

The Inering Hills

not just a bump in the landscape

A small group of farmers are working together with the Department of Conservation and Land Management's WA Threatened Species and Communities Unit and Moora District to protect a vulnerable Threatened Ecological Community only found on private farmland in the Shire of Carnamah.

by Rosemarie Rees



Clearing native vegetation for agriculture in the Western Australian Wheatbelt has resulted in the removal of more than 90 per cent of the original native vegetation and the extensive fragmentation of the Wheatbelt's natural ecosystems. Early settlers extensively cleared the land considered best for agriculture and, today, only fragmented remnants of the original vegetation are left. Often, these remnants are restricted to rocky outcrops on ridges and hilltops that are unsuitable for cropping. Travelling north from Carnamah on the Carnamah-Perenjori road, stands of the original vegetation can still be seen on the crests and slopes of the Inering Hills.



The Inering Hills System

The vegetation covering the Inering Hills System can be described as a collection of plant assemblages that vary across the landscape depending on the geology and topography of the land. Tamma (*Allocasuarina campestris*) scrub is found in areas of chert and granite; tamma thicket with scattered jam (*Acacia acuminata*) and rock sheoak (*Allocasuarina huegeliana*) grows in areas of brown sandy loam over stony and lateritic summits and slopes; mixed *Acacia* low woodland is found on red/brown sandy loam over granite on summits and slopes; tangling melaleuca

(*Melaleuca cardiophylla*) thicket with scattered York gum (*Eucalyptus loxophleba*) and salmon gum (*Eucalyptus salmonophloia*) grows in areas of granite on the lower slopes and foothills; and York gum woodland occurs on the clay loam of the foothills.

The Inering Hills are home to the prostrate flame flower (*Chorizema humile*) and the Carnamah harlequin bell (*Darwinia* sp. Carnamah), both of which are gazetted as 'rare' under the Wildlife Conservation Act. Several plant species that are listed as priority species for conservation are also known

to occur in the area. The undescribed species *Scholtzia* sp. Prowaka Springs is in need of further survey to clarify its status and taxonomy, the wattle *Acacia nodiflora* is very restricted in its distribution and the York gum nancy (*Wurmbea drummondii*) is secure but requires monitoring for possible changes in its status. In September 2000, the uniqueness of the plant assemblages growing on the Inering Hills System was formally recognised when they were listed as a vulnerable threatened ecological community. An ecological community is a naturally occurring biological assemblage that occurs in a particular type of habitat and a set of criteria have been developed by the Department of Conservation and Land Management's (CALM) WA Threatened Species and Communities Unit (WATSCU) to assess the level of threat to these communities (see *LANDSCOPE*, Spring 2001).



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Main The prostrate flame flower (*Chorizema humile*) and *Melaleuca* sp.
Photo - Rosemarie Rees

Above Vegetation of the Inering Hills System.
Photo - Sheila Hamilton-Brown

Left Donkey orchids
Photo - Rosemarie Rees

Collaboration to save the community

The plant ecologist John Beard—who found that the assemblages remaining on parts of the Inering Hills once covered four hill ranges around Carnamah, including the Inering and Woondadying hills, an area of 2,175 hectares—originally described the Inering system.

When WATSCU project officer Sheila Hamilton-Brown started looking at the vegetation that remained on the hills, she found that various threatening processes including clearing, grazing, inappropriate fire regimes and weed invasion had reduced the community to 653 hectares of numerous small fragmented occurrences (30 per cent of its original distribution). All the occurrences were on privately owned land, most were not fenced and were immediately surrounded by agricultural land or bordered by roads.

The landholders lucky enough to have portions of this plant community on their property have long recognised the beauty and uniqueness of the hills and have been keen to protect them. The Inering Sub-catchment Group has a history of land care and conservation activities including revegetating corridors to connect their remnant vegetation, and the group first developed a Bush Management Strategy for the remnant vegetation in the catchment in the early 1990s. This Bush Management Strategy identified that fencing to exclude grazing would be the highest priority conservation action for the long-term protection of remnant vegetation.

Now, thanks to collaboration between the Yarra Yarra Catchment Group and CALM, this has been realised: CALM and the Yarra Yarra Catchment Group sought funding from Lotterywest for six farming families to build approximately 50 kilometres of fencing, around remnants of the Inering Hills System. This will help to protect 200 hectares of this threatened ecological community. At the same time, several of the landholders have demonstrated their commitment to the long-term protection and management of their remnant vegetation by joining Land

for Wildlife—a voluntary nature conservation scheme that provides comprehensive on-ground support to landholders wishing to look after their bushland (see *LANDSCOPE*, Autumn 2000). All the remaining occurrences of the Inering Hills threatened ecological community are on private farmland, so without the commitment and conservation actions of the local landholders, the Inering Hills community would gradually slide closer to total destruction.

With Lotterywest providing the funds for the fencing material and with the landowners erecting the fences, the fencing project will soon be completed. Some of the landholders are keen to continue their conservation efforts by developing weed-control strategies to improve the condition of their bushland and by implementing recovery actions to protect populations of the prostrate flame flower found on their property. Several farmers have also installed photo-monitoring points in the fenced remnants so they can document long-term changes in the condition of their remnants, resulting from their conservation efforts.



Top The rare prostrate flame flower (*Chorizema humile*).

Above left The remnant vegetation is being fenced to protect it from grazing.

Above The Carnamah harlequin bell (*Darwinia* sp. Carnamah), another rare plant of the Inering Hills.
Photos – Rosemarie Rees



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If you would like more information on the Inering Hills, or other threatened ecological communities in the agricultural areas of the State's south-west, please contact the author or phone the Moora District office in Jurien on (08) 9652 1911.

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Design and production Tiffany Aberin, Maria Duthie, Natalie Jolakoski, Gooitzen van der Meer.

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Cartography Promaco Geodraft.

Marketing Estelle de San Miguel

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Phone (08) 9334 0481 or (08) 9334 0437.

Prepress Colourbox Digital.

Printing Lamb Print, Western Australia.

© ISSN 0815 4465

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Published by the Department of Conservation and Land Management, 17 Dick Perry Avenue, Kensington, Western Australia.

