

## **New research supports managing deer for biodiversity over carbon storage**

New research shows deer have little impact on the carbon storage of our intact indigenous forests and supports biodiversity protection as the primary goal of deer management.

The report, *[Review of the likely magnitude and manageability of deer impacts on carbon stores in indigenous forests](#)*, was undertaken by Crown Research Institute Manaaki Whenua-Landcare Research and commissioned by the Game Animal Council.

Co-author of the report and Principal Scientist in Ecosystem Ecology, Dr Duane Peltzer confirms that the case for deer management to improve carbon storage across intact indigenous forests is weak.

"The evidence for changes in carbon for intact forests caused by deer or resulting from their management is poor," says Peltzer. "Deer and other ungulate browsers have very little overall impact on the carbon storage of intact indigenous forests and in fact the carbon storage potential of our forests has been relatively stable for some time."

"The research shows that in some forest types the presence of deer may have a small negative effect on carbon stocks, while in other forest types deer will either make no difference or actually promote more carbon storage. Overall, however, the impact of deer on indigenous forest carbon storage is pretty much neutral."

"Significant declines in carbon storage are far more likely to come from other factors such as possum browse and large-scale landscape disturbances caused by earthquakes, weather or pathogens. There is evidence that deer management can have an influence on carbon storage in successional forests recovering from such disturbances."

"While potential carbon gains from deer and ungulate management are limited and variable, there is far greater evidence to suggest gains can be achieved in biodiversity, particularly among highly palatable species in the browse tier."

Game Animal Council Chair Grant Dodson explains that the Game Animal Council commissioned this research to not only provide a better understanding of the effects of deer and other ungulates on indigenous

forest carbon stores, but also to help ensure we make the right investment decisions when it comes to game animal management and its objectives.

"The Game Animal Council is fully committed to achieving better outcomes for biodiversity as well as supporting effective measures to address climate change, however wise investment decisions need to be made."

"With government forecasts suggesting significant pressure on future budgets we must make sure management programmes are targeted towards achieving the best possible outcomes with the funding provided. This report makes clear that those outcomes are mostly in improving biodiversity."

"Management undertaken for biodiversity protection is not the same as management in the expectation of increasing carbon storage," says Dodson. "The types of operations you undertake, where those operations take place and what animals are targeted will be different."

"This research further supports the site-based management strategy established by the Te Ara ki Mua Framework and which seeks to achieve a successful balance between the priority to improve indigenous biodiversity and the community value of game animals."

The Game Animal Council is engaged in developing a modern, community-inclusive management system under Te Ara ki Mua, which it is in partnership with DOC, iwi, hapu and whanau to implement.

---

*The NZ Game Animal Council is a statutory organisation working to improve the sustainable management of game animals and hunting for recreation, communities, commerce and conservation.*

*Manaaki Whenua – Landcare Research is New Zealand's Crown Research Institute (CRI) for our land environment.*

## **Contacts:**

Dr Duane Peltzer, Manaaki Whenua – Landcare Research  
Phone: 027 359 5274  
[peltzerd@landcareresearch.co.nz](mailto:peltzerd@landcareresearch.co.nz)

Grant Dodson, Game Animal Council Chair  
Phone: 027 654 6554  
[grant.dodson@nzgac.org.nz](mailto:grant.dodson@nzgac.org.nz)