SLUMBERING SEEDLINGS

There is an old saying that one year's seeds will produce seven years of weeds. However, many of our native plants produce seeds that can lie dormant and survive in the ground much longer than this. The dormancy factor has great survival value for such plants, particularly for those that grow in the arid and semi-arid regions of the State.

Former forester, 95-year-old Dick Perry, says that if all the seeds that ripened and shed were to germinate after a good rain and then died for the lack of following rains before they could flower and produce seed, a species would quickly become extinct.

"With some species it is possible to break dormancy by soaking seeds in very hot water or by scarifying the seed coat," Mr Perry said.

"Alternately soaking and chilling have also proved to be effective with some species, but some have failed to respond to any of these treatments."

Mr Perry gives the following examples to illustrate the way the seeds of some species can remain viable in the ground for many years before germinating:

"A large bush of Geraldton wax (*Chamelaucium uncinatum*) growing in the garden at my home became so large and unsightly that I removed it in 1948. Every year that followed, until 1967 when I sold the house, a few seedlings appeared in spring and were weeded out," Mr Perry said.

"In another instance, when clearing vegetation on the block on which I intended to build our new home in 1967, I removed several large, old Geraldton wax bushes.

"Again the same thing happened, and up to six or seven seedlings appeared. But as the years passed, the number became much less, and some years there would be only the odd seedling or nothing at all. The last seedling to appear was in 1995 after several years of no appearances.

"Each year from 1954 to 1957 inclusive, I collected and winnowed a seed from the hop bush (*Dodonaea attenuata*). On the site where I deposited winnowings, which included some seed, seedlings would appear from time to time over many years, the last one in 1972, after at least 15 years in the ground.

"Part of the Gnangara Pine Plantation was cleared of all vegetation and ploughed in 1930. In 1931, it was planted with pinaster pine seedlings. As the pines grew they greatly reduced the sunlight reaching the ground and at seven years of age had begun to lay down a deep carpet of needles.

"In the summer of 1961, a large part of this area was burnt and the pines killed. These were removed and the area was replanted. In the spring of 1961, following the fire, there was a very impressive germination of native plants including red and green kangaroo paws (*Anigozanthos manglesii*) and catspaws (*A. humilis*), which flowered in the spring of 1963. These seeds had been buried for some 30 years and were still viable.

"One can't help wondering if these results suggest that it may be possible to revive some of our extinct plants by rabbit-proof fencing plots in the areas where they once grew," Mr Perry said.

Above: *Seeds, awakened from a 30-year-long slumber in Gnangara Pine Plantation, produced these magnificent red and green kangaroo paws* (Anigozanthus manglesii). *Photo - Dick Perry*

Left: *Catspaws* (Anigozanthus humilis) *display similar regenerative properties. Photo - A G Wells*

LANDSCOPE

VOLUME TWELVE NUMBER 1, SPRING 1996

Rainbow lorikeets. Are they pests? Will they displace our native birds? Do we need to control their numbers, and if so, how? Find out more on page 17.

*A subspecies of granny bonnets (*Isotropis cuneifolia *subsp.* glabra*) found in a threatened community on the Swan Coastal Plain. See story on page 35.*

'The Magic of Magenta' co-author Mal Graham clearing an Aboriginal soak in Lake Magenta Nature Reserve. See our story on page 41.

A rat by any other name...? In 'Dinkum Aussie Rats' Andrew Burbidge discusses the use of common and Aboriginal names for native rodents.

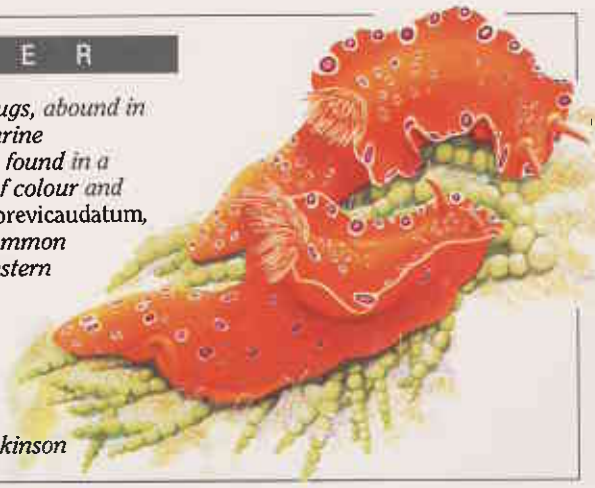
In 'Saving the Giants', read how a new Tree Top Walk in WA's south-west is set to become one of Australia's nature-based tourism icons.

FEATURES

REGULARS

COVER

Nudibranchs, or sea-slugs, abound in Western Australia's marine environment. They are found in a tremendous diversity of colour and form, the Ceratosoma brevicaudatum, *illustrated here, is a common inhabitant of south-western waters. See page 28 to learn more about the 'Slugs of the Sea'.*



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Colour Separation by Prepress Services
Printed in Western Australia by Lamb Print

***LANDSCOPE* Online:** http://www.calm.wa.gov.au/

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