

# ARC Centre of Excellence for Environmental Decisions (CEED)

## Media Release

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### **Native street trees can boost birds' survival**

As native birds continue to lose their homes due to the spread of the Australia's cities, scientists are urging city planners and householders to help save them by planting more Australian trees.

A world-first study in the Australian national capital shows that the amount of native trees on suburban streets has a big effect on the numbers and types of birds in the area.

"We found that suburbs with more than 30 per cent native street trees have 11 per cent more bird species of all types than those with exotic street trees," say Dr Karen Ikin and Professor David Lindenmayer from The ARC Centre of Excellence for Environmental Decisions (CEED) and The Australian National University.

"More birds were also found in nature reserves next to the suburbs. This shows that how we manage our urban areas has a significant effect on wildlife in surrounding locations."

The researchers surveyed 66 bird species at 40 locations across Canberra and grouped native birds by their tolerance of urbanisation.

"With the exception of native birds that avoid urban areas, a significantly higher number of bird species – both feral and native – were found in suburbs with more than 30 per cent of Eucalyptus trees," says Dr Ikin.

"Exotic trees like oak trees, elms and plum trees are the most popular choices in current street tree plans," the researchers say. "While these trees have their benefits, such as providing more sun in the winter or bushfire protection, our study reveals that they may have a negative impact on native birdlife."

Eucalypts, on the other hand, have a crucial role in maintaining biodiversity, says Dr Ikin: "They provide food, nest sites and shelter for birds via foliage, flowers, bark, canopy air spaces and leaf litter.

"Our previous study showed that parks with large eucalypts – ones with a trunk diameter over a metre – had up to three times the number of bird species than parks with smaller trees," she says. "Along with this research, we now have good science to support the planting and retention of native trees, especially large ones, in urban areas."

“While there are safety risks in keeping big trees, a lot of wildlife, including endangered animals such as the superb parrot and the tiger quoll, depend on them,” Prof. Lindenmayer says. “So instead of removing these old trees, we can prune them, create zones or put up safety warnings.”

“We can also proactively plan for future large trees, so that the younger can replace the over-mature ones. In addition, these trees can be given greater legislative protection,” the researchers say. “Householders can also make a big difference by planting native shrubs and trees in their gardens.

“Urbanisation is unavoidable, but our studies show that there are ways to lessen its negative impact on Australia’s native wildlife – we just have to think more carefully about how we design our suburbs,” they say.

“If we want to increase biodiversity in urban areas, birds are an easy way to start – native street trees can benefit ‘native favourites’ such as the superb fairy-wren and crimson rosella. We can also plant more shrubs, keep more tree logs and leaf litter in parks and private gardens for native birds that currently avoid urban areas, such as the threatened white-winged triller.

“Research shows that people enjoy seeing and hearing birds around their home, work and recreational spaces, even if they are not interested in what the individual species are. So having charismatic and colourful ‘native favourites’ that ordinary people can recognise can improve their well-being.”

The team’s paper “The influence of native versus exotic streetscape vegetation on the spatial distribution of birds in suburbs and reserves” by Karen Ikin, Emma Knight, David B. Lindenmayer, Joern Fischer and Adrian D. Manning appears in the journal *Diversity and Distributions*. See: <http://bit.ly/Wx7ysn>

CEED is the Australian Research Council Centre of Excellence for Environmental Decisions. CEED’s research tackles key gaps in environmental decision making, monitoring and adaptive management.

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