional Network.

**Bio:** Todd Dudley is the President of the North East Bioregional Network and Vice President of the North East Tasmanian Land Trust and has 30 years on-ground experience in bush regeneration/ecological restoration. Todd has worked in a range of ecosystems in NSW and North East Tasmania including everything from rainforest to dry sclerophyll forests and coastal heathlands (as well as plantations and mine sites). He is currently supervising the Restore Skyline Tier project (near Scamander NE Tasmania), which is aiming to ultimately restore 2,000 ha of Radiata Pine plantation back to biodiverse native forest.

**Jane Hutchinson, Is it really better to protect what we have than restore what we have lost?**

**Abstract:** In Australia, biodiversity is in steep decline. Over the next few decades we should expect a species extinction wave across the nation. More and more ecosystems are threatened and natural places are disappearing as the population grows and expands and as threats such as climate change, fire, disease, introduced species increase. We know that natural systems support all life on earth – including human life. So, how do we prioritise the use of the limited financial resources to conserve Australia’s biodiversity, threatened ecosystems and important natural places? The answer is that it depends on the objective. If the objective is nature conservation then it is far more cost effective to protect resilient, in tact natural systems and habitats than restore or rehabilitate degraded areas. However, that may not be the only objective. Nature depends upon people to value it, every day, forever. So, it follows that not only must we prioritise resilient, in tact natural systems but we must also prioritise people and our connection to nature.

**Bio:** Jane is CEO of the Tasmanian Land Conservancy (TLC), a non-for profit, non-government, environmental organisation with a vision for Tasmania as a global leader in nature conservation and sustainability. Since becoming CEO in 2011, Jane has managed several multi-million conservation projects, established the $10 million TLC Foundation to achieve long-term financial sustainability and facilitated the largest mainland acquisition for the Tasmanian Aboriginal people in partnership with the Tasmanian Aboriginal Centre, the Aboriginal Land Council of Tasmania and the Australian Government. Jane also chairs the Steering Committee of the Protected Areas Learning and Research Collaboration, is a member of the Australian Land Conservation Alliance and a member of the Australian Connectivity Council.

**Craig Johnson, Kelp and climate change and rewilding in eastern Tasmania**

**Abstract:** Kelps and other large seaweeds are to temperate reefs what corals are to coral reefs, and trees to rainforests. They provide habitat to a vast range of marine species, are the main
primary producers in the system, and provide a range of services to humans including support of valuable fisheries and biodiversity, ecotourism and coastal protection through mitigation of wave energy. In eastern Tasmania there have been significant losses of two important habitat-forming kelps. Precipitous decline in giant kelp (*Macrocystis pyrifera*) led to listing *M. pyifera* and associated species as an endangered marine community (in 2012), and is ascribed largely to ocean warming but exacerbated by low levels of nutrient as a result of a changing ocean climate. Large losses of *Ecklonia radiata* beds to overgrazing by sea urchins (*Centrostephanus rodgersii*) arises as a result of the interaction between climate change (which has allowed the urchin to extend its range to Tasmanian waters) and ecological overfishing of lobsters as the main predator of the urchins in Tasmania (which allows urchin densities to build to the point where destructive grazing of kelps occurs). Experiments and modelling show that rebuilding the biomass of large lobsters which feed on *C. rodgersii* will dramatically reduce the risk of ongoing destruction of *E. radiata* beds, and the government has agreed to adjust fishing regulations accordingly. In contrast, once extensive sea urchin barrens are established it is virtually impossible to recover seaweed cover unless there is direct and very expensive intervention to remove the urchins. There is little likelihood of recovery of giant kelp in eastern Tasmania without reversal of the changes in large scale oceanographic dynamics observed over the last 50-60 years. However, an interesting twist is that there is real potential to use giant kelp as a means to ‘mop-up’ excess nutrients produced in finfish aquaculture.

**Bio:** Professor Craig Johnson is Head of the Ecology and Biodiversity Centre in IMAS, and an associate Director of IMAS. He did his PhD in Nova Scotia in Canada and worked subsequently at the Bedford Institute of Oceanography in Canada, University of Cape Town, Australian Institute of Marine Science, Griffith University, and University of Queensland, before moving to take up the Chair in Zoology at the University of Tasmania in 1997. He chaired the Steering Committee of the Marine National Facility for 10 years, and maintains a strong interest in ensuring open access to publically funded scientific data through the Steering Committee of the Australian National Data Service. He maintains a productive lab of postdoctoral fellows and graduate students, with a strong focus on the effects of global environmental change on kelp bed systems and the capacity of marine systems to ‘flip’ to undesirable stable states. He would like to have more time for sailing.

**Phillipa McCormack, Re-wilding and Novel Ecosystems: Reforming Nostalgic Laws to Promote Adaptive Conservation**

**Abstract:** Australia is experiencing a biodiversity crisis, and management strategies in legal frameworks for conservation and natural resource management have failed to arrest dramatic and ongoing biodiversity decline. ‘Re-wilding’ is a philosophy for conservation that promotes the large-scale restoration of ‘wild’ and ‘natural’ landscapes, with the ultimate goal of re-establishing ‘natural’ environments that function without ongoing human intervention. Dynamic climate change is likely to render the objective of restoring landscapes to historical ‘natural’ baselines impractical or unachievable. The cumulative effects of human land use and rapid climate change necessitate a new approach to conservation. This new approach will need to
accommodate transformation and a shift away from prioritising ‘native-ness’ and ecologically-arbitrary historical baselines for restoration. Adaptive legal mechanisms can play a key role in effecting this shift towards flexible and adaptation-focused biodiversity conservation. Examples of barriers and opportunities in Tasmanian law for an adaptive approach to re-wilding will be examined, including in the management of protected areas and the protection of threatened species and communities. These examples will be used to illustrate potential options for legal reform to support the effective management of resilient landscapes under climate change.

**Bio:** Phillipa graduated with first class honours from UTAS in 2007 with a combined degree in law and social ecology. She was admitted to practice and worked as a solicitor at an international commercial law firm in government and environmental law, before taking up a position as senior associate to the Hon. Justice Lex Lasry at the Supreme Court of Victoria. Phillipa commenced her PhD candidature in biodiversity and climate change adaptation law at the University of Tasmania in February 2013. In 2014 she presented a paper on assisted colonisation and adaptation law in Fortaleza, Brazil at the 2014 Adaptation Futures Conference.

**Benjamin J. Richardson, Symposium convenor**

**Bio:** Professor Richardson is a scholar of environmental law who holds a joint appointment with the UTAS Faculty of Law and the Institute for Marine and Antarctic Studies. Prior to joining UTAS in mid 2014, he worked abroad for about 18 years in law faculties in New Zealand, Canada and the United Kingdom. Most recently, he was at the University of British Columbia where he held the Canada Research Chair in Environmental Law and Sustainability and was Director of the Centre for Law and the Environment. Before working in academia, Professor Richardson had stints in policy and consultancy roles for the NSW National Parks and Wildlife Service in Sydney and the IUCN (International Union for Conservation of Nature) in Kathmandu and Nairobi.