

endangered

by Andrew Brown



Granite spider orchid

In late 1801 the naturalist aboard the *Investigator*, Robert Brown, first set foot on Australian soil at King George Sound (now Albany). The same year he described the terrestrial orchid genus *Caladenia*, which now comprises about 340 species, most of which are found in southern Australia and 140 of which are endemic to the south-west of Western Australia.

Commonly known as spider orchids, *Caladenias* are small, herbaceous perennials that emerge from an underground potato-like tuber in late April, grow through the autumn–spring period and flower in the winter, spring and early summer. All species have a single hairy leaf and flowers with a prominent, highly modified petal (lip) containing rows of glands (calli), these leading to the scientific name *Caladenia* which in Greek means ‘beautiful glands’.

Nineteen species of *Caladenia* are now considered rare with

one of the rarest being the granite spider orchid (*Caladenia graniticola*). This orchid is a small plant to 30 centimetres high with one to two attractive red, white, yellow and green spider-like flowers to five centimetres across. These appear between late September and October and are distinguished from the closely related Hoffman’s spider orchid (*C. hoffmanii*) by their generally larger size and later flowering period.

Granite spider orchid was first collected west of Karlgarin in the wheatbelt, in the 1970s, and has since been found in a handful of locations between there and Newdegate, growing beneath tall shrubs and sheoaks on granite outcrops. Due to restricted habitat and threats associated with low population sizes, introduced weeds and a drying of habitat following poor winter rainfall, the species is currently declared as rare flora under the Western Australian *Wildlife Conservation Act 1950* and ranked as critically endangered. The species is

listed as endangered under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*.

Granite spider orchid is currently undergoing a four-year intensive research program funded through Lotterywest in collaboration with the West Australian Native Orchid Study and Conservation Group, the Botanic Gardens and Parks Authority, The University of Western Australia and the Department of Environment and Conservation. Research includes measuring mortality, seed set and recruitment, determining critical factors limiting population size, undertaking actions to promote population growth and assessing the habitat required to maintain viable populations of pollinators. It also includes the use of orchid seed baiting techniques to identify soils that contain fungi needed to promote germination, and isolate fungi that aids propagation.

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