

## References

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## Kangaroo grass (*Themeda triandra*) on Browns Island, Hauraki Gulf

Mike D. Wilcox

Kangaroo grass (*Themeda triandra* Forrsk., syn. of *Themeda australis* (R.Br.) Stapf), is native to Australia, Africa, Asia and the Pacific. It is very common and widespread in Australia, where it thrives best where there is little or no grazing. It is tolerant of fire.



Fig. 1. *Themeda triandra*, Browns Island (Mike Wilcox, 20 Dec 2007).

On 20 December 2007 when visiting Browns Island with Ranger Steve Benham of the Department of Conservation I found a patch of kangaroo grass on the northern slopes just below the summit. The dominant grass there and over much of the island is tall oat grass (*Arrhenatherum elatius*). The plants of kangaroo grass, numbering 20 or so individual clumps, stood out with their bronzy-reddish colour, and large, long-awned flower heads.

A sample was collected from Browns Island from a patch of numerous plants near the summit (AK 301455).

Edgar & Connor (2000) record *Themeda triandra* from several places in the South Island, and in the North Island from Rangitikei and Auckland City (early record only). The Auckland record is by T.F. Cheeseman, with numerous samples collected from St Johns College, Purewa, 1870s and 1880s. Thus, the recent collection from Browns Island seems to be the first for at least 130 years from the Auckland region.

## References

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## Japanese Holly Fern Invader - *Cyrtomium falcatum* (L.f.) C.Presl

Steve Benham

### Background

New Zealand has a very rich and diverse native fern flora with over 194 indigenous species of which 89 species are endemic (Brownsey and Smith-Dodsworth 2000). With such favourable conditions for these pteridophytes it is hardly surprising that there are currently at least another 32 species that have become adventive and naturalised here. A few familiar fern adventives that spring to mind and all too often to be found in and around the Auckland Region are the ubiquitous tuber ladder fern (*Nephrolepis cordifolia*), royal fern (*Osmunda regalis*), Cretan brake (*Pteris cretica*), the two maidenhairs *Adiantum capillus-veneris* and *Adiantum raddianum*, and ferny azolla (*Azolla pinnata*).

Another invader to New Zealand and elsewhere in the world is the Japanese holly fern also widely known as the Asiatic holly fern (*Cyrtomium falcatum*). This species is indigenous to Japan, Korea, India, Vietnam and China. Japanese holly fern has been familiar to me since my botanical training, 40 years ago in England, where we grew it as a very tolerant pot plant under cold glasshouse conditions. This species is still grown today for sale throughout Europe as a houseplant. In Auckland it is freely available and sold as a hardy outdoor fern through garden retail centres.

### Etymology

*Cyrtomium* from Greek arch alluding to the pattern of netted veins, *falcatum* Latin from falx, falcis, sickle "like a small sickle" alluding to the pinnae shape.