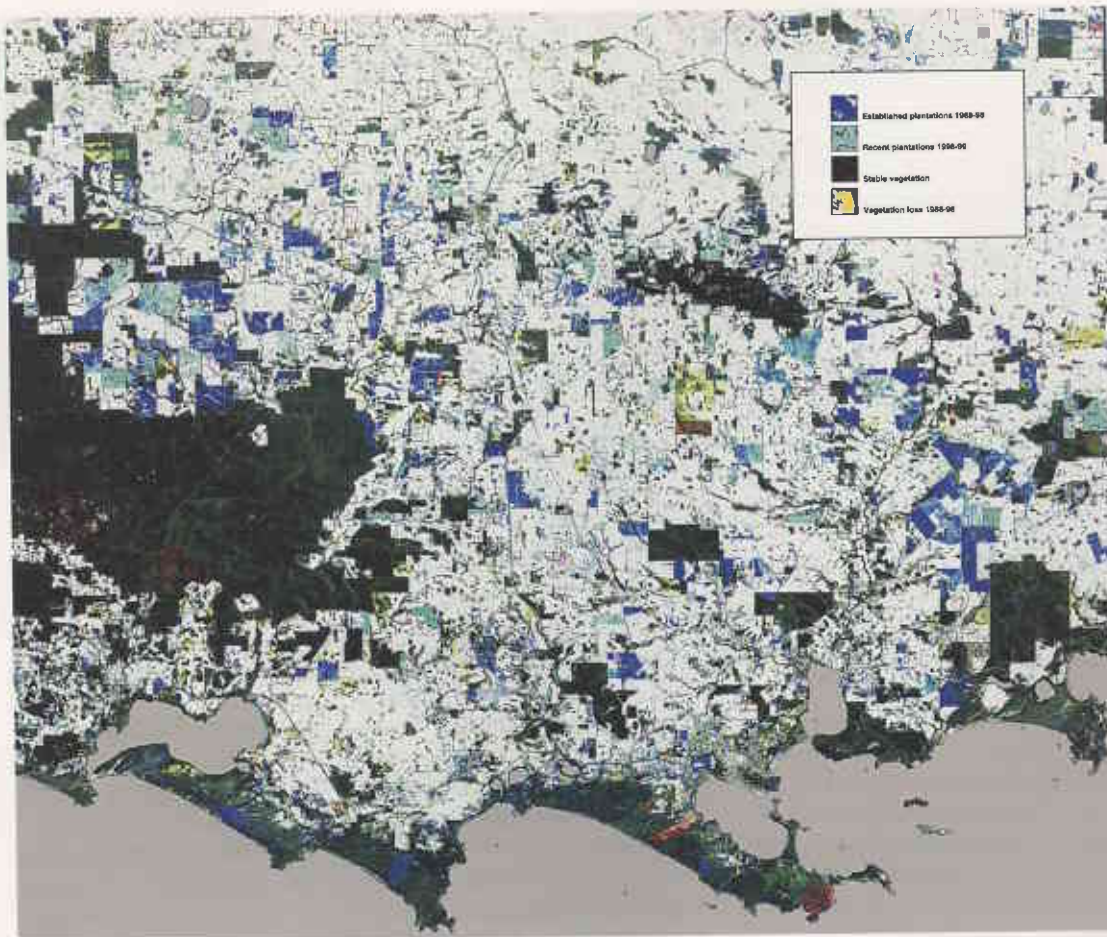


MAPPING THE BLUEGUM PLANTATION EXPLOSION



Left: Image provided by the Land Monitor Project; produced from calibrated Landsat Thematic Mapper data.

represents loss of vegetation cover during the decade 1988–1998, while the red is a loss of vegetation cover

The expansion of bluegum plantations in the South West has been dramatic, to say the least, with the rate of plantings increasing rapidly. To monitor the progress of these plantings, up-to-date maps, provided by satellite imagery, are used in conjunction with detailed on-the-ground information to give a far more accurate picture than was possible in the past.

The image above shows changes in vegetation cover over two periods: the ten years 1988–1998 and the single year 1998–1999. The picture is produced from three datings of satellite images and records vegetation that has actually grown. Satellite imagery at this resolution has been

routinely captured since 1987, and is an ideal tool to monitor changes in vegetation cover across large areas.

The area of the image covers about 635,000 hectares. Colours indicate the timing of vegetation changes; black areas are stable vegetation with dense foliage; and grey are also stable but with less dense foliage. Cleared areas are shown in white. The variation in the blue intensity gives an indication of the age or density of the plantations. Those that were established in the decade January 1988 to January 1998 appear as dark blue, while the light blue shows the increase in new plantations over the 13 months from January 1998

to February 1999.

Identifying causes of change requires detailed ground information, but from what is known of tree-plantation growth in this area, the large, blue, regular-shaped areas are predominantly blue gum (*Eucalyptus globulus*) plantations that have been planted after 1988.

Multi-date satellite imagery can be processed to produce maps showing the extent and change of vegetation cover through time. From the image, reds and yellows generally represent loss or decline in vegetation cover. Again, the cause of that loss requires detailed ground information.

From what has been established, the yellow

during 1998 and 1999.

The satellite imagery has been acquired and processed under the Land Monitor Project that provides land and vegetation monitoring information over the whole of the South West. This Project is part of the Western Australian Salinity Action Plan supported by the Natural Heritage Trust. Participating agencies include the Department of Conservation and Land Management (CALM), AGWEST (formerly Agriculture WA), the Department of Land Administration (DOLA), the CSIRO, the Department of Environmental Protection (DEP), the Water and Rivers Commission, and Main Roads Western Australia.

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Winner of the 1998 Alex Harris Medal for excellence in science and environment reporting.

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In 'Photographing a Temperate Wonderland' (page 10), photographers Sue Morrison and Ann Storrie share their experiences.



In 'Those Spotted Things' (page 22), we see how fox-baiting and captive breeding continues to swell populations of this popular native mammal.



Snakes. You either love them or hate them, but how do we live with them? See story on page 45.



Many farmers and landowners are turning to plantation pine for a variety of good reasons. Five of them tell us why. See 'A Crop of Forests' on page 38.



As habitat changes, so do species populations. But just when does a species become threatened? See 'Healing the Land' on page 49.

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The magnificent gorges of Karijini National Park are a refreshing retreat from the arid plains above. They also have a fascinating geological history. See story on page 28.

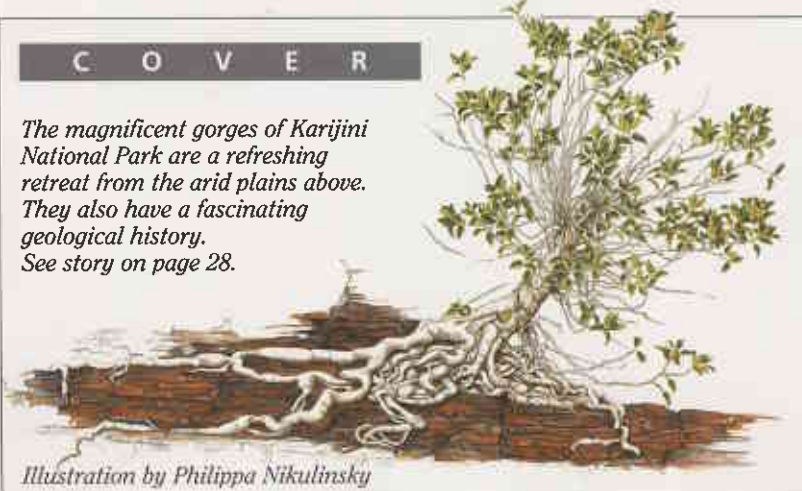


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