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RESEARCH ARTICLE

New combinations in *Helichrysum simpsonii* Kottaim. for the taxa described as *H. selago* var. *acutum* Cheeseman and *H. selago* var. *tumidum* Cheeseman (*Asteraceae*) from Aotearoa / New Zealand

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Abstract. New variety- and subspecies-rank combinations in the Aotearoa / New Zealand endemic *Helichrysum simpsonii* Kottaim. are provided for the taxa described as *H. selago* var. *acutum* Cheeseman and *H. selago* var. *tumidum* Cheeseman, and lectotypes of these names are designated.

Keywords: *Asteraceae*, *Helichrysum*, *Helichrysum simpsonii* var. *acutum*, *Helichrysum simpsonii* subsp. *tumidum*, flora, lectotypification, new combinations, New Zealand

Introduction

Since 1982 the name *Helichrysum intermedium* G. Simpson has been used for an Aotearoa / New Zealand endemic plant (Simpson, 1945) that had hitherto erroneously been referred to as *H. selago* (Hook. f.) Benth. & Hook. f. ex Kirk by Allan (1961). This name change was necessary because investigation of the type of *H. selago* showed that it was based on an uncommon hybrid between *H. coralloides* (Hook. f.) Hook. f. and *H. parvifolium* Yeo (Eagle, 1982),

subsequently referred to as *H. ×selago* (Hook. f.) Benth. & Hook. f. ex Kirk. *Helichrysum intermedium* remained in use for the Aotearoa / New Zealand plant until Kottaimuthu (2023) pointed out that this name is illegitimate because it is a later homonym for *H. intermedium* Lessing (Lessing, 1832). To rectify the problem, Kottaimuthu (2023) established the new replacement name (*nomen novum*) *Helichrysum simpsonii* Kottaim. for the Aotearoa / New Zealand plant.

While this resolved the species rank name for this *Helichrysum*, it still left two intraspecific taxa,

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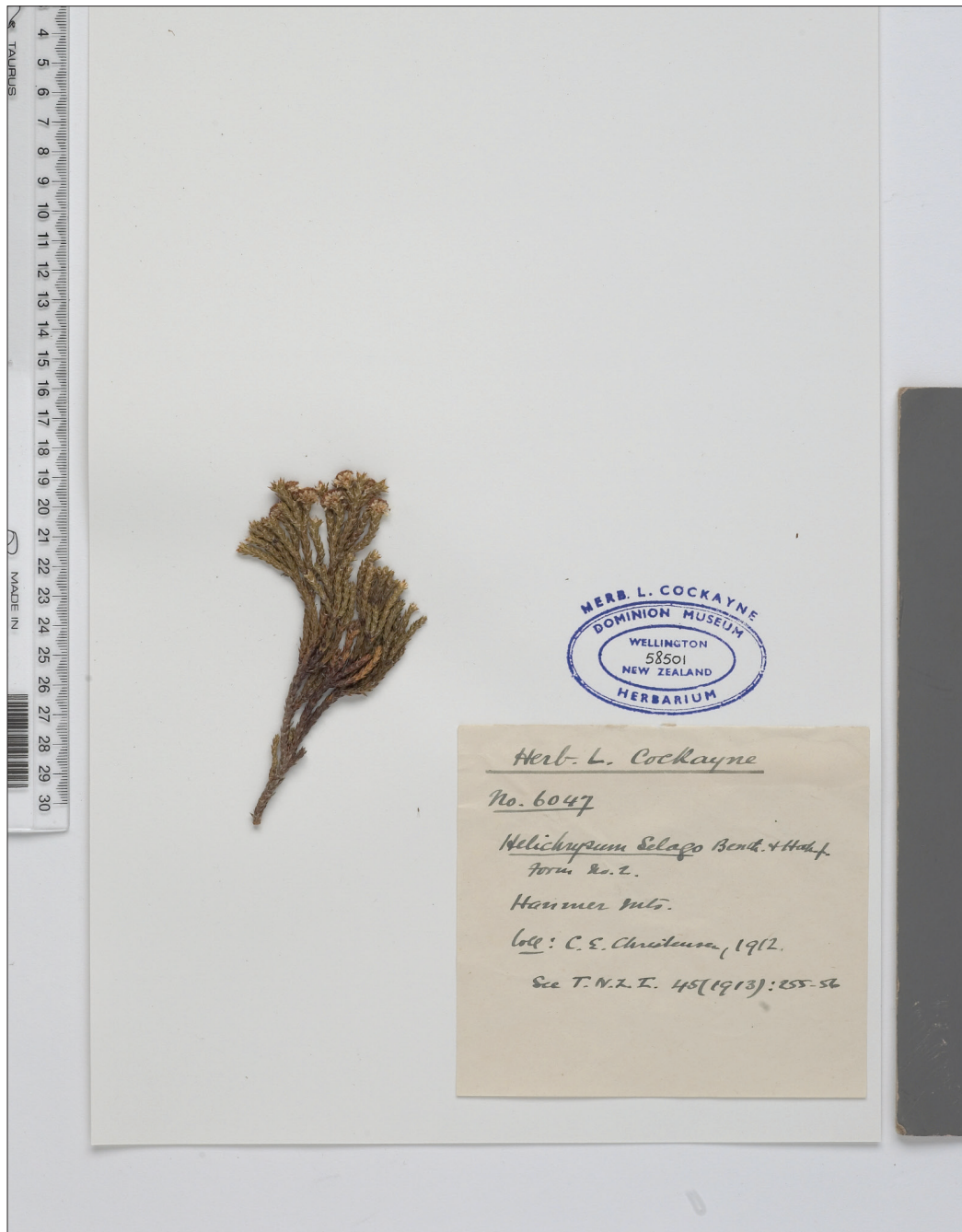


Fig. 1. Lectotype of *Helichrysum selago* var. *acutum* Cheeseman, WELT-SP058501

H. selago var. *acutum* Cheeseman and *H. selago* var. *tumidum* Cheeseman, described by Cheeseman (1925), without names available in *H. simpsonii*.

Although Eagle (1982, 2006) illustrated other races within what is now *Helichrysum simpsonii*, the status of these remains unresolved and requires

further study. The purpose of this paper then is to deal with the taxa originally described as *H. selago* var. *acutum* and *H. selago* var. *tumidum*. These varieties are widely accepted by botanists in Aotearoa / New Zealand and have conservation assessments (de Lange et al., 2018) and yet were overlooked when



Fig. 2. Lectotype of *Helichrysum selago* var. *tumidum* Cheeseman, WELT-SP058412

the illegitimate name *H. intermedium* G. Simpson was revived (Eagle, 1982) and when the replacement name *H. simpsonii* Kottaim. was established (Kottaimuthu, 2023). To resolve this nomenclatural issue, we make below the necessary combinations for both varieties in *H. simpsonii* and also typify the names.

Herbarium acronyms follow *Index Herbariorum* (Thiers, 2008—continuously updated).

New Combinations

Helichrysum simpsonii* var. *acutum (Cheeseman) de Lange & Blanchon, comb. nov.

Life Science Identified (LSID): urn:Isid:ipni.org:names:77321644-1

Basionym: *Helichrysum selago* var. *acutum* [as '*acuta*'] Cheeseman, Man. N.Z. Fl.: 985. 1925.

Type Locality: "Mountains behind Hanmer Plains, T.F.C. [T.F. Cheeseman]. C.E. Christensen"

Lectotype (here designated) (Fig. 1): WELT-SP058501! C.E. Christensen, 1912, "Hanmer Mts. [sic] Herb. [arium] L. Cockayne, No. 6047. See. T.N.Z.I. 45 (1913): 255-56"

Notes: WELT-SP058501 is the only specimen we can find that matches the protologue as to location 'Mountains behind Hanmer Plains' and collector 'C.E. Christensen'. This specimen includes a reference to a paper (Cockayne, 1913) where this variety was noted as "Another Hanmer plant... [with] the leaves strongly acute, almost apiculate... [which] Mr Christensen first called my attention to". Cooper (1949) and Herrick & Cameron (1994) noted that there were no T.F. Cheeseman specimens in AK and we have seen none in other New Zealand Herbaria, so it may be assumed that this specimen is the holotype. However, because other Christensen specimens may exist, we have chosen to conservatively designate WELT-SP058501 as a lectotype rather than treat it as a holotype, following the advice in McNeill (2014).

We have retained the rank of variety here because *Helichrysum simpsonii* var. *acutum* occurs within an area of considerable variation within *H. simpsonii* (see Eagle, 1982, 2006) that has yet to be tested by a modern taxonomic revision. This variation was alluded to by Cockayne (1913) and Cheeseman (1925), the latter of whom noted two forms within his var. *acutum* (described as '*acuta*') which he informally treated as 'a' and 'b'. Further study is needed.

Helichrysum simpsonii* subsp. *tumidum (Cheeseman) de Lange & Blanchon comb. nov.

Life Science Identified (LSID): urn:Isid:ipni.org:names:77321645-1

Basionym: *Helichrysum selago* var. *tumidum* Cheeseman, Man. N.Z. Fl. 1925, 986

Type Locality: "Near Cape Saunders, Otago, Cockayne".

Lectotype (here designated) (Fig. 2): WELT-SP058412! L. Cockayne 6043, Feb 1903, "Nr[near] Cape Saunders, Otago Peninsula, South Island of New Zealand". Isolectotypes: WELT-SP058411!, WELT-SP058413!

Notes: Allan (1961, p. 720) cites Cooper (1949) who stated that the type was missing from AK. It seems strange that Cooper (1949) assumed the type would be in AK, though possibly this was based on the reasoning that Cheeseman (1925) had named *Helichrysum selago* var. *tumidum*. There are no syntypes in AK (see below) but there are in the Cockayne Herbarium at WELT, where there are three sheets, all numbered by Cockayne '6043', WELT-SP058411, SP058412 and SP058413, matching the protologue as to their collector and location. WELT-SP058413 is labelled 'Ex Herb. L. Cockayne 6043' and annotated 'as sent Man. edit. 2' — we assume but cannot be certain, that this annotation means it was seen by Cheeseman for the second edition of his flora (Cheeseman, 1925). The second sheet, WELT-SP058411, has a Cockayne label, roughly handwritten in blue pencil, that reads '6043 *Helichrysum selago* Cape Saunders', and in Cheeseman's hand 'var. *intermediata*', with '*intermediata*' crossed out and '*tumida*' written in pencil by Cockayne. The third sheet, WELT-SP058412 is labelled in Cockayne's hand '6043, *Helichrysum selago* Hook. f. var. *tumida* Cheesem.', 'Face of rocks about a mile from sea N Cape Saunders, Otago Peninsula, South Island of New Zealand, Coll: L. Cockayne, Feb. 1903'. In the top right-hand corner of the label Cockayne has written 'Type'. Of the three sheets we designate WELT-SP058412 as lectotype because the label information is the most detailed, and because it is annotated as 'Type'. The other collections on the basis of the Cockayne's collecting number '6043' are probably part of the same gathering, and, following our designation of the lectotype, they should be treated as isolectotypes.

AK10266 collected by H. Matthews from Arrowtown, Otago, and initially identified as "*Helichrysum selago* Hook. f." was re-determined by M. Heads on May 5, 1996, as *H. selago* var. *tumidum*. This sheet is labelled in Cheeseman's hand. It was later annotated by P.J. de Lange thus 'Possibly the type of *Helichrysum selago* var. *tumidum* Cheeseman, which is considered missing. This variety is endemic to the Otago Peninsula and does not occur at Arrowtown. Accidental mislabelling after Cheeseman's death could account for this anomaly, P.J. de Lange 3.2.1999'. While we do not know whether this comment on this collection's mislabelling is correct, it is true that *Helichrysum simpsonii* subsp. *tumidum* has not been found so far beyond the Otago Peninsula. Irrespective of this, there is no reason to consider AK10266 as potential original material.

As *Helichrysum simpsonii* subsp. *tumidum* is allopatric from *H. simpsonii* var. *acutum* and var. *simpsonii*, we have made a combination at the subspecies rank in preference to variety to accord with the conventional usage of subspecies adopted by botanists in Aotearoa / New Zealand (see Edgar, 1986; Connor, 1998; de Lange, Murray, 1998; de Lange et al., 1999; de Lange, 2012).

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Ethics Declaration

The authors declare no conflict of interest.

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Нові комбінації у *Helichrysum simpsonii* Kottaim. для таксонів, описаних як *H. selago* var. *acutum* Cheeseman і *H. selago* var. *tumidum* Cheeseman (Asteraceae) з Аотеароа / Нової Зеландії

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Реферат. Для таксонів, раніше описаних як *Helichrysum selago* var. *acutum* Cheeseman та *H. selago* var. *tumidum* Cheeseman, запропоновано нові комбінації у ранзі різновиду та підвиду ендемічного новозеландського виду *H. simpsonii* Kottaim. (Asteraceae). Обрано лектотици обох назв.

Ключові слова: Asteraceae, *Helichrysum*, *Helichrysum simpsonii* var. *acutum*, *Helichrysum simpsonii* subsp. *tumidum*, лектотипіфікація, Нова Зеландія, нові комбінації, флора