



Illawarra Birders Inc. PO Box 1355, 116 Auburn St, Wollongong 2500.

Dear Wollongong Council,

Illawarra Birders Inc. members wish to voice their concerns at the proposed changes to be made to Kooloobong Oval by the University of Wollongong.

Our group has been conducting monthly bird surveys and walks at the Botanic Gardens for over 5 years. During this time we have found the gardens are a haven for a variety of wildlife and are treasured by our members, visitors to Wollongong and the surrounding community. Many species of birds as well as insects, reptiles and mammals can be found in this biodiversity-rich area. We have listed **115** different species of birds during this time. There are several migratory species of birds such as the Spangled Drongo, Figbird, Rufous Fantail, Koel and Channel-billed Cuckoo that can be found in the gardens at selected times of year.

The gardens offer a variety of habitats including a permanent water source as well as an area that is relatively safe and predator free. The gardens are closed overnight which means there is minimal disturbance to roosting birds during the hours of darkness. The Sunset Cinema is restricted to a small, relatively open area of the gardens and only operates for a short period of time each year. While it operates there is a security presence that restricts patrons from entering other areas of the gardens.

Kooloobong Oval lies **immediately adjacent** to the rainforest area of the Botanic Gardens. In 2017 there were many sightings of Powerful Owls in this section of the gardens and there was also a breeding record for both the owls and the Collared Sparrowhawk in the rainforest area. Several of our members have contacted me concerned that if large, strong lights are erected around the ovals this would have the potential to greatly disturb these birds. Increases in noise, especially at times when nocturnal birds were heading out to hunt could also be an issue.

Powerful Owls are listed as **vulnerable** in NSW and Birdlife Australia has been conducting research in relation to this owl species for many years. The Powerful Owl Project is co-managed by BirdLife Australia's Birds in Backyards program and the Threatened Bird Network and researchers look at the movements and habits of these owls right throughout the Sydney and Illawarra Region. All of the owl sightings reported in the gardens are passed on to researchers involved in this project.

IF lights must be erected around Kooloobong Oval we would ask council to allow this only under strict conditions.

- The lights would need to have shielding surrounding them to minimize the spill of light towards the rainforest areas.
- The times the lights were allowed to be on would have to be strictly controlled so that they could not be left on for most of the night.
- The lights would need to be switched on at dusk so that an already darkened area did not suddenly become illuminated.

Studies have shown that strong lights do have major impacts on bird species. After the September 11 attacks in New York 2 strong blue lights were erected and shone in the sky annually as a memorial to the lost twin towers. Researchers studied the effects these lights had on bird species and found: "*Benjamin Van Doren, lead author and a postdoctoral student at the Oxford University Department of Zoology, said: 'We found that migrating birds gather in large numbers over New York City because they're attracted to the lights. They slow down, start circling, and call more*



frequently. They end up burning energy without making any progress and risk colliding with nearby buildings or being caught by predators.’¹

As a result of this study the following recommendation/s were made: “However, when the lights were turned off for brief periods, the birds were quick to resume their normal flight paths and behaviors. Although the researchers were not calling for any changes to the annual event, their findings suggest a simple fix for ongoing light pollution in other places.

“Wherever we can turn lights off at night, we should be doing it,” said Andrew Farnsworth, an ornithologist with Cornell University and an author of the study, which claims to be the first to quantify bird responses to urban nighttime light.”²

We are also concerned about the increases in noise levels, especially at times such as dusk, when birds would be coming in and settling to roost or leaving the rainforest and starting to hunt. If birds are disturbed whilst they are sleeping and leave their roost they become potential prey for predators as they are often disoriented and uncoordinated.

Please consider this information when you are looking at the proposal for the Kooloobong Oval area as these light towers will spill light into the heavily forested areas of the Wollongong Botanic Gardens.

Michelle Rower
Conservation Officer
Illawarra Birders Inc.

1. From <http://www.ox.ac.uk/news/2017-10-02-study-measures-lights-radical-impact-bird-behaviour>
2. From article in New York Times
<https://www.nytimes.com/2017/10/02/science/september-11-tribute-lights-birds.html>