

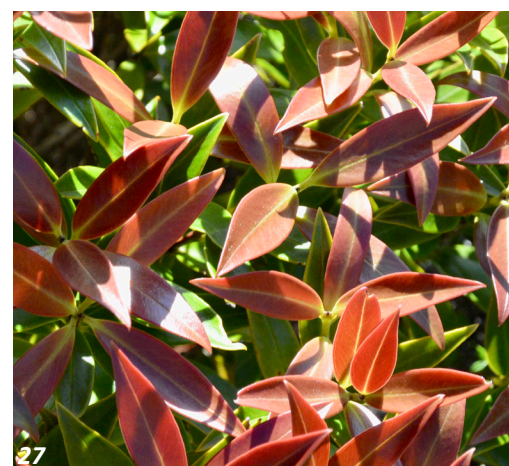
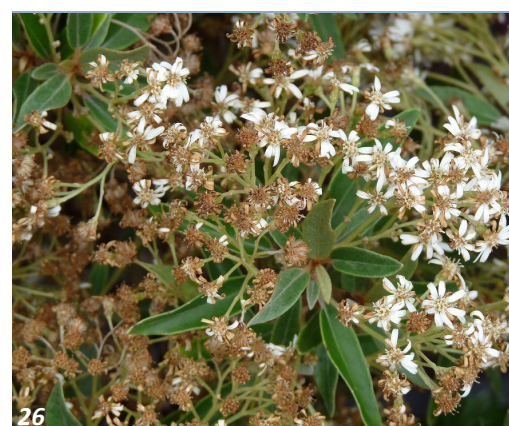
The results indicated that over 1,000 ha of the combined plateaux area (6,454.6 ha) has been directly modified by mining and related activities, noting the limitations of mapping small areas from aerial photographs and the occurrence of vegetation clearance after the date of the aerial photographs. Four historically rare ecosystems were identified and mapped within the study area. They include 1) sandstone erosion pavements, 2) boulderfields of acidic rocks, 3) seepages and flushes, and 4) tarns.

A total of 1,474 ha of sandstone erosion pavements were mapped, mostly on the Stockton Plateau, where the pavements had less than 20% vegetation cover, this being most likely to represent the original distribution of these ecosystems. Boulderfields of acidic rocks were mapped in only two places, on the upper slopes of Mt Rochfort on the Denniston Plateaux, and in the upper catchment of Depp Stream on the Stockton Plateau. Seepages and flushes were only mapped in the vicinity of Happy Valley on Stockton Plateau. The report found that tarns are very rare although artificial ponds and reservoirs are relatively common. The only natural tarns, covering a total of 1.9 ha, were those associated with the wetland-shallow tarn complexes on sandstone landforms between Plover and Whirlwind streams on the Stockton Plateaux.

The report also identified two species with national threat rankings - in decline and at risk from extinction. *Chionochloa juncea* is widespread on both plateaux and *Dracophyllum densum* was only observed on the upper slopes of Mt Rochfort, within an area that contained a range of other values, including historically rare ecosystems and important vegetation and habitats.

Fauna consists of diverse bird species on fertile sites, but species are depauperate on the heavily modified coal plateaux except for kea and New Zealand falcon. Great spotted kiwi are found in northern and eastern areas and the blue duck are widespread. The area contains the brown skink (*Leiopisma zelandicum*) at its southern limit on the coast near Seddonville. Insects include the weta, *Hemideina broughi* and the carnivorous snail (*Powelliphanta spp*).

Mining and burning have modified the plateaux vegetation and today forest tends to be mostly confined to fire refuge areas in the deeply incised streams and creeks over the plateaux. Deer and possums have also modified the natural vegetation by grazing, and rats, mice and stoats are known to be present on the Denniston Plateau. The plateaux are windswept areas, often under snow in winter and frequently fog bound.

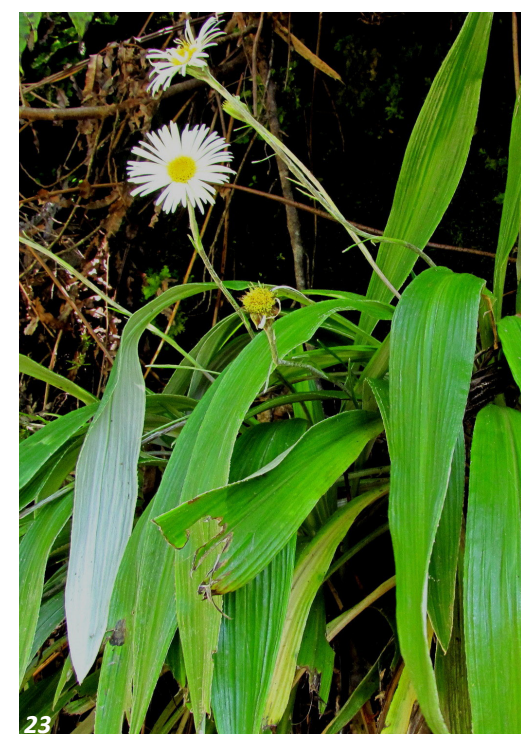


Photograph 22 : *Sticherus flabellatus*

Photograph 23 : *Celmisia morganii*

Photograph 24 : *Dracophyllum densum*

Photograph 25 : *Powelliphanta* snail



Photograph 26 : *Olearia cheesmanii*

Photograph 27 : *Metrosideros parkinsonii*

Photograph 28 : *Chionochloa juncea*



LEGEND

ROADS AND TRACKS¹

State highway	
Four lanes or more	
Two lanes (includes passing lanes)	
Narrow road	
Vehicle track	
Foot track	
Closed track (see warning note below)	
Poled route, track connector	
Road surface	
sealed	
metalled	
unmetalled	
Tunnel, tunnel under road	
Bridge; two lane, one lane	
Ford	
Gate, locked gate, cattlestop	
Footbridge, cableway, walkwire	
Waterfall, rapids	
Cold spring, hot spring	
Fumarole, geothermal bore	
Watercourse, drain	
Canal; large, small	
Stream disappearing into ground	

VEGETATION FEATURES

Native forest	
Exotic coniferous forest	
Exotic non-coniferous forest	
Scrub	
Scattered scrub	
Shelter belt	
Trees	
Orchard or vineyard or plantation	
Mangroves	

STOCKTON AND DENNISTON PLATEAUX

MISCELLANEOUS

Residential area	
Large buildings	
Isolated building	
Homestead, stockyard	
Glasshouse or greenhouse	
Church, cemetery, grave	
Training track	
Golf course, helipad	
Historic Māori pā, redoubt, monument, plaque or signpost	
Reservoir covered, reservoir uncovered, tank	
Mast, tower, wind machine or wind turbine	
Shipwreck, lighthouse, beacon	
Fence (selection only)	
Pipeline above ground	
Pipeline underground	
Disused water race	
Power line on pylons (actual positions)	
Power line on poles (away from roads)	
Telephone line (away from roads)	
Industrial cableway	
Mine; underground, opencast	
Buried gas pipeline	

RELIEF FEATURES⁴

Index contour	
Intermediate contours	
Perennial snow and ice contours	
Supplementary contour	
Depression contours	
Shallow depression, small depression or shaft	
Beaconed trig station (with trig identification code)	
Elevation in metres	
Cliff, terrace, slip	
Rock outcrops	
Stopbank, cutting	
Embankment or causeway	
Saddle, cave	
Alpine features	
Moraine	
Moraine wall	
Scree	

MAP 8 BULLER PLATEAUX TOPOGRAPHY

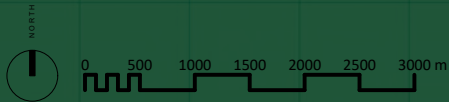
LEGEND

ELEVATION
(METRES ABOVE MEAN SEA LEVEL)

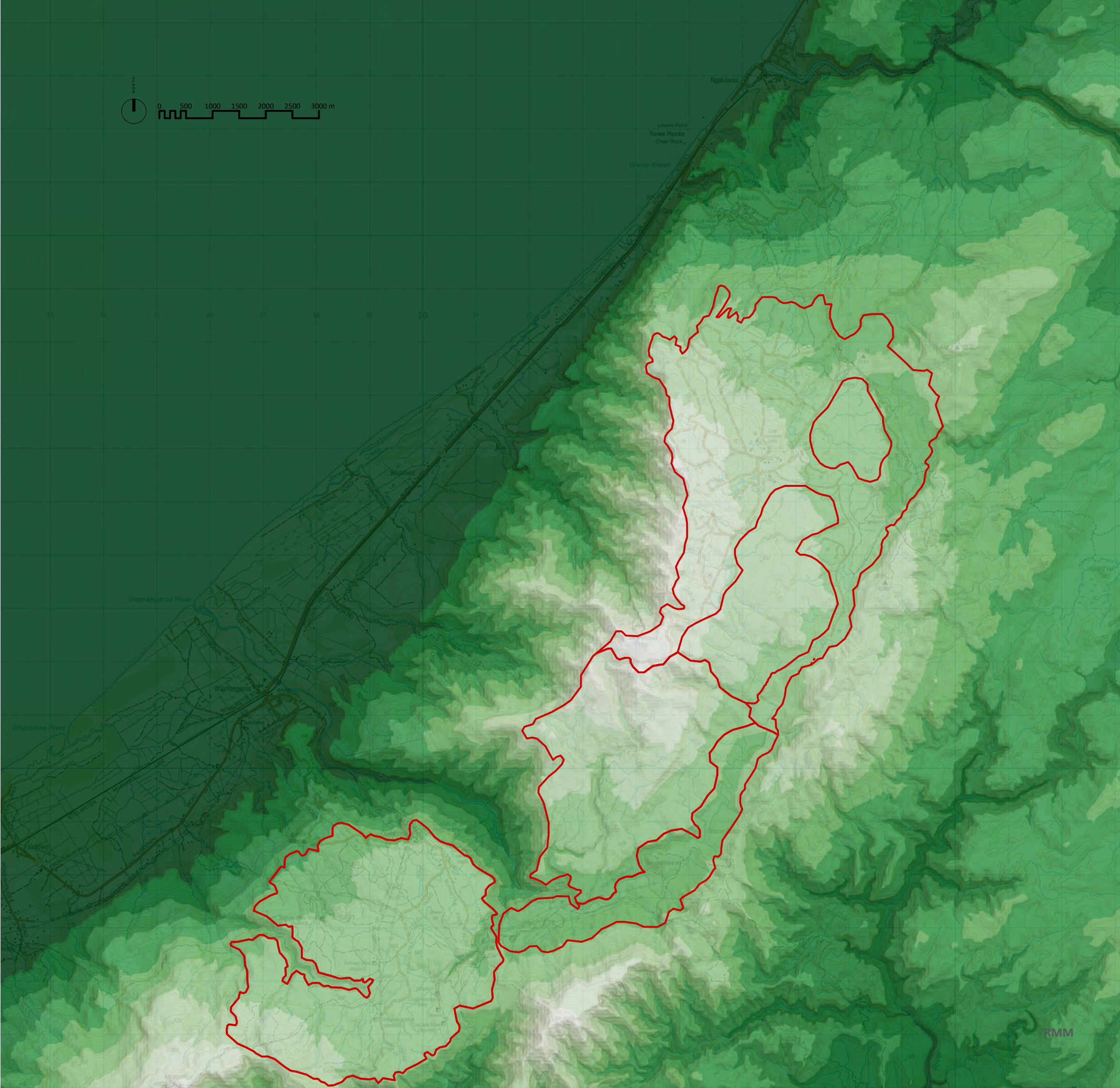
- 0 - 98
- 98 - 215
- 215 - 343
- 343 - 470
- 470 - 597
- 597 - 725
- 725 - 852
- 852 - 979
- 979 - 1,071

STOCKTON AND DENNISTON
PLATEAUX

SOURCE: LINZ 8M DIGITAL ELEVATION
MODEL (DEM)



MAP 9
BULLER PLATEAUX
ELEVATION





LEGEND

SLOPE (DEGREES)

- 0 - 7
- 8 - 15
- 19 - 22
- 23 - 29
- 30 - 36
- 37 - 43
- 44 - 50
- 51 - 58
- 59 - 65
- 66 - 73

STOCKTON AND DENNISTON PLATEAUX

SOURCE: LINZ 8M DIGITAL ELEVATION MODEL (DEM)

MAP 10
BULLER PLATEAUX
SLOPE