

New exotic plant records and range extensions for naturalised plants in the southern North Island

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INTRODUCTION

This article reports new records or range extensions of 12 exotic taxa in Wellington Ecological District (ED), 10 in Tararua ED, 4 in Eastern Wairarapa ED, and 5 in Wairarapa Plains ED. Figure 1 shows the location and extent of these ecological districts.

The article also records voucher specimens that were lodged during 2006/07 for 3 taxa that had been previously reported but not vouchered. Two taxa, *Narcissus papyraceus* Ker Gawl. cv. 'Paper White' (W.R. Sykes pers. comm.) and *Juncus vaginatus* R.Br. are additions to the New Zealand naturalised flora (see Howell & Sawyer 2006).

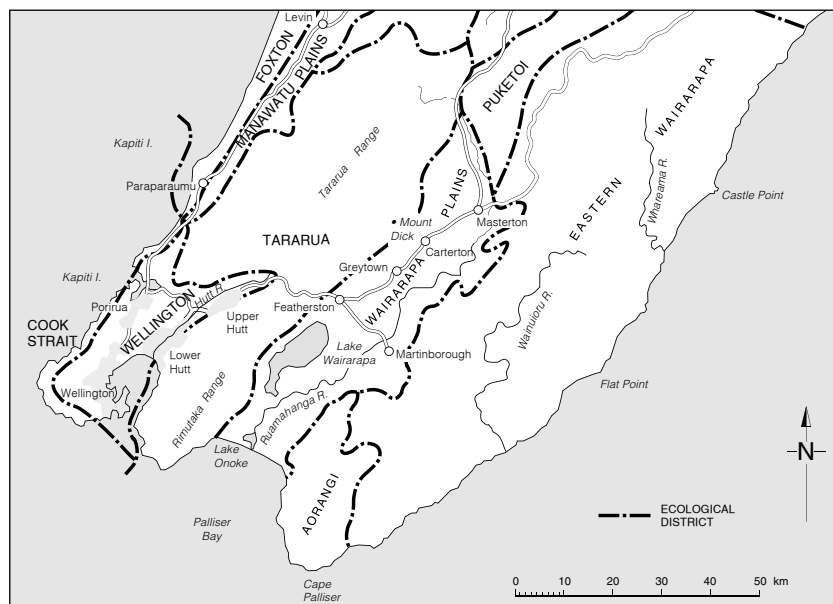


Figure 1. Location and spatial extent of ecological districts in the southern North Island.

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NATURALISED PLANTS IN THE NEW ZEALAND FLORA

Naturalised pteridophytes, gymnosperms and dicotyledons have been documented in the Flora of NZ Vol. IV (Webb *et al.* 1988) and in subsequent checklists in the *NZ Journal of Botany* that recorded additions to the flora (Webb *et al.* 1989, 1995, Heenan *et al.* 1998, 1999, 2002, 2004, 2008).

Significantly, the naturalised flora is expanding rapidly, both in number of taxa and their distribution throughout the country. By 2006, naturalised vascular plants made up more than half the flora (Howell & Sawyer 2006), and the composition and structure of natural communities are being permanently altered as weeds spread inexorably through the landscape.

For example, *Senecio diaschides*, an Australian fireweed, is reported below for the first time south of Waikato, and it has become a locally significant component of the flora in the Hutt River bed and adjoining land from Trentham to Taita (Fig. 2).



Figure 2. *Senecio diaschides* has quickly established in the Hutt River bed near Trentham since it was first reported in May 2006.

The presence of *S. diaschides* raises questions about its status in the New Zealand flora—It seems inconceivable that this plant has ‘jumped’ 500 kilometres to the Hutt Valley and eastern Tararua Range, and equally inconceivable that it spread southward without ever having been noticed. Could it be that *S. diaschides* arrived naturally as wind-blown seed from Australia, and should therefore be considered a member of the indigenous flora? See below for more discussion on this question.

Table 1 summarises the exotic taxa reported in this article.

CLASSIFICATION

Heenan *et al.* (2008) listed wild exotic plants in two major categories, “Naturalised” for populations that are self-maintaining or occur repeatedly beyond cultivation, and “Casual” for plants occurring wild, usually of garden origin, that persist and may even reproduce near the source of origin but do not spread. To assist understanding about the early stages of naturalisation, they applied four subcategories to Casual:

- **Cultivation Escape**—plants that have established themselves and are regenerating only in the immediate vicinity of the cultivated parent plant.
- **Garden Discard**—plants that originate from the deliberate dumping of garden waste from which pieces of plant have vegetatively persisted or seed has germinated and, although persisting vegetatively, they are not spreading sexually.
- **Intentional Release**—this includes species that have been intentionally planted or had seed sown with the purpose of them becoming naturalised species. Taxa are listed only where it is evident that plantings have then resulted in natural recruitment.
- **Spontaneous Occurrence**—plants that have spontaneously established themselves well beyond the probable source of the parent plant, but are not sufficiently common to be considered naturalised.

In this article, the classification of Heenan *et al.* is adapted to the local context. Included in the category ‘Naturalised’, are plants that occur at only one site but are established there. ‘Casual’ plants may be naturalised in the New Zealand botanical region but have not established a self-sustaining population(s) where they have been recorded in the lower North Island. Furthermore, the definition of ‘Garden Discard’ is extended to include plants that are reproducing sexually but have not (yet) spread significantly beyond the original dumping site. In some cases, there was not a clear-cut distinction between ‘Naturalised’ (as defined here) and ‘Spontaneous Occurrence’ (e.g., *Crassula tetragona* which is categorised as ‘Naturalised’ because the population, although small, has been established for several years, Fig. 3).



Figure 3. *Crassula tetragona* on a steep bank above Eastern Hutt Road, Lower Hutt.

RECORDING NATURALISED PLANTS

There has been a tendency for people to ignore most naturalised plants when listing the flora of a site. The reasons for this are usually either philosophical—those preparing lists are interested only in indigenous plants—or because people are unable to identify many exotic species.

However, if we are to successfully protect indigenous plants and the communities they form, we must understand the effects that naturalised plants have on those communities. The first steps are to learn how to identify naturalised plants and to record them when preparing plant checklists.

There are several good sources of information to help identify exotic plants, including *An Illustrated Guide to Common Weeds of New Zealand* (2nd edition, Roy *et al.* 2004, NZ Plant Protection Society), *Plant me instead* (Department of Conservation 2005), and the NZ Plant Conservation Network website, www.nzpcn.org.nz.

ARRANGEMENT OF RECORDS

Ecological Districts

This article sorts records by ecological district. Some species, therefore, may previously have been collected in the wider Wellington region (however that may be defined) but not in the particular ecological district listed here. The system of ecological regions and districts has long been criticised, but at least these units attempt to define ecological relationships, so are more useful for this work than, say, territorial local authority boundaries.

One problem with ecological districts is that the boundaries are not sharply defined on a map, and the descriptions of districts had to be interpreted to determine their limits. For example, Tararua Ecological District is the hill country comprising the Tararua and Rimutaka ranges and their outliers; Wellington Ecological District and Wairarapa Plains Ecological District include the “flat lands” adjoining Tararua ED, but how does one know where the transition from one to the other occurs? No doubt, some readers may disagree with these interpretations of boundaries. Hayward Scenic Reserve in Lower Hutt, for example, is on the slopes of the Eastern Hutt hills, and I have therefore included the reserve in Tararua ED, but others may argue that its lowland situation should place it in Wellington ED. Even more difficult to establish is the boundary between Wairarapa Plains ED and Tararua ED. It is easy to define one as the flat land and the other as the hill country, but the transition from one to the other is quite gradual in many places.

Taxonomic arrangement

This article arranges genera alphabetically within families, which are in turn arranged alphabetically within the major groups: dicotyledons followed by monocotyledons. The placement of dicotyledons in families follows the recommendations of the Angiosperm Phylogeny Group (APG II 2003).

Table 1. Summary of new records of naturalised and casual plants in the lower North Island, 2003–2007, sorted by Ecological District. N = naturalised; CE = Casual, Cultivation Escape; GD = Casual, Garden Discard; IR = Casual, Intentional Release; SO = Casual, Spontaneous Occurrence. ● = new record; ○ = taxon already known to occur—substantiating voucher record or range extension of taxon known from (possibly several) isolated sites.

	Tairarua				Eastern Wairarapa				Wairarapa Plains				Wellington			
	N	CE	GD	IR	SO	N	CE	GD	IR	SO	N	CE	GD	IR	SO	
Dicotyledons																
<i>Acacia verticillata</i>	○															
<i>Cestrum elegans</i>			?													
<i>Claytonia sibirica</i>				●												
<i>Coronilla varia</i>														●		
<i>Crassula tetragona</i> subsp. <i>robusta</i>														●		
<i>Crepis setosa</i>															●	
<i>Ecerinocarpus scaber</i>								●								
<i>Erica cinerea</i>															●	
<i>Euryops chrysanthemoides</i>															●	
<i>Galinsoga quadriradiata</i>															●	
<i>Hieracium murorum</i>									●							
<i>Hypericum calycinum</i>														●		
<i>Linaria maroccana</i>															●	
<i>Pandorea pandorana</i>															●	
<i>Pentaglottis sempervirens</i>															●	
<i>Persicaria capitata</i>														○		
<i>Rubus phoenicolasius</i>															●	
<i>Senecio diasciades</i>															●	
<i>Solanum jasminoides</i>	○														●	
<i>Viola tricolor</i>															●	

	Taranaki					Eastern Wairarapa					Wairarapa Plains					Wellington				
	N	CE	GD	IR	SO	N	CE	GD	IR	SO	N	CE	GD	IR	SO	N	CE	GD	IR	SO
Monocotyledons																				
<i>Cyperus involucreatus</i>				•																
<i>Hyacinthoides non-scripta</i>				•															•	
<i>Isolepis sepulcralis</i>																				
<i>Isolepis setacea</i>																				
<i>Juncus acuminatus</i>									•											
<i>Juncus acutiflorus</i>																				
<i>Juncus procerus</i>				•																
<i>Juncus vaginatus</i>									•											
<i>Lilium formosanum</i>																				
<i>Lilium lancifolium</i>				•																
<i>Narcissus papyraceus</i> cv. 'Paper White'				•																
<i>Sparaxis tricolor</i>																			•	

TARARUA ECOLOGICAL DISTRICT

DICOTYLEDONS

Asteraceae

***Senecio diaschides* D.G.Drury** **fireweed**

New Tararua ED record: WELT SP085690, *J.R.Rolfe*, 9 January 2007, Mount Dick Road, eastern Tararua Forest Park.

Notes: Casual, Spontaneous Occurrence. Several plants amongst *Senecio glomeratus* on side of road at a hairpin bend about halfway up to the lookout.

See additional note about this species in the Wellington ED section, below.

Bignoniaceae

***Pandorea pandorana* (Andrews) Steenis** **wongawonga**

New Tararua ED record: AK 298042, *J.R.Rolfe*, 18 December 2006, Hayward Scenic Reserve, Lower Hutt.

Notes: Naturalised. The dominant species, with *Passiflora tripartita*, in a gully clearing. Several seedlings were found, some several metres into the forest. Webb *et al.* (1988) commented that fruit and seedlings have rarely been reported for this species in New Zealand, but it is now common to see fruits on large plants in the Auckland region (Ewen Cameron pers. comm.). If the infestation cannot be eradicated, the site should be closely monitored and controlled to prevent expansion into the forest. A planted *P. pandorana* is growing along a fence of a neighbouring property.

There have been several anecdotal reports of *Pandorea pandorana* naturalised in the southern North Island (Pedro Jensen, Greater Wellington Regional Council, pers. comm.) but specimens have not been lodged in herbaria. This record substantiates its presence as a wild plant in Tararua Ecological District.

Ericaceae

***Erica cinerea* L.** **bell heather (Fig. 4)**

New Tararua ED record: No substantiating specimen, J.W.D.Sawyer pers. obs., April 2007, near Tabletop, southern Tararua Range. (Digital photographs stored at Department of Conservation, Wellington Conservancy.)

Notes: Casual, Spontaneous Occurrence. A single plant amongst tussock at side of track. Plant destroyed.



Figure 4. *Erica cinerea* in the southern Tararua Range. Photo: John Sawyer.



Figure 5. *Acacia verticillata* at Haywards Scenic Reserve.

Fabaceae

Acacia verticillata (L'Hér.) Willd.

prickly Moses (Fig. 5)

Substantiating Tararua ED record: AK 298023, *J.R.Rolfe*, 18 December 2006, Hayward Scenic Reserve, Lower Hutt.

Notes: Naturalised. Several mature trees and seedlings growing along Mawson Ridge are the subject of control by 'Friends of Hayward Reserve' and Hutt City Council. This record substantiates its presence as a wild plant in the Ecological District.

Portulacaceae

Claytonia sibirica L.

candy flower

New Tararua ED record: AK 301292, *J.R.Rolfe*, 18 Nov 2007, Stokes Valley, Lower Hutt.

Notes: Casual, ?Spontaneous/?Garden Discard (Garden waste is commonly discarded in the general area, but there was no evidence of that practice in the immediate vicinity). Plants growing along several metres at base of shady side of reservoir above Robson St, Stokes Valley. Growing amongst *Tradescantia fluminensis*, *Hydrocotyle heteromeria* and *Ranunculus reflexus*.

Solanaceae

***Cestrum elegans* (Brongn.) Schlttdl.** **red cestrum**

New Tararua ED record: AK 296419, *J.R.Rolfe*, 24 April 2006, above Stokes Valley, Lower Hutt.

Notes: Casual, ?Garden Discard. A single plant on the edge of bush behind houses. Garden waste is regularly discarded in the area.

Cestrum elegans is very similar to *C. fasciculatum* and its cultivar ‘Newellii’, both of which have been recorded naturalised in New Zealand. It is possible that all New Zealand naturalised *Cestrum* specimens are *C. elegans* (Peter de Lange pers. comm.). A *Cestrum* sp. has been reported growing wild in Trelissick Park, Wellington, but its identity has not been confirmed.

***Solanum jasminoides* Paxton** **potato vine**

Substantiating Tararua ED record: WELT SP85385, *J.R.Rolfe*, 11 July 2006, Stokes Valley, Lower Hutt.

Notes: Casual, Cultivation Escape. Spreading into bush behind houses. This species is frequently observed growing wild in the region (Pedro Jensen pers. comm.) but specimens have not been lodged in herbaria. This record substantiates its presence as a wild plant in Tararua Ecological District.

Violaceae

***Viola tricolor* L.** **heartsease**

New Tararua ED record: WELT SP085736, *J.R.Rolfe*, 18 February 2007, Wallaceville Road, Mangaroa.

Notes: Casual, Spontaneous Occurrence. Numerous plants along several metres of the roadside.

MONOCOTYLEDONS

Cyperaceae

***Cyperus involucratus* Rottb.** **umbrella sedge**

New Tararua ED record: WELT SP085699, *J.R.Rolfe*, 7 January 2007, Silverstream, Upper Hutt.

Notes: Casual, Spontaneous Occurrence. Several plants growing on the riverbank under *Salix fragilis* by the carpark immediately south of Silverstream Bridge (Wellington ED) may originally have been planted and subsequently surrounded by weedy vegetation. However, a single plant growing alongside a forestry track near the Silverstream Landfill (Tararua ED) is certainly not planted. I first reported *C. involucratus* in July 2006 and obtained a voucher specimen in January 2007.

***Isolepis sepulcralis* Steud.**

New Tararua ED record: AK 287934 *P.R.Enright, O.John*, 26 September 2003, Paraparaumu Scenic Reserve, near Muaupoko Stream

Notes: Casual, Spontaneous Occurrence. Solitary specimen in grazed and pugged swamp. Pat also collected *I. sepulcralis* in Gollans Valley in Feb 2006 (AK 297299).

Juncaceae

***Juncus procerus* E.Mey.**

New Tararua ED record: CHR 572481, *P.R.Enright, C.Hopkins*, 14 January 2006, seepage near Lake Kohangatera.

Notes: Naturalised.

Liliaceae

***Lilium formosanum* A.Wallace**

New Tararua ED record: AK 297378, *J.R.Rolfe*, 6 August 2006, hillside above Tunnel Grove, Gracefield, Lower Hutt.

Notes: Casual, Spontaneous Occurrence. Several plants growing along a bulldozed track. *Lilium formosanum* can become a pest (*Ewen Cameron pers. comm.*) so the site should be surveyed to determine extent of the infestation and, if it cannot be eradicated, efforts should be made to contain it. In December 2006, I found and destroyed two plants in Hayward Scenic Reserve about 2 km from the Gracefield site.

Formosan lily (Fig. 6)



Figure 6. *Lilium formosanum* above Tunnel Grove, Gracefield, Lower Hutt.

***Lilium lancifolium* Thunb.**

tiger lily

New Tararua ED record: WELT SP085735, *J.R.Rolfe*, 17 February 2007, top of Blue Mountains Road, Upper Hutt.

Notes: Naturalised. A patch extending c. 10 metres along the side of the road. This population appears to be well established. This species is growing several hundred metres away in a residential garden near the Blue Mountains Road – Avro Road intersection (*pers. obs.*). *L. lancifolium* can be an aggressive weed, so this population should be eradicated if possible (*Peter de Lange pers. comm.*).

EASTERN WAIRARAPA ECOLOGICAL DISTRICT

DICOTYLEDONS

Asteraceae

Hieracium murorum

wall hawkweed

New Eastern Wairarapa ED record: AK 288706, *P.R.Enright*, 10 November 2004, Ruakokoputuna River.

Notes: Naturalised.

Bignoniaceae

Eccremocarpus scaber Ruiz et Pav.

Chilean glory creeper (Fig. 7)

New Eastern Wairarapa ED record: AK 281713, *P.R.Enright*, *T.Silbery*, *P.J.Beveridge*, 26 April 2003, end of Flat Bush Road.

Notes: Casual, Cultivation Escape. Growing over scrub.

In 2007 I found plants growing over roadside vegetation at the top of Hinakura Road, eastern Wairarapa (WELT SP085693, *J.R.Rolfe*, 9 January 2007).



Figure 7. *Eccremocarpus scaber* at Hinakura Rd, eastern Wairarapa.

MONOCOTYLEDONS

Juncaceae

***Juncus acutiflorus* Ehrh. sharp-flowered rush**

New Eastern Wairarapa ED record: AK 303101, *P.R.Enright 36², Olaf John*, 24 February 2007, Akupe Stream near Martinborough.

Notes: Naturalised. Small patch in swamp with *J. caespiticius* and *Eleocharis acuta*. A new North Island record. Pat found more *J. acutiflorus* in the Waihoki Valley, southwest of Pongaroa on 10 March 2007 (AK 303107).

***Juncus vaginatus* R.Br.**

New Eastern Wairarapa ED record: AK 298433, *P.R.Enright, O.John*, 2 December 2006, Eastern Wairarapa River Valley.

Notes: Naturalised. Eight plants growing on damp river terrace above the river. Growing with *Carex virgata*, *C. geminata*, *Juncus sarophorus*, *J. australis* and exotic grasses.

This is the first record of this Australian rush in New Zealand. As noted by Moore & Edgar (1970), past records of *J. vaginatus* in New Zealand were referable to *J. australis*.

WAIRARAPA PLAINS ECOLOGICAL DISTRICT

DICOTYLEDONS

Boraginaceae

***Pentaglottis sempervirens* (L.) L.H.Bailey alkanet (Fig. 8)**

New Wairarapa Plains ED record: WELT SP85681, *G.R. Foster*, 13 November 2006, Millennium Reserve, Masterton.

Notes: Naturalised. Amongst long grass.



Figure 8. *Pentaglottis sempervirens* at Millennium Reserve, Masterton.

2. Collection number supplied by Pat Enright.

Rosaceae

***Rubus phoenicolasius* Maxim.**

Japanese wineberry (Fig. 9)

New Wairarapa Plains ED record: AK 297171, *P.R.Enright*, 3 June 2006, Wairarapa Plains ED, roadside c. 6.5 km west of Carterton.

Notes: Naturalised. Widespread along Kaipaitangata Road and a short distance up Mount Dick Road.



Figure 9. *Rubus phoenicolasius* at Kaipaitangata Road.

Violaceae

***Viola tricolor* L.**

heartsease

New Wairarapa Plains ED record: WELT SP085692, *J.R.Rolfe*, 9 January 2007, between road and Kaipaitangata Stream opposite beginning of Mount Dick Road.

Notes: Casual, Garden Discard. Several plants in an area where garden waste has long been dumped.

MONOCOTYLEDONS

Cyperaceae

***Isolepis setacea* (L.) R.Br.**

New Wairarapa Plains ED record: AK 291431, *P.R.Enright*, 23 November 2003, near Lake Wairarapa, Lake Domain.

Notes: Naturalised. Growing in swampy ground under alder trees. Scattered plants where stock have not found them.

Juncaceae

***Juncus acuminatus* Michx.**

New Wairarapa Plains ED record: AK 291151 *P.R.Enright*, 27 January 2004, near the outlet of the Tauherenikau River.

Notes: Naturalised. Scattered over a swampy area of 400 m² with *Ludwigia palustris*, *Epilobium pallidiflorum*, *Juncus articulatus*, *Schoenoplectus tabernaemontani* [?], *Myosotis laxa*, *M. scorpioides* and other *Juncus* spp.

WELLINGTON ECOLOGICAL DISTRICT

DICOTYLEDONS

Asteraceae

Crepis setosa Haller f.

bristly hawksbeard

New Wellington ED record: WELT SP085786, *J.R.Rolfe*, 31 January 2007, Hutt River stop bank opposite Stokes Valley.

Notes: Casual, Spontaneous Occurrence. A few plants amongst exotic grasses and weeds. The site was mown a few hours after I discovered the plants.

Euryops chrysanthemoides (DC.) B.Nord.

Paris daisy

New Wellington ED record: AK 297429, *J.R.Rolfe*, 24 May 2006, Hutt River bed, south of Stokes Valley, Lower Hutt.

Notes: Casual, Spontaneous Occurrence. A single plant (which I destroyed) growing in the river bed. The plant may have been washed downriver to this site where it took root. *Euryops chrysanthemoides* probably persists as a garden discard and/or cultivation escape in several locations in the southern North Island. For example, in January 2007 I found a single flowering plant (which I destroyed) in Kaiwharawhara Stream (WELT SP085694).

Galinsoga quadriradiata Ruiz & Pav.

galinsoga (Fig. 10)

New Wellington ED record: AK 296616, *J.R.Rolfe*, 30 April 2006, Hutt River bed near Trentham Memorial Park, Upper Hutt.

Notes: ?Naturalised. Plants spread along c. 50 m of the Hutt River bed. The site is prone to flooding, and no plants were found there during searches in December 2006 and January 2007. Previously known from Auckland, Wanganui, Gisborne (*Webb et al.* 1988).



Figure 10. *Galinsoga quadriradiata* in the Hutt River bed.

***Senecio diaschides* D.G.Drury**

fireweed (Figs 2, 11)

New Wellington ED record: AK 296899, *J.R.Rolfe*, 15 May 2006, Hutt Valley between Taita and Silverstream.

Notes: Naturalised. I found a few plants in May 2006 scattered along c. 2 km of the Hutt River Trail near Stokes Valley. It was previously not known south of Waikato (Peter de Lange pers. comm.). In December 2006, it was common along the true left of Hutt River at Trentham Memorial Park and had increased number and range further south from where it was first found, although it was still not plentiful in that area.

Additional note: *Senecio diaschides* was first described in 1975 (Drury) from New Zealand specimens and later discovered in Australia, whence it was presumed to have originated. Drury (1975) surmised that it was naturalised because, at the time, all New Zealand specimens were from North Auckland and the earliest collection was in 1944, suggesting that it was a recent arrival. However, the locations of those early records could also be interpreted as natural dispersal from Australia. Northland is the main New Zealand location for other wind-dispersed taxa that are considered to have arrived naturally from Australia, e.g., the orchid *Calochilus herbaceus* (St George 1999).

If *S. diaschides* proves to be indigenous to New Zealand, should we consider its arrival in Wellington and Tararua ecological districts to be natural extensions of its range from the north, or should we regard it as an ‘introduced native’ in the manner of *Metrosideros excelsa* and *Pittosporum crassifolium*? Another possibility, suggested by Peter de Lange, is that the arrival of *S. diaschides* in the southern North Island represents a separate dispersal from eastern Australia, which would make it indigenous to this part of New Zealand.



Figure 11. *Senecio diaschides* from left: foliage, capitulum, and seed head. The dark tips of two involucre bracts are visible below the florets in the image of the capitulum (centre). *S. diaschides* capitula have 6–9 bracts whereas most other fireweeds that occur in the lower North Island have 10–14 bracts.

Boraginaceae

Pentaglottis sempervirens (L.) L.H.Bailey

alkanet

New Wellington ED record: WELT SP085695, *J.R.Rolfe*, 07 January 2007, Silverstream, Upper Hutt.

Notes: Casual, Spontaneous Occurrence. A single plant amongst *Malva sylvestris* and *Calystegia silvatica*. The site, at the back of the Silverstream steam railway, has been a dumping area for truck loads of soil, so it is likely that the *Pentaglottis* was carried there in one of those loads.

Crassulaceae

Crassula tetragona subsp. *robusta* (Toelken) Toelken

miniature pine tree (Fig. 3)

New Wellington ED record: AK 296953, *J.R.Rolfe*, 21 May 2006, steep bank above Eastern Hutt Road north of Stokes Valley, Lower Hutt.

Notes: Naturalised. New Wellington ED record. A small patch growing amongst long grass. *Ulex europaeus* and *Sedum praealtum* are also present. This is the first wild record of *C. tetragona* in the region, although I have seen planted specimens on a crib wall at the entrance to what used to be the Excell Nursery at Summit Road, Lower Hutt.

Fabaceae

Coronilla varia L.

crown vetch (Fig. 12)

New Wellington ED record: AK 296418, *J.R.Rolfe*, 27 April 2006, northern boundary of Silverstream Scenic Reserve, Upper Hutt.

Notes: Naturalised. Growing in the open along both sides of a forestry road; does not extend into areas under closed canopy.



Figure12. *Coronilla varia* at Silverstream, Upper Hutt.

Hypericaceae

Hypericum calycinum L.

New Wellington ED record: WELT SP085787, *J.R.Rolfe*, 14 January 2007, Hutt River bank between Taita rail bridge and Stokes Valley.

Notes: Naturalised. Scattered plants under *Salix fragilis* L. along several hundred metres of river bank.

Plantaginaceae

Linaria maroccana Hook.f.

baby snapdragon (Fig. 13)

New Wellington ED record: No substantiating specimen (photos at www.nzpcn/exotic_plant_life_and_weeds/detail.asp?WeedID=1028), *J.R.Rolfe*, 23 September 2006, roadside near Stokes Valley, Lower Hutt.

Notes: Casual, Cultivation Escape. Several plants growing along the side of the road, 'escaped' from a wildflower planting in the road's median strip. The site of the naturalised plants is mown periodically, so the species may not persist there, but its presence highlights the potential for exotic plants to naturalise in the landscape. Councils and other agencies responsible for public plantings must be alert to the possibility that their gardens may be the source of new weeds in the environment.

In 2007, the plantings in the median strip were destroyed to make way for a safety barrier.



Figure 13. *Linaria maroccana* alongside the Eastern Hutt Road near Stokes Valley, Lower Hutt.

Polygonaceae

Persicaria capitata (D.Don) Gross

pink-headed knotweed

Previously reported Wellington ED distribution: P.R.Enright pers. comm.

Substantiating Wellington ED record: AK 296921, *J.R.Rolfe*, 18 May 2006, Hutt River near Stokes Valley.

Notes: Casual, Cultivation Escape. Single plant growing in river bed. Another specimen was collected from long grass on the river bank some distance from the plant in the river bed (AK 296922).

MONOCOTYLEDONS

Alliaceae (Amaryllidaceae)

Narcissus papyraceus Ker Gawl. cv. 'Paper White'

Fig. 14

New Wellington ED record: No substantiating specimen, *J.R.Rolfe*, 7 June 2006 (photos at www.nzpcn/exotic_plant_life_and_weeds/detail.asp?WeedID=1917), Hutt River Trail north of Stokes Valley, Lower Hutt.

Notes: Casual, ?Garden Discard. A single plant trackside. The section of the Hutt River Trail where I found this plant runs alongside the Eastern Hutt Road approaching the turn-off to the Silverstream Landfill. Several garden plant species grow as weeds in this area: they were probably dumped or lost from garden waste being taken to the landfill.

Narcissus papyraceus has not previously been recorded as naturalised in New Zealand (Bill Sykes pers. comm.), which is surprising given that it is widely grown and other *Narcissus* species naturalise readily. Subsequent to my reporting this plant, Peter de Lange reported it naturalised in Auckland (AK 297980, 10 July 2006) and on Chatham Island (AK 300314, 26 June 2007). I have also seen plants in the Wellington rail corridor which I believe are *N. papyraceus*. (I have observed them only from the train so have not been able to confirm their identity.)



Figure 14. *Narcissus papyraceus* alongside the Hutt River Trail north of Stokes Valley, Lower Hutt.

Iridaceae

***Sparaxis tricolor* (Schneev.) Ker Gawl. harlequin flower**

New Wellington ED record: WELT SP85683, *J.R.Rolfe*, 6 October 2006, Eastern Hutt Road north of Stokes Valley.

Notes: Casual, ?Garden Discard. Several plants growing in roadside long grass. I suspect that they were either deliberately dumped or were lost from vehicles taking garden waste to the nearby Silverstream Landfill.

Liliaceae

***Hyacinthoides non-scripta* (L.) Chouard ex Rothm. bluebell**

New Wellington ED record: WELT SP85683, *J.R.Rolfe*, 3 October 2006, Hutt River Trail north of Stokes Valley.

Notes: Casual, Spontaneous Occurrence. A small clump of plants growing trackside amongst long grass. The location is quite some distance from the road so I think it unlikely that they were dumped or lost from a vehicle going to the Silverstream Landfill.

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