

PLANTS AND SHORE RECLAMATION AT MIDDLETON BAY.

Along the Opunake foreshore land erosion due to the action of sea and rain torrents is very evident. Perpendicular cliffs from 60 to 80 feet high stretch along the coast line. At the headlands the shelving mass of igneous boulders that have fallen from the cliff faces now acts as a breakwater. Small U-shaped bays have been gouged out in those parts where the soft volcanic soil holds no loose rocks. At the head of these bays sand is being piled up and fresh soil is making.

At Middleton Bay shells and seaweed take no part in reclamation -- with the exception of a few pauas and periwinkles there is little shore life; the smooth rounded boulders provide no crannies for sea plants. The only seaweeds found were a few specimens of Cystophora and Hormosira banksii washed up on the sand. (Yet on this unpromising-looking coast Mr. V. W. Lindauer of Pihama has, within the short space of eighteen months, made many new records of growing seaweeds. He too complains of lack of drift weed. Ed.)

In this bay undulating sand dunes stretch straight across the curve forming a low plateau below the cliff, approximately 100 yards wide in the centre. Here certain plants are at work, reclaiming, making and conserving soil.

The chief artisan is Spinifex. Here it is at Middleton Bay, right down to high water mark, reaching out its long rhizomes to fix a new deposit of sand brought by the waves, and sending its axled seed-heads spinning along for fresh finds. The bay has a south-westerly aspect and the cliff walls are moist with water that seeps into the sandy plateau. A little further in from high water mark amongst the Spinifex are small rushes, numbers of dandelions, a few grasses and mosses, the shore convolvulus, native spinach (Tetragonia trigyna) and great mats of the Cape Colony Mesembryanthemum.

Nearer the cliff are a few sedges, and a line of luxuriant Phormium following the curve of the bay. And we have too, the picturesque effect of flax growing in crannies half way up the face. When Nature held sway at Opunake flax formed a wide border between forest and cliff.

Another plant well to the fore in the work of soil conservation is the Coprosma. Three species were noticed, C. acerosa well out on the sandy plateau, C. robusta and C. Baueri (or C. repens to be more modern) nearer the cliff where there is more soil. Taupata is the most plentiful; it is growing with the Phormium on the reclaimed area, and in fancy shapes, flattened to combat "Old man Southerly" clings in odd crannies, right to the top of the cliff. In one place part of the root foundation of a large specimen has fallen away, due to the cutting made for the track. But the tree still hangs on -- green and prosperous. It is odd to see the dangling roots, in size and form almost a replica of the half section of the twisted branches above. Kawakawa (Macropiper excelsum) is fairly plentiful here but prefers the more sheltered nooks lower down amongst the tall Phormium and Coprosma.

On one side of the track leading from the zigzag is a large patch of ivy. It may conserve the soil but like so many of the exotics it crushes out even the most daring of neighbours. And one cannot say that it adds to the aesthetic value, nor does the one clump of weather-beaten tutu that is growing near.

Ngao, and possibly other shore-lovers, as karaka and pohutukawa, could be established, and would not only help in conserving and making soil, but would add their quota to the beauty of the bay.

Rewa Glenn.

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WHAU AT PAEKAKARIKI.

Commenting on the report of the Mt. Wainui trip in the last Bulletin, Mr. Elder writes: "In 1904 or 1905 I was in a party that Prof. Easterfield took up a side gully under Mt. Wainui to visit a large whau growing in the bottom. So far as I can remember the general opinion was that it was introduced by Ngatiawa from Taranaki for net floats." An accompanying sketch shows the approximate position roughly corresponding with that of the present plant.

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