The reduction in the range of feral horses has been matched by a more dramatic reduction in the area of tussock grassland and low monoao (Dracophyllum) shrublands in the North Island. These grassland/shrubland communities developed mostly from Maori fires that deforested the extensive central North Island plateaux. Once widespread across the volcanic plateau, the tussock has given way to pine forests and farmland. The last stronghold is on the army land of the Waiouru Military Reserve east of the Desert Road and Waiouru. For the travelling public, the wild open landscapes of the Desert Road provides one of the few natural scenic highlights in the drive from Auckland to Wellington.

Only 20 years ago, uninterrupted vistas of tall red tussock land also flanked the Taihape-Napier highway just to the southeast; but subsidised agricultural development of these marginal lands in the 1970s and early 1980s eliminated vast areas of tussock. Ironically, the Kaimanawa-Moawhango tussock was spared because of its ownership by the Army who value the open landscape for military manoeuvres. Under the control of the New Zealand Forest Service or Department of Lands and Survey – departments that ostensibly had nature conservation responsibilities - the tussock would probably have been cleared for some foolish forestry or land development programme.

Rare plant habitat

The ecological importance of the Kaimanawa tussock grassland has only been appreciated in recent years, both as the best surviving example of a oncecommon ecosystem, and as the habitat of a number of rare or unusual plants. Botanical surveys of the area by Dr Geoff Rogers of the Forest Research Institute have shown the area to be of outstanding biogeographic significance. It contains 32 native herbs and grasses with important



The Moawhango area contains the last sizeable areas of tussock grasslands/shrubland systems that once stretched from Rotorua to the northern Ruahine range in the south. Part of the Waiouru Military Reserve, this area is of outstanding national significance as a refugia for many rare or special native plants.

Photo: Geoff Rogers, FRI

biogeographic limits whose distribution coincides with the feral horse range and another three species just south of the horse area. These include two plants – *Ranunculus recens var* and *Logania depressa* (probably extinct) – found nowhere else; the southern limit of five plants endemic to the central North Island; ten species of montane herbs that occur only in the Kaimanawa grasslands in the North Island but are present in the South Island; and the North Island southern limits of sixteen species that re-occur in the South Island

Dr Rogers describes the area as having the highest national concentration of biogeographically special plants in one area. He believes the Moawhango region south of the Kaimanawas and north of the Ruahines is an ancient centre of biotic survival. Parts of this area escaped the marine innundation of the lower North Island in the late Miocene-Pliocene (8-12 million years ago) and the tectonic upheaval resulting in the uplift of the Tararua and Ruahine Ranges that started less than one million years ago. This geological upheaval would have wiped out the habitats of these old land mass plants elsewhere in the lower North Island (see *Forest & Bird*, November 1986).

Protection plea

Rogers makes a plea for the protection of the Kaimanawa-Moawhango grassland both as an ancient refugia of immense

Feral horses - a personal account

Provide the Kaimanawa feral horses by now if the horses hadn't been protected. First by the army blocking access, and then by the Order in Council. One of those eager to catch the Kaimanawa horses was my late father, Colin Smith, or Bluey, as he was known. In the 1960s and early 1970s, he joined forces with Ross Konui and then with Boy Kuru of the Tuwharetoa in numerous horse chases in Tongariro National Park. Together they caught 169 horses from the park, not really for profit or for any special qualities of the horses, but mainly for the love of the chase.

As a child, I was allowed to join in some of the latter chases. It was the end of an era. The frontier of the King Country was rapidly disappearing as development penetrated the forests, manuka and tussock of the National Park-Lake Rotoaira area. Wild rivers full of trout and blue duck



Smart Pants, a brumby caught in Tongariro National Park, and its captor, the late Colin Smith.

Photo: Taranaki Daily News