

A CURIOUS MIXTURE OF SPECIES

R. Mason

A road some eight miles long runs south-west from the site of the old Hatfield Railway Station to Dromore. For most of the way it is lined on the east by a plantation of Pinus insignis, but in part by blue gums (Eucalyptus globulus). Late in the afternoon of 3rd March, 1969, at a point about $1\frac{1}{4}$ miles west of Chertsey I came across an unusual sight; barberry (Berberis glaucocarpa) and matipo (Pittosporum tenuifolium) forming a fairly open understory to the gums.

On a return visit on 4th April, 1971 it was found that for a considerable distance the plantation was now fenced off from the road as well as from the paddocks. Stock, although not then present had obviously been held there fairly recently for some time, and had had a marked effect on the vegetation. Another visit was made on June 1st this year and it was apparent that the grazing pressure had eased for some time. Mr. Wilkinson, whose homestead is on the opposite side of the road, explained that the plantation was on a railway reserve, and that when he sought direct access to his land on the eastern side of the road he had acquired a section of the reserve.

The dominant tree is the blue gum, but there are two other eucalypts, E. amygdalina and E. obliqua (uncommon), and an occasional pine (P. insignis). The matipo when first seen ranged from plants a few inches high to 16 feet tall and up to $9\frac{1}{2}$ inches in diameter at foot height, but on the next visit all the shorter plants were entirely eaten out or reduced to dead stems, and all leafy shoots below the level of about 40 inches had been eaten off. This year some of the older trees had leafy sprouts from the base. Several slender shrubs, although they had trunks bare for 42 inches, with leafy heads 12 inches or so high and about as much broad, appeared perfectly healthy.

A number of trees as tall as 16 feet have died for no apparent reason. They are mostly near the roadside; around some the ground is well trodden by sheep, but not around all. A group of five trees 12 feet and more tall forming a 7 foot circle were all dead, yet the single 9 foot tree within the circle was flourishing. A black fungus on the surface roots of the tallest tree has been identified by Miss J. Dingley as Daldinia concentrica. It is unlikely to have been associated with the death of the tree; it is a coloniser of newly dead soft wood.

The barberries suffered far less than the matipos as they were not browsed. There are no young barberries now coming on, and probably seedlings are eaten before they can establish, but older plants have not suffered much.

There are occasional gorse (Ulex europeus) and broom (Cytisus sp.) bushes, and three shrubs of spindle tree (Euonymus europaea), two small gooseberries, and a few plants of blackberry.

At first there was a fairly dense growth of cocksfoot (Dactylis glomerata), as there has always remained outside the enclosed area. In 1971, although some grass remained, the ground was almost bare. Today there is again a good growth of cocksfoot. Other herbs present are chickweed (Stellaria media), daisy (Bellis perennis), cleavers (Galium aparine), shepherd's purse (Capsella bursa-pastoris), bluegrass (Agropyron scabrum), and a species of Bromus. A small patch of bracken was seen in 1971.

Horses certainly seem to have been held in the enclosures, at times, but sheep seem to have been the most damaging to the vegetation.

Here a small native tree, matipo, has spread of its own accord under a canopy of introduced trees, eucalypts, along with an abundance of a naturalised shrub, barberry. Some 12 miles or so away, on Great Island, as members will remember from the trip led by Dr. Molloy some years ago, matipo grows wild as part of the original vegetation. One must at least ask whether the matipo under the blue-gums descends from an original vegetation close at hand, or whether they derive from Great Island by transport of the sticky seeds by birds. The answer would seem to be "No" to both questions. According to Mr. Wilkinson family tradition has it that "there was not a tree in sight" when his uncle took up land there, but that there had once been a hedge of matipo near the homestead. The hedge is by far the most likely source, for the matipos grow most thickly and all the oldest trees are a little way to the north of the farmhouse while at the limits of the blue gums the matipos are small and sparse. Also the barberries and the spindle trees certainly, and most probably the gooseberries, have spread from the homestead.

There was almost nothing under the pine trees except at the northern end of the road, on a lower and later terrace, where Viburnum tinus and cherry plum (Prunus cerasifera) were common. The pines there are now being felled.

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OUT IN THE OPEN

One cannot pass silently the azure flowers of the giant Forget-me-not, the Chatham Island lily (Myosotidium nobile), in addition to the lovely tint of the large blossoms it rejoices in splendid shining foliage of deep green. The heart shaped leaves, traversed by bold parallel veins, reach noble dimensions, over thirty inches in length, with a breadth of twenty inches at the widest part.