# THE MOAWHANGO ECOLOGICAL REGION

## VAST LANDSCAPES AND TINY RARE BEAUTIES

The Moawhango ecological region covers the high plateau and basin country between the southern Kaimanawa and the northern Ruahine ranges. This dramatic landscape boasts a special biodiversity almost unknown elsewhere.

Although human impacts have threatened much of New Zealand's natural heritage, the Moawhango – relatively undisturbed and geologically distinctive – contains many rare, threatened native plants that have almost been lost.

Most of the natural area is in the Waiouru Military Training Area (WMTA), roamed by the wild Kaimanawa horses.

#### Types of habitat:

'Flush zones': wetlands created by seepage from higher ground. Plants here are particularly vulnerable to horse trampling.

'The drylands': once part of the riverbed, these drought-prone areas of shingle, sand or pumice lie high above the flood plains.

#### An unusual geological history ...

The wealth of unusual plants is partly due to the area's unique geological and natural characteristics. The landscape combines ancient, middle aged and very young rocks: 350 million year-old greywacke in the east, and soft sedimentary rocks, only 10–20 million years old, in the west.

Almost 300,000 years of volcanic activity has enriched the soil, and uplift and erosion have left spectacular cliffs and gorges. Unusually cold microclimates and poor drainage have created frosty low-lying areas, which are free of trees but are havens for herbs, grasses and tussocks.

Until 800–900 years ago, lush forest dominated the area. About the time the Māori arrived, fire destroyed most of the forest and tussock grasses took its place. Regular wildfires prevented the trees returning until about 30 years ago; only now are mānuka and broadleaf slowly returning.

# ... has produced a unique biodiversity

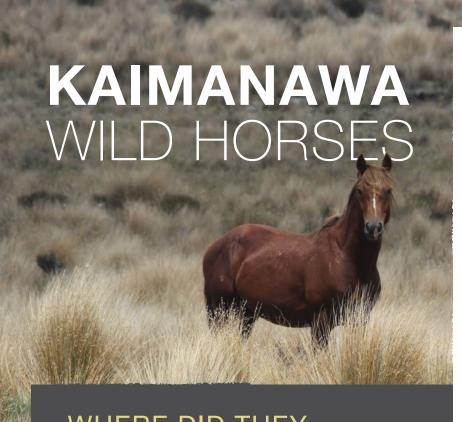
The geography has created unusually diverse habitats, including red and hard tussock grasslands, alpine forest remnants, and extensive wetlands. These support some remarkable vegetation: nearly 750 species of native plants thrive here, including many uncommon and endangered species.

West of the Moawhango River, pockets of pāhautea, mountain tōtara and other conifers remain on the fertile soils. Remnant mountain beech grows on the older soils east of the river. Special plants include six sedge species, three forgetme-nots, three daisies, two orchids, two buttercups and four species of native grass.

#### Protecting the region's character

DOC and its partners protect the area from trampling and grazing, and from pest plants (eg wilding conifers) and animals. The New Zealand Defence Force manages the land and carries out fire control to help mānuka and broadleaf regenerate.





# WHERE DID THEY **COME FROM?**

The simple answer is: we don't know. Wild horses were first recorded in the area in 1876, but information about the original herds is scarce. Today's Kaimanawa horses have inherited genes from horses more recently lost or turned out, such as Exmoor (Carlyon) ponies, station horses, escapees from land wars and cavalry horses released in 1941.



The ample feed available alongside the Moawhango River makes the Argo basin popular with the horses. Fires and farming wiped out the tussocklands and unique habitats here long ago, so the effects of horse grazing and trampling are less significant.

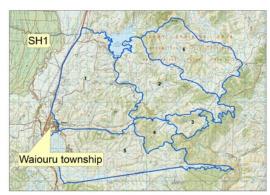
### Department of Conservation Te Papa Atawhai

#### DOC manages the horses to protect the environment and their welfare

The wild horses once covered the central North Island; but by 1980 they were limited to one small pocket here. As a significant part of our natural history, concerned New Zealanders sought to protect them in law. But once protected, the horse population surged - threatening the area's fragile ecology and the horses themselves.

DOC began a population management programme in 1993 to keep the horse herds to a practicable level. A smaller horse population protects the habitat, improves the horses' condition and reduces effects on the land. The herd has been kept to 300 since 2009.

Today, DOC manages the horses by working with its partners in the Kaimanawa Wild Horse Advisory Group. Because fencing the horses is not feasible, they roam freely within the army training area.



#### The management zone



DOC, with the advisory group, manages the horses in six zones of modified environment about one third of the 60,000 ha WMTA training area. Herd movements outside these zones are

> monitored and managed accordingly to protect sensitive biodiversity.

population managed?

- → An annual wild horse 'census'
- → Mustering every 2 years to keep the population stable
- → Re-homing as many horses as possible from the muster
- → Advocating for horse welfare
- → Monitoring herd movement to ensure public safety on SH1

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