

Helping native birds beat their bullies

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Small Australian native birds are losing food and home to a growing flock of rivals, including native birds arriving from other states, invasive alien birds and those that thrive in urban areas, environmental scientists have warned.

In addition to targeting high profile pest birds such as the Indian myna, Australia should expand its lines of defence against a wide range of aggressive alien birds and native "urban exploiters", says Associate Professor Salit Kark of the National Environmental Research Program's Environmental Decisions Hub (NERP's EDH) and The University of Queensland.

"Alien invasive birds compete with [native birds](#) for food and nesting sites, and they often win because they're larger, more aggressive and in some cases can adapt to new environments better," says Assoc. Prof. Kark. "Some of these pests can also spread disease and have been shown to damage vineyards and food crops in other countries, affecting the local agriculture and economy."

Professor David Lindenmayer of NERP EDH and The Australian National University explains that most resources to control feral birds in Australia are currently focussed on the Indian myna, an invasive starling that originated from Asia. "While the myna is a highly invasive bird in Australia, scientists are increasingly finding other species that also threaten local birds, including native ones that invade the locals' territory from other areas."

One of the best examples is the noisy miner, an Australian native honeyeater, which has expanded its range across Australia in recent decades and is aggressively out-competing other native birds. Another example is the kookaburra – an eastern Australian native that was introduced into Tasmania and Western Australia and is now occupying the homes of native parrots and owls.

"Other rivals to our native birds include "urban exploiters" – birds that tend to do well in human-dominated landscapes, such as noisy miners, magpies and white ibises. They chase away other species wherever they live," says Prof. Lindenmayer.

To protect local native birds, NERP researchers are investigating how these [invasive species](#) interact with local native birds as well as one another. The results will be compared with bird studies carried out in other countries, and compiled into a large scale database.

"It's important to find out how they interact with others because pests do not invade a vacuum, but a community of native and often other alien species," says Assoc. Prof. Kark. "This means they are all related, and a focus on controlling one species without knowing how this may affect the others may do more harm than good."

This was demonstrated in the Eastern Mediterranean Basin, Assoc. Prof. Kark says. "Indian mynas and vinous-breasted (Burmese) starlings are two recent invasive birds in the region. The vinous-breasted starling is aggressive towards the native woodpeckers, which are major engineers of tree cavities in the region. The starlings aggressively interact with the woodpeckers in their cavities and invade their homes.

"We found that the alien Indian mynas can actually out-compete these invasive starlings, so if we invest conservation funds to eradicate only the Indian mynas, that amounts to facilitating the invasive vinous-

breasted starlings – and potentially helping them wipe out the native woodpeckers, this having negative impact on many other cavity nesters.

"This is why we need to understand how a species interacts with others, and carefully consider the effects of our control actions," she says. "It's similar to the tale of the cat that killed the rat that ate the malt – if we remove only the cat, there's nothing to stop the rat from eating the malt".

"Our studies can help reveal the dynamics between multiple species in a community, and can help prioritise which species to control, and to predict the outcomes of our actions."

Assoc. Prof. Kark warns that invasive birds, once established, are extremely hard to eradicate: "These are often smart and adaptive birds, and many are social animals that can pass information within their flock".

"Our most recent research, funded by my Australian Research Council Future Fellowship, suggests that Australia now has at least 24 feral bird species, and these are only the ones that we have sound evidence for, there are likely more. As we expand our cities, planting non-native vegetation, it also gives the urban exploiters an edge over the others."

"It's crucial that we pay more attention and allocate more resources to a wider range of feral birds, instead of the one or two high-profile [species](#)."

More information: For more information about Assoc. Prof. Kark's research, see: karkgroup.org/

Prof. David Lindenmayer's research can be found at researchers.anu.edu.au/researchers/lindenmayer-db

Provided by NERP Environmental Decisions Hub

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