

## A RARE PEAL OF BELLS

Botanists are combing the Wheatbelt for a rare bell flower, now known only in two populations.

Bell flowers (such as the mountain bells described in *LANDSCOPE*, Winter 1985) belong to the genus *Darwinia*. They consist of tight clusters of hanging flowers, surrounded and hidden by large colourful petal-like bracts. These bell flowers are only found in the South West of WA; the eastern Australian species do not have the bracted heads of flowers.

*The large petal-like bracts of Darwinia carnea give the plant its bell-like shape.*

*Photo - Tanyia Maxted*



The Mogumber bell, *Darwinia carnea*, was first discovered in 1928 by the Government Botanist, Charles Gardner, in the Babilion Hills between Mogumber and New Norcia. Some specimens were brought into cultivation and are highly prized horticulturally. The last sighting of the Mogumber bell at the original locality was in the 1970s. Until November 1990 it was thought to be extinct in the wild; then botanist Ted Griffin rediscovered it in an area of ungrazed bushland not far from the original locality. Even more recently, CALM contract botanist Jan Gathe has discovered another population in the same area. Specimens of these rediscovered populations are now in cultivation at the Kings Park nursery.

A very close relative of the Mogumber bell is the Narrogin bell, discovered in 1978 on private property at Narrogin. Only six plants were found, and the small area of ungrazed vegetation was fenced off by the WA Wildflower Society. After the elimination of rabbits, the threatened species recovered and the number of plants rose. In May 1990



*Botanist Jan Gathe examines one of the Darwinia carnea plants in the Kings Park nursery.*

*Photo - Tanyia Maxted*

the population count stood at 36. The Narrogin bell is also being grown in the Kings Park nursery.

If you know where the

Narrogin or Mogumber bell is to be found, please contact Neville Marchant at CALM's Western Australian Herbarium on (09) 367 0500.

## SPOTTED KANGAROOS

A survey in the forests of the South West has shown that kangaroo numbers are about the same as they were 20 years ago. A total of 803 western grey kangaroos were spotted, compared to 709 in a similar survey in 1970.

On the other hand, the survey exposed a dramatic decline in the numbers of western brush wallabies over

the past 20 years. The 1970 survey found that the brush wallaby was quite common, particularly in the northern jarrah forest. Two hundred and seventy-seven wallabies were recorded (10.4 per 100 kilometres). However, only 32 western brush wallabies were counted in the recent survey - 1.1 per 100 kilometres.

For the survey, almost 200 volunteers, including CALM staff, spent two hours on an October evening driving slowly through State forest. Spread out between Wanneroo and Walpole, between them they covered a distance of 2895 km. They recorded kangaroos, wallabies, emus and feral animals such as pigs, together with vegetation type and age

since the most recent fire.

CALM researchers Per Christensen and Graeme Liddelow, who conceived and planned the surveys, suspect the wallaby's decline is due to predation by the fox.

'There is evidence of an increase in brush wallaby numbers following fox control in one area of the South West,' Per said.

# LANDSCOPE

VOLUME SIX NO. 1 - SPRING EDITION 1990



*In the central Kimberley, a screw-pine-surrounded creek - just one of the threatened areas in this fragile frontier. Turn to page 22.*



*Until 1984 more was known about what was underneath the Nullarbor than what was on top. But with such a vast area to study, where do we start? See page 16.*



*Public awareness and involvement is vital in the conservation of WA's rare and endangered flora. Page 49.*



*Ten WA mammal species have become extinct in the last 200 years. What can be done to ensure no more are lost forever? Page 28.*



*Forests protect our environment. They also provide timber. How do we strike a balance? Turn to page 35.*

## F E A T U R E S

A RANGE OF REEFS  
BARRY WILSON ..... 10

SCOUTING THE TREELESS PLAIN  
NORM MCKENZIE ..... 16

THE FRAGILE FRONTIER  
CAROLYN THOMSON, CHRIS DONE AND ALLEN GROSSE .. 22

THE DISAPPEARING MAMMALS  
ANDREW BURBIDGE AND TONY FRIEND ..... 28

FORESTS FOR THE FUTURE  
SYD SHEA AND ROGER UNDERWOOD ..... 35

VANDALS IN A VULNERABLE LAND  
JACK KINNEAR, DENNIS KING AND KEITH MORRIS ..... 44

GROWING IN A WILD STATE  
DAVID COATES AND NEVILLE MARCHANT ..... 49

## R E G U L A R S

IN PERSPECTIVE ..... 4

BUSH TELEGRAPH ..... 6

ENDANGERED  
THE BINDOON STARBUSH ..... 21

URBAN ANTICS ..... 54

## S P E C I A L S

KIDS AND TREES  
ARBOR DAY 1990 POSTER COMPETITION ..... 26

## C O V E R

*Dolphins and whales are perhaps the best-known inhabitants of Western Australia's coastal waters. But this unique area is also home to an astonishing range of marine flora and fauna, from sea-turtles and coral reefs in the north to sea-grass banks and great white sharks in the south. See page 10.*

*Illustrated by Martin Thompson.*



**Managing Editor:** Ron Kawalikak

**Editor:** Ray Bailey

**Designers:** Louise Burch/Robyn Mundy/Stacey Strickland

**Production:** Sandra Mitchell

**Advertising:** Estelle de San Miguel ☎ (09) 389 8644 Fax: 389 8296

**Illustrations:** Martin Thompson, Yeon Hee Kim

Colour Separation by Prepress Services

Printed in Western Australia by Kaleidoscope

© ISSN 0815-4465 All material copyright No part of the contents of the publication may be reproduced without the consent of the publishers

Published by Dr S Shea, Executive Director  
Department of Conservation and Land Management,  
50 Hayman Road, Como, Western Australia 6152.