PSEUDOWINTERA IN NORTHLAND II - THE CONTINUING STORY

E.K. Cameron & P.J. Bellingham

Vouchered records of Pseudowintera colorata from Northland (only the 1985 specimen seen by us):

a January, 1896, D. Petrie, Taheke-Kaihu Rd (Waipoua-Waima), WELT* 25391. Vink (1970) notes it has short hairs on leaf surface, petiole, twig and/or pedicel (an occasional character for P. colorata).

b October 1897, H. Carse, Kaitaia, WELT 25436.

c January 1972, G.B. Rawlings, Mataraua State Forest, CHR 191224. NZMS 1 N18 c.151143, c.670 m.

d October 1985, P.J. Bellingham, Waima State Forest, AK 171378. NZMS 1 N18 097163, c.685 m. The track from Waoku Coach Road to Oraora Saddle, plateau between headwaters of Te Kapinga Stream and Waimamaku River, Tutamoe Range summit. Scattered groups of small shrubs to 2.5 m tall. Under towai/tawari canopy with common maire tawake and abundant emergent rimu and northern rata.

Vink only saw specimens from CHR and WELT and his two mapped P. colorata Northland sites were the Petrie and Carse records (above). Therefore it appears as though the only definite Northland P. colorata not on the northern Tutamoe Range is the 1897 Carse record from Kaitaia.

R.O. Gardner (pers. comm.) pointed out that there are several curious Northland Pseudowintera specimens at AK, labelled P. axillaris, which were inaccessible when writing our original article (1985). They are:

a Mt Maungatapere, near Whangarei. H. Carse, October 1897. AK 49911.

b Summit of headland, Whangarei Heads. K. Given, December 1950. AK 27233.

c Kaitaia, R.H. Matthews, October 1898. AK 4369.

d Unuwhao, near summit, 290 m. R.C. Cooper, February 1949. AK 24475.

They are curious because using Vink's (1970) three main criteria of hairiness of bracts and young leaves, white cutin cover on underside of leaf and calyx margin (when present on herbarium specimens) to separate P. axillaris from P. colorata, the specimens fall intermediate or key to P. colorata. The first two appear intermediate while the latter two approach P. colorata. Yet the four collectors, save Matthews, apparently identified their specimens in the field as P. axillaris (as labelled). Gardner and Bartlett (1980) recorded only P. axillaris from Unuwhao (and Radar Bush). Bellingham (1985) stated "Horopito (P. axillaris pers. comm.) are conspicuous ... on the (Unuwhao) summit." This suggests that in the field the Unuwhao population has the characteristics of P. axillaris and perhaps Vink's features of P. colorata as well (cf. Cooper's Unuwhao specimen). Alternatively, Cooper's specimen was from a different population, which appears unlikely. Vink's taxonomic characters based on herbarium specimens, which "deviate from those generally used" (Vink) need testing against the good field characters of fruit colour; and taste, glossiness and colour of the leaves which are usually not recorded with herbarium specimens. Plant collectors please note! Vink also suggested the characters of fruit colour, leaf colour and ecology should be included and that fieldwork may refine the results.

Two P. axillaris specimens mentioned in our original article also exhibit some of Vink's characters of P. colorata. The Manaia Ridge specimen (AKU 15341) has hairy young leaves and bracts (P. colorata character) and is very hairy on the adult leaves as well. Although it is from a close locality, the Whangarei Heads specimen (AK 27233) (above) lacks hairs on the adult leaves. The other, a seedling from Te Paki (AKU 15974) has continuous white cutin layer on the lower leaf surface (also P. colorata character).

The problem of whether there really are hybrids between the two species or whether it is genetic variability within the two species, or a combination of both, will possibly remain unresolved until artificial crosses are made between them and the resulting progeny grown on for comparison. Sampson (1980) noted that preliminary experiments along these lines were being carried out. Also Vink's delimitation of the two species requires testing in the field.

* Abbreviations of herbaria referred to are as follows:

AK Auckland Institute and Museum;
AKU Botany Department, University of Auckland;
CHR Botany Division, DSIR, Lincoln;
WELT National Museum, Wellington.

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