

Boffa Miskell



Upper Rakaia Game Animal Values Assessment – Summary Version

A guide for future game animal management



7 August 2024





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Bibliographic reference for citation: Boffa Miskell Limited 2024. <i>Upper Rakaia Game Animal Values Assessment – Summary Version: A guide for future game animal management</i> . Report prepared by Boffa Miskell Limited for New Zealand Deerstalkers Association.		
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Status: FINAL	Revision / version: 1	Issue date: 7 August 2024

Template revision: 20240229 0000

File ref: Upper_Rakaia_Game_Animals_Short_Document_FINAL.docx

Cover photograph: Upper Rakaia River catchment. © Boffa Miskell 2023

Upper Rakaia Game Animal Values Assessment

This short report summarises the methods and findings of the *Upper Rakaia Values Assessment for Game Animal Management: A guide for future game animal management* – a report prepared by Boffa Miskell Limited for the New Zealand Deerstalkers Association (NZDA). The NZDA and Boffa Miskell have supported this project through their respective in-house research programmes.

1. INTRODUCTION

Active management is required to maintain sustainable game animal populations. Game animal management is practiced worldwide, for indigenous and non-native species. In Aotearoa | New Zealand all mammalian herbivores are introduced species, and we must therefore approach game animal management (deer, chamois, tahr and wild pigs) differently to other countries. In some areas of New Zealand, game animal abundance is increasing. There are no non-human predators of these species. Proactive management will help protect cultural, ecological, recreational and commercial values, which can all be threatened by unsustainably high densities of game animals.

The Department of Conservation's (DOC) two guiding documents *Te Mana o te Taiao Aotearoa New Zealand Biodiversity Strategy (ANZBS)* and *Te Ara ki Mua (TAKM)* place game animals in the 'valued introduced species' category and outline how they can be governed by game animal management plans. These documents are relatively recent (2020 and 2022 respectively), and it is still not well understood how these plans include the various values, multiple land tenures, and game animal species across vast New Zealand landscapes.

The upper catchment of the Rakaia River, Canterbury ('Upper Rakaia') was chosen as a case study. Engagement meetings and an electronic survey were used to better understand how wide-ranging and sometimes conflicting stakeholder values can be incorporated to shape desired outcomes relating to game animal management in the Upper Rakaia.



Figure 1. A red stag in indigenous vegetation, Mathias River catchment (Pete Caldwell)

Herds of Special Interest

A Herd of Special Interest (HOSI), as outlined in the Game Animal Council Act 2013, is the statutory designation of a herd / population of a species of game animal in a defined location. The purpose of a HOSI is to be managed for hunting, providing they do not compromise other uses or values. A HOSI can only be designated and managed on Public Conservation Land.

2. THE RESEARCH PROJECT

Purpose:

To assist the design of future game animal management plans, in the Upper Rakaia and elsewhere, by developing a process for (i) understanding stakeholder values and (ii) considering how game animal management (or lack of) could impact those values.

Objectives:

1. Report on indigenous and valued introduced biodiversity, land use, and management programmes in the Upper Rakaia River.
2. Understand stakeholder values in the Upper Rakaia.
3. Discuss the potential impact of various game animal management approaches on identified stakeholder values.

3. METHOD

Engagement meetings with a range of key stakeholders were carried out in-person, over video conferencing, and via phone. Te Rūnaka o Arowhenua was engaged to understand cultural values from a Te Ao Māori perspective; ecological / environmental groups and landowners were consulted to identify and understand values relating to indigenous biodiversity and agriculture; and recreational and commercial hunting groups were engaged to understand the value of game animals in the Upper Rakaia. An electronic survey was completed by 262 respondents. Key stakeholders have been grouped, and while some may fall within multiple value categories they have been placed in the category considered most relevant.

4. RESULTS

The most frequently discussed values raised by stakeholders during engagement identified that:

- **Ecological values (indigenous flora and fauna)** should be protected from adverse effects of high game animal densities, with wild pigs identified as the most problematic and damaging game animal species.
- **Cultural values** associated with game animals are relevant for both Māori (mana whenua) and non-Māori. Game animals are included as mahika kai, particularly in the absence of traditional indigenous mahika kai species. There is a clear understanding that game animals can be damaging at high densities but are also valued as a food resource. The cultural value of game animals was commonly outlined by non-Māori respondents, reflecting the history of generational hunting in the Upper Rakaia.
- **Recreational values** include red deer (followed by chamois) as the most important game animal species in the Upper Rakaia. Both species should be available for hunting recreationally and commercially to provide for wellbeing (through outdoor experiences), food and economic return. They should be considered for a HOSI to manage their population density, ensuring quality trophies and reduced biodiversity impact.
- **Economic values (agricultural production)** should be protected from the adverse effects of high game animal densities. Adjoining private and leasehold land managers need to be able to make decisions for their own properties, but also included in game animal management planning to align programmes where practical.



Figure 2. Ecological, recreational, commercial and mana whenua values all exist in the same spaces (Pete Caldwell)

The following themes relating to game animal management were raised throughout engagement meetings and subsequent feedback:

- Views of stakeholders often aligned with one of two views, either 1) game animals threaten indigenous biodiversity and should therefore have no value placed on them, or 2) game animals threaten indigenous biodiversity, but have a range of other values, and therefore trade-offs are required to balance different values.
- Some respondents questioned the use of the term 'game animal' and considered 'pest' to be a more appropriate term. 'Game animal' was selected because it is technically and legally the correct term to identify the species of focus.
- In the Upper Rakaia, red deer were considered the highest value species, predominantly due to the heritage red deer herd's trophy potential, and they should be managed with this in mind. Wild pigs were the lowest-value species and should be managed to low levels to protect biodiversity and agricultural values.
- Recreational hunters want to contribute to management programmes by being informed and involved in planned game animal management activities within the Upper Rakaia. Stakeholders supported utilising meat obtained from management activities.
- Proactive management of all game animals was generally supported, including the designation of a HOSI (for red deer, and possibly chamois), by recreational and commercial groups, and possibly by mana whenua. Ecological value groups did not support a HOSI. There were differing views on what the designation of a HOSI would mean for game animal densities, and this should be further clarified with all stakeholder groups to ensure a common understanding. HOSI was not supported for wild pigs.

Results from the survey generally indicated significant overlap in views of many of the stakeholder groups on certain topics (Figure 3), whilst in other areas the desired outcomes of stakeholder groups varied (Figure 4).

Survey question: what is the importance of limiting all species of game animals to their current range?

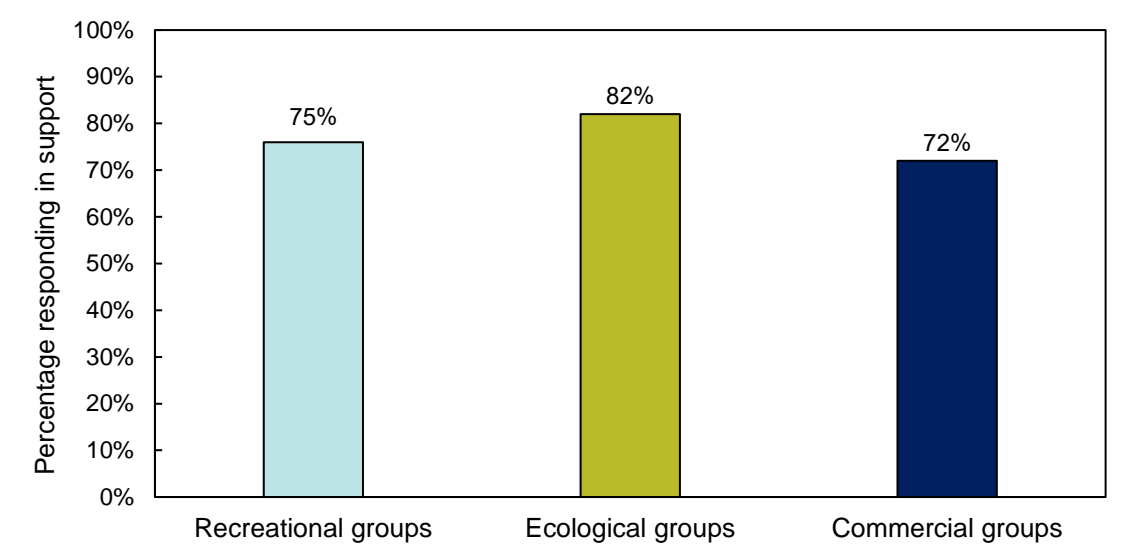


Figure 3. Three values groups are consistent in their desire to limit all species of game animals to their current range.

Survey question: what is the value of game animals in the Upper Rakaia?

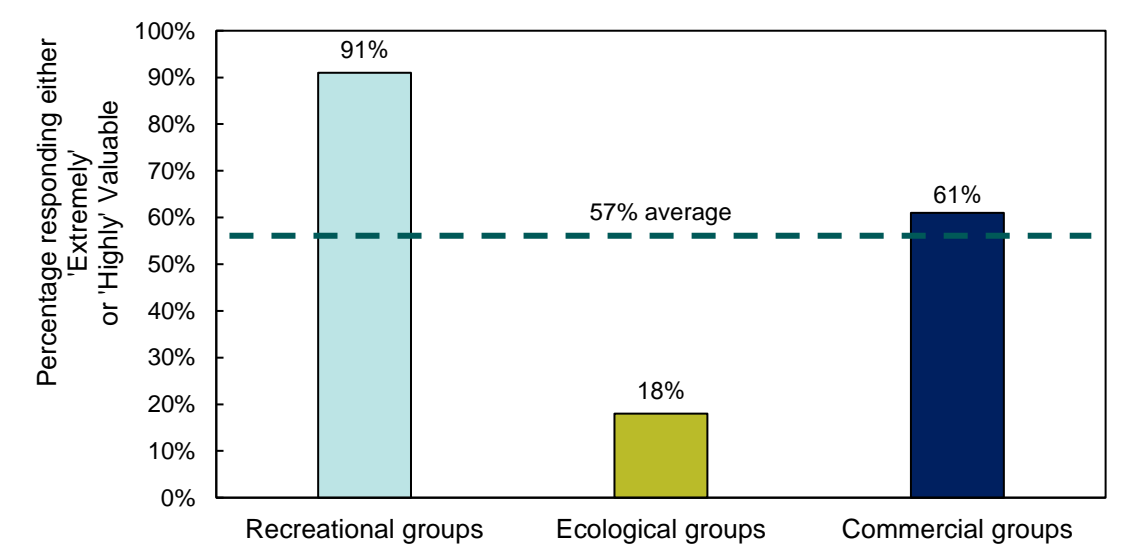


Figure 4. Percentage of respondents from values groups regarding their perceived value of game animals in the Upper Rakaia as either 'extremely' or 'highly' valuable.

Survey question: Herd of Special Interest

Designating game animals in the upper Rakaia as a HOSI was supported most strongly for red deer, with least support for wild pigs. Ecological groups do not support a HOSI, due to concern that a HOSI status will result in a high or increased abundance of that species.

Table 1. Support for designation of HOSI for game animal species.

	Red Deer	Chamois	Tahr	Pigs
Recreational Groups	86%	58%	56%	3%
Ecological Groups	18%	18%	18%	0%
Commercial Groups	67%	56%	44%	0%
Mana Whenua	May be considered by Arowhenua		n/a	n/a

5. DISCUSSION / CONCLUSION – HOSI FOR RED DEER

The designation of red deer in the Upper Rakaia as a HOSI would generally align with stakeholder values, provided that ongoing recreational hunting is enabled and provided that protection and enhancement of ecological values was a focus. A HOSI designation would allow for proactive management of all game animal species, which would otherwise continue to increase in abundance and continue to have adverse effects on the environment.

Implementation of a herd management plan, as one of the requirements for a HOSI designation, would also optimise the value of the heritage red deer herd and trophy potential for recreational and commercial hunting activities.



Figure 5. One of many photos of a hunter in the Upper Rakaia in the 1900s, displaying a trophy red stag, highlighting that the Upper Rakaia is steeped in hunting history (Banwell Archives, NZDA National Heritage Trust)