

# Ecological Restoration and Habitat Creation

## *Special Interest Group*

Workshop, Autumn Conference, 22<sup>nd</sup> November 2017

# Challenges

- Perception that what many ecologists do is protected species and protected sites. Not seen as 'greenspace professionals'?
- We need to get the message across that Ecologists are vital if we are to meet the challenges of the future:
  - Protecting and conserving what we have, of course.
  - Creating better, healthier urban spaces (novel ecosystems & sustainable plant communities that work for wildlife and people).
  - Managing our rural and agricultural landscapes better, upstream thinking, natural flood management.
- Use ecological knowledge to understand how ecosystems work and use that to recover ecosystem conditions that maintain their structure and function. Ecologists need to get creative.
- Ecologist as engineer, architect, designer. Design, create and manage ecosystems.

# Objectives

- Assist and encourage CIEEM's members to make a major contribution to achieving a step change in wildlife conservation.
- Provide a focal point to develop and exchange ideas & knowledge.
- Share & promote good practice.
- Contribute to the policy dialogue.
- Influence research agendas towards what practitioners need.

# How will this happen?

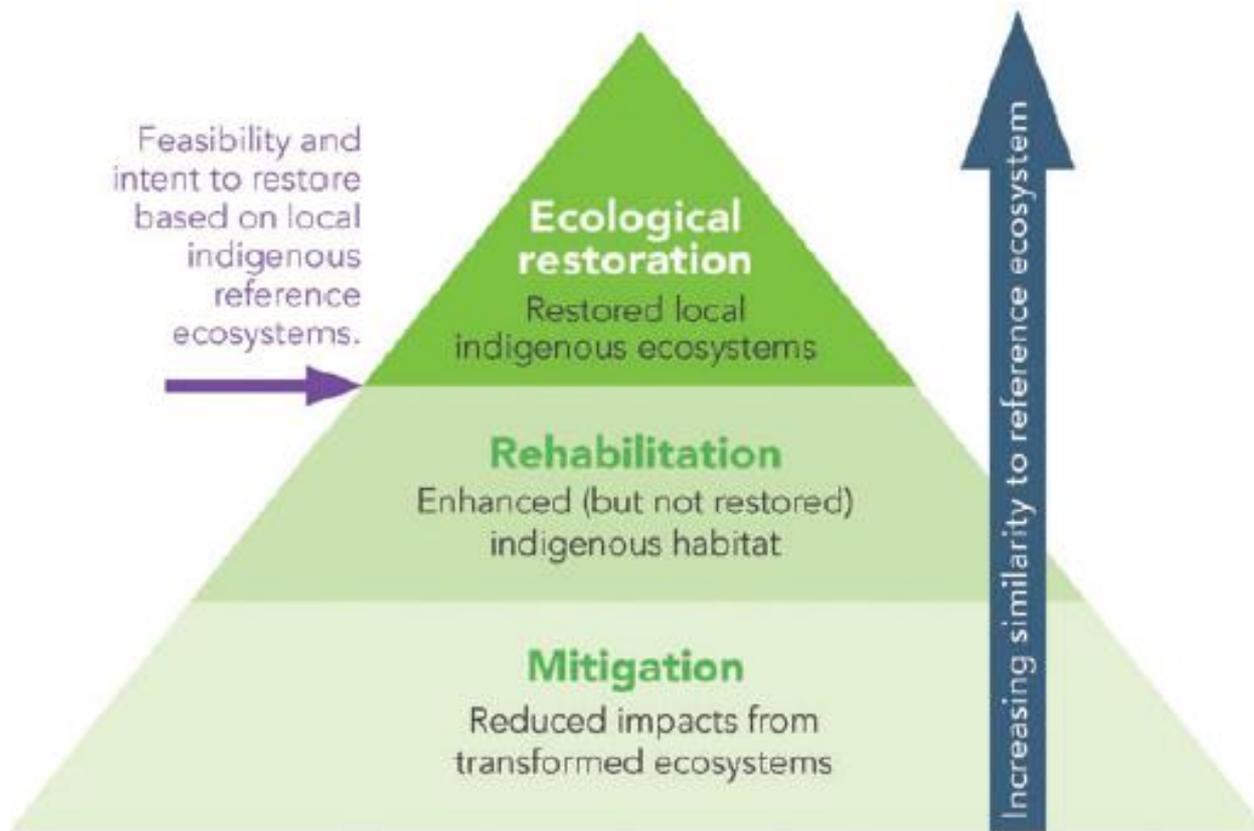
- CPD & Competencies
- Events & conferences
  - Working with the Regions
  - National conference in 2018
- Guidance for practitioners?
- Contribute to the evidence base?
- Part of CIEEM's engagement with other professions, GIP, BES, etc.
- *What are your ideas?*



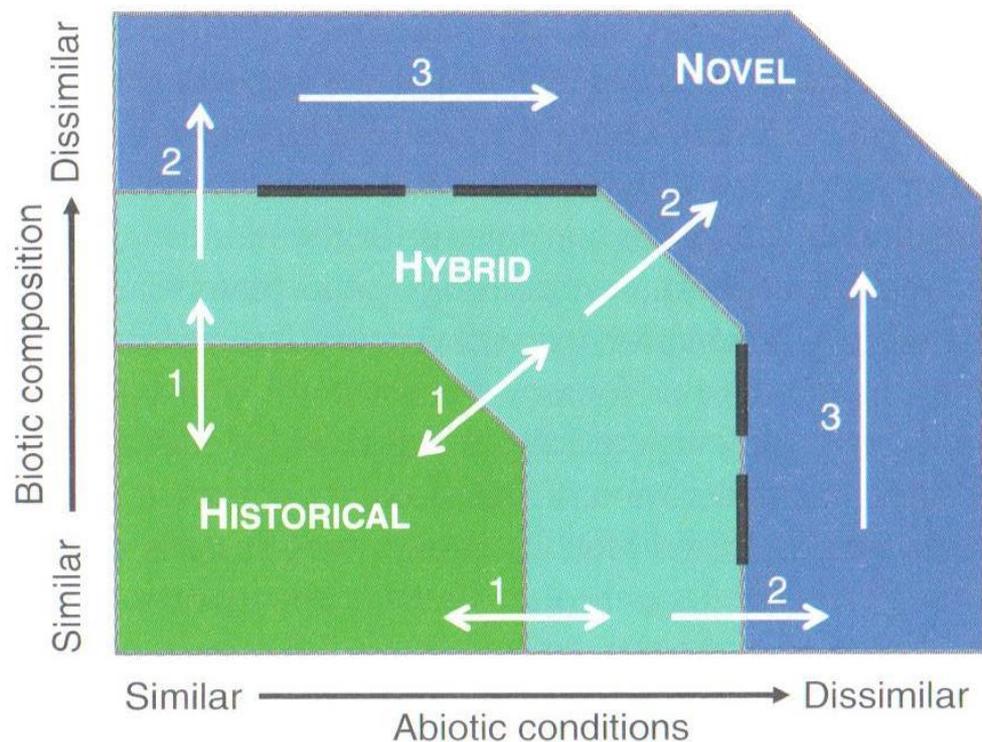
# Conceptual models

← Recon:

*Environmental repair model* (from SERAustralian National Standards, 2016)



# Novel ecosystems



Hierarchy of restoration objectives:

- Vegetation structure
- Taxonomic diversity (species richness)
- Functional Diversity
- Functional traits
- Community composition (by NVC??)

Expand our concept of community to include human components.

From Hobbs, Higgs & Hall – Novel Ecosystems, 2013

# Workshop topics

What are the priorities – knowledge, evidence, practice, policy – for:

1. Restoration of degraded and damaged ecosystems
2. Rehabilitation or transformation of ecosystems subject to land use change
3. Habitat creation & novel ecosystems
4. Habitat & species translocations & reintroduction

# SER Europe Conference 2018

## Restoration in the Era of Climate Change



Reykjavík, Iceland 9-13 September 2018

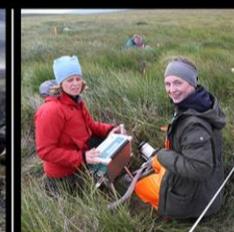


The 11th European Conference on Ecological Restoration will address key issues facing ecological restoration at the present, including:

- The influence of anticipated future conditions on restoration goals
- Role of ecological restoration as a significant, cost-efficient method to mitigate climate change
- Synergy between climate mitigation and other goals such as reversal of land degradation, biodiversity conservation, improved ecosystem resilience and provisioning of multiple ecosystem services
- Climate change driven restoration efforts leading to narrow focus on carbon sequestration.



Mid-conference and post-conference field trips provide opportunities to observe first-hand important issues addressed at the conference: Retreating glaciers; Efforts to restore eroded land and drained wetlands for climate mitigation; Landscape-scale restoration of severely degraded land; Consequences of unsustainable land use and use of exotic invasive species.



The 11th European Conference on Ecological Restoration is jointly organized by:

- The Soil Conservation Service of Iceland
- The Agricultural University of Iceland
- The United Nations University Land Restoration Training Program
- Landvernd, Icelandic Environment Association in cooperation with the SER Europe Board.

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The location is ideal as Iceland is a showcase of:

- Effects of global warming, such as retreating glaciers, disappearing permafrost tundra and changes in flora and fauna
- Ecosystem degradation following settlement, including loss of 95% of native woodlands, 40% of vegetative cover and draining of more than half of lowland wetlands
- A century of organised land restoration and > 3000 km<sup>2</sup> of degraded land under ecological restoration
- The consequences of using invasive species in land reclamation.

Homepage: [www.sere2018.org](http://www.sere2018.org)

