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Kalbarri spider orchid

Endangered flora of Western Australia

If you think you've seen this plant, please call the Department of Environment and Conservation's (DEC's) Geraldton District on (08) 9921 5955.

Kalbarri spider orchid (*Caladenia wanosa*) was described in 1984. The specific name comes from the initials of the Western Australian Native Orchid Study and Conservation Group whose members have contributed greatly to the knowledge of orchids in Western Australia.

Kalbarri spider orchid is currently listed as rare under the Western Australian *Wildlife Conservation Act 1950* and is ranked as endangered. The species is listed as vulnerable under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

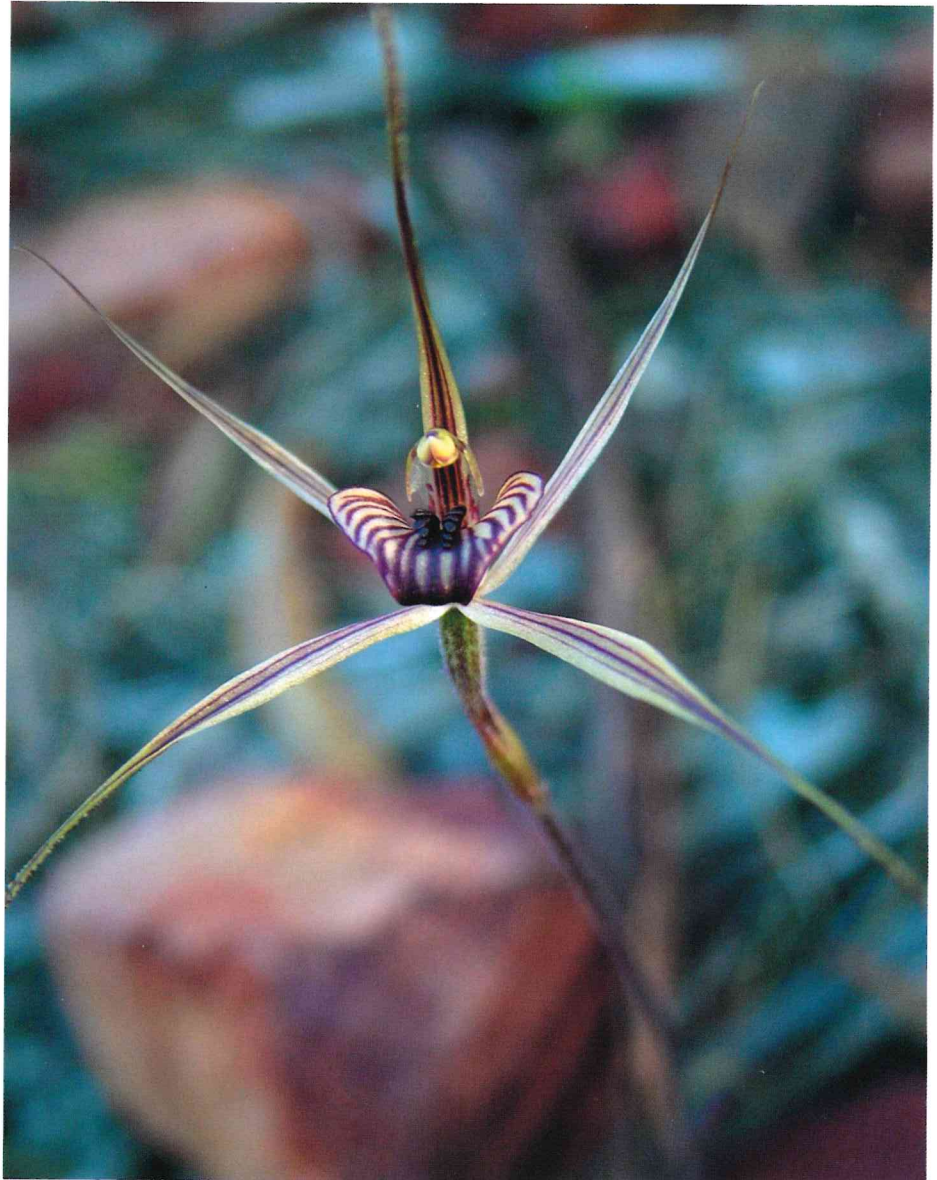
The plant usually has a singular flower (occasionally two) on a stem up to 20 centimetres tall and an erect linear leaf three to six centimetres long by three millimetres wide. The flowers are cream with deep maroon markings. The distinctive labellum (lip) of the flower has bold red stripes and a curved-under tip. Plants usually occur as scattered individuals rather than in clumps.

Kalbarri spider orchid sprouts in May after autumn rain and flowers appear between August and September. The plant dies back to an underground tuber during the dry part of the year.

Kalbarri spider orchid is currently known from 15 populations and about 450 plants. Many populations have not emerged in recent years, despite the orchid being a long-lived species, as rainfall may not have been sufficient to enable the plant to flower.

Until satisfactory conditions occur, plants may persist as dormant underground tubers, or produce leaves but not flowers. Population numbers are therefore always approximate as the number flowering may only be a fraction of the actual plants.

Kalbarri spider orchid occurs in three disjunct areas: Mullewa, Yuna and Kalbarri, and occurs in different habitat at the three locations.



Kalbarri spider orchid. Photo – Catherine Page

Recovery of a species

DEC 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 or Interim Recovery Plan (IRP), which outline the recovery actions that are required to urgently address those threatening processes most affecting the ongoing survival of the threatened species in the wild and begin the recovery process.

IRPs are prepared by DEC and implemented by regional or district recovery teams consisting of representatives from DEC, Botanic Gardens and Parks Authority, community groups, private landowners, local shires and various government organisations.



Department of
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Kalbarri spider orchid

E n d a n g e r e d f l o r a o f W e s t e r n A u s t r a l i a

Around Mullewa the species has been recorded in deep yellow and red loamy sand in jam (*Acacia acuminata*) and *Hakea* dominated tall shrub land with emergent mallees. Near Yuna the species occurs in shallow sand over laterite and near Kalbarri in sandy soil under tall shrubs among sandstone outcrops, often along the upper edges of gorges.

Kalbarri spider orchid is similar in appearance to drooping spider orchid (*Caladenia radialis*), however, the sepals of Kalbarri spider orchid are clubbed, unlike the pointed sepals of drooping spider orchid. Additionally, the back petal of Kalbarri spider orchid is erect whereas it points downwards on the flower of the drooping spider orchid and the calli (dark red glandular hairs on the labellum) are arranged in two rows on Kalbarri spider orchid flowers but are in a dense mass on drooping spider orchid. Kalbarri spider orchid occurs further north than drooping spider orchid.

Kalbarri spider orchid is similar to the hybrid prisoner orchid (*Caladenia x ericksoniae*), however, prisoner orchid is larger (up to 25 centimetres tall) and has a fringed labellum.

DEC has set up the Geraldton District Threatened Flora Recovery Team to coordinate recovery actions that address the greatest threats to the survival of the species in the wild.

The main threats to Kalbarri spider orchid are feral animals (goats, rabbits



Kalbarri spider orchid. Photo – Andrew Brown

and pigs), roadworks, climate change, firebreak maintenance and inappropriate fire regimes.

The species is currently only known from 15 populations and DEC is keen to know of any others. Ideal conditions for survey are in early spring during wetter years.

If you are unable to contact the District Office, please phone DEC's Species and Communities Branch on (08) 9334 0455.



Kalbarri spider orchid. Photo – Gemma Phelan

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

- rabbit and stock-proof fencing;
- liaison with land managers and landowners;
- seed and mycorrhizal fungi collection and storage;
- research into propagation of Kalbarri spider orchid;
- surveys in appropriate habitat;
- feral animal control;
- long-term protection of habitat;
- promotion of the species within the community;
- ongoing monitoring of population numbers and threats;
- investigation of fire requirements, and development and implementation of a fire management strategy; and
- installation of rare flora markers to ensure road workers in the vicinity of the plants are aware of the species and its significance.

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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