



Topic 27: BIRDS OF KU-RING-GAI WILDFLOWER GARDEN

Did you know that,

There are approximately 750 bird species in Australia.

- About 400 have been recorded in the Sydney region.
- Over 80 species have been recorded in Ku-ring-gai Wildflower Garden.
- Honeyeaters are common because of the large number of nectar bearing plants.

Some Special Features of Birds

Birds have light weights because they have hollow bones with struts in places to gain added strength. They also have air sacs distributed throughout their body. Birds have no teeth and their reproductive organs are reduced out of the breeding season. Eggs develop and are laid only one at a time. Because their flight muscles are from 20 to 40 % of body weight, they have great power. A strong heart gets nutrients to all parts of their body quickly. They digest food quickly and so they are able to intake a large amount of food (migratory wading birds can digest twice their body weight in one day). A rigid frame gives birds strength and bones are fixed where stress is greatest. Legs are double-jointed to act as shock absorbers on landing, and they lock into position when landing on a branch.

Birds found at Ku-ring-gai Wildflower Garden

The number of species to be found in Ku-ring-gai Wildflower Garden (KWG) is dictated by the topography and vegetation. The main area consists of an exposed sandstone ridge with two gullies on either side (Ku-ring-gai and Tree Fern Gully Creeks), covered, in the main by heath and woodland.

The large number of nectar-bearing shrubs represented in KWG has led to Honeyeaters being the dominant species. Another group of birds are the 'meat' eaters (worms, frogs, reptiles or even small mammals). Other birds eat seeds, e.g. grass and wattle seeds. As well there are insect and fruit eaters.

The honeyeaters will be found where *Banksias* and *Grevilleas* are present. They have tongues specifically adapted for nectar feeding. Their tongues are very long and the edges near the base roll inwards to make a narrow tube or scoop. The nectar is held in by capillary action while the tongue is quickly whipped in and out. The tip of the tongue is divided, each section edged with a fine brush-like process.

Kookaburras are an example of the meat eaters. They have excellent vision to sense movement on the ground and then quickly pounce on their prey. Mature trees are important to birds like Kookaburras. Seed eaters include the parrots, which feed on plants like wattles, or smaller birds such as Red-Browed Finches, which feed on plants close to the ground such as grasses. Seed-eating birds such as Finches have short, strong bills for crushing seeds.

They remove the outer covering before swallowing. Pigeons, on the other hand, swallow seeds whole and rely on grit in the gizzard to remove the husks and crush the seeds.

Insect eaters are often smaller birds, which fly in and through shrubs and lower vegetation. Swifts and Swallows flying above the vegetation are specialized insect-eaters. They have wide mouths to scoop up insects from the air and tapering, backswept wings for rapid flight to catch their prey.

Fruit eaters frequent a number of fruit producing plants. In some situations seeds excreted after the fruit is eaten will germinate more quickly because of the effects of internal digestion in the bird.

There are some birds that use several of the above foods and these are often very successful in that they avail themselves of various niches that other species may have used. Currawongs eat young birds, eggs, fruits etc and Noisy Miners, that are nectar feeders, eat insects, fruit etc).

Migration

Birds are known to use the sun, stars or Earth's magnetic field to set a compass course.

Food supply is considered to be the main reason for migration.

Migrant birds of the Sydney region are both in the north/south and east/west directions.

The migrant representatives of the north/south direction in the summer months on the accompanying species list of the Wildflower Gardens are the Shining Bronze Cuckoo, White-throated Gerygone, Black-faced Monarch and Sacred Kingfisher.

The representative of the east/west migration is the Rose Robin. It migrates from the Blue Mountains. The Pied Currawong used to migrate to the Sydney region from the Blue Mountains in the winter months. However, with the tremendous increase in urbanization and proliferation of habitat conditions favourable to them, they are now permanent residents. The Tasmanian Silvereye is a winter representative of migration in the north/south direction. It is distinguished from the resident Silvereye by its rufous flanks.

A Specific Species - the Origma or Rock Warbler

This species is the only Australian bird that is endemic to New South Wales. It is confined to rocky hillsides, gullies and caves in the Hawkesbury sandstone and adjoining limestone areas, usually near water. The Wildflower Garden is particularly suited to this species. It favours the Tree-Fern Gully Creek area. It builds its nest from the sloping wall or roof of a cave or overhanging rock, and has the ability to hop along vertical cliff-faces or along the underside of an overhanging cleft. Its favoured food is insects secured around water margins and in rock crevices.



King Parrot



Brown Thornbill



Grey Fantail



Crimson Rosella



Eastern Rosella



Red-browed Finch



Superb Fairywren



Variegated Fairywren



Spotted Pardalote



Red Wattlebird



Rock Warbler



White-browed Scrubwren



Little Wattlebird



Yellow-faced Honeyeater



Noisy Miner



Lewin's Honeyeater



New Holland Honeyeater



White-cheeked Honeyeater



Eastern Spinebill



Silveryeye



Eastern Yellow Robin



Eastern Whipbird



Golden Whistler



Grey Shrike Thrush

BIRD LIST*

Updated 2011

Australian Wood Duck	o	Striated Thornbill	o
Mallard#	r	Brown Thornbill	c
Pacific Black Duck	o	Red Wattlebird	c
White-necked Heron	r	Little Wattlebird	c
White-bellied Sea-eagle	r	Noisy Friarbird	o
Grey Goshawk	r	Noisy Miner	c
Brown Goshawk	r	Lewin's Honeyeater	c
Nankeen Kestrel	r	Yellow-faced Honeyeater	o
Peregrine Falcon	r	White-eared Honeyeater	r
Purple Swamphen	o	Yellow-tufted Honeyeater	r
Brown Cuckoo Dove	o	New Holland Honeyeater	c
Spotted Turtle Dove#	r	White-cheeked Honeyeater	c
Wonga Pigeon	r	Brown-headed Honeyeater	o
Bar-shouldered Dove	o	Eastern Spinebill	c
Pacific Baza	o	Scarlet Honeyeater	om
Glossy Black Cockatoo	o	Rose Robin	rm
Yellow-tailed Black Cockatoo	o	Eastern Yellow Robin	c
Sulphur-crested Cockatoo	c	Eastern Whipbird	c
Galah	c	Golden Whistler	c
Rainbow Lorikeet	c	Rufous Whistler	r
Australian King Parrot	c	Grey Shrike-thrush	c
Crimson Rosella	c	Black-faced Monarch	rm
Eastern Rosella	o	Leaden Flycatcher	o
Fan-tailed Cuckoo	om	Magpie-lark	o
Shining Bronze-Cuckoo	r	Willie Wagtail	c
Powerful Owl	o	Rufous Fantail	om
Tawny Frogmouth	r	Grey Fantail	c
White-throated Needletail	r	Black-faced Cuckoo-Shrike	c
Sacred Kingfisher	rm	Olive-backed Oriole	o
Laughing Kookaburra	c	Grey Butcherbird	c
Dollarbird	om	Australian Magpie	c
Superb Lyrebird	o	Pied Currawong	c
White-throated Treecreeper	c	Australian Raven	c
Superb Fairywren	c	Silvereye	c
Variigated Fairywren	c	Satin Bowerbird	o
Spotted Pardalote	c	Double barred Finch	r
Rock Warbler	o	Red-browed Finch	o
White-browed Scrubwren	c	Welcome Swallow	o
Brown Gerygone	o	Red-whiskered Bulbul	o
White-throated Gerygone	om		

*Prepared from lists of Norma Maxwell, Bill and Noela Jones and Ku-ring-gai Council.

Introduced. c Common. o Occasional. m Migrant r Rare

ATTRACTING BIRDS TO YOUR GARDEN

NO GARDEN IS COMPLETE WITHOUT BIRDS.

In urban gardens throughout Australia, the diversity and number of small birds is falling. So what we need to do is to create *Habitat* for birds! This should be a place that birds want to go to or be in, i.e. where they feel secure and are free from predators- in other words - **SHELTER**. As well we should have plants that provide natural **FOOD** and **WATER**. Ideally we should aim to provide for as much wildlife as possible-- to make an environmentally friendly garden with as much diversity as possible.

Native plants, preferably indigenous, are essential if you wish to attract the widest range of native birds. You can have a combination of exotics and natives but the **emphasis should be on native plants.**

PLANNING

When planning a garden create three storeys, an upper, middle and under storey. In the upper storey include trees and large shrubs, in the middle, shrubs and in the under storey, herbs, native grasses and small ferns. It is a good idea to have dense patches of green interfaced with open sunlight.

To attract a wide variety of birds, plants should provide NECTAR, INSECTS, FRUITS and SEEDS. NECTAR plants include Eucalypts (this includes Corymbias and Angophoras), Turpentine, Banksias (which flower in late summer to autumn when little else flowers), Grevilleas (red), Callistemons and Melaleucas. Nectar attracts honeyeaters (including Wattlebirds, Lorikeets). Banksias and Bloodwoods are favourites of pygmy possums. Turpentine is used by Flying Foxes. Birds are attracted to Red (tubular) flowers. Peas, tea-trees, Kunzeas and Baeckeas with white and yellow flowers attract insects, which then attract the insect eaters (Wrens, Finches, Thornbills etc). Native plants with native fruits such as Blueberry ash, Lilly Pillies, Kangaroo Apple, Breynia and Leucopogons attract Silvereyes, Currawongs, Bower Birds, Fig Birds etc. Note however, fruits borne by weeds such as Privet, Cotoneaster, Ochna, Senna and Camphor Laurel are also eaten by these birds. These plants attract birds but are not recommended as the seeds are spread by birds and germinate and thrive in native bushland where they become serious environmental weeds.

The seeds of Acacias, Casuarinas and other plants such as Native Geraniums (good ground covers) attract birds such as Rosellas and Parrots. Grass seeds attract birds such as Red-Browed Firetails. Gardens and their plants also provide food in the form of worms, grubs, caterpillars, that attract birds such as Magpies, Butcherbirds, Currawongs and Shrike-thrushes.

HABITAT

SHELTER is the key component. Some of the shrubs should be dense. Use prickly shrubs to provide shelter and possibly to nest in. Provide **MULCH** that is very valuable for plantings.

It retains moisture, reduces soil temperature fluctuations and helps reduce weed growth, but it also becomes habitat as environment for fungus, microorganisms, worms and lizards. Mulch can be bought (bark, straw, shredded material, woodchips etc) or just collected from the garden, (bark, leaf drop, grass clippings except with weed seeds etc) or use compost.

Use mounds and raised beds to provide drainage and create interest. Hollows allow water to soak into the soil. Create Ponds with appropriate plants for wildlife such as frogs.

Incorporate rocks and logs or even artificial structures (e.g. drainage pipes) to provide habitat for wildlife. Allow grass to grow longer.

WATER

Birds are attracted by water to drink and to bathe in. Water depth should be 3-8cm. Birdbaths need regular refilling and cleaning to remove green algae and exotic berries.

It must be out of the reach of cats. It should be at least 1.7m above the ground, preferably under a shaded branch, where birds can enter and leave safely.
(You must choose between having a free-roving cat and having birds-- the two are not compatible! It is possible to build a backyard cat run.)

FOOD

Putting out food is not recommended. It causes increased dependence on artificial food, can cause obesity, nutritional deficiencies and ultimately reproduction failures.

If you insist on feeding, food must be nutritionally complete and at least not incompatible with natural diet. Bread, sugar solutions and honey are unsatisfactory.

INSECTS

Some plants will be host to insects such as caterpillars and scale that become food for some birds e.g. Silvereyes, Thornbills, Pardalotes. There is a need for discipline in the use of toxic sprays. If birds eat insects in sprayed areas, they can accumulate poisons that can be the cause of infertile eggs or lead to the bird's death.

NEST MATERIALS WAREHOUSE

In early spring put out a supply of suitable nesting materials on a high platform. Use hair, small lengths of wool, dry soft grass, teased out cotton wool, clean carpet fluff or underfelt.

NESTING BOXES

Install nesting boxes.

PROBLEM BIRDS

These include Currawongs, Common Mynas and Noisy Miners. Discourage these problem birds. Get rid of weeds like privet. Don't plant long flowering nectar plants. Don't allow Common Mynas to nest in your property. Insure you have middle layer shrubs to provide shelter for small birds.

Further Reading

Field Guides

Graham Pizzey: A Field Guide to the Birds of Australia

Ken Simpson & Nicolas Day: The Birds of Australia - a book of identification.

Peter Slater: A Field Guide to Australian Birds.

Michael Morcombe. Field Guide to Australian Birds.

Acknowledgments

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