

American fireweed (*Erechtites hieraciifolia*) moves north

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Introduction

American fireweed (*Erechtites hieraciifolia*) is a native of eastern North, Central, and South America. A naturalised species in the North Island, New Zealand (Webb et al., 1988), it is evident that this conspicuous asteraceous weed of disturbed ground and wetland margins is still expanding its range (cf. de Lange 1995). Although the exact impact of this species within indigenous habitats remains unknown our observations suggest that it can be rather aggressive around wetland margins. We provide an update on its movements in the Auckland and South Auckland regions and map its current distribution (Fig. 1).



Fig. 1. New Zealand distribution of American fireweed based on 31 records held in New Zealand herbaria.

Identification and Habitats

There are two species of *Erechtites* naturalised in New Zealand, the pink-flowered Brazilian fireweed (*E. valerianifolia*), and the yellow-flowered American fireweed (Webb et al. 1988). Vegetatively both species can and have been confused with the superficially similar erectitoid fireweeds (*Senecio* spp.), and less frequently with the sowthistles/puha (*Sonchus* spp.). From the former, sterile specimens of *Erechtites* spp. can be identified by their hollow stems, and from the hollow-stemmed *Sonchus* spp., by their lack of latex. Flowering specimens of *Erechtites* possess much longer involucre bracts than those of erectitoid senecios, and when fruiting are readily distinguished by their pure white, mauve or pink pappus.

Brazilian fireweed is apparently still confined to situations north of Auckland City and the top of the Coromandel Peninsula (Webb et al., 1988). From American fireweed it can be distinguished by its mauve to pink pappus hairs, and the heavily divided, petiolate (lyrate-pinnatifid, to deeply pinnatifid) mid cauline leaves. Both species are annual, and in good

conditions can reach 2 m tall, though usually much less.

Ecologically both species prefer recently disturbed open areas: suburban sites, railway embankments, forestry areas, sand dunes, river margins and wetlands. As the seeds are wind-dispersed, plants can rapidly spread and multiply wherever there is suitable habitat.

Distribution Pre 1994

The first published record of it naturalising in New Zealand was by Arthur Healy (1957: 652) based on the CHR 22595-96! (Tauranga, M. Hodgkins, Apr 1939) and CHR 81374! (Waikareoa Valley [Tauranga], M. Hodgkins, Apr 1953). Another collection, in 1941 from Rotoehu State Forest (CHR 36697!, K.W. Allison, 12 Mar 1941) was not included by Healy (1957) because its identity remained unknown until 1967. Later, Webb (1987: 498), gave the naturalised distribution as "Rotorua and scattered localities in Bay of Plenty" and by the following year, based on a single Waikato collection (WAIK 9171!) Webb et al. (1988) extended the range to include the Whangamarino (wetlands near Te Kawhata).

Subsequently the expansion of this species based on collections made between 1988 and 1991 throughout the western Waikato and Hauraki Plains was the subject of a brief note by de Lange (1995) whom briefly discussed its weed potential, and habitat preferences. Significantly de Lange (1995) commented that the species had not yet reached the Auckland isthmus.

Post 1994 Expansion

A few months after the publication by de Lange (1995) a specimen of *E. hieraciifolia* collected from Devonport was sent Auckland Museum for identification by a member of the general public e.g., AK 225994 (F.L. Batty, 14 Feb 1996) (Fig. 2). This appears to be the first record for the Auckland Ecological Region, and the discovery and herbarium sheet featured in the North Shore Times Advertiser (23 May 1996: 3). Since this occurrence there have been six other collections in the Auckland Region, including one 1999 collection from Green Bay noted by Gardner (2000) as a northern extension to the then known distribution. More recently the range of the species has also been extended eastward into the Coromandel Region (Table 1), though it would still appear that the species is absent from Great Barrier Island and such notable Inner Gulf Islands, as Waiheke and Ponui (see Fig. 1).

Table 1. Auckland and Coromandel Records of American fireweed

Auckland Region

- AK 225994, Tamaki Ecological District, Devonport, 23a Wicklow Rd, 14 Feb 1996, *F.L. Batty*, margin lawn & garden.
 AK 256444, Tamaki Ecological District, New Lynn near Titirangi Rd, 4 Jan 2000 (but first seen here Dec 1996/Jan 97), *N.A. Martin*, railway embankment.
 AK 232142, 232765, Waitakere Ecological District, Swanson, Tram Valley Rd, 19 Feb 1997, *A.D. Palmer*, clearing down driveway.
 AK 234461, Tamaki Ecological District, Western Springs, 11 Jan 1998, *E.K. Cameron 9106*, pond margin.
 AK 238020-22, Rodney Ecological District, Waimauku, 192 Taylor Rd, 2 Sep 1998, *C.R. McKain*, wet kanuka scrub.
 AK 250135, Tamaki Ecological District, Green Bay, 178 Cliff View Dr, 13 Apr 1999, *R.O. Gardner 9241*, neglected house yard.
 AK 256181, Tamaki Ecological District, Western Springs, 28 Feb 2002, *P.J. de Lange 5382*, floating sud.

Coromandel Region

- NZFRI 23943 (duplicate AK 256246), Colville Ecological District, Whangapoua Forest, Oritonui River area, 8 Feb 2000, *P. Fransen*, harvested site.
 AK 256173, Te Aroha Ecological District, Mt Te Aroha, Tui Mine, 10 Mar 2002, *P.J. de Lange 5384*, on mine tailings near road.
 AK 256174, Thames Ecological District, Kauaeranga Valley, near Te Ruauka Scream, 16 Mar 2002, *P.J. de Lange 5383 & G.M. Crowcroft*, abundant along roadsides, in seepages and within culverts.

Discussion

de Lange (1995) documented the spread of American fireweed from 1988 to 1991 across South Auckland, from Kawhia to Torehape peat bog in the north. By 1996 it had reached Auckland (see above), and by 2000 half way up the Coromandel Peninsula (Whangapoua Forest). The above six Auckland records show that it has become widespread there over six years. The current known northern limit is at Waimauku, but based on present rate of spread it is likely to reach Northland fairly soon. The authors are unaware of any southern range extensions (see Fig. 1).

Acknowledgements

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References

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Fig. 2. The first Auckland collection of American fireweed: AK 225994, F.L. Batty, 14 Feb 1996, in a Devonport garden.

