

# Takahe and the wapiti issue

OVER the past 2 years there has been considerable debate about whether wapiti should be removed from Fiordland National Park. The debate has led to differing interpretations of the National Parks Act, and pertinent questions have been asked about the philosophy of preservation of species and ecosystems and the rights of individuals using national park areas. These are important matters and it is right that they should be raised, questioned, and debated. Unfortunately, many statements have included bold generalisations about the ecology of Fiordland and its flora and fauna that cannot be sustained on the evidence available. Of particular concern to the Wildlife Service is the inaccurate information that has been presented about the takahe. This article sets out the facts about the takahe and its habitat requirements and discusses the threat posed by mammalian competitors (red deer and wapiti) and predators (stoats) to the survival of the species.

FOR THE PAST 10 years research on takahe has been carried out by scientists of the Wildlife Service, Botany Division (D.S.I.R.) and the Botany Department of the University of Otago. In addition, the impact of deer on the vegetation of northern Fiordland has been assessed by the Forest Service. The information collected has gone a long way towards explaining why takahe have declined and has enabled Wildlife Service scientists to prepare a comprehensive management plan for the species.

## Causes of takahe decline

Takahe are at present restricted to an area of 650 sq km within that part of Fiordland National Park comprising the Murchison Mountains and an area to the north in the south-western section of the Wapiti Block. In the early 1950s the bird had a much wider distribution, being present also in small areas in the adjacent Kepler Mountains. Nowhere else in Fiordland are there large areas of takahe habitat.

The takahe population in Fiordland has declined by almost 40 percent since 1972,

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and now only 120 birds remain. Several factors have contributed to this decline, including severe modification of the vegetation by deer, preying by stoats, and breeding failures caused by inclement weather at hatching time. Of these factors the modification of the vegetation by deer and (in the Wapiti Block) by red deer and wapiti has been the most serious.

## Effect of deer on takahe

Deer have affected both the summer grassland and the winter forest habitat of takahe. In the forest important food plants for takahe, such as *Uncinia* and *Chionochloa conspicua*, have been either eliminated or severely depleted through heavy browsing and grazing by deer.

The diet of deer in the tussock grasslands is quite varied, but there are distinct

preferences. Grasses and small herbs make up the bulk of the diet. When deer colonise an area the palatable small herbs are eaten first and when they become eaten out grasses and tussocks feature more in the diet. When deer numbers are high they compete with takahe for food.

In concentrating their feeding on tussocks the deer show distinct preferences for certain tussock species; their order of preference coincides almost exactly with the ranking of species from the most nutritious to the least nutritious. Unfortunately, takahe show the same preferences as deer for tussocks high in nutrients. Deer concentrate their feeding in the sites where the most nutritious tussocks grow and repeated browsing of the same plants severely weakens and can kill the tussocks.

**The important point is that there does not have to be widespread destruction of the habitat to affect takahe — just the elimination or weakening of the most nutritious plants.**

Takahe are very susceptible to a change in the quality of their food because they have a very inefficient digestive sys-

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