

#### Wild Animals Management Programme report summary: Managing introduced wild animals

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Cover photo: Managing numbers of wild goats can help reduce damage to native plants and habitats and increase forest health and resilience in dealing with climate change.

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### Introduction

#### Managing introduced wild animals

Introduced wild goats, deer, pigs, tahr and chamois damage Aotearoa New Zealand's native plants and habitats by browsing on vegetation and trampling soils. In some places, they threaten how ecosystems function.

These animals can:

- change the types and numbers of plants
- change soil qualities
- prevent forests from regenerating.

By managing introduced browsing animals, we can protect native species and improve the health and resilience of forests, especially in the face of climate change. Our goal, as part of the Aotearoa New Zealand Biodiversity Strategy, is to remove these animals from high-priority areas and threatened ecosystems. We also aim to manage their numbers elsewhere to maintain functioning ecosystems and preserve cultural and recreational values.

Sites are nationally prioritised for inclusion in the programme, based on factors including:

- the conservation value of a site for example, the amount and types of native plants
- vegetation impacts
- other threats and pressures at a site for example, the presence of possums or the risk of wild animals reinvading from neighbouring land
- the feasibility of carrying out operations for example, what the terrain is like, and how much an operation might cost
- community values and other conservation activities happening at site.

We work with others to manage introduced browsers and protect native plants and habitats. The Department of Conservation Te Papa Atawhai (DOC) can't do it alone as these animals are widespread and breed quickly. Te Ara Ki Mua is a framework designed to guide collective effort. A big thank you to our iwi and hapū partners, hunting and conservation organisations, people working in farming and agriculture, and our contractors for helping achieve this work and protecting Aotearoa New Zealand's native plants and wildlife.

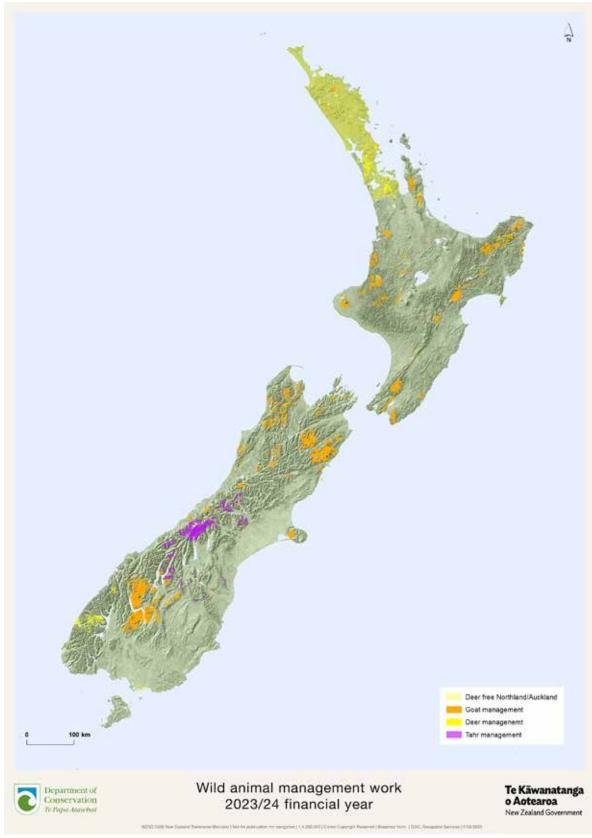
#### Our 2023/24 work programme

In recent years, we've ramped up our efforts, particularly for wild goat control. In 2023/24, we focused on maintaining the progress made in 2022/23. Preventing the spread of introduced browsers across the country is challenging. Therefore, an operational priority is stopping them from establishing in key conservation areas and national parks.

We finished the year having delivered roughly 1.3 million hectares of wild goat control and deer management, and over 300 hours of aerial tahr control, including some equivalent control effort delivered through ground-based operations (see map on page 4).

## Sites we're managing

### Managing introduced wild animals





### **Operations completed in 2023/24**

We managed around 1.25 million hectares for wild goats and around 141,551 for wild deer. We also conducted wild goat surveillance and assessed the feasibility of removing goat populations in some areas like Westland Tai Poutini National Park.

Preventing the spread of introduced browsers across the country is a priority. To address this, we targeted key conservation areas and national parks, including the Russell Forest, Coromandel and Kaweka Forest Parks, and Tongariro, Kahurangi, Nelson Lakes and Mount Aspiring National Parks.

Read on for some key operational highlights.

<sup>1</sup> Includes performance achieved through the additional Budget 2022 appropriation.

#### **Western South Island**

The West Coast Region has about 1.9 million hectares of public conservation land, which is around 25% of DOC-managed land. Wild goats now occupy over 30% of this area (around 600,000 hectares)<sup>2</sup> and continue to spread. Before the Budget 2022 funding boost, reducing wild goat numbers was challenging because goat herds can double every 21 months.<sup>3</sup> The nearly tripled funding has allowed the Western South Island (WSI) region to plan more effective work, which may reduce the goat population over time.

WSI completed around 142,000 hectares of control, which included:

- 7,642 hours of ground control, removing 2,234 wild goats
- 66 hours of aerial control, removing 1,327 wild goats.

Control efforts covered Paparoa, Nelson Lakes, Westland Tai Poutini and Kahurangi National Parks. The addition of an in-house hunting team with trained dogs, along with hunter track networks and facilities, significantly enhanced WSI's control efforts and supported work in other regions.



Trained dog in the Western South Island hunting team bailing a wild goat. *Photo: Zac Beardmore, DOC* 



Wild goats
now occupy over
30%
of the Western
South Island

<sup>2</sup> Distribution of feral goats in New Zealand 2014, DOC open spatial data.

<sup>3</sup> Feral goat control in New Zealand - ScienceDirect.





#### **Tahr Control Operational Plan 2023/24**

We completed over 300 hours of aerial tahr control, including some equivalent control effort delivered through ground-based operations. This was made up of approximately:

- 130 hours inside the defined tahr feral range
- 190 hours outside the feral range.

This work continued our focus on containing tahr within their feral range to protect Aotearoa New Zealand's unique alpine ecosystems. Inside the feral range, we focused on reducing tahr numbers within Westland Tai Poutini and Aoraki Mount Cook National Parks.



This year, we also published a <u>tahr population</u> estimate report and <u>factsheet</u> on our website. Tahr populations still exceed the limits set by the <u>Himalayan Thar (tahr) Control Plan 1993</u>, but survey and control data suggest numbers are decreasing, especially in areas with the most control effort. Continued hunting pressure from DOC, and commercial and recreational hunters is needed.

We used this information to develop the 2024/25 Tahr Control Operational Plan, integrating these different types of effort across the landscape to achieve conservation outcomes, including hunter contributions. The plan was developed over six months with stakeholder consultation through the Tahr Plan Implementation Liaison Group from December 2023 to April 2024. This included two meetings and two rounds of written submissions. The plan was published on the DOC website in early June 2024.

In line with the Himalayan Thar (tahr) Control Plan 1993, we report the tahr programme's work in detail in an annual report to the New Zealand Conservation Authority.

DOC staff and contractors reviewing a tahr operation, which was conducted in a steep, wet and thickly vegetated location outside their feral range. *Photo: DOC* 

### Systems we're improving

# Wild Animals Management Programme

## Coordination across public and private land

Wild deer, goats, pigs, chamois and tahr move across both public and private land. To improve management efforts nationwide DOC is leading a National Coordination Group. This group's work aligns with the Aotearoa New Zealand Biodiversity Strategy and includes members from Māori, conservation, hunting, research, government, primary industry and research organisations.

The group is focusing on:

- supporting iwi kaimahi, contractors, landowners and others in managing introduced browsers
- ensuring the system is fit for purpose and compliant with relevant legislation, including Treaty settlements
- building plans that consider diverse sector interests, Crown obligations and tangata whenua aspirations
- prioritising where to work
- · improving hunter accessibility
- using national data to show progress
- identifying research needs for innovative solutions.

#### Wild meat recovery

Recovering meat from wild introduced browsers like deer has challenges like cost and food safety. Simplifying this process could benefit hunters, communities and the wild animal recovery industry.

We are working with the Ministry for Primary Industries to explore options for refining regulations to enable more animal recovery and utilisation.

We also trialled working with the aerial venison recovery industry in Fiordland National Park to manage deer and reduce pressure on native plants. This trial aimed to see if incentivising venison processing companies to remove deer from high-priority conservation areas is cost-effective and beneficial. We are analysing the data, and the report will be ready in the 2024/25 financial year.

#### Safe Aerial Hunting System

We introduced a new Safe Aerial Hunting System for all DOC's aerial hunting operations. The system aims to make operations more efficient and improve our already high safety standards. All aerial hunters have completed rigorous practical and theory-based training, and we are updating the Standard Operating Procedures.



### Sites we're monitoring

#### **National context**

DOC's National Monitoring and Reporting
System provides high-quality evidence for
targeted and effective protection of public
conservation land and its taonga native plants
and wildlife. With over 10 years of data,
we can confidently evaluate and describe
national-scale changes. We measure 20 x 20
plots of vegetation and count faecal pellets
(droppings) of deer, goats, sheep, tahr and
chamois to help monitor trends in numbers of
introduced browsers and vegetation.

Introduced browsing animals like deer and goats are becoming more widespread and abundant. Recent reports show these animals are contributing to a decline in common tree species and changing the make-up of forests, threatening the habitats where many of our native species live.

### Specific sites

Currently, we rely on broadscale national monitoring. To track changes in the specific places and species we manage, we need more detailed monitoring. This will help us measure and report on changes at the sites we aim to protect.

We are developing a more detailed monitoring programme. This year we refined some tools and piloted them in the field. We also completed the first stage of creating an electronic data capture system for two key monitoring methods. Moving to electronic data capture will allow for precise data collection and faster processing, as data is currently recorded by hand and later typed up by office staff. We're now ready for stage 2, which will integrate this system with DOC's existing systems.



Deer and goats have a high preference for makomako/wineberry. Tier 1 monitoring shows it has one of the highest rates of population decline nationally. *Photo: Kiri Pullen* 

#### **Kaimanawa and Ruahine Forest Parks**

We improved the methods for the Faecal Pellet Index (dropping counts) and Seedling Ratio Index (presence of plants in the forest understory) monitoring. We included training and audit steps to ensure high-quality work. These methods were tested in field pilots in the Kaimanawa and Ruahine Forest Parks.

We shared these tools with the Bay of Plenty Regional Council, Raukūmara Pae Maunga, Gisborne District Council, Forest and Bird Otago and the Sika Foundation for their monitoring efforts. The updated SRI method will soon be published in the monitoring toolbox, along with a new standard for using camera traps to monitor deer and goat numbers. These are important resources for the sector.



## Kaitake Range on Taranaki Mounga and Taramoukou Conservation Area

We know that targeted control of wild goat numbers makes a difference to the health of native plants and forests.

This year, the DOC monitoring team completed an analysis of the difference in vegetation between two similar sites with different levels of goat control – the Kaitake Range on Taranaki Mounga and Taramoukou Conservation Area.

Taranaki has had a long-running and successful goat management programme and is now goat free. Full eradication of wild goats was achieved in 2022 after an intensive and targeted goat hunting strategy by the <a href="Taranaki Mounga Project">Taranaki Mounga Project</a>, DOC and the community. The sustained control of possums, rats and stoats also made a huge difference for native species here.

Taramoukou is a similar site close by, which has had less consistent management efforts. Both sites have similar diverse, low-altitude forests, dominated by broadleaved tree species including tawa, kohekohe, rewarewa and hīnau.

The Kaitake Range on Taranaki Mounga with more goat control had significantly more tall seedlings of broadleaved tree species like māhoe and kāmahi. These are common canopy species, important for supporting ecosystems and native species, for example by recycling nutrients from the soil into leaf litter, forming habitat for invertebrates and other small organisms as it breaks down.



New seedlings visible in the Kaitake Range site, which would normally be eaten by wild deer and goats. *Photo: DOC* 

### Working with others

# Wild animals roam across both public and private land

# Preserving Northland's unique biodiversity: working towards a deer-free future

Historically, wild deer have not been present in Northland. Due to illegal releases and farm escapes, however, some small wild populations of deer have become established.

In April 2024, in partnership with local hapū and Northland Regional Council, we announced an operation to remove all sika deer from Russell Forest in the Bay of Islands. This is the first step towards the aspiration to remove all wild deer from Northland.

If successful, it will help safeguard Northland, home to globally rare ecosystems, and be the largest deer-free area in mainland Aotearoa New Zealand. So far, over 60 deer have been removed.

Wild deer can damage native plants and habitats. Acting now will ensure Russell Forest's preservation and prevent future costs to the region, as wild deer can breed rapidly when there is a lot of food around.

Russell Forest is a diverse native forest containing kauri, tawa, kōtukutuku/tree fuchsia and tōtara. Threatened bird species are also present, including the North Island brown kiwi.



The Deer Free Northland working group. Photo: Tamaira Hook



To stop wild deer from spreading to Northland, DOC has removed an isolated pocket of red deer around Tauhoa on the eastern side of the Kaipara Harbour to maintain a 5 km Northland buffer.

In April, 26 wild red deer were removed as part of a combined aerial and control operation on the Kaipara Harbour. Aerial control was used as wild deer were evading ground hunters by going into the mangroves and tidal islands.

DOC also helped Auckland Council keep the Hunua Ranges deer free by surveying nearby DOC reserves, finding no signs of deer.

We continue to inspect deer farms and enforce compliance to prevent new wild deer populations from forming.

# Over 10,000 wild goats removed in 2023 National Wild Goat Hunting Competition

In partnership with the New Zealand Deerstalkers Association (NZDA) we ran a National Wild Goat Hunting Competition in 2023 to encourage hunters to target wild goats, raise awareness of the damage wild goats can cause to farms and native ecosystems, and build relationships across sectors. It was supported by Federated Farmers of New Zealand and Hunting & Fishing New Zealand.

There were 60 entry points across the country, which included our offices, Hunting & Fishing New Zealand stores and NZDA branches. Around 700 people entered the competition and a total of 10,134 wild goats were removed from Aotearoa New Zealand. Hundreds of thousands of people were reached through the campaign, and it was covered by major news outlets during prime hours including, Newshub, 1News and Seven Sharp.

The competition facilitated positive crosssector collaboration, and hunters, partners and sponsors were supportive of repeat competitions. Due to its success the competition was run again in 2024.

## Hunter-led project aiming to boost the health of Kaimanawa Forest Park

We jointly funded a project with the Sika Foundation to help protect Kaimanawa



Forest Park. The forest is in poor health due to a variety of factors, including a natural canopy dieback. Over-population of wild deer is contributing to the prevention of forest regeneration.

The project aims to improve forest health across the Kaimanawa with an initial focus in the 15,000-hectare Remote Experience Zone (REZ) of Kaimanawa Forest Park. Through using a combination of professional ground and aerial hunting 438 deer were removed this year. Since 2022, 776 deer have been removed from the Kaimanawa REZ.

Vegetation and deer density monitoring have been set up and will be re-measured in 2025 to begin tracking the response in the habitat from management efforts.

### What's next?

In 2024/25, we will undertake several key initiatives to enhance the management of introduced browsing animals:

- Continue to refine how we prioritise where we manage introduced browsing animals to ensure operations are effective and meet desired outcomes, with a focus on containing range spread.
- Finalise the Deer Management Plan for Ruahine Forest Park with iwi/hapū, stakeholders and community.
- Analyse the results of the sika deer removal in Russell Forest in partnership with Northland Regional Council. Continue planning the removal of other wild deer herds in Northland.
- Support the Hunting and Fishing Minister's priorities, including potential Herds of Special Interest.
- Share findings from the incentivised venison recovery trial in Fiordland.
- Share results from monitoring vegetation and animal populations in Ruahine and Kaimanawa Forest Parks, and vegetation monitoring for the Tahr Programme.
- Facilitate the National Coordination Group and share research progress after the February 2025 workshop.

These initiatives will significantly improve our management of introduced browsing animals and support our broader conservation goals.