2014 Season Summary

As always a huge thank you goes out to all those who have been involved in the project, from the invaluable volunteer owl observers, to people sending in casual observations and land managers helping us out.

Data was collected from 97 sites across Sydney and 29 sites across the Central Coast and Newcastle by 127 volunteers this year. Survey effort across all of these sites varied in relation to volunteer availability. These sites were again limited to those areas that were within the urban footprint.

In Sydney, 35 successful breeding territories have been confirmed this year, 4 more than the final figure from last year. From these territories 51 chicks successfully fledged. A further 8 nests were found although the breeding attempt failed, two of these directly attributable to Sulphur-crested Cockatoos and two others suspected. Another 17 territories were identified with resident owls, although the results were unknown as we just missed any conclusive evidence. We now have locations of 41 nest trees, 32 of which were known to be used this year.

The breeding season progresses with the female taking a break from tending the young and a chick having a look at the wide new world, by Jenny Stiles

With the second year in the Central Coast and Newcastle area completed, the picture is actually no clearer. Site access for volunteers, availability of volunteers and lower fidelity to nest sites within territories made the going tough. Only 3 successful breeding territories were confirmed, one less than last year. From these nests, 6 chicks successfully fledged. One further nest was observed although the breeding attempt failed. Another 10 territories were identified with owls regularly, although the results are unknown as we just missed any conclusive evidence. In total, adult owls were regularly observed in 14 separate territories during the breeding season, four more territories than last year. Continued survey in these locations will provide more definitive answers on the population of Powerful Owls in this area.

Previously in Sydney we have seen an increase in territory numbers in each successive year. We have considered this likely a result of increased survey effort. However, in Sydney this year we recorded the same number of overall territories (successful, failed and unknown outcome) as in 2013. It may be that we are finally approaching an accurate estimate of Powerful Owl territories in Sydney, at 50-60 territories. Conversely, in the Central Coast and Newcastle, the numbers of surveyed territories is continuing to rise overall, suggesting there is more work to be done to understand the extent of the breeding territories in this increasingly urbanised region.

A great help in understanding the distribution of owls from within the study area comes from the observations sent in from the general public and birding clubs. This season we have had 63 unique records submitted, meaning locations where we previously had no records. This has allowed us to really fine tune the likely breeding territories.

The first map overleaf shows just how often they are being sighted throughout the Sydney, Central Coast and Newcastle area and the second shows the breeding success of the territories in 2014.

Interesting Observations

In the same vein as last year, there were two confirmed nest failures due to Sulphur-crested Cockatoos, and another two suspected. Both of these species require large tree hollows, but generally partition the resource by season with Powerful Owls...
nesting in winter and cockies in spring. However, it seems that large hollow-bearing trees may be a significantly limited resource in Sydney due to the observed competition. An issue worthy of further investigation. Collaboration between this project and the Cockatoo Wingtag program (https://www.facebook.com/CockatooWingtags) may be a valuable first step in this direction.

Possibly one of the most interesting observations this year was made on the evening of fledging at one nest. The male owl was particularly insistent on chasing the Sulphur-crested Cockatoos away from the nesting tree, scaring them with swooping fly-bys. Immediately following this activity, a chick emerged from the nest, stretched its wings and attempted the first flight of its life. A valuable observation considering the density of cockies in the Sydney bushland and hot competition for hollows.

At one territory along the Georges River, the first of two chicks fledged just ahead of some serious rain. The chick was observed close to the ground in a small bush looking a little skinny and drenched, but alive. Subsequently it went missing at about the same time the second chick fledged successfully. The remains of the first chick were later found, most likely taken by a fox. Thankfully the second chick got stronger and stronger and was observed over the ensuing months following mum and dad. A valuable piece of monitoring by all involved showing us of the challenges faced by fledglings and the rare but present threat from feral predators.

Again in southern Sydney, a fantastic rare observation of intraspecific competition in the owls. Two males, one established male from the previous year and an 'intruder' male were observed together in a breeding territory in May, the start of the breeding season. Aggressive behaviour was observed between the two males at about mid-morning, culminating in the previous year's male flying away. By the afternoon all had quietened down with the intruder roosting in proximity to the established female and the previous year's male nowhere to be seen. This aggressive behaviour is rarely reported between males.

Car strikes continue to be a major threat to Powerful Owls in the urban area. From data supplied by WIRES, Taronga Zoo, AWCN and local vets, there have now been 31 car strikes since March 2011, with all owls being in adult plumage. This impact has been estimated at 8% of the population per year. A significant cause of mortality for the owls in Sydney.

Interestingly, across all years, from all the fatalities reported (majority from cars) in the lead up to or during breeding season, 11 were in proximity to failed nests and 9 were in proximity to successful nests. There seems to be no clear indication that these fatalities are causing the failure of breeding, possibly suggesting the presence of a number of 'floater' or non-breeding individuals in the population.
Education

The environmental education program which began last year has continued. Again lead by Gibberagong Environmental Education Centre and partnered with Taronga Zoo, BirdLife Australia and Habitat Stepping Stones.

The program this year involved over 350 students from four primary schools and one high school who developed a number of inspiring projects about the conservation of Powerful Owls. These projects were presented to the broader community at a Powerful Owl Expo hosted at Turramurra High School.

One student project from the Powerful Owl Expo getting people to play a game and pledge to do something of value for the Powerful Owl

Final Report

A report on the project is just being finalised. This report details the whole project, from volunteer and community engagement, outcomes and analysis of the survey work and recommendations for Powerful Owl management. This report will be distributed to land managers involved in the project. If you would like a copy of the report, please contact your local Council or BirdLife Australia.

The following people require a special mention in relation to the final report. Julia Murphy and Stuart Foggo for their work on analysing the owl pellets, Grant Lubyckij for his work on vegetation characteristics and prey density in Powerful Owl habitat and Caroline Wilson for help in various analyses and compilation of results.

Aggressive behaviour between two males, by Peter Hayler (Choosypix)

The Future

Sadly the funding for the project is tightening up and I will be saying goodbye. I am moving on to a position as a threatened species officer at the NSW Office of Environment and Heritage.

The project will still continue in a ‘skeleton’ form. Our intention is to ensure monitoring of key breeding sites continues, utilising existing volunteers and potentially engaging some new ones.

At this stage the Threatened Bird Network (part of BirdLife) will be managing the database, day to day emails and organisation for the project. Birds In Backyards will continue with the education component, particularly the schools program with Gibberagong and Taronga Zoo.

We have a funding proposal available. The goal to attract more funding to either expand the project into other cities or start tracking some of the juveniles throughout Sydney to try and understand dispersal. Watch this space or let us know if you have funding ideas.

A huge thank you to everyone who has participated and contributed to the project, particularly the volunteers. Without all of you the project would not be what it is. Your time and efforts are the backbone of this valuable work.

Cheers

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