



ENDANGERED



THE WHICHER BRACHYSEMAS

The Swan coastal plain is the most densely settled area in the State, and you might imagine that its flora would be well studied and documented. Yet a recent detailed survey covering the coastal plain from Gingin to Dunsborough confirmed that it harbours many unnamed species. Of particular interest are the unusual shrublands that occur on winter-flooded shallow loams over ironstone. The survey revealed that one such wetland at the base of the Whicher Range near Busselton supports at least 12 plant species that are found nowhere else.

These unusual plant communities may once have been much more widespread, but the fertile areas of the plain have been almost entirely cleared for agriculture. In fact, the eastern side of the Swan coastal plain is more than 98 per cent cleared (a higher percentage than for the Wheatbelt).

Because of the uniqueness of these plant communities, several of the newly discovered species

have been gazetted as 'declared rare flora' this year, and recovery plans are being prepared for the three critically endangered ironstone species: a grevillea and two brachysemas.

The two new brachysemas are being described by Dr Mike Crisp from the Australian National University. One is a prostrate shrub, spreading across the ground to a diameter of five metres. It has large glossy green leaves and its pink-white flowers are hidden among the foliage at ground level. For this reason, it is being named the 'shy brachysema' (*Brachysema modesta*). The other is a dense erect shrub, growing to two metres tall, with a pair of creamy white flowers at the end of each branch. Its distinctive leaves are shaped like a butterfly's wings, so it is being named the 'butterfly brachysema' (*Brachysema papilio*).

Fortunately, the sole populations of both species are within areas managed by CALM on the margin of State forest, and immediate action to protect the plants has been taken. All agencies and adjacent land holders have been notified. One local land holder is keen to fence his remnant

ironstone to see what regeneration occurs, and it may prove possible to transplant cultivated material to such a site to establish new populations of these species. In the longer term, the recovery plans will ensure that the existing populations are protected, by rerouting roads, firebreaks or service corridors away from the plant populations. Seed has been collected for propagation and the sites will be monitored annually.

Most plant species that grow on the ironstone are killed by fire, but a wildfire that burnt most of the butterfly brachysema population in 1993 showed that these plants can regenerate from seed and rootstocks. Fortunately, the species are probably immune to dieback disease, caused by *Phytophthora cinnamomi*.

The fact that this survey has revealed so many new species within the most densely settled area of the State illustrates how rich and poorly known is our flora.

STORY AND PHOTOS
BY GREG KEIGHERY

LANDSCOPE

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The golden whistler is a common forest bird. 'Forest Focus' (on page 10) discusses a five-year study into the effects of timber harvesting on forest birds, insects and mammals.



The 10th Light Horse Memorial Trail is one of two walktrails in Neerabup National Park. The story on page 22 takes you inside this little-known park in Perth's northern suburbs.



In the closing days of 1991, heavy downpours of rain flooded Rowles Lagoon in WA's Goldfields; and so began an unusual year of floods, frogs, flowers and fires (see page 42).



Aboriginal people of the northern deserts call the black-headed python 'warrurungkalpa', which roughly translates as 'grinder or crusher of rock wallabies'. See the story on page 17.



Radio collars are fitted to feral cats to help scientists track their movements. 'Hunting the Hunter', on page 36, focuses on research into the habits of these supreme desert hunters.

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The majestic and graceful whale shark visits the north-west of Western Australia each year and is fast becoming a major tourist attraction. What does the future hold for the world's largest fish? See page 28.



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