

Thismia rodwayi at Pirongia

PURELY by accident I came across this peculiar plant on Pirongia Mountain in November 1962. While sitting on a log having a smoke with a friend and just doodling among the leaves on the ground I exposed some pretty little pink flowers. Thinking they were some kind of sundew I took a couple home to try and grow them on, but after a few days they simply disappeared. About eight or ten months later I drew a sketch from memory and sent it to M. C. Gudex to see if he could identify it. He rang, greatly excited, at ten o'clock one night and told me that he believed it was *Bagnisia hillii*. So I went back in November 1963 and found quite a lot again.

From M. C. Gudex and from Cheeseman's account I found out all I could about it. Then I decided to experiment with growing some at home, knowing this would be extremely difficult. I very carefully cut out an 18-inch square of soil and mould without disturbing the three or four flowering plants within it, and carried it home in a box. Then I placed this square turf into a large plastic bag, poured in a large jug of water, and tied the top of the bag firmly, making sure that the bag was well filled with air. This assured that the plants were protected from drying winds and insects. Then I placed the bag against the back wall of a verandah where it would not receive any direct sun. There the plants flourished for several weeks.

The flowers matured and finally dropped off to lie and rot, leaving a whitish stalk about $\frac{1}{2}$ inch tall and sheathed in white scales like the leaves. At the top of the stalk was a frilled cup, the original base of the flower, in which nestled a small, white, round fruit. This, I understand, was the first report of the fruiting habit of this plant. Before the last flower had deteriorated I sent it, with others, to Miss Ella Campbell at Massey University, and also some to Dr Moore at Lincoln.

Thismia rodwayi, as it is now known, has since been described by Miss Campbell.* It is a second time parasite, being lightly attached by a creamy coloured rhizome to a cobweb fungus, which in turn is itself a parasite on the roots of a tree, in this case tawa. The *Thismia* contains no chlorophyll. The reason for digging out a fairly large turf is to cut off enough of the tree roots so that the cobweb fungus can continue to draw food, thereby enabling the *Thismia* to see out its life. I noticed that where the litter on the forest floor was disturbed, some of the flowers had become exposed to filtered sunlight and these were $\frac{3}{4}$ inch tall and $\frac{1}{2}$ inch broad and exceptionally deep pink.

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* See *Trans. R. Soc. N.Z. Bot.* 3, 209-211 (1968).—Ed.