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Lonely hammer orchid

Endangered Flora of Western Australia

**If you think you have seen this plant, please call CALM
Katanning District on (08) 9821 1296.**

Drakaea is a small genus of nine species, all of which are endemic to the south-west of Western Australia. They are commonly known as hammer orchids because of the unusual hinged "hammer-like" labellum found in all species. The labellum approximates a female Thynnid wasp in both appearance and scent and therefore entices the male wasp to the flower, which, as the wasp attempts to fly away with the labellum, brings itself into contact with the column, aiding in pollination.

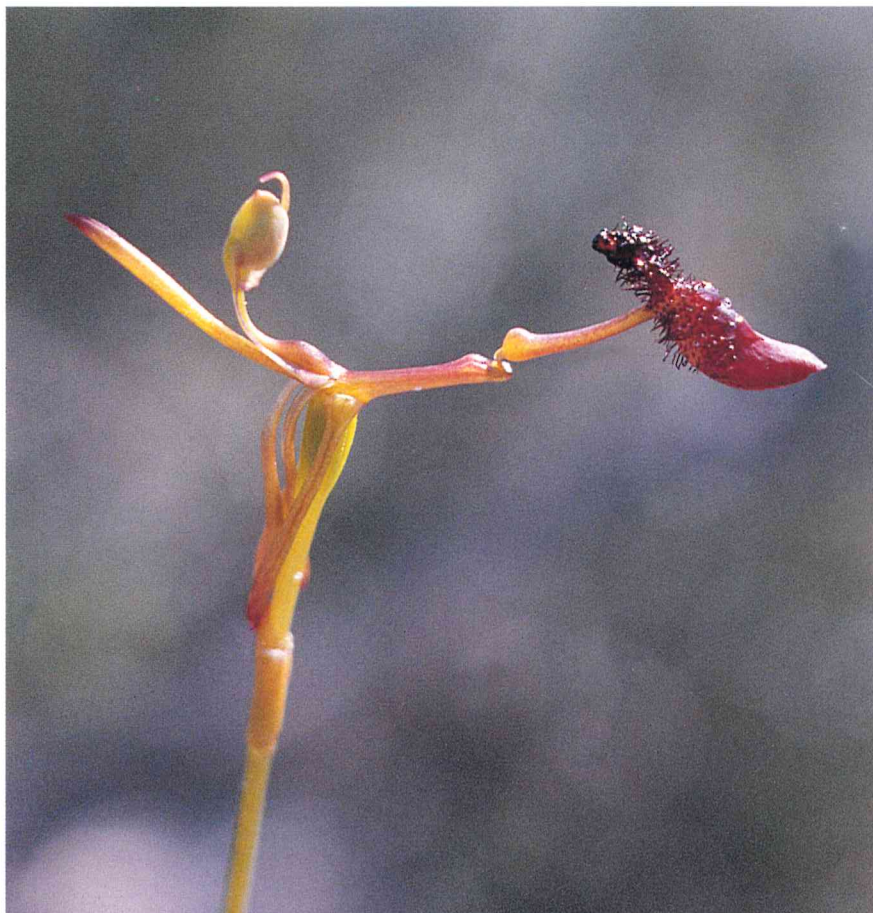
Drakaea isolata ms grows between 10 and 30 cm high. Its smooth stem arises from a single, dull green, shortly-hairy, heart-shaped leaf that is 1 to 2 centimetres long and 8 to 15 millimetres wide. The single flower is 2 to 3 centimetres long and 3 to 4 millimetres wide. It is similar to the Late Hammer Orchid, *Drakaea confluens* ms, in having a shortly-hairy leaf, but has a much smaller, generally uniformly coloured flower and a somewhat earlier flowering period between mid September and early October.

The name *isolata* is derived from the Latin *isolatus*, meaning isolated, and refers to the orchid's unusual occurrence, well inland of all other *Drakaea* species. It was discovered near Pingrup by the noted South Australian orchidologist and author Robert Bates.

The species has a highly specific habitat requirement with regard to water level and soil type. It grows with the Broad-billed Duck Orchid (*Paracaleana triens* ms) in patches of bare white, sandy-clay soil among low shrubs and mallee eucalypts, on a slight rise above a large salt lake. No other hammer orchid is known to do this.

Drakaea isolata ms is known from a single population of approximately 500 plants. The population is continuing to decline and may be under future threat from road maintenance, salinity, waterlogging and inappropriate fire regimes.

Due to the rarity of the species, *Drakaea isolata* ms was



A close up of the flower illustrating the unusual hinged "hammer-like" labellum.
Photo – Andrew Brown

declared as Rare Flora in November 1993 and ranked as Critically Endangered in 1997.

CALM has set up the Katanning District Threatened Flora Recovery Team to coordinate recovery actions that address the greatest threats to the survival of the species in the wild (see overleaf).

The species is currently only known from one population and CALM is keen to know of any others.

If unable to contact the district office on the above number, please phone CALM's Wildlife Branch on (08) 9334 0422.

Recovery of a Species



CALM is committed to ensuring that Critically Endangered taxa do not become extinct in the wild. This is done through the preparation of a Recovery Plan (RP) or Interim Recovery Plan (IRP), which outlines the recovery actions that are required to urgently address those threatening processes most affecting the ongoing survival of threatened taxa in the wild and begin the recovery process.

IRPs are prepared by CALM and implemented by Regional or District Recovery Teams consisting of representatives from CALM, Botanic Gardens and Parks Authority, community groups, private landowners, local shires and various government organisations.

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Recovery actions that have been, and will be, progressively implemented to protect the species include:

Protection from current threats: installation of Declared Rare Flora markers; conducting further surveys; and regular monitoring of the health of the population.

Protection from future threats: the development of both a Translocation Proposal and a fire management strategy; collection and storage of seed at Botanic Gardens and Parks Authority; maintenance of live plants away from the wild (i.e. in botanical gardens); and researching the biology and ecology of the species. Other actions include ensuring that relevant authorities, landowners and CALM personnel are aware of the species' presence and the need to protect it, and that all are familiar with the threats identified in the Interim Recovery Plan.

IRPs will be deemed a success if the number of individuals within the population and/or the number of populations have increased.



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A small group of plants. Note the single ground-hugging heart-shaped leaf.
Photo – Andrew Brown



Lonely hammer orchid (second from left) alongside other species of hammer orchid.
Photo – Stephen Hopper



Habitat of lonely hammer orchid. Photo – Andrew Brown



Department of Conservation and Land Management