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Plants at Risk

KAIMANAWA WILD HORSE RANGE

The government has approved a plan for the future management of the Kaimanawa wild horses. The herd roams over an area mostly of army land, southeast of Tongariro National Park. This upland wilderness in the sub-alpine central North Island contains a rich range of special native plants needing permanent protection from damage by the horses.

What actually needs protecting?

Of nine natural areas identified for protection in the Moawhango Ecological Region, four are within the wild horse range. These include forest remnants, shrublands, wetlands, tussock grasslands, gravel/pumice fields, pools and rocky places.

The horses' range has not been farmed intensively, so there are many native plants and plant communities that have been lost elsewhere.

Sixteen species on the national threatened and local plants list live there.

The area also has the highest concentration (at least 23 species) of plants with unusual distribution limits of any New Zealand region. Wetlands, especially high fertility flush zones and river flats, have the majority of the special plants. Horses concentrate their activities in these areas causing damage to the small plants.

What kinds of plants are these?

Six species of sedge, three of forget-me-not, three daisies, two orchids, two buttercups and four species of native grasses are among the 33 threatened species and others with unusual distributions (some species are both) that are known in the horses' range. In 1996 botanists found special plants not seen in the area before, notably a forget-me-not and a sedge.



*Kaimanawa forget-me-not Myosotis "glauca",
Moawhango River. Photo: C. Ogle*

But if they've survived this long....?

Since gaining protection some 15 years ago, the horse population is ten times larger and still growing. The environment is highly

susceptible to damage and modification, even by low

numbers of horses. The only way to protect these plants is to protect their habitats.



Department of Conservation
Te Papa Atawhai

Why are these plants living here?

This is a geologically stable part of the North Island, having survived a marine inundation and, although uplifted, wide basins remain intact. Intense frost and either water-logged or very arid soils enable the small plants to survive away from the competition of tall forest on the basin floors. Habitats like these have been eliminated elsewhere in the North Island in recent geological time.

What are the impacts of the horses?

At least eight nationally threatened or local species in the area have been damaged by horses. Trampling of bogs and flush zones has meant the disruption of water-flow, increases in downstream siltation and fertility and invasion of some weeds.

The most extensive habitat, red tussock grassland, has also been affected and in some cases eliminated by horses. The high altitude tussock communities are being eliminated rapidly through grazing. Forest-grasslands margins, together with two other grassland communities, are also being affected.

Is that the end of the matter?

No, further changes in ecology will continue. These arise from a number of factors, including the trampling of vulnerable plants and the heavy feeding requirements of the horses. One tussock grass species, *Deschampsia caespitosa*, has already been browsed out by the horses and others are threatened.

Several other plant species are declining quite rapidly.

Is it only horses?

Already new weeds are entering the area. Hawkweed (*Hieracium*), notorious for its invasive character in the South Island, is making inroads into the area. Other invaders include Yorkshire fog and heather.

What about relocation or fencing?

Some probably could be relocated, some probably couldn't. However, the scientific importance and natural appeal is that the plants existed here from time immemorial. This is where they evolved and belong.

Fencing would be impractical because of the vast, rugged terrain and extremes of weather in the area. Fencing would restrict the effectiveness of army training and fences need to be regularly maintained and could pose a danger to horses. It also does not address the problem of an ever-growing herd.

What is the priority?

It is important to act swiftly. Since investigations began some special plants have already become extinct. On the other hand, several new discoveries have been made. Taking the pressure off the remaining plants now could ensure their survival. Already some of the horses' normal range has been reduced to grasslands. New Zealand has plenty of grasslands. For the sake of New Zealand's diversity as well as that of the plants, we need to simply make a little more room for these plants.

(See also Fact sheet: *A Future for Plants and Horses.*)



Concentrated horse use of fragile wetlands damage the special plants.