

was surprisingly little overlap between the two talks, considering that they were based upon the same material. There seems to be no point in repeating what I wrote earlier, so I will confine myself here to Mr. Butcher's explanation of the nutritive mechanism of the two bladderworts, Utricularia delicatula and novae-zelandiae, which occur in the bogs. These plants overcome the nitrogen deficiency characteristic of the raised bogs, by trapping insects and small animals which live in the water. (The sundews by contrast, achieve the same result by trapping insects which fly about in the air above the bogs). The traps or bladders of Utricularia, have watertight doors which close firmly. The interior surface of the bladder is covered in 4-fid, stalked hairs, which absorb the water within and pass it through to the outside. This absorption gradually reduces the internal pressure until it is less than that of the surrounding water. The door opens, allowing an inrush of water and any contained insect larvae, algae, plankton etc. Even small tadpoles have been caught. The captives die and decompose, and the nitrogenous remains are absorbed by the plant. E.D.H.

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UNUSUAL LEAF VARIANT OF JUVENILE PIGEONWOOD - - - A.D.Mead

Saplings of pigeonwood (Hedycarya arborea) with their smooth erect and nearly black stems carrying neatly spaced pairs of opposite leaves, are quite common in the Waitakeres. I have recently come across a very few examples with leaves in whorls of 3, instead of pairs, a variant feature which does not appear to have been previously reported. I communicated with Lincoln and received a letter in reply from Mr. T.W.Rawson, Herbarium keeper, who says that he has searched through their specimens and literature without finding any mention of this variation, though a similar variation is known to occur occasionally in other genera which have opposite leaves, for example Lonicera, Lycestria and Coprosma. A specimen growing near my house at Piha is branching at 6 ft. above ground, and the branches have normal opposite leaves. The sketch herewith is drawn from this tree, showing a portion of the main stem with leaves in threes.

