

Mining Rejected

in North Cape botanical gem

by Mark Bellingham, Society Conservation Officer, who calls for an end to a mine which is a blight upon the Far North landscape.

At New Zealand's northernmost tip lies North Cape, a scenic gem and the most important botanical reserve for its size in the country.

The North Cape Scientific Reserve is home to more endemic plants and animals than any equivalent area in New Zealand. Fifteen plants and at least four invertebrates are found only there. Almost all of these are confined to the 175 ha of serpentine rock area in the reserve.

On the nickel and chromium-laden serpentine soils, many plants have adopted strange habits. The North Cape tanekaha has branches that creep across the ground from the main trunk and the endemic karo

and *Coprosma* form low straggling bushes. The coastal *Astelia* grows in small, erect tufts, unlike the normal luxuriant forms on adjacent cliffs, and even the manuka inches along the ground.

Half of the serpentine area is on the 200-metre high cliffs, which soar steeply above the Pacific Ocean. These deeply eroded bluffs support North Cape's three rarest endemic plants, *Pittosporum michiei*, North Cape karo and the North Cape subspecies of *Coprosma spathulata*. It appears that the cliffs have been a refuge for plants and animals when fire has swept across North Cape over the past 500 years.

The serpentine plateau and the remainder of the reserve are covered in a mosaic of heathland, scrub and a few forest remnants. Many endemic North Cape plants and the threatened North Cape flax snail are found on this heathland, although intensive burning across Te Paki and North Cape by gum diggers and graziers has reduced some of these special plants and animals to cliff refuges.

Since 1964, 683 ha of North Cape has been a reserve, and once fire control began a subtle but active regeneration has spread across the serpentine plateau, with the main populations of some plants now expanding on to the plateau heathland. The fire tolerant kumarahou and prostrate manuka have now been joined by tanekaha, *Hebe*, thick-leaved hangehange and the glossy-leaved tauhinu.

But as our knowledge of the special significance of North Cape has grown, so has the serpentine mine which has been worked since the 1960s.

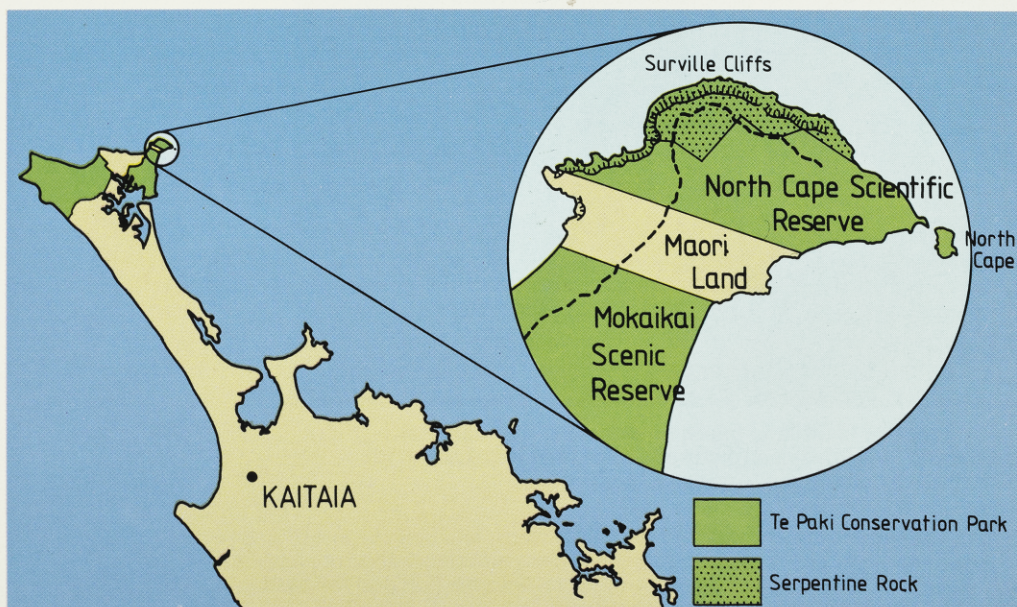
At first only small amounts of serpentine — used as a magnesium fertiliser and for preventing ryegrass staggers — were taken,



The North Cape hebe, *Hebe macrocarpa brevifolia*, in the serpentine plateau heathland. All photos Mark Bellingham



The North Cape *Haloragis*, common in the windswept herbfield at the top of Surville Cliffs.



but during the 1980s the mine was expanded and a huge stockpile built up, in the hope that this would precipitate a further mining licence. The mining company has a network of roads that snake through the scientific reserve and the full length of the adjoining Mokaikai Scenic Reserve.

Across this most remote part of the Far North the mine site and the road have opened a 25 km eroding scar. Gully erosion is up to 5 metres deep on cleared land beside the serpentine pit; if this is not controlled it could threaten a substantial area of the serpentine plateau community.

The road also encourages unauthorised entry to the scientific reserve, creating problems for the reserve rangers and owners of the adjacent Maori lands.

Both mining and casual visitors greatly increase the risk of fires in the serpentine heathland, and further human activity may