

WILD PLANTS SURVEY OF OPOTIKI DISTRICTM. HEGINBOTHAM

In March 1975 I went to Chatham Island in an attempt to collect, survey or record the majority of indigenous and adventive plants there - all within the space of seven days. In some ways the results were disappointing as the time allowed was too short, my knowledge of indigenous plants was mainly fair, my knowledge of the introduced plants meagre in spite of considerable 'homework' and some good reference books. Besides this, I had received considerable encouragement and advice from A.P. Druce, D.S.I.R. botanist, Taita as well as his 'Checklist of Chatham Island Plants'.

Yet the journey was not without its benefits. I did see the plant life of the Island, I covered a big area there and I did begin to understand the problems there. Above all the trip aroused my natural curiosity to learn more about 'wild plants', particularly those introduced, and then perhaps to put the knowledge gained to some use. Perhaps my own area of Opotiki and environs could be checked out as it was virtually unrecorded. So it was with these thoughts in mind that I approached A.E. Esler, D.S.I.R. botanist in Auckland for his views on commencing a project of recording all indigenous and adventive 'wild plants' of the Opotiki area. I certainly hit the right person, he was all for it, and he had some very worthwhile advice to offer. He suggested not to cover too large an area so we agreed on a survey area of about 15 miles radius from the Opotiki Post Office, give or take a mile or two in some areas, and to record all 'wild plants', these to be substantiated with pressed voucher specimens. Here, heavy foolscap size paper (duplicating paper) was ideal for the job (not 17 by 13 inch) and this fact helped to simplify the work a lot. The record summaries or lists were to be collated in a card system, each card to show the plant's botanical name, family, authority, common name, country or countries of origin, locality and habitat, altitude found, date of collection and any other information of interest. Various symbols could be assigned to plants also in relation to native plants, escapes from cultivation, and weedy exotics depending on rarity, aggressiveness or survival rates. I was also given the names of several further reference books which may aid plant identifications. Should I have any doubts on a plant's identity, the Botany Division of the D.S.I.R. would be pleased to assist.

Thus I started my project and gradually over a period of twelve months and more (still going!) I have increased my knowledge tremendously of the local indigenous and adventive 'wild plants' and have assembled some worthwhile records and a large collection of voucher specimens. These eventually will go to the Botany Division at Lincoln.

The survey area lies between S. latitude 37 degrees 15 mins to 38 degrees 10 mins and E. longitude 177 degrees to 177 degrees 35 mins., extending from the coastal zones of Chope to Hawai and inland to include Takaputahi, Toatoa, Oponae and Waimana town, as well as part of the Waiarau, Otara, Waiocoka and Waiotahi valleys and adjacent areas. It seems that two thirds of this area comprises

farmland, housing localities and some pine plantations, the remaining third being coastal, lowland and lower montane forests, forest remnants and second growth zones. Within all these were surveyed roadsides, streets, beaches, cliffs, disturbed ground, wasteland, riversides, swamps and native forest stands. Approximately 800 species and varieties have so far been collected, about half of which are indigenous and half adventive. Perhaps some of the more interesting or unusual plants of the survey here are as follows:-

INDIGENOUS SPECIES

Libocedrus plumosa (kawaka) - scattered stands near river, upper Waiotahi valley. 200 feet.

Cordyline indivisa (mountain cabbage tree) - several trees on a steep, bush clad roadside bank, at 1400 feet, Toatoa area.

Elaeocarpus hookerianus (pokaka) - in the same vicinity, in forest at 2400 feet are many trees.

Entelea arborescens (whau) - not uncommon in coastal areas about here including Hawaii, Opape and Ohiwa Harbour sites.

Ixerba brexioides (tawari) - abundant in Toatoa forest areas (1000'-2100'). Occasional in Otara and Waiaua forests to 500'.

Mida salicifolia (maire) - occasional only in lowland forest margins of Waioeka and Waiaua valleys.

Nothofagus solandri (black beech) - a small remnant near Ohiwa Harbour.

Nothofagus truncata (hard beech) - another small remnant near Ohiwa Harbour though abundant in inland hills.

Pittosporum colensoi - not uncommon in lowland forest, usually in proximity to P. tenuifolium.

Sophora tetraptera (kowhai) - in coastal forest of east Hawaii. Many juveniles.

Ascarina lucida - recently recorded on ridges bordering the upper Tutaeotoko Stream, between the Otara and Waioeka valleys. Plentiful.

Avicennia resinifera (mangrove) - Ohiwa Harbour, abundant, its southern boundary.

Olearia pachyphylla - plentiful from Opape to west Torere cliffs - coastal: recently recorded from Coromandel Peninsula.

Pimelea prostrata var. erecta - many growing on a clay-pumice hillock beside the Ohiwa Harbour. Uncommon.

Pomaderris kumeraho (kumarahou) - many around the Ohiwa Harbour area, its southern limit.

Metrosideros carminea - occasional. One plant near town disclosed its presence by flowering profusely near the Otara River and growing on an old kohekohe.

- Asplenium hookerianum - growing in forest remnant at 1200' behind Hukutaia Domain.
- Athyrium japonicum - Waioka Gorge, in two lowland forest areas near river.
- Eleocharis norfolkiana - a fair colony found within the Ohiwa Harbour area.
- Doodia caudata - in coastal forest, Torere west - limited.
- Isoetes velutina - a soft attractive fern growing in the same coastal area at Torere. A few plants only.
- Marattia salicina (king fern) - in steep narrow valleys within lowland forest, near the northern end of Waioka Gorge.
- Phymatodes novae-zelandiae - one plant found at 2300' in Toatoa area, lower montane forest margin.
- Bromus arenarius - a native grass, plentiful on west Torere beach. Growing in gravel flats amidst lupin etc.
- Dichondra brevifolia - many growing on rocky banks beside stream in Morices Bay. (D. repens also present).
- Epilobium nerterioides - many in Otara valley zone near streams. (E. brunescens also present).
- Myosotis forsteri - plentiful in lowland forest of upper Waiotahi Valley - a domain area near river.
- Scandia rosaefolia - occasionally on roadside banks of Waioka Gorge. Lowland forest margins.
- Alternanthera denticulata - coastal wet areas, Hawai east and Tirohanga streamside. Of the Amaranthaceae family.

ADVENTIVE SPECIES

- Acacia decurrens (early black wattle) and A. mearnsii (black wattle). This latter species more plentiful, abundant and increasing particularly near coast - a legacy of a bygone tanning industry which used the bark.
- Albizia lophantha (brush wattle) - plentiful in district - also yellow flowers.
- Cornus capitata - a garden escape in several areas - cream flowers - increases in numbers rapidly.
- Erica lusitanica (Spanish heath) - one of the several 'heathers' spreading rapidly in the North Island.
- Juglans cordiformis? (walnut) abundant throughout area, most river valleys and coastal roadsides (species to confirm).
- Maclura pomifera (osage orange) - Otara Valley, probably planted for ornamental purposes, now reproducing on roadside.
- Opuntia vulgaris (prickly pear) - Torere Beach, west end. Uncommon. Small plants now noticeable near adults.
- Lonicera japonica (Japanese honeysuckle) - spreading rapidly throughout district including forest areas. Virtually a noxious weed difficult to eradicate.
- Selaginella kraussiana - a pteridophyte, often seen in glasshouses, spreads rapidly from windblown spores. Grows in Waioka Gorge and Takaputahi zones on forest margins.

Miscanthus nepalensis - rather like a miniature 'toetoe' with golden plume. Abundant on roadside banks in Otara Valley, Chiwa Harbour and elsewhere. Reproduces freely.

Nassella trichotoma (nassella tussock) - a noxious weed now growing sparsely on hills behind Hukutaia Domain. Controlled by the N.Z. Forest Service who spray periodically, and have planted the area in pines.

Pennisetum macrourum - somewhat ornamental, but related to kikuyu grass, with long creeping rhizomes. Growing on roadsides within Opatiki Borough and elsewhere.

Allium triquetrum (three-cornered garlic) - growing mainly within Borough on roadsides, in drains and gardens. Looks like a 'snowdrop' but smells like an onion. Spread by past floods.

Crocosmia x crocosmiflora (montbretia) - a well known orange flowered bulb, fairly common on roadsides throughout the district.

Bidens frondosa (beggar ticks) - a pinnate composite (with three to five leaflets) herb growing in wet areas, often drains. Plentiful throughout and abundant in Waimana zone.

Cichorium intybus (chicory) - abundant throughout the district. This blue flowered composite (sometimes white) flowers on roadsides January, February.

Conyza floribunda (broad-leaved fleabane) - abundant throughout on roadsides, waste areas, farmland etc. - Other Conyza species scarce.

Senecio bipinnatisectus (Australian fireweed) - also abundant on roadsides, farmland, forest clearings etc.

Silybum marianum - a large plant, usually coastal. Found within the Borough and also inland and sprayed. (Closest colony is at Waihou Bay, 60 miles distant).

Tolpis barbata - lemon flowered composite with brown centres. Coastal at Hawai.

Cakile edulenta (sea rocket) - a mauve or white flowering plant with succulent, pinnate leaves. Coastal sands Choape to Opape. C. maritima and a subspecies are also here.

Chenopodium ambrosioides (Mexican Tea) - a smelly, coastal plant plentiful throughout district, occasionally inland.

Dipsacus fullcrum (teasel) - a few plants at Hawai beach. (Plentiful down the coast at Raukokore and Waihou Bay).

Echium plantagineum (Paterson's curse) - a purplish flowered herb of somewhat noxious habit. Occasional at Otara and in Borough.

Echium vulgare (viper's bugloss) - a royal-blue flowering herb abundant on Torere beach area (abundant also at Raukokore and Waihou Bay).

Galium palustre (marsh bedstraw) - found in damp, shady, roadside conditions in Otara Valley. One of the several 'cleavers' here.

Malva nicaeensis (French mallow) - fairly common in district on roadsides and waste places. Small mauve flowers.

Marrubium vulgare (horehound) not common - a greyish labiate with small white flowers. Related to Clinopodium vulgare (wild basil), Nepeta cataria (catmint) and Mentha spp. (mints) all growing in the Opatiki district.

Mimulus moschatus - yellow flowered, uncommon, growing in wet area near river in Waioeka Gorge.

Navarettia squarrosa (Californian stinkweed) - uncommon, found near Waiaua River by highway bridge. Probably carried by stock - very ~~un~~commonly.

Parentucellia viscosa (tarweed) - plentiful along roadsides throughout, yellow flowered herb with sticky leaves.

Plantago hirtella (swamp plantain) - one of the four local plantains. Usually found in wet coastal areas throughout. Recorded at Toatoa zone at 2300'.

Polygonum lapathifolium (pale willow weed) - with greenish flowers. Usually growing in wet areas. Here, in Otara Valley and elsewhere.

Polygonum orientale (oriental knotweed) - on roadside within the Borough. A garden escape - large light green leaves, crimson flowers to 6'. Flowers profusely.

Scrophularia aquatica - plentiful throughout district. A rather tall herb with small red-brown flowers; found in wet areas, drains etc. Abundant in Waioeka Gorge and elsewhere.

Sida rhombifolia - plentiful on Torere beach among lupins. A rapidly spreading weed which dies down in winter.

Silene gallica (catchfly) - a common roadside weed throughout. Small attractive pink flowers, often with crimson blotches.

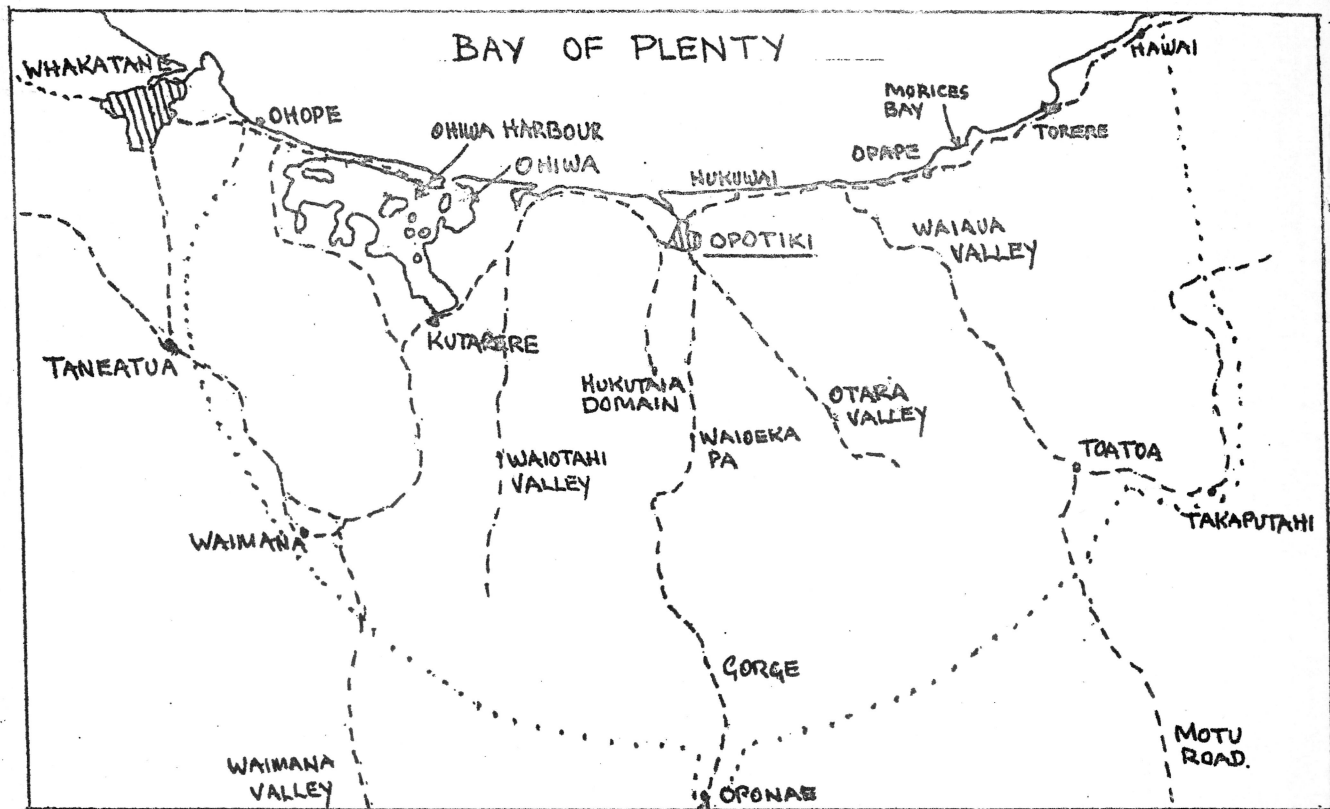
Trifolium ornithopodioides (trigonel) - coastal roadside at Hawaii. Sprawling prostrate plant - one of the many clovers within district.

Verbena bonariensis (purpletop) - a common rather attractive roadside weed throughout district.

Veronica anagallis-aquatica - water speedwell - an attractive light blue flowered herb of streams and wet areas. Found in Otara, Waiaua Valleys and elsewhere. A pink flowered species V. catanata was found at Opape.

In conclusion may I say that this project has been most rewarding. To learn more about the majority of plants about us, to learn something of our local ecology - all are interesting - to be able to recognise most plants about us and perhaps name them quickly is mentally satisfying, and to find a new species or variety 'for a survey' is really something! I can recommend the exercise.

Should anyone be interested in a similar project elsewhere I will be pleased to assist with perhaps names of reference books, general methods and so on. Just drop me a line.



OPOTIKI DISTRICT 'WILD PLANTS' SURVEY AREA : BOUNDRY

MAIN ROADS - - - - -

SCALE : 1/4 inch = 1 mile