



Invasive Browser Free Aotearoa Rewild opportunity

Inspiring our community to rewild these places

The Opportunity

Community and hunter support will free Aotearoa of invasive browsers to sustain our native wildlife and plants and our diverse native forest, tussocklands, and alpine flora ecosystems. This will also enhance downstream freshwater and marine ecosystems, immediately reduce flooding, siltation, soil erosion, and timber debris harm to our ecosystems, communities, businesses and infrastructure, while better sustaining river flows during droughts. It will reduce animal and community greenhouse gas emissions and restore the carbon emissions from past vegetation browsing. This will also free us of hosts and vectors of diseases that can seriously affect indigenous ecosystems, people and agriculture wellbeing.

Context

Our indigenous ecosystems have evolved for millennia without mammalian browsers (or predators) being present. Our native plants and trees had co-evolved mainly with birds and insects. Consequently, many plants and trees lack defences against browsing mammals, nor can they exploit mammals to disperse their seeds as do many overseas plants and trees. Native forest canopy dieback has occurred for the key tree species of rata, kamahi and pohutukawa.

Invasive mammalian browsers from around the world have been released into the wild in New Zealand to provide food, fur, skins, sport and amusement. These browsers were naturally controlled in their home environment by the local predators such as wolves.

As these invasive browsers have been introduced without the natural predators from their overseas homes, they now lack these key natural limits on their spread or numbers. Each additional browser species in an area compounds the harm to our native ecosystems. They browse our indigenous ecosystems completely out of balance, also letting in weeds. Recreational hunting can provide some degree of control of numbers, but they cannot be everywhere and do not bring balance to ecosystems.

These invasive browsers host and spread disease in the wild beyond the reach of our National Animal Identification And Tracing system (NAIT) - currently bovine tuberculosis, mycoplasma bovis, giardia, and cryptosporidium - potentially foot and mouth disease, Lyme disease, H1N5 bird flu, and swine flu.

Action to free invasive browsers on New Zealand islands started in the early 1900's. Success has been achieved on well over 50 islands for species ranging from possums to goats, pigs, wallabies, and deer. We have pioneered and developed invasive browser removal expertise here in Aotearoa that is used around the world. We have the opportunity to fully apply that expertise here by initiating and implementing a Zero Invasive Browser research and technology program so that we can defend and free larger islands and areas on the mainland.

Current Management

DOC and MPI struggle to control or contain the invasive browsers of our wild lands - European Chamois, Turkish Fallow Deer, North American Rocky Mountain Elk (Wapiti), European Goats, European Pigs, Manchurian Sika Deer, Javan Rusa Deer, North American White-Tailed Deer, Australian Brushtailed Possum, and Indian Sambar Deer. DOC policy is to contain Himalayan Tahr. Planned eradication is presently underway by MPI and councils for two species of Australian Wallaby. DOC has freed European Goats from Taranaki Maunga and is planning to free European Pigs from the 46,000 hectares Auckland Islands. The community has freed feral European Goats from Banks Peninsula and is planning to also free European Pigs and Australian Brushtail Possums. Chatham Islands plan to free feral European Goats. Northland Region plans to free 3 species of deer. The community plans to free Australian Brushtail Possums from Taranaki Maunga, Auckland, South Westland, Aoraki/Mt Cook and Rakiura/Stewart Island. Predator Free NZ and MPI aspire to nationally free Australian Brushtail Possums as they are also predators of our native wildlife and their food and carry disease.

Future

We have the opportunity to progressively free our offshore islands and significant areas of the mainland from invasive browsers. This will progressively improve indigenous species and ecosystems, flood and drought adverse impacts, improve primary production economics, secure sequestered carbon and better protect all from the effects of our changing weather. Nature and everyone in our community will benefit in many ways.

Key Benefits

Our rewilded indigenous biodiversity is progressively freed from invasive browsers to better sustain itself. Our invasive browser free offshore islands are secured to sustain their unique defensible biodiversity. Cessation of damage to people, business, infrastructure, and freshwater/marine ecosystems from flooding, drought flows, siltation and debris, and damage to farm fences and pasture and grass quantity. People and agriculture are protected from the diseases that these invasive browsers host and spread, currently and potentially. Ready employment throughout the regions, growing a global centre of expertise.

Initial Invasive Browser Freeing Opportunity Locations and Populations

Location Initial Freeing - Offshore Islands that are defensible	
Rakiura/Stewart Island	Australian Brushtail Possum, North American White Tail Deer, European Red Deer
Aotea/Great Barrier Island	European Pig
Chatham/Pitt Islands	Australian Brushtail Possum, European Pig
Auckland Island	European Pig
Location Initial Freeing - Mainland locations that are defensible	
Banks Peninsula	European Goat, Turkish Fallow Deer, European Red Deer, European Pig, Australian Brushtail Possum
Catlins	European Goat, European Red Deer, European Pig
Taranaki Maunga	European Red Deer.
Northland	European Goat, Turkish Fallow Deer, Manchurian Sika Deer, European Red Deer, European Pig
Marlborough Sounds	European Goat, Turkish Fallow Deer, European Red Deer, European Pig, Australian Brushtail Possum
Population Initial Freeing	
All species	Contain, control, research, experiment, monitor.
Australian Brushtail Possum	Outliers - Rakiura/Stewart Island, Chatham/Pitt Islands
Indian Sambar Deer	Containment from Public Conservation Land. Outliers - Hikurangi, Opotiki.
North American Rocky Mountain Elk (Wapiti)	Containment - from further spread into Fiordland National Park. Outliers - Ahaura.
European Red Deer	Outliers - Rakiura/Stewart Island, Northland, Banks Peninsula, Catlins, Taranaki Maunga
European Chamois	Containment - from further spread. Outliers - Richmond Range Forest Park, Paparoa National Park.
Canadian Moose	Free
European Goat	Outliers - Northland, Banks Peninsula, Catlins, Aorangi's, Northland. Erosion prone catchments - Tairāwhiti, water supply catchments.
Manchurian Sika Deer	Containment - from further spread - Ruahines. Freeing Ngaruroro catchment. Outliers - Hikurangi, Tararua etc.
European Pig	Outliers - Chatham/Pitt Islands, Northland, Banks Peninsula, Aotea/Great Barrier Island, Catlins, Kauri forests.
North American White-tailed Deer	Outliers - Rakiura/Stewart Island.
Javan Rusa Deer	Containment - from further spread into Te Urewera and beyond. Outliers - Hikurangi, Maunganui-tea-o, Waitomo.
Himalayan Tahr	Containment - By Arthurs Pass National Park southern boundary, Fiordland National Park northern boundary. Outliers - Thomson Mountains, Waitaki area.
Turkish Fallow Deer	Outliers - Within Public Conservation Land
Australian Wallabies	Containment and range reduction
Location Initial Freeing - High value areas	
Catchments that have significant downstream flooding risks. Ngaruroro, Hutt, Waimakariri.	All species
Kauri forests at risk of kauri dieback disease	All species

Further reading

Predator Free NZ *"Making NZ predator free by 2050 will allow our native wildlife to flourish once more."* <https://predatorfreenz.org/>

DOC *"Animal pests and threats have a major detrimental effect on our environment."*

<https://www.doc.govt.nz/nature/pests-and-threats/animal-pests-and-threats/>

NZ Conservation Authority Advice on Control Plans for Deer, Goats and Pigs *"Mammalian herbivores significantly impact forest health in all regions of Aotearoa New Zealand."*

<https://www.doc.govt.nz/about-us/statutory-and-advisory-bodies/nz-conservation-authority/advice-to-the-minister-and-or-director-general/advice-in-control-plans-for-deer-goats-and-pigs/>

Environmental Defence Society AN OPPORTUNITY FOR TRANSFORMATIONAL CHANGE OF AOTEAROA NEW ZEALAND'S BIODIVERSITY LAW *"Introduced animals have been allowed to persist, to the detriment of indigenous, and sometimes threatened, flora and fauna"* <https://eds.org.nz/wp-content/uploads/2023/07/Wildlife-Act-Report-Appendix-C-Introduced.pdf>

Invasive Alien Species Assessment identifies that *"Invasive alien species are a major threat to nature, nature's contributions to people, and good quality of life"*

<https://www.ipbes.net/IASmediarelease>

How to fix the Raukūmara <https://www.nzgeo.com/stories/how-to-fix-the-raukumara/>

Hunting of sika deer over six decades does not restore forest regeneration. *"If sport hunting continues to be used to control sika deer in Kaweka F.P., ongoing failure of canopy replacement should be expected."* <https://besjournals.onlinelibrary.wiley.com/doi/epdf/10.1111/1365->

Defensible Invasive Browser Freeing Opportunity Locations



Rewilding: to create and protect healthy indigenous ecosystem processes and functions that can sustain themselves, our society, and our economy.

