

Pest plant – Monadenia

(Disa bracteata)

Fact sheet January 2019

What is it?

Monadenia is a ground orchid from South Africa that has become a significant environmental weed across southern Australia. It was first recorded in South Australia, in the Adelaide Hills, in 1988.

Monadenia is an emerging weed on Kangaroo Island first recorded in 2008 (source: B. Overton), but has now spread to various isolated locations across Kangaroo Island.



What does it look like?

Stem

An erect, fleshy deciduous terrestrial orchid to knee high. The plant has a bulb and is dormant for much of the year, re-appearing in late winter to early spring.

Leaves

Monadenia has a basal rosette of long narrow green leaves, often with a reddish tinge on the underside, which sprout from the underground tuber in late winter (August). As the flower spike develops, the stem is covered with a series of

tightly overlapping, soft green leaves with parallel veins, decreasing in size up the stem; leaves are 6-18 cm long and 1 cm wide, and have a broad base that tapers to a slender point.

Flower spike

The flower spike develops in spring and may be up to 30 cm high. Up to 50 small hooded flowers are densely arranged around the stem, and are pink, reddish-brown to yellowish-cream in colour. The flowers are self-pollinating and each plant can produce tens of thousands of dust-like seed.

Why is it a problem?

This South African weed orchid invades native bushland and competes with and replaces native ground flora, including native orchids. It develops underground tubers that make it difficult to eradicate.

Monadenia seed is also a potential contaminant of agricultural products including grain, canola, seed potatoes, wool etc.

Distribution

Small infestations have been found widely across Kangaroo Island. Most of the infestations on KI have been found on intersections or road verges, fence lines and on the edge of bushland, for example, along the Playford Highway, Bark Hut Road, East-West One, Timber Creek Road, Mt Stockdale Rd, Elsegood Rd and roads in the Western River area.

How is it spread?

Known to be both wind and water dispersed. Also likely to be introduced accidentally on vehicles and machinery, and spread by seeds on clothing, shoes and camping equipment.

Monadenia plants emerge from underground tubers which form new tubers annually. It also spreads over many kilometres through wind dispersal of the fine dust like seed. Seed set and dispersal occurs from late spring (November) and seed can remain viable for several years.

Seed, and possibly tubers, are spread through movement of contaminated soil along roadsides and fence lines by graders and on vehicle tyres and the edges of machinery.



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How do we control it?

Contaminated soil and plant material should be disposed of safely to avoid creating new infestations. Machinery and equipment that has come into contact with Monadenia should be washed down before moving, to prevent creating new infestations.

Note:

It takes two to three years from seed to flowering stage for Monadenia. It is therefore very important to search carefully for young plants when undertaking control.

Dig out:

Hand removal is recommended for smaller infestations - this can be time consuming and care is needed not to disperse the fine seed, and also to completely remove underground tubers. Care should also be taken that the fine seed is not transported on clothing or footwear.



Report

Monadenia is an emerging weed problem on Kangaroo Island. New infestations can be reported to Natural Resources Kangaroo Island.

Declaration

Monadenia is not currently declared under the SA Natural Resources Management Act.

For more information

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