

SHORT COMMUNICATION

Status of the fern *Histiopteris incisa* (Dennstaedtiaceae) in southern Western Australia

The pantropical species *Histiopteris incisa* (Thunb.) J.Sm. (Dennstaedtiaceae), the bat's wing or water fern, is a common, perennial fern of wet habitats of the east coast of Australia from Tasmania to Queensland (Atlas of Living Australia 2016). Brownsey (1999) provides a description, illustration and further distributional information, but does not refer to its occurrence in south-western Australia. The species is also sporadically recorded from wet sites, normally springs or seepages, in South Australia, North Queensland and the Central Australian Ranges in the Northern Territory. It is rarely recorded from tropical Western Australia (Wheeler (1992), treated it as native and this may be the first published record of it in Western Australia) and the Northern Territory, with single records from seepages in gorges in El Questro Station in 1988 and from Kakadu in 1983 (Council of Heads of Australasian Herbaria 2016).

The first published record of this species in southern Western Australia was by Wardell-Johnson (1999) who recorded a single clump from Mt Lindesay, near Denmark, in 1999 (PERTH 05961890). It had, however, been first collected from a mound spring in Bullsbrook Nature Reserve (NE of Perth; PERTH 04625110) in 1996.

Since 1996 another 25 records (Western Australian Herbarium 1998–) have been made from north of Perth, around Gingin, to Annie Peak in Fitzgerald River National Park, near Bremer Bay.

It is surprising that such a large and prominent fern, if native, was never previously recorded in a comparatively well-known region such as the wet forests of Western Australia. Many other inconspicuous ferns have been recorded, including the rare *Asplenium obtusatum* G.Forst., and the very small *Schizaea rupestris* R.Br., *Ophioglossum lusitanicum* L. and *Pilularia novae-hollandiae* A.Braun, so it is not that ferns have been neglected or overlooked. It is now frequently being collected between Busselton and Albany, often noted as occurring in disturbed or partially cleared wetlands in tree farms, below dams, in farmland and along creeks in town-sites.

The most recent collections are from relatively undisturbed wetlands north (Gingin - 2010) and east (Mt Manypeaks - 2008, Ellen Peak - 2004, Annie Peak - 2012) of these central records, generally after summer fires. This suggests the species is still rapidly expanding its range and invading relatively undisturbed native vegetation. The species is strongly clonal once established in a habitat, and can rapidly dominate the understorey of small wetlands, including the listed threatened mound spring ecological communities of southern Western Australia. This species should be regarded as a potential significant threat to these communities (Rees & Broun 2005; Meissner *et al.* 2006) as it has already invaded two springs around Perth.

In many aspects this species is behaving like an aggressively expanding weed in southern Western Australia and there is no compelling evidence that it should be considered as native to this region. The history and collection information strongly suggest that the species should be listed for Western

Australia as native to the Kimberley region and a naturalised alien in southern Western Australia.

References

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