Matagouri in the North Island

Part 2

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THE notes on the North Island distribution of *Discaria* published in Bulletin No. 33 have brought in so many additional reports of its occurrence[1] as to give a slight flavour of absurdity to any further writing up; details of habitat assist, however, in sharpening the picture of its North Island survival.

On the Horowhenua coast (Mrs Duguid) there are a number of small colonies ". . . usually just a few bushes in each and mostly on dry flats inland of the unstable dunes . . . near the lagoons south of the Ohau estuary . . . south of the Tiro-tiro-whetu dune ridge (about a mile from the beach) . . . just south of Hokio village . . . the best stand of all off the end of the Oturoa Road not far from the Manawatu River in a warm hollow between two dune ridges, about three miles from the coast. The bushes there were in fine shape and about seven feet high."

Mrs Duguid also notes that matagouri was growing in association with *Pomaderris phylicifolia* var. *ericifolia* in three of these localities: south of Hokio village, north of the Hokio Stream, and on the stony terrace at Ohau.

North of Foxton (Dr J. A. Carnahan, Canberra) a colony occurs 150 yards south of the Himatangi Beach Road and 100 yards west of Wylie's Road, on ". . . a big sand flat with some rough pasture and much scrub. The matagouri plants were few in number and rather miserable little things, spread low on sandy knolls". Dr Carnahan recollects seeing considerable rabbit-dung on the knolls. He is also fairly certain of having sighted healthy bushes of matagouri on scrub-covered dunes just northward of the mouth of the Whangaehu River.

I am reminded (Alan Esler) that Cockayne's Kapiti Report mentons flattened bushes of matagouri growing on exposed sites on boulder terraces; A. H. Reed ("Four Corners of New Zealand", p. 117) mentions plants of similar form on Orete Point near Waihau in the eastern Bay of Plenty, and Dr J. W. Dawson informs me that similar plants are found at Onoke in Palliser Bay.

At Porangahau, southern Hawke's Bay, matagouri colonies are scattered over several hundred acres opposite the mouth of the estuary, and show some points of especial interest. There are two

[1] Since this article was written the following further records have reached the editor:

Top of cliff, Lake Ferry, S. Wairarapa (N165 675088), A. P. Druce, 1947.

Roadside, 3 miles east of Ashley Clinton, Takapau Plains, Hawke's Bay, A. P. Druce, 1966.

Hillside, 1 mile S.W. of Porangahau, S. Hawke's Bay (N151 029400), A. P. Druce, 1966.

main habitats; one on the low terrace inland of the road that doubles back to the Hunters' homesteads, the other on drier sites out on the waterlogged sand flats. Two hillside colonies examined were each of 50-60 plants reaching a maximum height of three feet; on the sand flats all that could be seen in each of two further localities were a few prostrate plants. On both types of site young plants could be found close to the larger bushes, but how young was uncertain as the long straight taproot of even the smallest plants was remarkable.

On three of the four Porangahau sites matagouri was associated with taller bushes of *Olearia solandri* (on the fourth—a sand flat—there were thick mats of *Coprosma acerosa*) and on one of the hill sites *Muehlenbeckia complexa* was present also. Over the wetter parts of the flat *Plagianthus divaricatus* was widespread; where the three species met there was a definite zoning, *Plagianthus—Olearia—Discaria* forming narrow belts in a sequence from the watertable to the driest part of the hump.

Mr Percy Hunter, discussing the changes since the beginning of settlement, said that in addition to the obvious changes due to grazing and burning he understood that the estuary flats, at first occupied by an open scrub community of much the same composition as the present remnants, had been further altered as the result of an early earthquake (*not* the 1855 Wellington one) which had made the whole flat more swampy.

I cannot recall the source of a suggestion that the cover of the Miramar Isthmus in 1840 was likely to have been a similar scrub, which would then have linked the matagouri colonies of Mt. Victoria and Seatoun Heights. (I did not previously list the latter site, which I have not visited myself though it seems to be generally known in local botanical circles.) In the Turnbull Library a photograph (No. 8108) on the Miramar Flats *c.* 1900 shows a posible matagouri bush in the foreground.

Dr Cockayne ("Vegetation of New Zealand", 1928), after a description of similar sand-plain, fixed-dune and river-terrace communities in the South Island, concludes that matagouri is a relic of a migratory community which survives as an open shrub association on the way to replacement by tussock. The North Island coastal occurrences appear to agree with this in even more vestigial form. Several of the inland occurrences (Timahanga, and the two unconfirmed ones on either side of the Whakarara Range, *i.e.* on Duff's Flat and above Devil's Gully) are on pumice deposits resembling a fixed-dune habitat. The Taumahapu colony (now reduced by land improvement to a few old bushes on the steep side of a stream terrace), the vanished ones behind the Waingawa Freezing Works and, presumably, the plant reported from Pigeon Bush correspond to Cockayne's South Island river-terrace habitat.

With one exception, the "hard sandstone" at Waitotara, all habitats in the North Island allow a strong taproot to strike down quickly.