

A Guide to  
THE CURRENT BIRD COMMUNITY of the MOGGILL CREEK CATCHMENT  
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ENJOYING AND NUTURING BIRDS

*Do we, indeed, have the capacity any more to regard the creatures moving in the landscape around us as our equals, with an equal right to occupy and share our world?*<sup>1</sup>

This question is important, and we are in the process of answering it now: in the way we manage the natural and urban ecosystems and habitats in the Moggill Creek Catchment. Nicholas Rothwell in his article "Taking Flight" arrives at this question after reviewing two new books<sup>2</sup> on two of the earliest people to study the birds of Australia: John Lewin the artist who arrived in 1800 and John Gould the scientist who arrived 1838. Both of these orientations to the study of birds, the beauty and the science of birds, are important to enjoying and nurturing birds in the Catchment.

The aims of this presentation of the bird community of our Catchment are twofold:

- The aesthetic aim: to enhance our appreciative response to the beauty and complexity of our bird community.
- The scientific aim: to monitor the welfare of our bird community and to design the floral and physical structures of our revegetation projects so that they enhance the habitats for birds along with the other purposes of revegetation.

Sharing and enhancing our knowledge of biodiversity is an important aid to conservation. The rich variety of habitats in our Catchment allows us to enjoy a diversity in our bird community that is not found in any other Catchment of this size in this bioregion.

BIRDS AND BIODIVERSITY WITHIN THE MOGGILL CREEK CATCHMENT

The species composition of the bird community in the Moggill Creek Catchment is directly related to the floral and physical structure of the vegetation and habitats that exist in the Catchment. These habitats are in turn dependent firstly on the meteorology, geology and geography<sup>3</sup> of the Catchment and secondly on the historical and present use of the land in

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<sup>1</sup> Nicholas Rothwell, Taking Flight, The Weekend Australian Review, 21-22 April, 2012, page 21.

<sup>2</sup> Richard Neville, Mr.J.W. Lewin: Painter and Naturalist, 2012, New South Publishing; and Roslyn Russell, The Business of Nature: John Gould and Australia, 2011. National Library of Australia.

<sup>3</sup> The geology, geography and history relevant to an understanding of the present ecosystems within the Catchment are detailed in "Our Place in the Country: Managing your acreage property in West Brisbane".

the Catchment. The present range of ecosystems/habitats within the Catchment includes the following:

*Remnant Open Eucalypt forests* which grow on the large areas of infertile soils in the Catchment. They provide a habitat dominated by trees 30 % - 50 % foliage projective cover and have a canopy that is taller than 30 metres and generally have a soft-leaved understorey. Species composition of bird communities is highly correlated with forest structure and tree species composition.

*Remnant Lowland Rainforests* which grow on deeper, more fertile, moister soils. They have a canopy greater than 30 m which is relatively closed greater than 70 % canopy cover. Many rainforest plants produce fleshy-fruits which are a valuable food resource for a range of bird species, particularly parrots and pigeons.

*Riparian Zone vegetation* which is the almost continuous green-belt alongside Moggill Creek and its tributaries. It provides specialised habitats and corridors linking other parts of the landscape, providing a refuge for birds in times of environmental stress, and providing refuges from which species can move out and recolonise adjacent areas when more favourable conditions return. Further, in urban and cleared landscapes, riparian habitats often provide the last remaining natural vegetation available to the birds. Throughout Australia riparian zones are increasingly being promoted as key areas for biodiversity conservation.

*Woodlands* which are open habitats 10-30% foliage projective cover, generally on the flood-plain, dominated by widely-spaced eucalypt trees and ground vegetation dominated by grasses. Most of this habitat type has now been cleared, first for farmland, and more recently for housing. Birds that naturally occur in woodlands are the most threatened in Australia.

*Open Water & Wetlands* which are low lying areas that are at least periodically inundated with water. There are only a few small freshwater wetlands within the Catchment that provide habitat for a range of species that are not present in other habitats. The largest area of open water is the Gold Creek Reservoir and there are many smaller dams in the Catchment.

*Revegetation* where efforts to restore habitat are likely to be more successful when bird visitation is promoted because birds disperse seeds and eat herbivorous arthropods that damage leaves. Thus, it is critical to understand bird behaviour in relation to different revegetation strategies.

*Urban development vegetation* which is predominately backyard, park and street gardens which contain a mixture of native and exotic grasses, shrubs and trees. Some bird species have adapted well to this habitat.

Each of these complex habitats has its own unique and ever-changing bird community, containing nomads, migrants and residents. Some birds are adapted to more than one

habitat, others are confined to only one floral and physical structure provided by a particular habitat type. The listing of the birds of the Catchment is therefore a complex task and can only be a guide to what birds can be found at a particular place in the Catchment.

#### PLACES TO GO BIRDWATCHING: PUBLIC SITES IN THE CATCHMENT

1. Mt Coot-tha Forest (Bielby Road) – Parking at the northern end of Bielby Road, Kenmore Hills. No amenities. Access to the Bellbird Trail which leads into the *open eucalypt forest habitat* of the Mt Coot-tha Forest.
2. Mt Coot-tha Forest (Boscombe Road) – Parking in Boscombe Road, Brookfield. No amenities. Access to Boscombe Rd Trail and Curlew Circuit Trail into the *open eucalypt forest habitat* of the Mt Coot-tha Forest.
3. Mt Coot-tha Forest (Jones Road) – Parking in Jones Road, Brookfield. No amenities. Access to Jones Rd Trail and Gold Creek Trail. The habitat is *open eucalypt forest* within the Mt Coot-tha Forest.
4. Mt Coot-tha Forest (Gap Creek Reserve) – Gap Creek Road. Parking, toilets, water, picnic tables, bar-b-que facilities. Many excellent tracks on the ridges and in the gullies. The habitat is mainly *remnant open eucalyptus forest*, with some pockets of *low-land rainforest* of the Mt Coot-tha Forest. About ninety of the 182 species have been recently observed in this Reserve. These are birds of the open remnant forest.
5. Moggill Creek (Branton Street) – Parking spaces available in Branton St, Kenmore. No amenities. There is a walking and cycle track and easy access to the narrow *riparian habitat zone* adjacent to the parkland. The MCCG has done very effective work revegetating this area.
6. Moggill Creek (Creekside Park) – Parking in Creekside Street, Kenmore Hills; and Boyd Terrace and Rafting Ground Road in Brookfield. Amenities: shelters, picnic tables, bar-b-que, play equipment. There is a walking and bicycle trail on the Brookfield side South side of Moggill Creek. An enormous amount of revegetation has been completed in this narrow *riparian habitat zone* adjacent to the *park landscape*.
7. Moggill Creek (Riparian Reserve) – Parking in Dunbarton Drive, Fortrose St or Kilkivan Avenue, Kenmore. Amenities: play equipment, walking and bike trail. The reserve extends from Kenmore State High School to Moggill Road, Kenmore. Mainly narrow *riparian habitat* adjacent to park land.
8. Moggill Creek Tributary (Savages Road) – This road travels through prime *riparian habitat* beside a tributary to the Moggill Creek. Park safely beside the road and walk with care to observe the birds.

9. Moggill Creek (Rafting Ground Reserve) – Moggill Rd, Kenmore. Parking, water, toilets, picnic tables, play equipment and shelters. There are tracks on the reserve. The habitat is *riparian vegetation*, and it is the site of the entry of Moggill Creek into the Brisbane River so it gives access to birds that cannot be found anywhere else in the Catchment.
10. Moggill Creek (Tuckett Park) – Parking in Tuckett Street, Kenmore Hills. Amenities: shelters, picnic tables, bar-b-que, play equipment. An enormous amount of revegetation is being completed in this narrow *riparian habitat zone* adjacent to the park landscape.
11. Moggill Creek (Upper Brookfield Road) - Park safely beside the road and walk with care to observe the birds. This road meanders alongside and across the Moggill Creek and is therefore surrounded by *riparian habitat* for most of its length. However, at the western end it leaves the creek and enters *open eucalypt forest habitat*.
12. Gap Creek (Deerhurst Park) – Parking in Kookaburra Street, Kenmore Hills. No amenities. No tracks. The reserve follows Gap Creek from Gap Creek Rd to Brookfield Rd. Exclusively *riparian habitat*.
13. Gold Creek Reservoir: A Nationally Listed Birdwatching Site (Brisbane Forest Park) – 150 of the 168 birds on this list can be seen at this site. – Gold Creek Road, Brookfield. Car parking available, but no other amenities. This is the only extensive public area of *open water and wetland habitat* in the Catchment, but it is still quite small, only 1.2km long. Around the reservoir there is *lowland rainforest and open eucalypt forest habitats*. There is a walking track, about 5 km long, which starts and ends at the two ends of the dam wall and circumnavigates the reservoir. For a recent trip report from a birder who visited the reservoir in 2011, go to <http://aussiebirding.wildiaris.com/trips/10722> . To see the freshwater birds that are in the Catchment the reservoir is the only place to see them, and many other forest birds. According to *The Complete Guide to Finding the Birds of Australia* the Gold Creek Reservoir is one of the top dozen bird sites in and around Brisbane, and is one of the best places in Brisbane to see the White-eared Monarch, Barred Cuckoo-Shrike, Cicadabird and the Pale-vented Bush Hen. The latter can be seen near the creek below the dam.
14. Gold Creek (Gold Creek Road) – This road wanders through prime *riparian habitat* in the last few kilometres before it reaches the reservoir. It is a good site for the elusive White-eared Monarch, and other forest and water birds. Park near the reservoir and walk back along the road being very careful of the traffic.
15. McKay Brook Reserve – Parking in nearby streets: Mabb St, Belford St, Kenmore, no amenities. The reserve extends from Brookfield Road to Moggill Creek. There is a walking track on the western side, and a bike/walking track on the eastern side of the Brook. The habitat is *revegetated riparian* in floral and physical structure. This is a good site to see the results of extensive and mature revegetation by the MCCG.

## BIRDWATCHING EQUIPMENT AND ASSISTANCE

The essential equipment is: binoculars, Bird Identification Guide, hat, sunscreen and insect repellent. Most bush and urban birds can be identified with binoculars with x8 magnification. Bird Guides are either books (Pizzey & Knight; Slater; Morcombe; Simpson & Day) or ebooks (Morcombe) on the iPhone or other devices. The latter is extremely helpful because it has the bird calls, recorded by David Stewart, available immediately while you are walking in the bush. If you wish to discuss any of this equipment contact the MCCG Secretary who will direct your enquiry to a suitable person.

Birdwatching at the Reservoir, and other large water bodies, is more complicated and requires different equipment! The birds on the water and in the edge vegetation are often flushed when approached even at very large distances. The birds on the water have good visibility and some are very timid. So to combat that problem, birdwatching is usually done with a spotting telescope on a tripod from a vantage point that is far enough away to leave the birds undisturbed. The spotting scopes usually have magnifications from x20 up to x60 to compensate for the greater distances to the birds.

In Brisbane there are two birder organisations, which have excellent programs and events which will assist you if you wish to join:

1. BirdLife Australia, with the Brisbane affiliate group – BirdLife Southern Queensland. [www.birdlife.org.au/](http://www.birdlife.org.au/)
2. Birds Queensland. [www.birdsqueensland.org.au/](http://www.birdsqueensland.org.au/)

These two organisations are somewhat complementary, they aim to achieve somewhat different goals, and some birders belong to both. If you go to the two websites you will be able to see the differences and choose which may be suitable for you. Both websites have recently placed the planned activities and events from the other group on their website to enhance the participation of all birders whichever group they decide to join. You are welcome to join any of the activities the two groups organise whether you join a group or not.

## KNOWING WHERE TO LOOK FOR PARTICULAR BIRDS: FORAGING AND FOOD GUILDS

The bird guild is a useful concept for analysing bird communities because it reveals the correlation between floral and physical structures and the bird species present. Classifying the birds of a community into “foraging guilds” and “food guilds” is done by collecting information on each bird’s foraging behaviour and the food resources that they eat. The categories for collecting this information are as follows:

*Foraging Height:* forest floor/ground layer, herb layer, shrub layer, tree midlayer, tree canopy layer. Most birds specialise at a particular height in the habitat. If a particular layer is not present in the habitat, some bird species will be excluded.

*Foraging Method:* standing-gleaning, aerial catch, sally-hop within foliage, hovering-gleaning, probing, sally-catching, hawking from a perch, pounce from low perches.

*Foraging Substrates:* flower, fruit, ground, bark on tree, exfoliated bark, bark of horizontal branches, ground, on foliage, space between foliage, space above foliage.

*Food Resources:* nectar, other carbohydrates manna and honeydew, fruits, insects, invertebrates, vertebrates, arthropods, eggs, seeds, etc.

Once this information is collected, birds can be assigned to the two guilds. The names of the foraging guilds are self-explanatory. The names of each food guild are derived from the food resources that the bird uses. Birds are classified into the following food guilds:

*Carnivores* – eat mainly mobile animals. These include the large raptors: eagles, hawks, falcons; also the woodland birds: kookaburra, grey shrike-thrush, butcherbird, etc.

*Frugivores* – eat mainly static plant fruits. Some digest the soft parts of the fruit and either spit out the seed or pass it through their intestines unharmed. Some of the main seed dispersers in the rainforests are fruitdoves, bowerbirds, catbirds.

*Granivores* – eat mainly static seeds. Seeds contain little moisture and many granivorous birds need to drink regularly. The seasonal and annual variations in the availability of seeds means that granivorous birds tend to be highly mobile and widely dispersive.

*Herbivores* – eat mainly static plants. The swan is a strict herbivore, and most floating ducks are herbivores.

*Insectivores* – eat mainly mobile insects. Because insects either hide, crawl, dig or fly, the insectivores are a diverse group in respect to their foraging methods.

*Nectarivores* – eat a variety of static carbohydrates: nectar, honeydew, lerp, manna and sap. Honeyeaters are highly mobile and well adapted to the asynchronous flowering of different species which drives mass nomadism among regions and habitats.

*Omnivores* – eat all or many of the different types of food.

*Piscivores* – eat mainly mobile fish though it may also include similar aquatic foods such as aquatic insects, molluscs and crustaceans. Cormorants, darters and pelicans are common piscivores.

Each of the bird food guilds plays a uniquely important role in the sustainability of the Catchment ecosystem. The bird guilds maintain crucial processes and services to the ecosystem: the nectarivores are significant factors in plant pollination and pollen dispersal; the frugivores play an important role in seed dispersal and germination and therefore are fundamental to the maintenance of diverse plant communities, but may also have the capacity to restore them. The mutualism involving the Mistletoebird and the Australian

mistletoes dispersed by birds is well known. The insectivores control the numbers of insects in the habitat and the carnivores control outbreaks of some vertebrates and invertebrates.

## BIRDS THAT ARE OUT THERE TO BE WATCHED & ENJOYED: THE CURRENT BIRD LIST

The "Actual" Bird List for the Catchment, if it could be determined, would be different almost every day of the year, and from year to year. The best list that can be documented is a **Current Bird List**, which is derived from the Historical Bird List for the Catchment (attached to this file). The Current Bird List consists of those bird species observed in the Catchment in the last five years. Some birds that were once in the Catchment are no longer there, they have become locally extinct. The increased urbanisation of the Catchment has destroyed bird habitat and consequently some bird species have gone. The revegetation processes undertaken by the Moggill Creek Catchment Group and private landholders will increase and structurally enrich the available habitat available to birds and perhaps reverse the local extinction processes and the birds will return.

The **Current Bird List** will be updated annually to monitor the changes in the floral structure of the Catchment over the five years. The information to do this will come from the members of the MCCG and others who submit bird lists and sightings to either the Secretary of the MCCG or to Birddata, Birds Queensland and Ereama. You are urged to report your sightings to these organisations. Your sightings are important and significant inputs to grant applications and government programs relevant to the Catchment. The ways to submit your bird lists are set out in a separate section below.

## GENERAL REFERENCES ON CATCHMENT BIRDS AND OTHER FAUNA

Backyard Buddies. Website provided by the Foundation for National Parks and Wildlife.

[www.backyardbuddies.net.au](http://www.backyardbuddies.net.au) This website is for everyone who enjoys their backyard animals, wants to learn more about them, find out how to attract them and how to live with little troublemakers. The Backyard Buddies Facebook page is for all to share their stories and ideas, tips and tricks and most of all the joy of having native plants and animals at our doorsteps

Bird Species list for South East Queensland 21 Jan 2011 Biodiversity Summary for NRM Regions: Species List.

Prepared by the Department of Sustainability, Environment, Water, Population and Communities for the Natural Resource Management Spatial Information System Pages 9 – 26.

<http://www.environment.gov.au/heritage/anhats/summaries/qld/pubs/species-qld-south-east-queensland.pdf>

Birds of the Cubberla and Witton Creeks Catchments. Lists 223 species of birds, recorded in the Cubberla and Witton Creeks Catchments. <http://www.cubberlawitton.org/fauna/birds>

Birds of the Teralba Park & Kedron Brook. David McKay. This book can be found in the Brisbane City Council Libraries; and has excellent photos, descriptions, and advice on where to find 65 birds in the Park and Brook. All of these birds are also in the Moggill Creek Catchment.

Birds of Brisbane and Their Environs. Queensland Museum. Vernon, D.P. 1968 & 1977. This book is held in the BCC Indooroopilly Library, but cannot be borrowed, and can only be read in the library.

Birds of Brisbane: A Queensland Museum Wild Guide. Czechura, G. Includes 138 full-colour photographs and concise information to help birdwatchers identify more than 100 species of birds that are likely to be seen in the heart of Brisbane. This book can be found in the Brisbane City Council Libraries.

Crakes and Rails of South East Queensland. Conservation Action Statement, Brisbane City Council, September 2010. <http://www.scribd.com/doc/61356960/Crakes-Rails-of-SE-Queensland>

Field Guide to the Birds of Australia: A book of identification. Eighth Edition. 2010. Ken Simpson & Nicholas Day. Viking O'Neill Publisher. Birds listed in Taxonomic order.

Handbook Field Guide to Australian Birds. Michael Morcombe. Steve Parish Publishing. Birds listed in Taxonomic order. Also available, with David Stewart's bird calls, as an iPhone App with an Alphabetical Bird listing.

Know Your Creek: Moggill Creek. Brisbane City Council 2008  
[http://www.brisbane.qld.gov.au/documents/environment/know\\_your\\_creek\\_moggill\\_2008.pdf](http://www.brisbane.qld.gov.au/documents/environment/know_your_creek_moggill_2008.pdf)

Nesting Guilds: Habitat Trees. 2008. Moreton Bay Regional Council. Excellent, extensive, thorough information. [www.moretonbay.qld.gov.au/uploadedFiles/common/forms/environment/Habitat-Trees.pdf](http://www.moretonbay.qld.gov.au/uploadedFiles/common/forms/environment/Habitat-Trees.pdf)

Planting trees for biodiversity.  
[http://www.dpi.nsw.gov.au/\\_\\_\\_data/assets/pdf\\_file/0020/315533/Planting-trees-for-biodiversity.pdf](http://www.dpi.nsw.gov.au/___data/assets/pdf_file/0020/315533/Planting-trees-for-biodiversity.pdf)

The Field Guide to the Birds of Australia. Graham Pizzey & Frank Knight. Eighth Edition. 2007. Harper Collins Publisher. Birds listed in Taxonomic order.

The Slater Field Guide to Australian Birds. Second Edition. Pat, Peter & Raoul Slater. 2009. New Holland Publishers. Birds listed in Taxonomic order.

Wildlife Queensland. This website aims to provide understanding and effective management options for suburban wildlife. The stated goal is to equip everyday people with the means to live side by side with frequently encountered backyard fauna without frustration or fear.  
[www.wildlifeqld.com.au/index.html](http://www.wildlifeqld.com.au/index.html)