

Caring for Campbelltown's koalas



At the turn of the century, Sydney's southern Campbelltown district had plenty of koalas. But records indicate that early residents shot most of them for their pelts. Before their rediscovery in the area in 1986, koalas hadn't been seen in the region for about 50 years.

Times change. Late last

year, local residents became the backbone of a protest group that sought to preserve a koala colony located next to O'Hares Creek at Wedderburn, near Campbelltown. Protests started when the residents learnt that the Campbelltown Council had given approval for a development company to

subdivide more than 200 ha of bushland into 4-ha building blocks.

Faced with conflicting opinions and arguments, the Council called a halt to the development and commissioned an independent survey of the koalas and an assessment of the potential effects of the development

proposal. Enter Dr Steven Cork, Dr Chris Margules, and Dr Wayne Braithwaite, arboreal mammal specialists from CSIRO's Division of Wildlife and Ecology, retained by the Council to carry out the study.

The scientists knew from their previous research that koalas are highly selective in

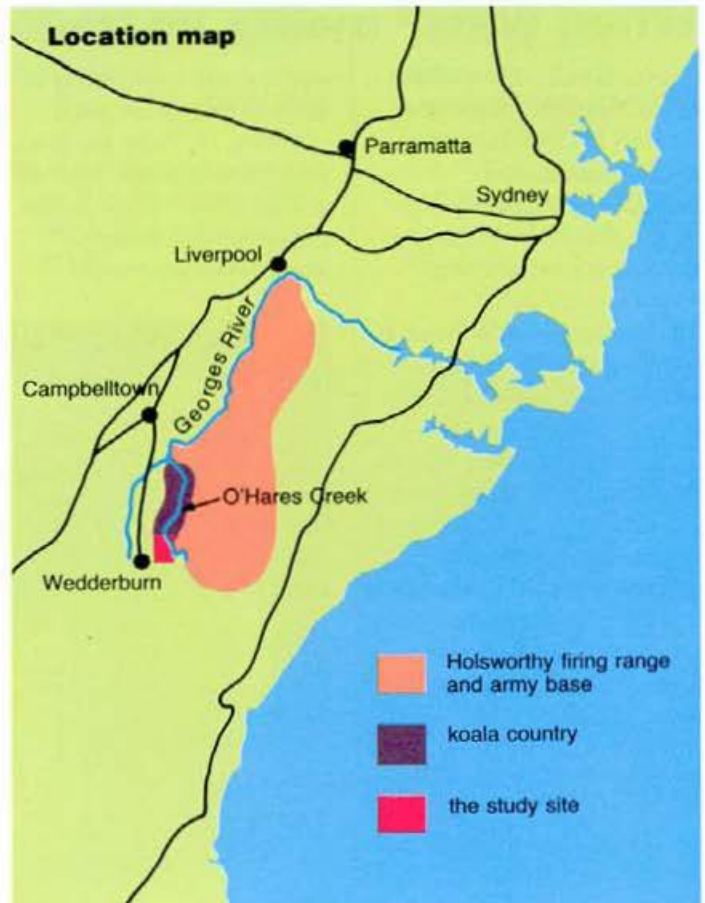
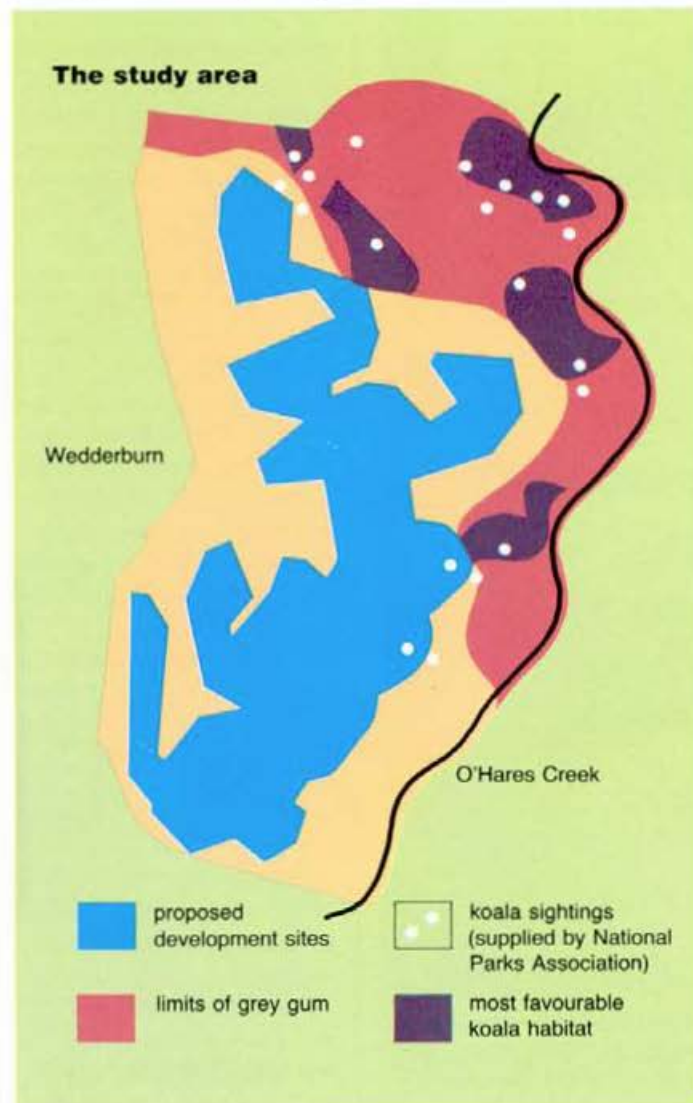
their choice of food. Stable populations persist only when one or more of a small number of suitable eucalypt species are present as a major component of the habitat. At least two of these staple species, the grey gum (*Eucalyptus punctata*), and the forest red gum (*E. tereticornis*), occur around Campbelltown. In the Wedderburn koala colony, grey gums appeared to be the staple.

Dr Cork and his colleagues reasoned that a survey showing areas of bush containing a high proportion of grey gum would give a reliable picture of favourable koala habitat. Using a sampling design that ensured that all aspects and topographic positions were

included, the team recorded details of all the trees in 58 0.1-ha quadrats. They found the site contained five tree communities, with one of them representing the most favourable koala habitat (see the map). This habitat is confined to the slopes of the O'Hares Creek gorge and to some of the creek's tributaries.

The shortness of the study period precluded an exhaustive koala census, but while in the field the scientists recorded evidence of the presence of koalas. As well as actual sightings this included scratches on trees and fresh faeces. In addition, the team took note of koala observations made by amateur naturalists from the local branch of the National Parks

Whether the O'Hares Creek koala population extends southwards could have an important bearing on the population's viability if the development goes ahead.



Association of New South Wales.

In their final report, Dr Cork and his colleagues concluded that, provided a number of management controls could be guaranteed, the land development itself would not affect the colony. But if controls were not enforced the outcome would be very different.

For example, marauding dogs would present an immediate threat to the persistence of koalas in the area, as would an increase in the number of uncontrolled bushfires. In the longer term, if human activity greatly altered the flow of water and nutrients down the slopes on which grey gum is found the colony would suffer from a change to the ecology of its most favoured habitat. Excessive clearing of land or the application of fertilisers for intensive agriculture on the plateau above the gorge would almost certainly create that problem.

From the short study that was confined to the

development site, the scientists were not able to determine whether the small Wedderburn colony represents the extreme south-western corner of a larger population known to live along O'Hares Creek in Crown land to the north and probably in the military reserve to the east, or whether it represents part of an even larger population that stretches along the gorge to the south. They consider that, if it represents the latter, then the preservation of the site would be important, to prevent the formation of two separate populations whose viability would be in doubt.

The future of this particular development has still to be decided; but as the koalas chew on their gum leaves and ponder their fate, they may gain some comfort from the thought that the Campbelltown Council has sought to promote a rational debate by seeking an independent view from experts in the field.

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