

Changes to monitoring of tahr

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This factsheet describes changes to DOC's tahr monitoring programme, which measures both numbers and impacts of tahr on public conservation land. This monitoring is necessary to ensure New Zealand's tahr herd is managed in a way that effectively protects native biodiversity as specified in DOC's Himalayan Tahr Control Plan. Monitoring to date has not provided all the information required to achieve this. DOC is therefore testing a new approach designed to better meet the needs for the effective management of tahr and their impacts.

Monitoring to date

To date, monitoring of tahr and their effects on vegetation has focused on a small number of sites within the tahr range. This has given us an understanding of impacts at these sites, but the collected data do not provide enough information to determine numbers of tahr and their impacts on native vegetation across the tahr range.

A recent analysis of the monitoring data found that tahr browse on snow tussocks had led to a decline in the health of the tussocks over time. This suggests that tahr numbers at the monitoring sites had been too high and need to be reduced.

The new monitoring approach

DOC is currently in the second year of a 2-year pilot study testing a new monitoring approach for tahr and their impact. This is based on integrating tahr monitoring into an existing national programme which measures biodiversity across all public conservation land. Integration into this programme means that data are collected over the entire tahr range rather than from a small sample of sites. This will enable DOC to estimate tahr numbers and assess the health of sensitive vegetation across the entire tahr range. It will also help us to understand what number of tahr the alpine environment can sustainably support.

The existing national programme already captures information on the health of vegetation and monitors ungulate (hoofed animals) numbers using faecal pellet counts. In the pilot study, these measurements have been supplemented with measures specifically aimed at tahr and their impacts.

Repeated counts of tahr (and other ungulates) from a helicopter provide data that can be used to estimate tahr numbers across the tahr range, and to investigate the relationship between the number of tahr present in an area and the number of faecal pellets found on the ground. An understanding of this relationship would mean that tahr numbers could be determined from faecal pellet counts alone.

Data on the number and size of plants known to be sensitive to tahr (tussocks, shrubs and some large herbs) provide information on the health of native vegetation across the tahr range. Together with the tahr count data this allows us to explore "safe" levels for tahr numbers that ensure native biodiversity is maintained in a healthy state.

The pilot study will show if the new monitoring approach provides DOC with the information needed to fulfil its management obligations under the Himalayan Thar Control Plan. The goal is to establish an effective and cost-efficient monitoring programme that provides science-based guidance to ensure the tahr herd is appropriately managed and sensitive biodiversity is protected.

Further information

Cruz J., Thomson C., Parkes J.P. 2014. Impact of Himalayan tahr (*Hemitragus jemlahicus*) on snow tussock in the Southern Alps, New Zealand. Landcare Research contract report 1900, Department of Conservation, Hokitika, DOC-2902064.

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<http://www.doc.govt.nz/Documents/conservation/threats-and-impacts/animal-pests/tahr/thar-plan-1993.pdf>

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