

## ***Juncus imbricatus*: a tenacious South American rush infesting pastures in Cornwall Park and One Tree Hill Domain, Auckland**

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If you take a drive through Cornwall Park and One Tree Hill Domain you will spot a prominent rush growing in the pastures on the western slopes (Fig. 1). Cattle eat the rush, but sheep mostly avoid it, so it becomes even more conspicuous and persistent after heavy sheep grazing of grass in the pastures (Fig. 2). It mostly occurs as scattered, discrete clumps, but has become more suffuse in places, particularly in One Tree Hill Domain (Fig. 3).

It is tenacious for another reason too, being so firmly rooted as to be nearly impossible to pull out. This rush is *Juncus imbricatus* Laharpe, an introduced species from South America, found in the Andes from

Colombia to N Argentina, and in Chile, Uruguay and Argentina. It is probably an established alien in Mexico, and has been introduced in South Africa, New Zealand, Australia, Spain and Portugal (Kirschner 2002). Unlike many rushes, this species tolerates rather dry soils. According to Kirschner (2002) it belongs to *Juncus* subgenus *Agarthryon*, section *Steirochloa*, which also includes *J. dichotomus*, *J. gerardii*, *J. homalocaulis*, *J. squarrosus* and *J. tenuis*, all of which have become naturalised in New Zealand (Healy & Edgar 1980). These perennial rushes are mostly tufted, with leafy stems with flat or channelled leaves.



**Fig. 1 *Juncus imbricatus*, One Tree Hill Domain, 22 Oct 2012. Photo: M Wilcox.**



**Fig. 2 *Juncus imbricatus* in clumps, One Tree Hill, 11 Dec 2012. Photo: M Wilcox.**



**Fig. 3 *Juncus imbricatus* in denser stands, One Tree Hill, 11 Dec 2012. Photo: M Wilcox.**



**Fig. 4 *Juncus imbricatus* seed head, One Tree Hill, 11 Dec 2012. Photo: M Wilcox.**

I first noticed *Juncus imbricatus* in Cornwall Park in January 2001, but it arrived there well before then, the earliest herbarium record being AK 240669, *A.E. Esler*, 21 May 1999. It also occurs on Mt St John, and there are previous collection records in Auckland going back to 1983. Apart from being difficult to uproot, *J. imbricatus* is distinguished by its relatively short stature (mostly 30-45 cm tall), tussocky habit,

its terminal inflorescence, and the large (up to 5 mm long), shining, reddish-brown seed capsules (Fig. 4).

#### Acknowledgements

Thanks to Ewen Cameron, Auckland Museum, for supplying herbarium records; and to Michael Ayrton, Cornwall Park, for pointing out that the rush is unpalatable to sheep but not to cattle.

#### References

- Healy, A. J.; Edgar, E. 1980: *Flora of New Zealand* Volume III. Government Printer, Wellington.  
Kirschner, J. 2002: *Species Plantarum. Flora of the World. Part 8. Pp. 1-192, Juncaceae 3. Juncus subg. Agathryon*. Australian Biological Resources Study, Canberra.

## *Leptospermum morrisonii* 'Copper Sheen'

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In 1976 Mike Geenty, manager of the Hamilton City Council Nursery, introduced seeds of several *Leptospermum* species from Australia. Amongst seedlings from a seedlot labelled *L. nitidum* he noticed one with foliage having a wine-red colour, and selected it out. He called it *Leptospermum* 'Copper Sheen', and it was propagated by cuttings at Lynndale Nursery, Auckland (Noelyn Parr, pers. comm.). It became popular as a street tree in Auckland, and has been widely grown as a garden ornamental and street tree, usually sold as *Leptospermum nitidum* 'Copper Sheen' or just *Leptospermum* 'Copper Sheen'.

The New Zealand 'Copper Sheen' does not resemble the Tasmanian tea tree *Leptospermum nitidum*, which is a low compact shrub with leaves 8-20 mm long x 3-6 mm wide. Furthermore, a reddish-leaved cultivar, *Leptospermum nitidum* 'Copper Sheen' is grown in Australia, and it likewise does not resemble the New Zealand 'Copper Sheen'. The Australian *Leptospermum* 'Copper Sheen' is also thought to be a seedling sport that arose in cultivation in the 1960s. This cultivar grows to ca. 2 m tall by 2 m wide. The young foliage is a bronzy-purple in colour and the young stems are reddish. The fragrant flowers have creamy-yellow petals with a greenish centre and are ca. 25 mm in diameter. The older leaves are ca. 25 mm long by 5 mm broad. The Australian *L.* 'Copper Sheen' differs from the more typical form of *L. nitidum* in the bronzy-purple colour of the new growth, the spreading nature of the new growth and the creamy-yellow flowers. Indeed the Australian *L.* 'Copper Sheen' is now thought to be a cultivar of a related species – *Leptospermum turbinatum* from the Grampian



Fig. 1. *Leptospermum morrisonii* 'Copper Sheen' beside the duck pond, Auckland Botanic Gardens, 30 Dec 2012. All photos by the author.



Fig. 2. *Leptospermum morrisonii* 'Copper Sheen', 210 Manukau Road, Epsom, Auckland, 18 June 2012.