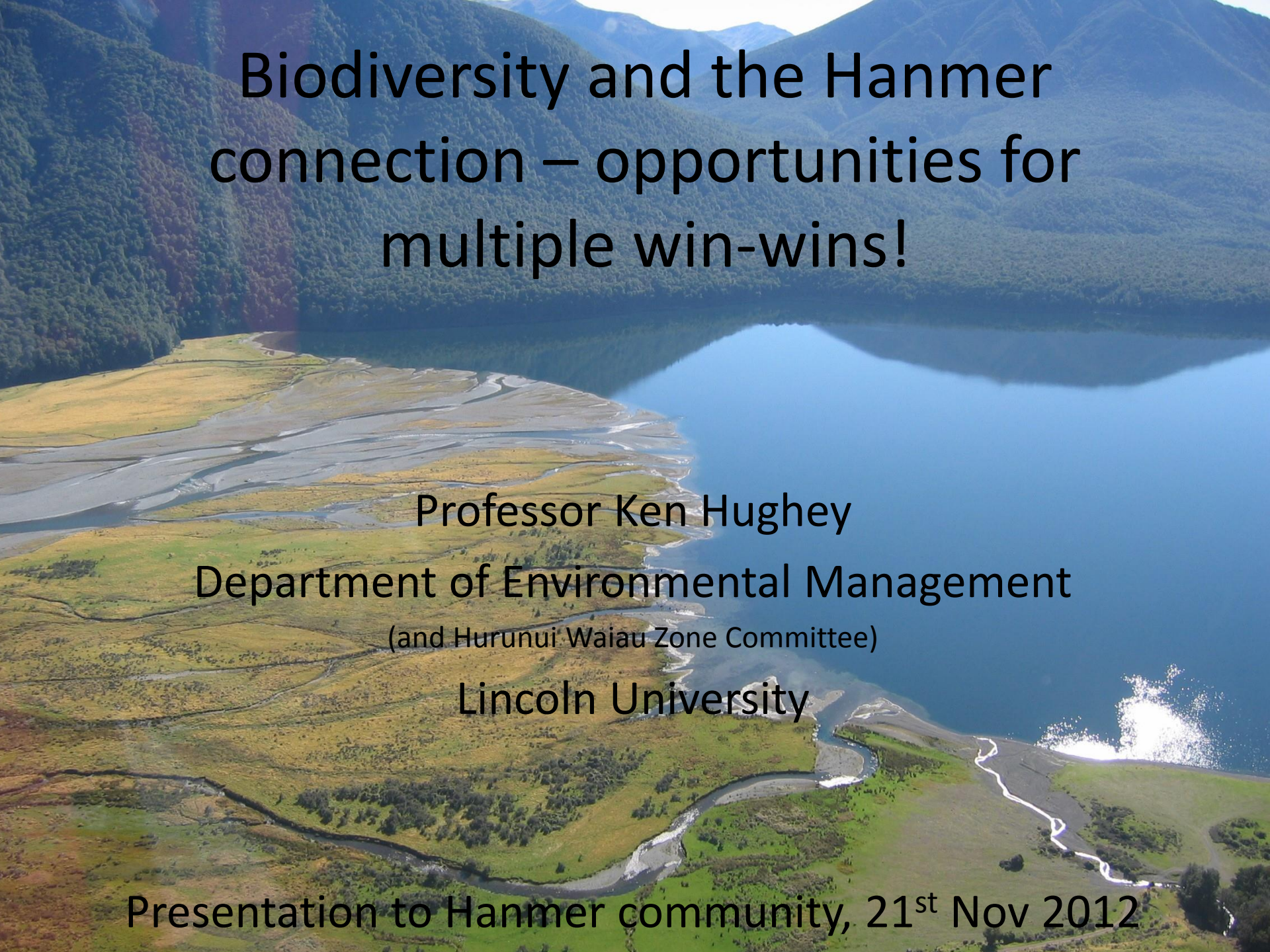
Biodiversity and the Hanmer connection – opportunities for multiple win-wins!



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Presentation to Hanmer community, 21st Nov 2012

The take away messages

- Along with climate change, biodiversity loss is considered the greatest threat to the global environment
- Biodiversity can be measured in multiple ways but I will refer to species and to habitats, and in particular those that are indigenous
- In New Zealand biodiversity loss is amongst the greatest on the planet, and nowhere is it more clearly seen than in terms of the loss of wetland habitats
- But, from a tiny seed a great tree can grow and from a remnant wetland so too can a mighty dream grow – it is this wetland and this dream that I want you to go home and think about and act on.

NZ biodiversity – why so special

New Zealand has a high number of endemic species:

- 80% of all vascular plants
- 70% of all native terrestrial and freshwater birds
- All bats
- All native amphibians
- All reptiles
- 90% of freshwater fish

NZ biodiversity – waves of extinctions: what has been lost?

1. Polynesian rats (kiore) arrived c.500 CE eliminating smaller defenceless ground nesting birds such as the NZ owlet-nightjar.
2. Māori hunted many of the larger species, such as moa, adzebill and large ducks and geese, for food; and fires changed habitat hugely. The Harpagornis and Eyles's harrier thought to have gone extinct due to the loss of their food source.
3. European settlers brought numerous new mammal species, e.g., predatory domestic cat, and initiated more habitat modification, e.g., drainage of swamps and loss of lowland forest.

- Over 50% of New Zealand's bird species are considered extinct, along with a species of bat and several frogs, a freshwater fish (NZ greyling), skinks and geckos
- NZ's extinction rate second only to Hawaii in terms of proportion of species lost.

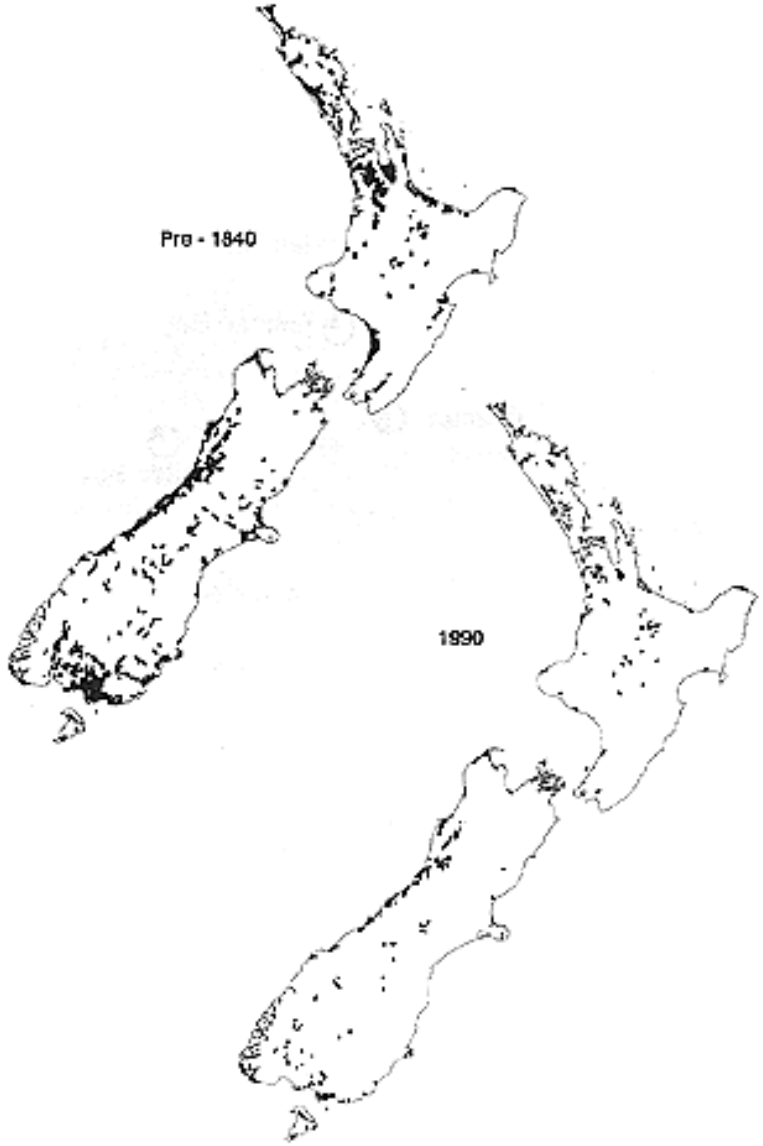
The ‘Greater Hanmer area’ biodiversity – is anything special?

YES, a number of ‘threatened and at risk species’, e.g.:

- Great spotted kiwi in the Lewis Pass area
- Wrybill plover, the only bird in the world with a laterally recurved bill, on the Waiau River
- Black-fronted tern, on the Waiau River – one of the largest populations left
- Falcon, and they fly frequently over Hanmer township
- Long-finned eel, very nearby
- As well as other bird species, geckos, invertebrates, plants and native fish

Great spotted kiwi

Wetland loss in NZ



Source: Landcare Research

Wetlands – ecosystem services are valuable

Ecosystem services as **benefits people obtain from ecosystems** . Four categories:

- *Supporting services, e.g.,*
  - nutrient dispersal and cycling
  - seed dispersal
  - Primary production
- *Provisioning services*, e.g.,
  - food (including game),
  - wild foods
  - water
- *Regulating service, e.g.,*
  - carbon sequestration and climate regulation
  - waste decomposition and detoxification
  - purification of water and air
- *Cultural services, e.g.,*
  - cultural, intellectual and spiritual inspiration
  - recreational experiences (including ecotourism)
  - scientific discovery

Wetlands – sadly lacking in the Hanmer, Waiau and Hurunui areas

- Less than 10% of NZ's wetlands remain, meaning 90% have been drained/reclaimed otherwise destroyed
- Of those that remain many are in poor condition – they are weed infested, the grazed by cattle or they are polluted
- The Hurunui Waiau zone has about 64 wetland sites, although there has been an approximately **98.7**% loss in wetland area over time (Hurunui Waiau ZIP 2011, Appendix 2).

Hanmer has its own remnant wetland …

Wetlands – what good management could bring

By undertaking the following sorts of activities wetlands can be fully restored, very cost effectively:

- Fencing
- Weed control
- Water level management
- Restoration planting
- Predator control

These sorts of activities can then be linked to re-establishment of endangered species such as the brown teal, or pateke:

Wetlands – community based conservation trusts are everywhere

- Forests – Riccarton Bush, Karori Sanctuary
- Wetlands – Project River Recovery, Waipori-Waihola, Te Waihora/Lake Ellesmere
- Islands – Quail Island, Tiritiri Matangi

- Hanmer wetlands have one big advantage – they are just minutes walking from the heart of Hanmer tourism: no other restoration initiatives I am aware of have this advantage

Support for community based restoration initiatives - examples

- CWMS – Immediate Steps Biodiversity funding: already a range of projects funded in the Hurunui Waiau zone
- Lottery World War One Commemorations, Environment and Heritage Fund

With good management and good conservation outcomes come economic opportunities

- Guided walks
- ‘Twitchers’
- Education opportunities
- And more, if more is what the community wants …

Because, from wetlands grow other opportunities

- During wetland restoration thought can be given to larger restoration initiatives, e.g., neighbouring forests
- With these initiatives come greater challenges ($$) but also greater opportunities:
  - More endangered species, e.g., kiwi
  - Visitor centre
  - Restaurant

Ultimately this all becomes a huge set of ‘win-wins’

- Conservation gains – environment wins
- Community involvement and pride grows – society wins
- Tourism increases and tourists stay longer as attractions diversify and different tourists attracted – economy wins
- Ngai Tahu values improve and mana restored – cultural wins

And so to conclude

- Hanmer is lucky in so many ways
- One piece of luck is having a remnant wetland right at your backdoor, but it is damaged and it needs restoring
- The community, in its broadest sense, should lead this restoration and should consider broader opportunities as they arise
- Realising all these opportunities will be good for the environment, for the community, for the economy and culturally for Ngai Tahu
- Literally then, the ball is in your court! Will you take up the challenge?