

Little Corellas: A Way Forward

Update on the *Little Corellas* project, Philip Roetman and Annette Scanlon, University of South Australia, April 2018

Background

Following two years of research and community engagement, in March 2017 we published a report on the findings of our **Little Corellas** project, entitled *Little Corellas: Social and Ecological Research for Management in South Australia*. Since releasing those results we have continued to work on the project, presenting findings to stakeholders and others¹. We have been discussing useful strategies for reducing problems with flocks of little corellas and have received valuable feedback. This update provides insights from our discussions and provides further examples and references regarding the management of little corellas.

Why is there a problem?

If we had to identify one central theme or *take-home message* from our report, it would be that **WE have created perfect habitat for little corellas and they are taking us up on the offer**. Tim Low, in his book *The New Nature*² describes how some plants and animals are *winners* when people modify landscapes, while other plants and animals are *losers*. **Little Corellas are most definitely WINNERS**. We modify landscapes as our towns and cities grow, which changes the resources available for wildlife. We have created landscapes with increased resources for little corellas, including food and water, plus sites for resting and roosting. Little corellas are smart birds and they are highly successful at making use of these new resources. Little corellas also benefit from the relative safety of our towns, cities and surrounding landscapes.



The 2017 report is available online with a summary: discoverycircle.org.au/projects/little-corellas/results/ or via UniSA's research repository: researchoutputs.unisa.edu.au/11541.2/128229

DARN IT, I'VE CREATED A LUXURY RESORT FOR LITTLE CORELLAS!

After a recent discussion about our report, one land manager was stirred by the realisation that for many years his land management activities had been creating a perfect site for little corellas! He had curated wide-open lawns skirted by a few tall trees, with an easily-accessible water source. On reflection, he saw how he had driven the change and had virtually *invited* little corellas to the land he managed. He also recognised that he could start making changes to make the area less attractive to little corellas. Our report outlines many practical ways to modify landscapes to make these spaces less attractive to little corellas.

We can pick the winners!

It is important to recognise that **the problems that we experience with little corellas are driven by our own actions and our own landscaping.** We create the winning situations for little corellas. We are in control. If we want to experience fewer problems with little corellas, we need to reduce the resources we provide for them, such as food, water, space, and safety. **We need to develop different landscapes.** We can be clever about our landscaping so that our parks are great for us, and great for a variety of birds, but less attractive to little corellas. One example is Beaumont Common, a park with open space and islands of vegetation (see the image below), and vegetation planted around the watercourse. There are further examples in our report and further discussion and resources below.



A GROWING PROBLEM...

Historically, there is no evidence that little corellas spent much time in the Adelaide city area. Increasingly, flocks of little corellas have been spending summers in Adelaide. More recently, we have had reports of little corellas over-wintering in Adelaide, so that they are now in the city year-round. When we published the *Little Corellas* project report we had no knowledge of little corellas breeding in Adelaide (even though we asked a lot of people if they had observed them breeding). However, since then we have had credible reports of little corellas breeding in Adelaide. It certainly seems likely that the numbers of little corellas in Adelaide will continue to increase unless we make some changes.

How are little corellas like canaries?

Birds were historically used in coal mines to warn miners if dangerous gasses were present. If the birds (canaries) died, people would evacuate the mines to avoid the gasses. Thus, a dead canary in a coal mine was an indicator of danger. Little corellas are another indicator, but of a different kind of danger. Not *dead* little corellas, alive ones. The abundance of these birds in our towns is warning us of an impending problem. We are in danger of excluding all but a few species of bird from our towns and cities. We will miss the variety of birds and birdsongs that beautify our urban landscapes. We will be left with families and flocks of birds that are often large, loud, annoying or destructive. In particular, white ibis and noisy miners are massive *winners* in urban parks. Other parrots, like rainbow lorikeets and sulphur-crested cockatoos, are also increasing. **Indeed, problems with abundant birds in urban areas are increasing and will continue to increase unless we start to rethink the landscapes in our towns and cities.**

But most people love little corellas

Most people love little corellas and we certainly appreciate them too. But problems occur when large flocks of these birds have extended stays in our urban spaces. Little corellas damage trees and built infrastructure, and disturb local residents. **These are problems.** It is important to recognise that a problem exists, and that we are feeding the problem. **The problem is NOT the birds, *per se*, the problem is an increasing number of birds and how long they stay in urban areas.** Ignoring the problem or avoiding the issues that create the problem will only allow the problem to get worse (and frustrate people experiencing the impacts).

LEAVE THE BIRDS ALONE!

At one presentation, an elected councillor commented that little corellas were just doing what they do naturally, and that we should all *leave them alone*. This view fails to recognise that people are driving the creation of landscapes that encourage large flocks of little corellas to visit our towns and cities. And we are providing the resources that allow the flocks to stay for long periods in our urban areas. Additionally, while the landscapes we create favour some birds, they exclude others. We are in control, not the birds. We determine the *winners* and *losers* as we decide how we landscape our urban areas. Should we just let the *losers* go? We would prefer to keep seeing and hearing a variety of birds in our cities, like honeyeaters, whistlers, martins, and wrens. In other words, **providing resources for little corellas means we are denying resources for other birds and wildlife.** We are certainly not leaving the birds alone!

Re-imagining our green spaces

The design of urban areas is incredibly important to us and to local wildlife. We can thoughtfully design urban spaces so that they are useful for us AND less attractive to problematic wildlife, like little corellas. We can have space for playing cricket, kicking footballs, and having barbeques. We can have parks and schoolyards with areas of lawn for play and sport, but lawn areas should be broken up with rows or islands of vegetation (we provided examples in our report). **We also need more shrubs.** Little corellas love sitting in a tall tree with only a few other tall trees nearby (they seem to avoid forests around Adelaide). In these open areas, they can see for a long way and probably feel very safe. More shrubs and native ground covers will make places less attractive to little corellas AND support populations of small native birds, which people love.

We need to make water less-easily-accessible to little corellas, too. These birds are picky about where they drink – they can't bend-over too far, they won't usually force their way through reeds or vegetation, and they like to have a good clear view around them (to make sure they are safe). We can use this information wisely. **We can create urban spaces that work for us AND are less attractive to little corellas.** There are many suggestions in the project report and more information below. We need to start making changes.

If you have read the project report, you will find many suggestions on how we can change our urban spaces to make them less attractive to little corellas. Importantly, we do not support the 'ripping-up' of existing urban parks and replacing them with replicas of the pre-European style landscapes. However, we do need to make changes and **rethink our urban spaces.** More **nature-based urban park planning and design** is a priority, otherwise problems with abundant birds will continue and worsen.

FAKE NATURE!

Based on our research, it is fair to say that most people like to see little corellas. But problems arise when there are many, many little corellas, and they spend extended periods of time in one place. Naturally, flocks of little corellas would move around the landscape to find their food, water, and roosting resources. Historically, South Australian landscapes did not offer irrigated mown lawns surrounded by few tall trees with nearby permanent water. These are the types of landscapes we create in our towns and cities, which provide new resources for opportunistic wildlife, such as little corellas.

We have labelled many urban parks as **FAKE NATURE**. We call it *fake* because it is a poor imitation of a natural South Australian landscape. We call it *fake* because it does not function in natural ways. *Fake Nature* needs to be managed closely once we have created it – think irrigating, pruning, mowing, spraying, and fertilising. And *Fake Nature* provides ample resources for some species, but none for others. *Fake Nature* provides perfect habitat for little corellas.

The Aleppo pine is a common tree in urban parks around South Australia and a common component of *Fake Nature* (it is also a declared environmental weed³). Unfortunately, Aleppo pines provide a substantial food resource for little corellas. One study found that an average-sized Aleppo pine produced over one thousand times more seed than a large hakea bush³, which is a traditional food resource for little corellas. That food is a big WIN for little corellas, enabling them to flourish in urban areas. Little corellas move around the landscape visiting towns with Aleppo pines, to take advantage of this bountiful food resource.

Who can help?

The sooner we act, the easier it will be. Problems with little corellas will continue to increase if we do not make changes. However, we do not need to be extreme, careful planning will help reduce problems over time.

Careful planning to reduce problems with little corellas needs to involve the right people. They are the people who manage land – people in local councils and state government, managers of schools and sporting areas, as well as private businesses and landholders. Importantly, within large organisations (like state government and many of our local councils), the right people need to be involved, too. **To date, the right people have not always been involved.** Managing little corellas has too often been the concern of people who manage open spaces. But to make changes, we also need the people who plan open spaces to be involved. And we need people involved who will understand landscapes as habitats, and how changes in habitat will influence wildlife. And we need the people who direct the planning of open spaces to be involved, particularly from local and state governments. Specifically, we need urban planners, landscape architects, ecologists and decision-makers to be involved – the people who have the most influence on how we create urban spaces.

What next?

We have valued talking with government (state and local) about this project, particularly when land-managers, planners, ecologists and decision-makers are all in the room. Some local councils are listening and we are pleased to hear of some changes being planned. The Local Government Association and the state government have supported our work and they have been working to support further action in this area. The Department for Environment and Water (DEW) are providing policy, scientific and environmental advice to help guide the management of little corellas. We hope to see more collaboration in the future, to make the changes needed to reduce problems with little corellas.

While recognising that change is important, we must also recognise that **there is no silver-bullet solution to the management of little corellas**. The best response is long-term and is focussed on restricting the resources we provide for little corellas, rather than managing the birds. In particular, it is pointless to react to urban flocks of little corellas by culling birds. **Killing little corellas is like swatting a fly in your kitchen, but leaving the back door open... flies keep coming in to annoy you**. The same goes for little corellas – culling them does not close the door, the invitation for them to flock in our parks is still wide open.

Change needs to happen. The types of changes we are promoting will take time, and there will be costs involved. But careful planning will defray those costs, and may save money in the long-term. The ongoing maintenance of well-planned parks is likely to be less expensive than managing poorly-planned parks and abundant bird species in the poorly-planned parks.

Parks should be designed to meet the needs of park users, and to create a better urban environment. These environments will harness natural processes, include local native plants, and help South Australia to feel distinctively like South Australia. Such parks will attract fewer little corellas; they will stay for less time than those flocks of little corellas in typical urban parks. Thus, new landscapes, will reduce **problems with little corellas** while benefiting other native species, including small birds.

Lastly, it is important that any actions undertaken and the outcomes of these actions are shared, including new landscaping (e.g. modifications to parks), trials of screening (natural and artificial), water source management, or collaborative planning with decision makers, land managers, ecologists and design or planning professionals.

In the next section we provide further information about some of the ideas we have been discussing with stakeholders¹. This information has been requested by people attending our presentations and workshops.

FURTHER INFORMATION

During our presentations, workshops and discussions, people have requested more information on particular potential management actions. **IMPORTANT NOTE:** This section is not meant to provide an exhaustive list of management options, nor does it discuss all management options. We have provided the following information as we have been asked questions about particular approaches. More details and additional management options are provided in the project report.

Landscape management for management of abundant bird species

Here we provide a selection of articles that discuss how landscapes can be managed to influence local bird and wildlife communities:

- Goodrich J.M. & Buskirk S. (1995) '**Control of Abundant Native Vertebrates for Conservation of Endangered Species**', *Conservation Biology*, vol. 9, pp. 1357-1364. This paper discusses the problems associated with the control of abundant native species. The authors discuss the primary factors responsible for some species becoming abundant, specifically describing the degradation of communities and ecosystems. They also describe the best long-term plans to reduce problems with abundant species, namely community and ecosystem rehabilitation and restoration. Abstract available at: <https://doi.org/10.1046/j.1523-1739.1995.09061357.x>
- Hastings R. & Beattie A. (2006) '**Stop the bullying in the corridors: Can including shrubs make your revegetation more Noisy Miner free?**' *Ecological Management & Restoration*, vol. 7, pp. 105-112. This paper provides a good example of how the trees we plant influence local bird communities. Abstract available at: <http://onlinelibrary.wiley.com/doi/10.1111/j.1442-8903.2006.00264.x/full>
- Carey M.P., Sanderson B.L., Barnas K.A. & Olden J.D. (2012) '**Native invaders – challenges for science, management, policy, and society**', *Frontiers in Ecology and Environment*, vol. 10, pp. 373-381. This paper discusses the challenges that arise when dealing with 'invasive' native species, with a number of interesting examples. "Human alteration of ecosystems may drive native species to invader status..." Article available at: <https://doi.org/10.1890/110060>
- Parsons H., Major R.E. & French K. (2006), '**Species interactions and habitat associations of birds inhabiting urban areas of Sydney, Australia**', *Austral Ecology*, vol. 31, pp. 217-227. This paper discusses factors that influence local bird communities in Sydney. Abstract available at: <https://doi.org/10.1111/j.1442-9993.2006.01584.x>
- Threlfall C.G. Williams N.S.G., Hahs A.K. & Livesley S.J. (2016) '**Approaches to urban vegetation management and the impacts on urban bird and bat assemblages**', *Landscape and Urban Planning*, vol. 153, pp. 28-39. This paper discusses the influence of native vegetation on local wildlife communities. Abstract available at: <https://doi.org/10.1016/j.landurbplan.2016.04.011>
- MacGregor-Fors I. & Ortega-Álvarez R. (2011) '**Fading from the forest: Bird community shifts related to urban park site-specific and landscape traits**', *Urban Forestry & Urban Greening*, vol. 10, pp. 239-246. This paper discusses factors that influence local bird communities in Mexico. Abstract available at: <https://doi.org/10.1016/j.ufug.2011.03.004>
- Conole L.E. & Kirkpatrick J.B. (2011) '**Functional and spatial differentiation of urban bird assemblages at the landscape scale**', *Landscape and Urban Planning*, vol. 100, pp. 11-23. This paper discusses factors that influence local bird communities in Melbourne and the importance of appropriate town planning. Abstract available at: <https://doi.org/10.1016/j.landurbplan.2010.11.007>

- Ortega-Álvarez R. & MacGregor-Fors I. (2009) '**Living in the big city: Effects of urban land-use on bird community structure, diversity, and composition**', *Landscape and Urban Planning*, vol. 90, pp. 189-195. This paper discusses urban planning and its influence on local bird communities in Mexico. Abstract available at: <https://doi.org/10.1016/j.landurbplan.2008.11.003>

Screening to deter little corellas

Screening can be used in parks or around tennis courts (so that little corellas can't see very far and therefore feel less safe). Below we provide a selection of articles about related species that demonstrate that screening can be effective. Screening could be used along water courses and in parks – Beaumont Common, a park in urban Adelaide, has islands of vegetation and strips of vegetation that act as natural screens, plus a heavily vegetated waterway (see our report for more details and photographs). However, screening could be vegetation, mounding of earth, or some artificial structure. From the perspective of the little corella, screening that restricts the view of the surrounding area will make a park less attractive. Details of previous trials with similar birds are available:

- Jarman P.J. & McKenzie D.C. (1983) '**Technical Note: Behavioural Mitigation of Damage by Galahs to a Wheat Trial**', *Australian Wildlife Research* vol. 10, pp. 201-202. Link available at: <https://doi.org/10.1071/WR9830201>
- Allen L.R. (1982) '**An innovation in the control of galahs and sulphur-crested cockatoos in sunflower**', in: *Proceedings of the 10th International Sunflower Conference*, pp. 187–92. Article available at: http://isasunflower.org/fileadmin/documents/Proceedings/10thISC1982/CropProtection/1982_187-192.pdf
- Jarman P.J. (1986). '**Measures to control the long-billed corella and other cockatoos**', in: *Proceedings of Public Meeting to Discuss Long-Billed Corella Management and Crop Damage*, held at Naracoorte, South Australia (eds. LW Best, R Sinclair, PJ Alexander). This article is available through the library at the University of Adelaide.

Attracting birds of prey (as a deterrent for little corellas)

Please note that this idea has not been trialled, although a number of people have asked for further information for their own consideration. Birds of prey in parkland areas may make little corellas feel unsafe. Falconry is used to deter little corellas from problem sites around South Australia, although it may be an expensive form of management. Another option may be to attract birds of prey to live in problematic areas. While this has not been trialled for the management of little corellas, research on other species (predatory and prey species) suggests it may be worth trialling:

- Dennis T.E., Detmar S.A., Brooks A.V. & Dennis H.M. (2011) '**Distribution and status of White-bellied Sea-Eagle and Eastern Osprey populations in South Australia**', *South Australian Ornithologist*, vol. 37, pp. 1-16. This article demonstrates that osprey will use artificial platforms (see page 12 for an image of an artificial platform built for osprey on the Western Eyre Peninsula). Article available at: <http://www.birdssa.asn.au/images/saopdfs/Volume37/2011V37P001.pdf>
- Hogg J.R. & Nilon C.H. (2015) '**Habitat associations of birds of prey in urban business parks**', *Urban Ecosystems*, vol. 18, pp 267-284. This article reports the results of a US study that looked at the habitats that raptors utilise in urban areas. The authors recommend the development of less lawn area, the planting and preservation of more native grassland, and the preservation of woodlots. Abstract available at: <https://doi.org/10.1007/s11252-014-0394-8>

- Ivanovski V.V. (2000) '**Construction of artificial nests as conservation measure for rare birds of prey**', *Buteo*, vol. 11, pp. 131-138. This article discusses the success of artificial nest construction for birds of prey in Europe. Article available at: http://www.tkv.cz/pdf/buteo/2000_11.pdf#page=134
- Mainwaring M.C. (2015) '**The use of man-made structures as nesting sites by birds: A review of the costs and benefits**', *Journal for Nature Conservation*, vol. 25, pp. 17-22. This article discusses the pros and cons of artificial nesting sites for bird species. Abstract available at: <https://doi.org/10.1016/j.jnc.2015.02.007>

Additional references

Department for Environment and Water (DEW): https://www.environment.sa.gov.au/managing-natural-resources/plants-and-animals/Abundant_species/little-corellas

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NOTES

1. During 2017 our discussions included:

- The Local Government Association (LGA) hosted a forum with representatives from local councils. We presented project findings and staff from the Department for Environment and Water (DEW) led a discussion about the management of little corellas across the state. There was general support for the management of little corellas and for an annual forum about the management of abundant bird species in South Australia.
- We visited several local councils to present results to elected members, council staff, and members of the public.

2. Tim Low's book 'The New Nature' is widely available through libraries and book stores

- Republished by Penguin Books in 2017 as a paperback and eBook: <https://www.penguin.com.au/books/the-new-nature-9780143783633>
- Listen to a podcast of a conversation about the book with Richard Fidler on 'Conversations' (50 minutes), available at (don't be scared off by the start of the conversation – they start by discussing snakes) : <http://www.abc.net.au/radio/programs/conversations/conversations-tim-low/8215890>

3. Aleppo pines

- The Aleppo pine is a proclaimed weed in South Australia, a description of the tree and details are available through the South Australian Government: http://pir.sa.gov.au/biosecurity/weeds_and_pest_animals/weeds_in_sa/plant_policies
- Further details on the food resource provided by Aleppo pines are available in: Way S. (2006) **Strategic management of Aleppo Pines on Lower Eyre Peninsula to maximise biodiversity conservation outcomes**, Department for Environment and Heritage, South Australia. Available at: https://www.environment.sa.gov.au/files/sharedassets/public/plants_and_animals/pa-gen-aleppopines.pdf