Wild about Christmas trees?



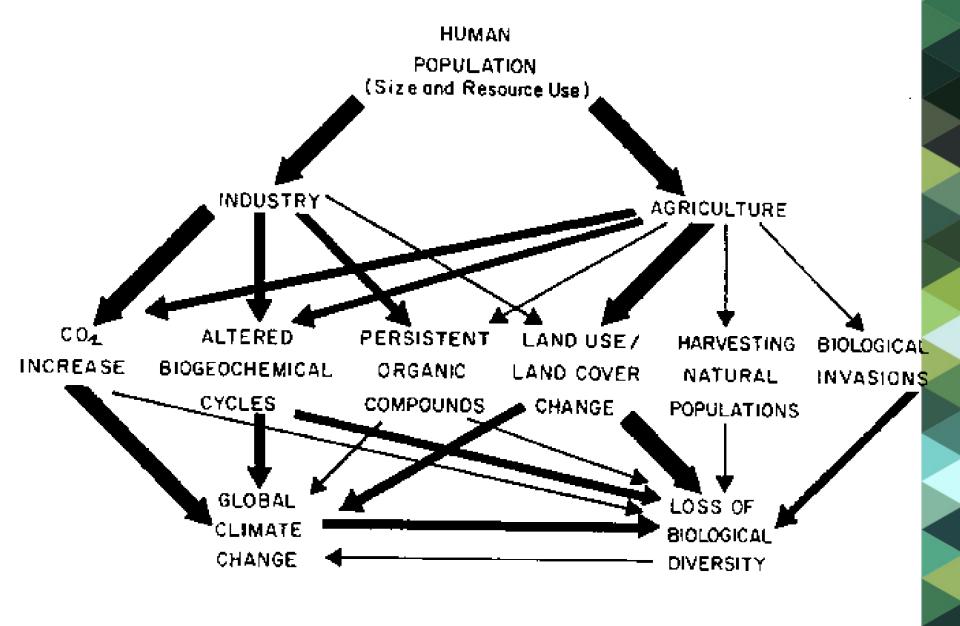


Christmas trees

- Fresh 'n' Bushy sells a couple of thousand fresh trees a year in the Wellington region
- Meanwhile, the Christmas Heirloom Company imports two 12-metre shipping containers full of artificial trees every year and they sell out
- A live Christmas tree ranges from \$8 -\$80
- Theoretically every person in NZ could have 4 wilding conifers a year for 60 years

What's under the tree?

- 1. Approaches for thinking through cultural values appropriate for people engaged with environmental issues.
- 2. Suggestions for how to work with specific cultural values and sites of cultural, for people managing wilding conifers.
- 3. A contribution to ongoing conversations about what we as New Zealanders value and how we might navigate the range of values shaping New Zealand as we head into 2016.



INTRODUCED SPECIES: A SIGNIFICANT COMPONENT OF HUMAN-CAUSED GLOBAL CHANGE

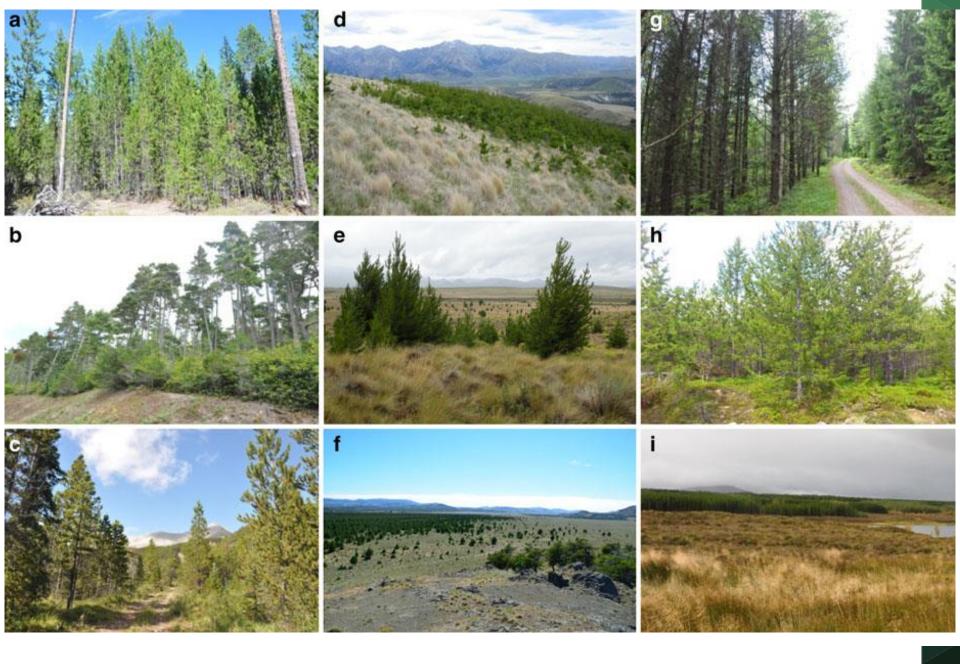
Vitousek et al. 1997 NZJE 21:1

Cultural values

Cultural values of ecosystem services are the collective norms and expectations that influence how ecosystems accrue meaning and significance to people.

(Church et al. 2014, p. 16).

Wilding conifers

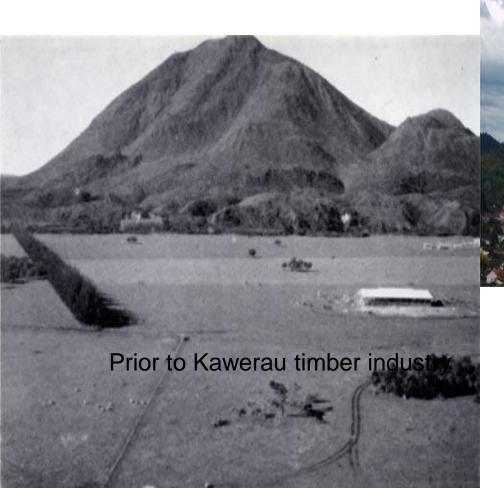


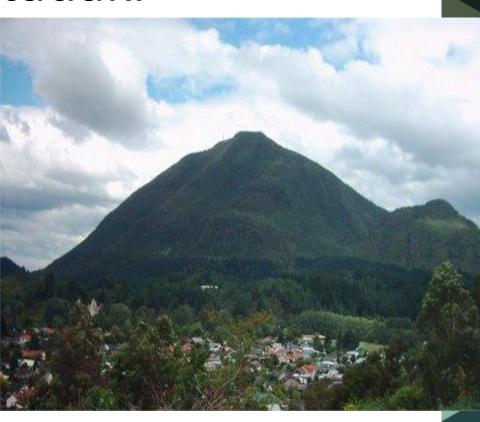
Gundale et al. 2014 Biol Invasions 16:5

Queenstown



Mt Putauaki

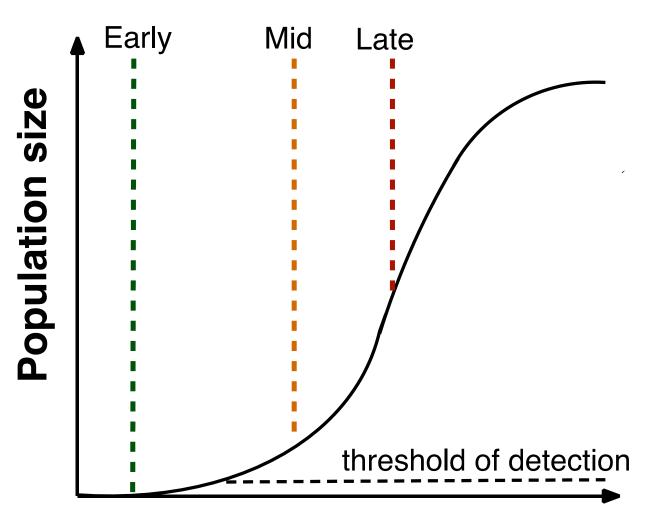




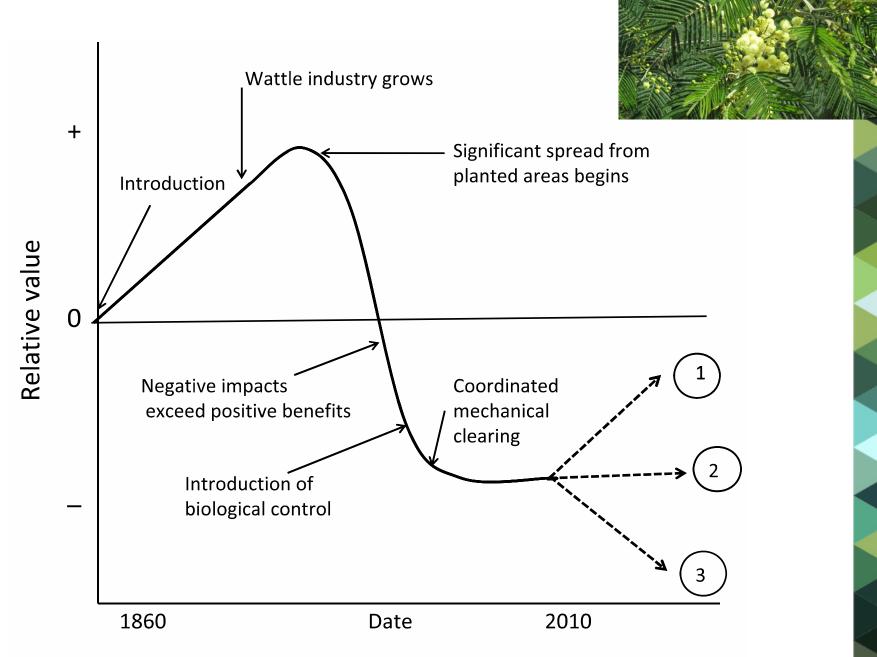
Pukaki today



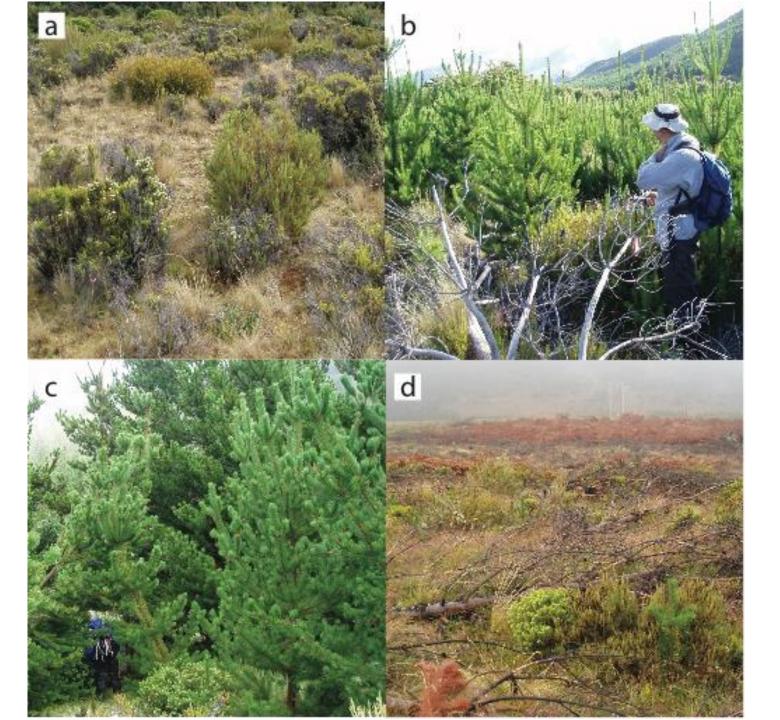
Stage of invasion

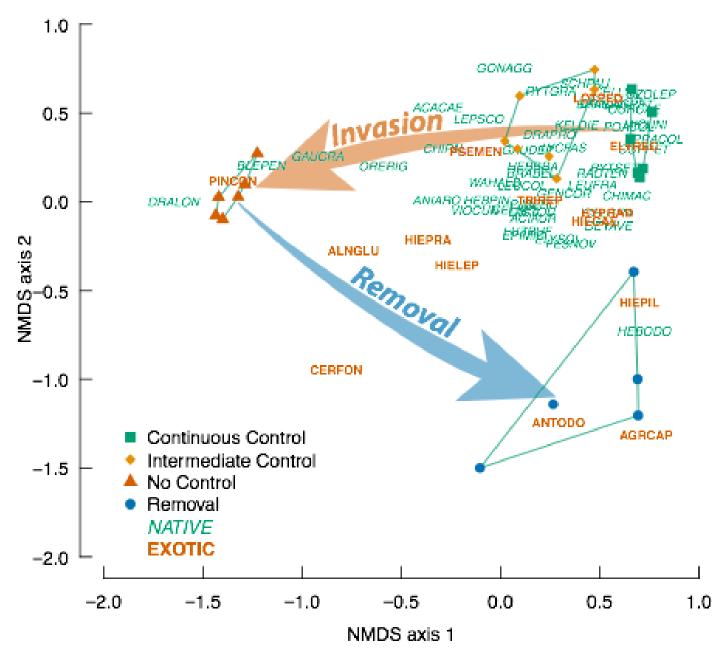


Time (generations)



Van Wilgen et al. 2011 Div. Dist. 17:106

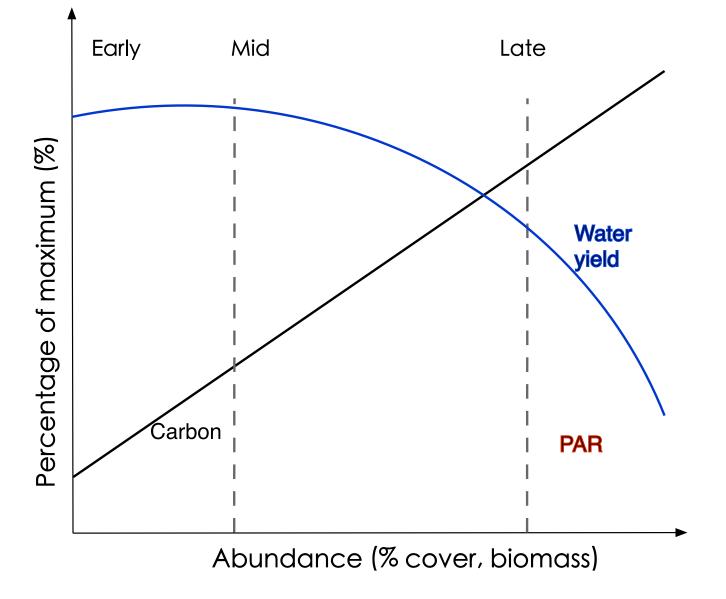


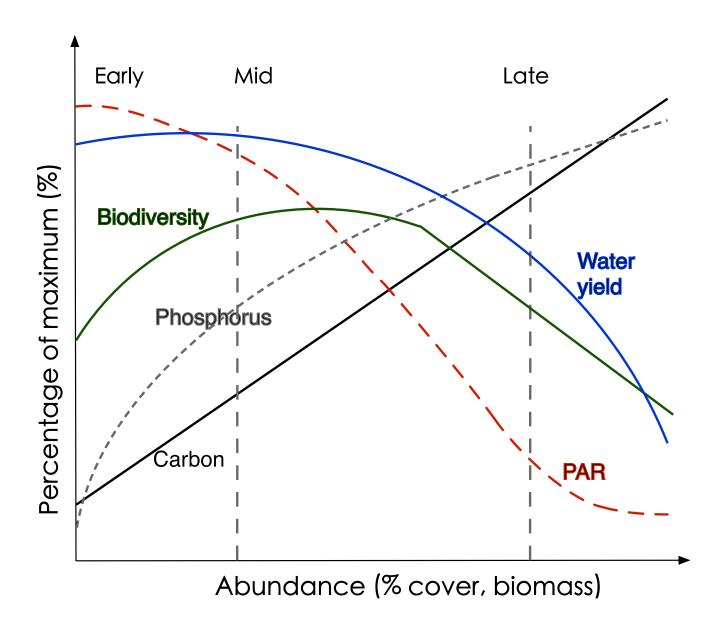


Dickie et al. 2014 AoB Plants 10.1093/aobpla/plu056

Long-term invasions are complex ('wicked') environmental problems













Wilding Pines, Southland

- Richard Reeve

(Dunedin: Otago University Press, 2011)

They may win, you know. The evidence is a Buddhist, hill-patient plotting of the white-haired botanist, pine after pine

stalking sunburnt slopes intent on eradicating these spiky green newcomers, rugged, hyperborean forms.

along the far slope yanked out of the soil, sliced or axed,

thrown bottoms-up among fescue tussock, so that others behind him

won't waste time on leftovers. Another says Sycamore, Douglas fir,

in some Treaty of Tordesillas will divide up the earth.

Which might seem remarkable, yet here is the evidence _ yanked out of the stones, man bound up in his knowing

We contemplate an end, rubbing sap off our fingers

while rain moves up the valley, quietly like a shark,

nuzzling extremities of the mountain-range beyond us

where there is yet something left of the older world.

Impacts of wilding conifers on cultural values

The 2015 challenge

 How to asses the impacts of wilding conifers on non-market values?

Three study sites: around Lakes Tarawera,
Pukaki and Wakatipu

QUEENSTOWN

TARAWERA

TWIZEL

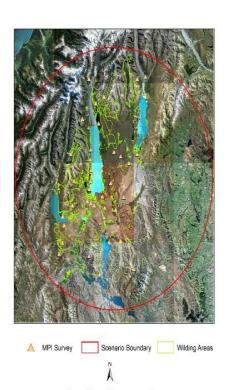












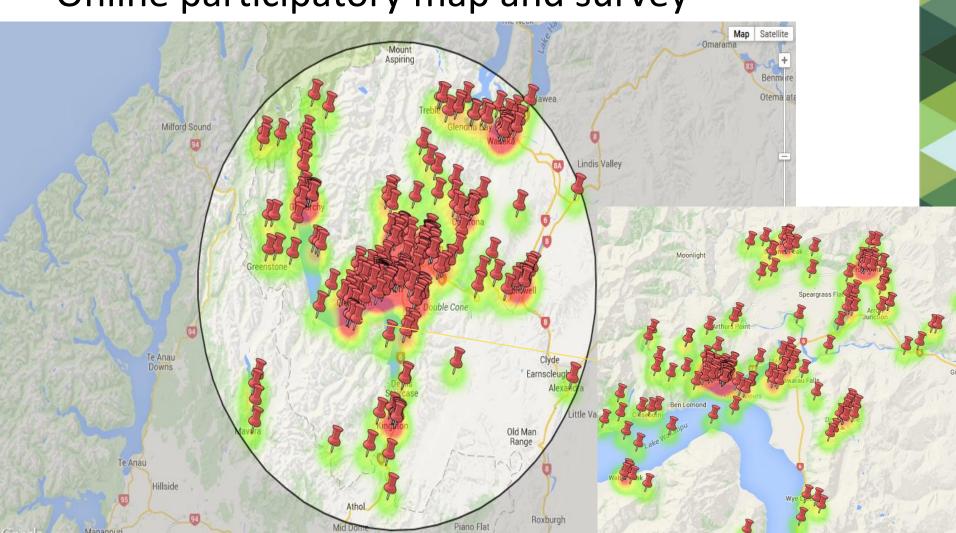
Sites of significance

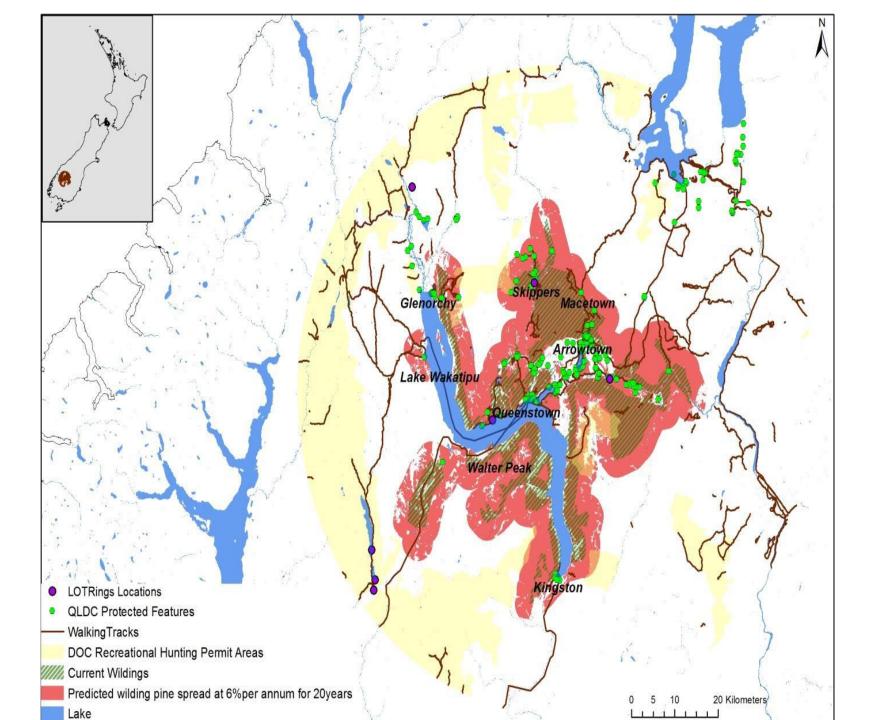
- Online survey
 - •Cultural practices: what do people do to interact with each other and with the environment?
 - •Environmental spaces: where do people interact with each other and with the environment?
 - Cultural ecosystem benefits: why people do what they do, what do they feel, and what benefits do they derive from these interactions?

Environmental	Cultural	Cultural ecosystem benefits		
spaces	practices	Identities	Experiences	Capabilities
Wahi tapu	Mahinga kai	Sense of place	Mauri	Spiritual
Spiritual places	Storytelling	Tūrangawaewae	Vitality	Wairua
Burial sites	Tikanga	Whakapapa	Safety	Prestige
Maunga	Manaakitanga	Genealogy	Tranquillity	Authority
Mountains	Creating	Belonging	Inspiration	Mana
Lakes	Exercising	Attachment	Aesthetics	Ethics
Rivers	Visiting	Rootedness	Escape	Integrity
Streams	Playing	Spirituality	Discovery	Education
Gardens	Gathering and	Sense of self	Memories	Amenity
Parks	consuming	Sense of society		Heritage
Farmland	Producing and			Well-being
Forests	caring			Recreation
Beaches				Knowledge
Seascapes				Health
				Dexterity

Sites of significance

Online participatory map and survey





Interviews

Queenstown



Twizel



Tarawera



Useful stories

- Cultural values are
 - spatially and temporally specific
- Heritage is
 - still highly significant when not visible
 - Romanticisation
 - Shared through oral history
- Wildings are
 - 'Alpine retreat' of Queenstown's Skyline area
 - Twizel –'town of trees'
 - LOTR and Hobbit films



Impacts on cultural values

- Tourism
- Vegetation concern –differences by stakeholders
- Loss in heritage
 - Views
 - Continuation of land use (farming)
 - Uniqueness of landscape
 - Inability to 'read' heritage from the landscape
 - Loss of natural mana through degraded ecosystems
- Benefits
 - Shelter and erosion prevention
 - Aesthetics enhance a barren stark landscape
 - Potential for new industries recreation and tourism; film; biofuels; oils

Ways forward?

Valuable stories, relationships and concepts

 What are the implications for NZ Inc. of changing public-private responsibilities for invasive species?

 How are emerging socio-technological relationships of pest and weed management (i.e. new values, practices and technology) shaping NZ's landscapes?

New MBIE bid

Integrated research is needed to resolve where and when management can maximise desirable landscape transformations whilst minimising costs and negative impacts.

Landcare/Scion/Lincoln U./Collaborators