Wild animals, costing us 'deerly'

the impact of wild deer, pigs and goats (and tahr and wallabies) on native ecosystems, why this is a problem and what is being done - or not - to tackle this issue.



Nicky Snoyink Regional Conservation Manager Forest & Bird Canterbury/West Coast



Tonight's talk

- Feral deer, pigs, goats, or "ungulates"
- Distribution maps
- How a forest collapses
- · Te Mana o te Taiao
- Research
- F&B Advocacy
- Government Response
- · A slick campaign?
- What to do?
- Update

Weasel

Stoat



RED DEER - KEY CLUES

Hedgehog

Distinctive features: Large, red-brown or grey-brown in colour. Round, erect antlers (males only). Short tail, red-brown in colour.

Ferret

Feral Cat

Size: The average weight for male red deer was 103kg, and females 75kg. The average length of a male (nose to tail) is 1.9m, while for females it is 1.8m. Shoulder height is about 0.95m to 1.30m.

Droppings: Round looking, but often more pointed at one end. Occur in large groups of around 100 with the groups often spread over a large area (50×60 m).

Footprints: Two pointed toes, rounded heels.

Kill signs: Not applicable (herbivore).

Vegetation damage: Males rub bark off trees with their antlers. They browse the understorey.

Eye shine: White-silver.

Distribution: North Island, South Island, Stewart Island and some offshore islands. Found in forest and high country habitats.

Map source: Department of Conservation, Biodiversity Data Inventory (BDI), 2014.

Find out more about red deer, e.g. what signs to look for:

Feral Pig Mouse Kiore Norway Rat Ship Rat Rabbit Hare Feral Goat Fallow Deer Red Deer Possum + 命 Wellington NEW ZEALAND Christchurch https://deptconservation.maps.arcgis.com/

Stoat

Weasel



FERAL GOAT - KEY CLUES

Ferret

Feral Cat

Hedgehog

Distinctive features: A sheep-sized animal with short hair, pointed horns and a beard. Colour can be white, black, brown or a combination of these.

Size: Males average 39 kg, while females average 30 kg. Males are about 680 mm tall with a body length of 1.3 m. Females are about 620mm tall with a body length of 1.2 m.

Droppings: Found singly or in groups, pellets are as large as 20×8 mm with an elongated, oval outline.

Footprints: Cleaved hooves with pointed, slightly in-curved tips.

Kill signs: Not applicable (herbivore).

Vegetation damage: Browsers, with short-term impacts on forest understorey and longer-term impacts on forest regeneration.

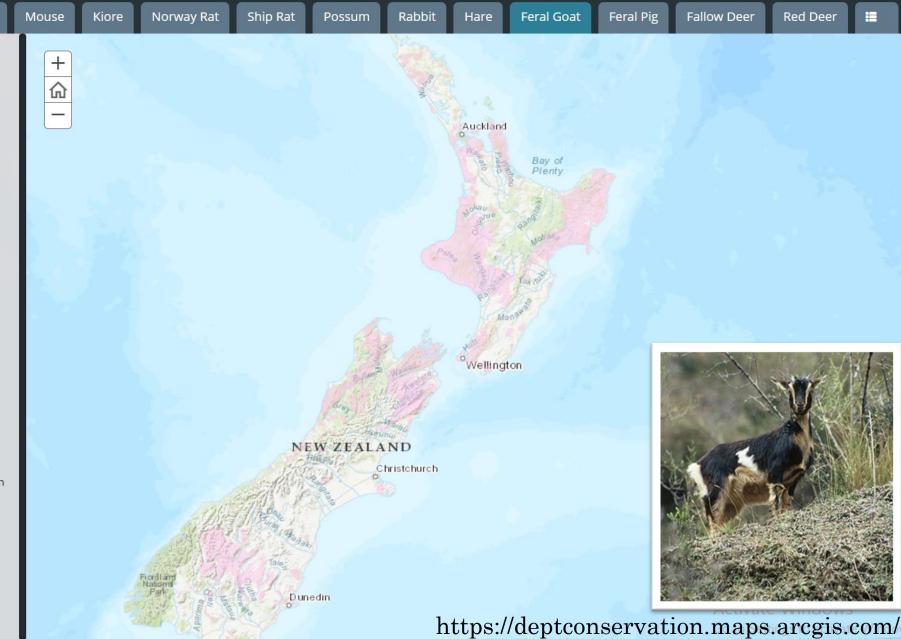
Eye shine: Greenish blue.

Distribution: Feral goats are widespread, though patchily distributed, across both North Island and South Island and occur on four offshore islands.

Map source: Department of Conservation, Biodiversity Data Inventory (BDI), 2007.

Find out more about feral goat, e.g. what signs to look for:

Pest Detective



Stoat

Weasel



Esri, HERE, Garmin, FAO, NOAA, USGS

FERAL PIG - KEY CLUES

Hedgehog

Feral Cat

Distinctive features: Smaller and more muscular than domestic pigs, and they have a longer snout that is flattened at the end. Their forequarters are larger than their hindquarters. The tail is straight with a bushy tip (rather than curly like a domestic pig). Their back is also narrower than that of a domestic pig ('razorback').

Ferret

Size: Males (boars) weigh 45-205 kg; females (sows) weigh 32-114 kg. Boar body length ranges between 1100mm and 2280mm, and their height ranges between 550mm and 960mm. Sow body length ranges between 1140mm and 1500mm, and their height ranges between 430mm and 600mm.

Droppings: Dark flattened, oval pellets, joined together in a cylinder shape.

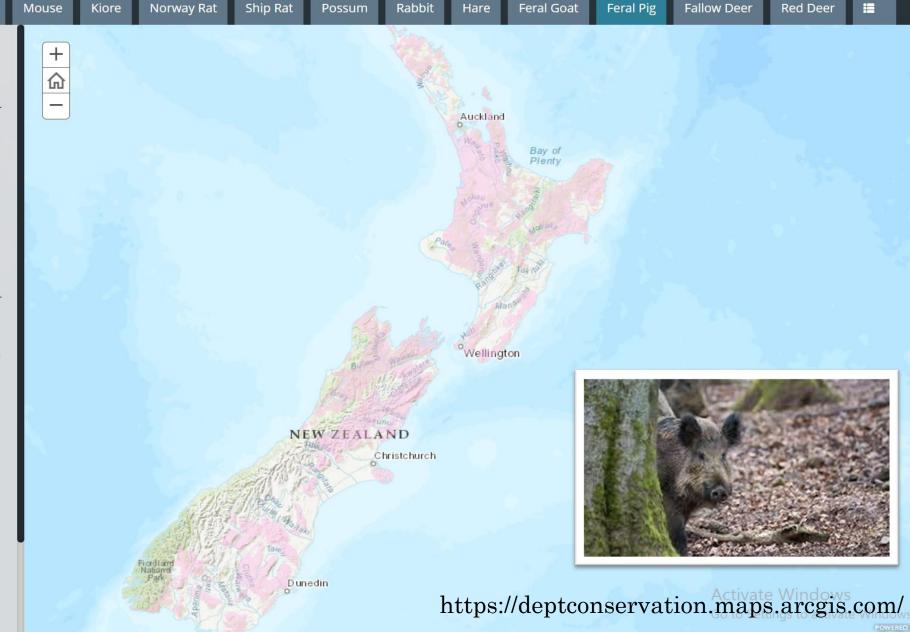
Footprints: Rounded, cloven hoof prints. Marks from the dew claws may show behind and to the side of the main digits.

Kill signs: Crushed shells of large land snails (*Powelliphanta* spp.), bird skins turned inside out, lambs turned inside out with skins attached to hocks.

Vegetation damage: Rooted up pasture, bracken, or forest floor. Tussock, fern, or sedge turned over.

Eye shine: Hardly any.

Distribution: Widespread in both North Island and South Island, and currently occur on 13 offshore islands. They were eradicated from Stewart Island by 1965.



Stoat



HIMALAYAN TAHR - KEY CLUES

Feral Cat

Hedgehog

Distinctive features: Goat-like. Brown/black/red winter coat; straw-coloured summer coat. Males have a black face and distinctive shaggy mane. Females significantly smaller with a lighter face. Distinctive short horns on both sexes flattened sideways and curving sharply backwards.

Ferret

Size: Male weight about 73 kg, females about 35 kg. Male body length up to 1.7 m, females up to 1.3 m.

Droppings: 15×7 mm, dark brown, cylindrical in shape, no indents. Most likely species to leave large piles in alpine areas.

Footprints: Cloven (split) hoofed imprints, almost square shaped, about 45×35 mm in adults.

Kill signs: Not applicable (herbivore).

Vegetation damage: Alpine and subalpine vegetation browse and vegetation trampling.

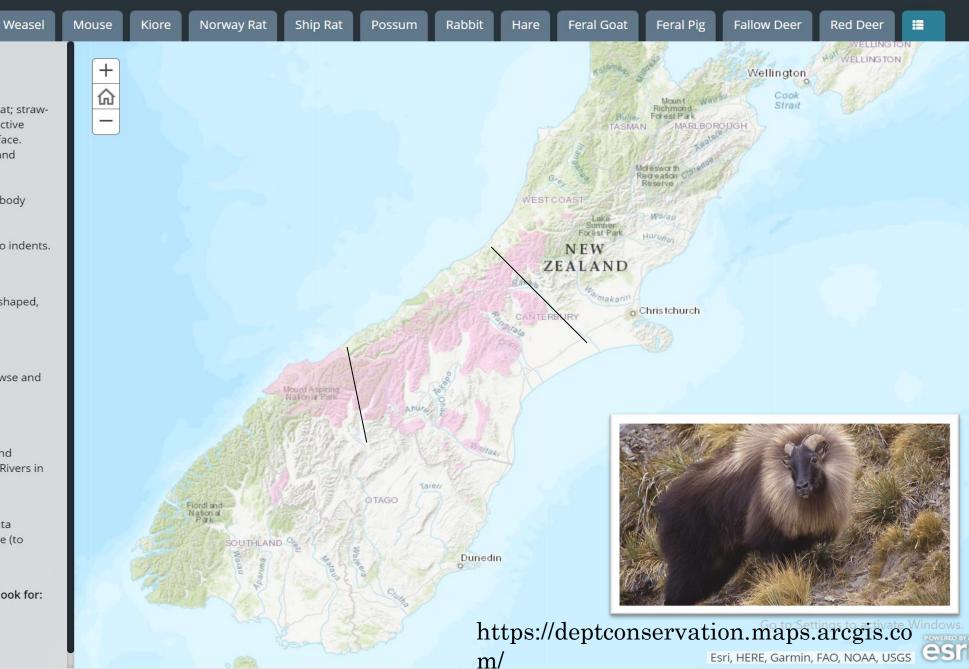
Eye shine: White/green.

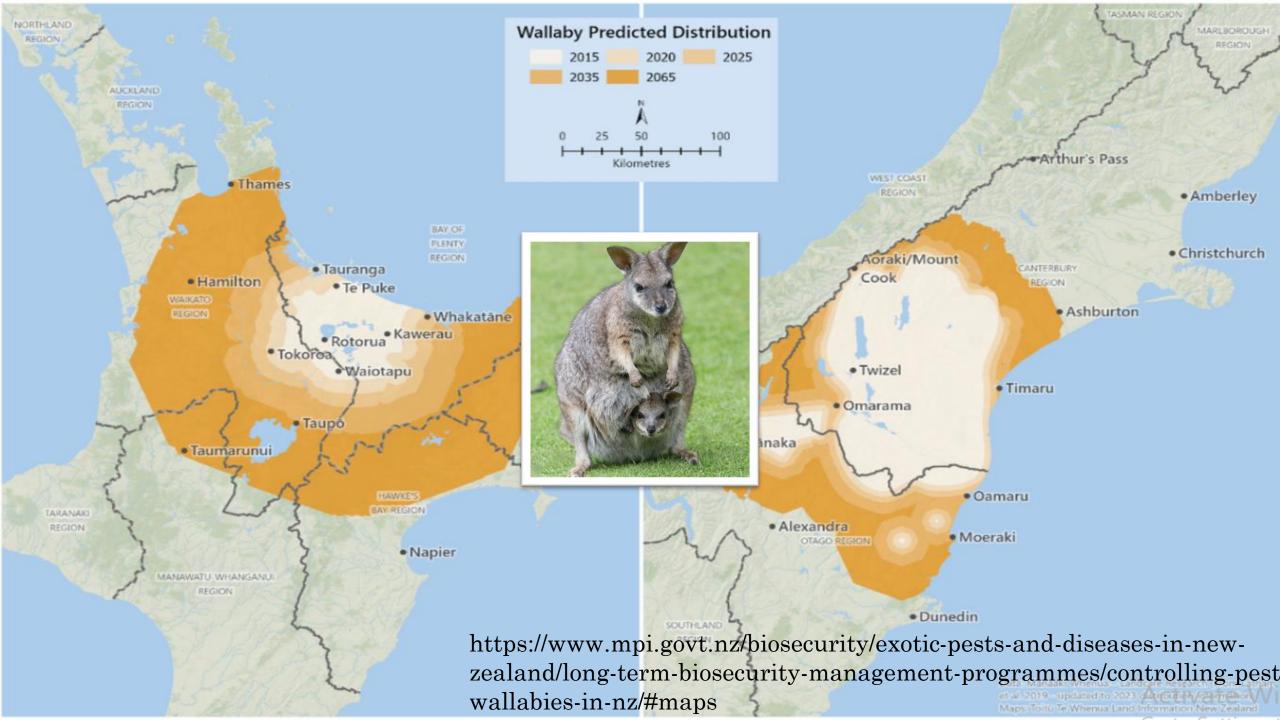
Distribution: Southern Alps, largely between the Rakaia and Whitcombe Rivers in the north and the Hunter and Haast Rivers in the south, with some outlying populations.

Map source: Department of Conservation, Biodiversity Data Inventory (BDI), 2014, and National Monitoring Programme (to 2014).

Find out more about himalayan tahr, e.g. what signs to look for:

Pest Detective





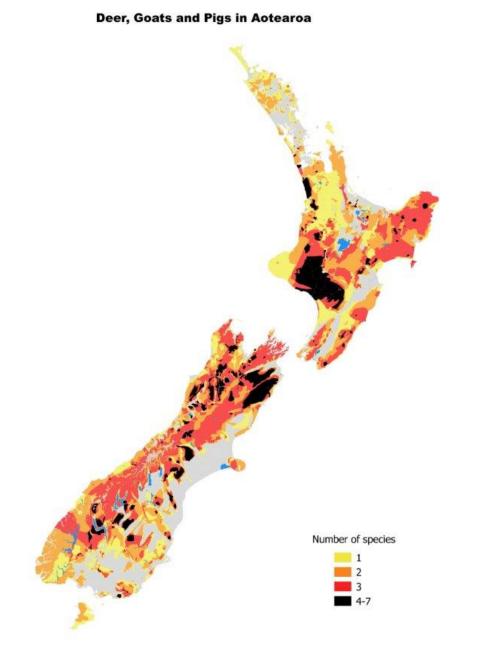
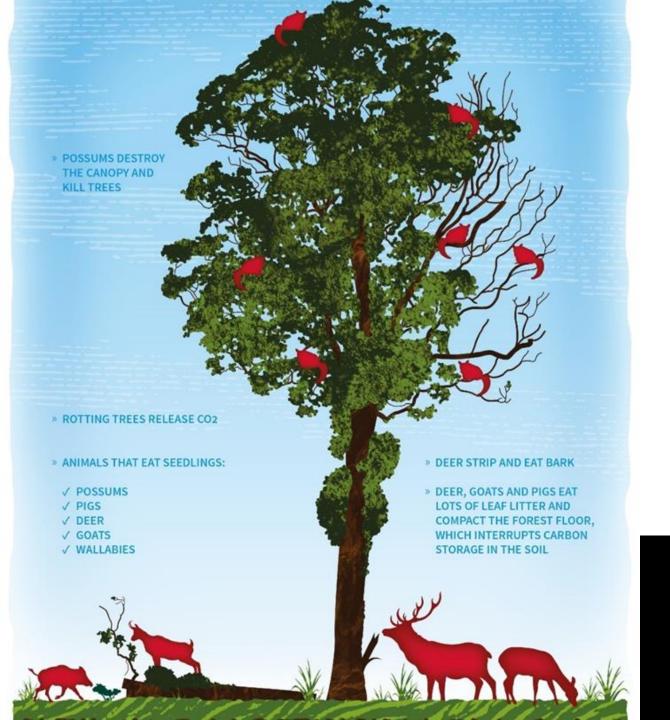


Image: Forest & Bird



How a forest collapses















Te Mana o te Taiao

Aotearoa NZ Biodiversity Strategy

International obligation – Convention on Biological Diversity

AIM: Te Mauri Hikahika o te Taiao – the life force of nature is vibrant and vigorous.

2025, 2030 and 2050 goals

- 11:Biological threats and pressures are reduced through management
- 13: Biodiversity provides nature-based solutions to climate change and is resilient to its effects

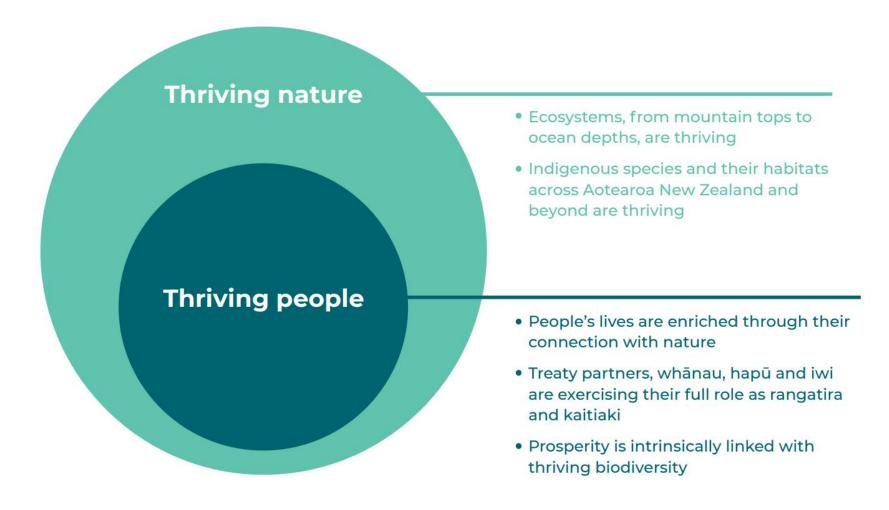


Figure 6.2050 outcomes: thriving nature and thriving people.

https://www.doc.govt.nz/globalassets/documents/conservation/biodiversity/anzbs-2020.pdf

Ecosystems and species across Aotearoa are thriving from mountains to sea

Performance indicator

Maintain ecosystem composition – Terrestrial^{16, 18, 19}

State and trend assessments

2019/20 2021/22¹⁶

n/a



Shifting the state and trajectory of this indicator is possible, as has been shown at individual managed sites. However, pressures need to be reduced at nationally significant scales, especially given increasing pressures from the changing climate. For vegetation, evidence shows some forest tree species are in decline, and there are compositional shifts attributed to browsing mammals, which have been increasing. Present-day bird communities have been shaped by historic patterns of habitat loss (eg, lowland forest and wetlands) and non-native predators and browsers.

DOC Tier 1

- Increasing populations
- Expanding range
- 20% increase in range across PCL in 10 years

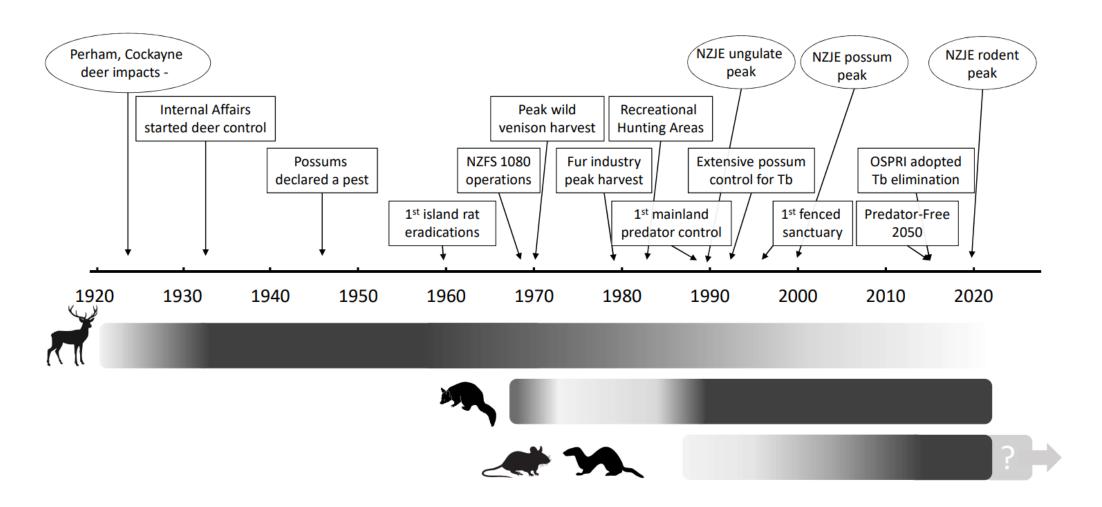


Source: https://www.doc.govt.nz/our-work/monitoring-reporting/national-status-and-trend-reports-2022-2023/ungulates-2022-2023/

Research

Leathwick, J. and Byrom, A. (2023). The rise and rise of predator control: a panacea, or a distraction from conservation goals? NZEJ

"Predators are now a major focus and wild ungulates are left largely uncontrolled, despite increasing populations and evidence for their negative impacts on a wide range of indigenous species and ecosystems."



Leathwick, J. and Byrom, A. (2023). Temporal changes of ungulate/pest management

Hawcroft, A. L., Bellingham, P. J., Jo, I., Richardson, S. J., & Wright, E. F. (2024). Are populations of trees threatened by non-native herbivorous mammals more secure in New Zealand's national parks? *Biological Conservation*, 295, 110637.

"At current levels of abundance, non-native herbivorous mammals are driving significant compositional shifts in tree populations of both NPs and NNPs. Long-term (decadal) suppression of their abundance is needed to preserve the ecological integrity of NZ's protected forests."

Our findings reinforce research suggesting impact thresholds for effects of ungulates on palatable species are low, showing evidence of ungulate impact across all NZ's protected forests, including those with high legal protection

Conservation of NZ's protected forests requires management to reduce populations of non-native herbivorous mammals to very low levels.

Cruz J., Thomson C., Parkes J.P., Gruner I., Forsyth D.M. (2017). Long-term impacts of an introduced ungulate in native grasslands: Himalayan tahr (Hemitragus jemlahicus) in New Zealand's Southern Alps. Biological Invasions 19, 339–349 doi:10.1007/s10530-016-1283-2

"to achieve overall recovery of montane grasslands (including highly sensitive, palatable species), managers need to control tahr to very low activity levels (or exclude them completely)."



2021 Briefing "Improving Pest Control" for Ministers and agencies

Budget 2022 \$30m over 4 years for DOC:

Implementing biodiversity Strategy: Ramping up deer management and goat control

Policy Initiative	Year of First Impact	2021/22 Final Budgeted \$000	2022/23 Budget \$000	2023/24 Estimated \$000	2024/25 Estimated \$000	2025/26 Estimated \$000
Implementing the Aotearoa New Zealand Biodiversity Strategy 2020: collective delivery of the Predator Free 2050 Strategy	2022/23	-	2,970	8,435	25,080	25,080
Cost of continuing operations - CPI pressures	2022/23	_	2,871	5,295	7,756	7,756
Implementing the Aotearoa New Zealand Biodiversity Strategy: ramping up deer management and goat control	2022/23	-	5,270	9,330	7,470	7,930









Government Response

- Election 2023 Issue politicised
- Minister of Hunting & Fishing (delegated authority from MOC, funded by DOC)
- DOC Wild Animal Team answerable to MOHF
- Wild Animal coordination group
- Agree: Too many introduced wild animals
- **Don't agree:** on the <u>level of control or priority</u> <u>areas for control</u>
- Defending status quo = Forest Collapse
- Barrier: Regulatory capture

REGULATORY CAPTURE

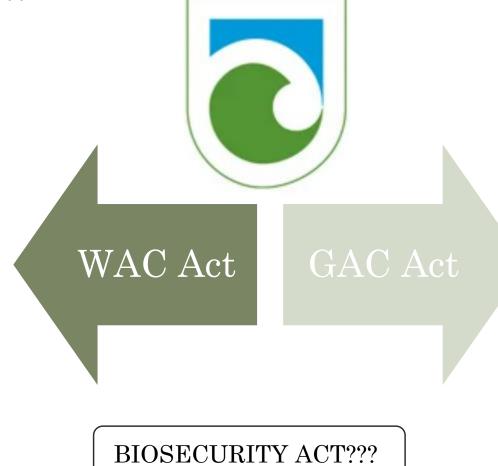
The regulatory agency is dominated by interests they are meant to regulate

The agency acts in ways that benefit the interests it should be regulating and not the interest of the public

Here's why....

Wild Animal Control Act 1977

- All land
- concerted action against the damaging effects of wild animals
- coordinate hunting
- regulate rec hunting, commercial hunting



Game Animal Council Act 2013

- Game Animal Council
- advise Minister
- educate hunting sector
- PCL
- herds of special interest
- hunter led management

REGULATORY FRAMEWORK UNCLEAR



A slick campaign?

Lobbying

- Minister of Hunting & Fishing
- Positions of power e.g. NZ Cons Authority
- o Dominate advisory groups
- o Parliamentary hunt
- o Social media
- NZDA seat on NZCA ACT private member's bill (not drawn)

Subtle shift in language over time

- o wild animal control is game management
- noxious pest-wild animal-game animal-valued introduced species.
- o Mischievous use of the word 'balance'
- o blurring of native vs. non-native species

Building social license

- Wild meat donations to foodbanks
- Predator trapping projects

So, where's the \$30m going...

First year spend \$5.270M 2022/23

- enhancing WAM operational capabilities
- funding for Game Animal Council
- Process for Herds of Special Interest (HOSI)
- · the Sika Show
- more monitoring to increase understanding
- increased goat control (goat hunting comp)
- Priorities?



Proportion of New Zealand indigenous species found nowhere else on Earth



84%

OF VASCULAR PLANTS
(LAND AND FRESHWATER)

81%
OF INSECTS
(LAND AND FRESHWATER)







Figure 2.

Note: These data do not include extinct, exotic or non-resident native (Coloniser, Migrant or Vagrant) species. *Source*: Biodiversity in Aotearoa.⁴

What to do?

Reclaim the language

Report wild animal damage

Write to MPs, the PM, DOC leaders, the Minister for Hunting & Fishing James Meager

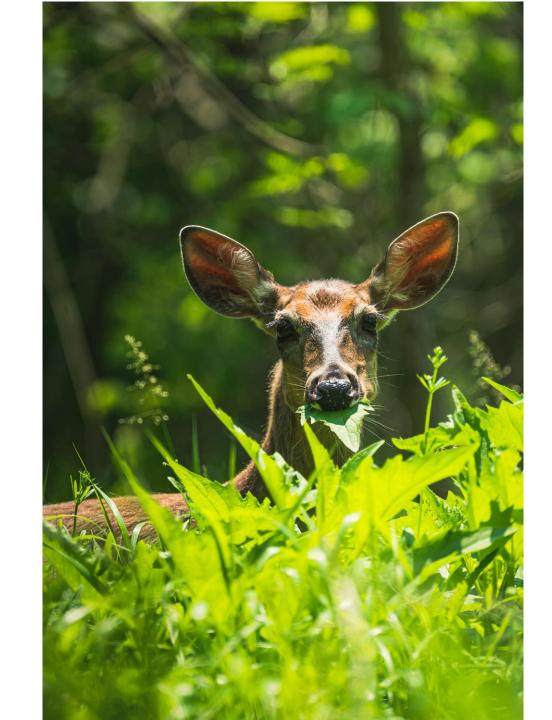
E: James.MeagerMP@parliament.govt.nz

Want Nationally coordinated plan & funding – like <u>Australia</u>

Modernizing conservation land management consultation

 Retain important checks & balances in Conservation management system

Current approach to wild animal control is costing our native ecosystems dearly



Update since talk

On 4 April 2025 Minister for Hunting & Fishing James Meager announced the process to consider establishing a sika deer herd of special interest

SEE press release:

https://www.beehive.govt.nz/release/process-consider-establishing-sika-deer-herd-special-interest-begins

Public consultation process timeframe to be confirmed – likely second half of 2025 4 APRIL 2025

Process to consider establishing a sika deer Herd of Special Interest begins



Hunting and Fishing





Images: Craig Mackenzie

Pātai

Questions