

Some months ago the editor advertised through the News Letter for specimens of that intriguing little water fern Pilularia novae-zealandiae. The pill-wort as it is popularly called is an insignificant little plant, and so far reported only from Lake Whangape in the North Island. To my delight I recently received specimens from Miss Lucy Moore, a foundation member of our Society. It was accompanied by an article describing her discovery of the fern, which she has kindly given me permission to publish.

MEETING PILULARIA NOVAE-ZEALANDIAE

(L.B. Moore.)

Travellers' Valley must have been well-known in the eighties when it lay on the main land route from Nelson and Marlborough to Canterbury. Today the cattle man does some mustering thereabouts, a deer culler looks the place over perhaps every couple of years, and an occasional trumper trudges through. Only very rarely does a botanist get to this remote corner where W.T.L. Travers long ago did the pioneer collecting.

An almost imperceptible watershed separates the upper Wairau River a little above its gorge, from the series of tarns that lead to Travellers' Valley. On this side the water flows by the Severn and the Acheron to the mighty Clarence River. The encircling mountains, reaching from to five thousand feet, are mostly bare and stony though the steep sheltered valleys beyond the Wairau carry ragged patches of dark beech forest. The rolling tussocky Tarndale plain, obviously the floor of a prehistoric glacier, lies about 3000 feet above sea-level and stretches several miles in each direction. There are some half dozen tarns of different sizes, all dark and peaty in their depths and much frequented by black swans and noisy paradise ducks.

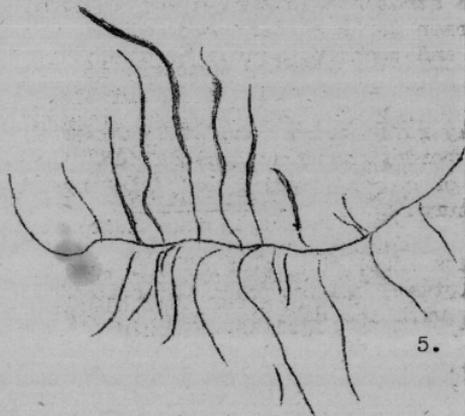
Imagine a clear cold steely sky reflected in the still water of one of the smaller tarns. The bordering tawny tussock adds some warmth of colour, and a group of cattle, wading and drinking in a little bay, completes the picture.

Shallowing very gradually to its edge, the water of the tarn carries a surprising quantity of flotsam, bright green unrooted water-plants that contrast strongly with the dark bottom of peaty

earth. From this half-stranded fringe of greenery, at the approaching footstep, inch-long, semi-transparent fish dart out in hundreds and make for the deeper water.

Aquatic plants are often neglected by collectors, but here the first glance shows some aristocrats that are not to be passed by. There is some sturdy *Myriophyllum* (*Melatinoides*), but the great bulk is *Isoetes*! The tufted rush-like plants have quill-shaped leaves averaging perhaps six inches long. The swollen leaf bases are conspicuously white and even a rough bowie knife dissection shows that each contains an oval spore sac. Notwithstanding their appearance, these plants are more nearly related to ferns and lycopods than they are to rushes and sedges. They have turned out to be *Isoetes alpinus*.

Also in the "drift" is a smaller sedge-like plant. It might be a non-flowering *Scirpus*, but as we may not pass this way again, it is worth taking a handful to look at more closely. The handful gets its label, dries off in the pack, and when the trip is over, is put aside to await that elusive "leisure hour". When the final tidying-up comes, the shrivelled little scrap looks so pitiful that it is almost thrown out as hopeless - but it might be worth one quick lookover. A drop or two of water will help in the unravelling - and so it does. The first thing the lens shows is a young leaf tip curled like a watch-spring. That means it must be *Pilularia* - that unfernlike water-fern that every student knows about, and so few people ever collect. And this is how it looks when it floats loose from the bottom of the little lakes at Tarndale between Travellers' Valley and the Wairau River.



The New Zealand Pillwort.

(I add life size drawing of Miss Moore's specimen. ED.)

(From the south where they are commoner.)

## CONGRATULATIONS!

The Loder Cup has been awarded this year to Mr. Norman Potts of Opotiki. Mr Potts is a foundation member of this Society and we unite in offering him our heartiest congratulations. Mr. Potts has always given most able and generous help to all collectors, and in his own district has done much to encourage the study of native flora and has done yeoman's work in furthering the planting of native trees. All who are familiar with his enthusiastic and unselfish work, will rejoice in this most fitting recognition of his services to New Zealand Botany.

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## CORRESPONDENCE:

A very keen country member, Mr. Ross McKenzie of Clevedon, has forwarded some observations of interest.

He writes : "Re Nothopanax colensoi. At Horopito, on the south side of Mt. Egmont at about 3000 feet, I noticed a Nothopanax with light green fruit. Being accustomed to our northern N. arboreum with dark purplish fruit from flower to ripeness, I began to investigate. In the same month January 1944, I visited Te Whaiti and went to the top of the Huiarau Range, 3,120 feet. Here again was a great deal of Nothopanax colensoi with the green fruit. Cheeseman says N. Colensoi has "purplish black" fruit, so I was puzzled. "On investigation, Mr. McKenzie found that the Auckland Museum specimens also had green fruit.

Mr. McKenzie's observations should be noted by members, it will be interesting to know whether the green fruit is invariable. N. colensoi is an interesting little mountain tree, closely allied to the common Five Finger (Nothopanax arboreum). It flourished in high country usually between 1500 and 4000'. Dr. Cockayne stated that on Mt. Egmont both N. colensoi and N. sinclairii grow as perching plants "frequently killing and replacing their hosts." N. colensoi is usually distinguished from the five finger by the fact that its leaflets are not stalked and are from 3 - 5 in number, instead of from 5 - 7. Having given this simple straightforward method of distinguishing the species we would