



## Flowers & Feathers – Friends or Foes: Notes on Bird-Plant Relationships

This year the Wildflower Festival is focussing on the relationships between plants and birds. These relationships are complex, and of great importance to the survival of both groups. By promoting an awareness of the interdependence of plants and animals, we hope to increase the awareness of the importance of conserving our natural environment. Plants provide much of the habitat in which birds and animals live. Birds interact with plants in a number of different ways. Some of these benefit plants and others are of advantage only to the birds.

## Food

Plants provide food for many bird species.

- Small seeds, especially grasses, are eaten by finches, pigeons and small parrots;
- Large seeds are eaten by cockatoos which are able to break open woody cones of plants such as *Banksias* and *Hakeas*;
- Fruits are eaten, eg emus eat quandongs;
- Leaves are eaten by some species Cape Barren Geese graze on green grass at local golf courses; ducks eat grasses, herbs and water plants;
- Nectar from flowers, especially eucalypts and members of the *Banksia* family are the main food for honeyeaters;
- Many insects live on plants, and birds such as weebills and thornbills hunt for them on the leaves and bark of trees.



**Plants as food for birds:** A: Rock Parrots eat the small seeds of plants growing on coastal dunes; B: Carnaby's Black Cockatoos break open the cones of introduced pines as well as those of native plants; C: Quandong fruit are attractive to Emus; D: Australian Wood Ducks graze on green plants near dams and swamps; E: New Holland Honeyeater feeding on nectar from *Adenanthos* plant; F: Yellow-rumped Thornbills hunt for insects in trees and shrubs and on the ground. All photos K.R. Mills.

## Shelter from predators

Small birds such as scrub-wrens and scrub-robins live inside dense shrubs where they are difficult to see and safe from predators such as hawks. Several species live only in swamps where there are dense reed beds that provide protection.

## Lookout sites

Some birds use branches on the top of tall trees as lookouts. Hawks and falcons sometimes watch for small animals on the ground below and swoop when they see one. Many smaller birds that feed on insects wait on a favourite perch in a tree until they see one to chase and catch.

### Nesting sites

Most birds build their nests in trees or shrubs where they are often difficult for predators to find.

## **Nesting materials**

Nests are usually built using plant materials such as twigs and grasses.

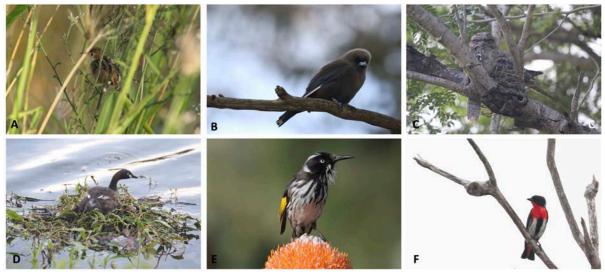
# Prepared by Ken Mills, Esperance Wildflower Society, May 2020. Email: xenus40@westnet.com.au

### Pollination

When birds that feed on the nectar produced by flowers, pollen frequently sticks to the feathers on their head. Some of this rubs off on other flowers that they visit, so that they pollinate each flower that they visit.

### Seed dispersal

When birds eat fruit, the seeds often pass through their system and are deposited in droppings a long way from the parent plant. This enables new plants to grow in different areas.



**Relationships between birds and plants:** A: Grassbirds live in dense reeds where they difficult to find; B: Dusky Woodswallow watches for insects from a lookout perch; C: Tawny Frogmouth nesting; D: Australasian Grebe on build floating nests made from swamp vegetation; F: New Holland Honeyeaters carry pollen between *Banksia* flowers; F: Mistletoebirds eat the Mistletoe fruit plants which are later deposited on tree branches. All photos K.R. Mills

#### **Friends or Foes?**

It all depends on the situation ... Birds are friends of plants when:

- They pollinate flowers to enable new seeds to be produced;
- They eat fruit and deposit the seeds in a new location giving a new plant the chance to grow;
- They catch and eat insects that would otherwise eat the plants

Birds are the foes of plants when they eat seeds or leaves. Plants are friends of birds by providing them with places to live, shelter from predators, and to build nests. *Most importantly, birds and other animals could not exist if there were no plants to provide them (or the other animals that they eat) with food and shelter. Plants are therefore essential to the environment, and to all of the animals (including people) who live in it. Conserving our plants is essential to our own survival.* 

### **Further Resources**

Birdlife Australia – Biology and ecology: <u>http://birdlife.org.au/all-about-birds/australias-birds/biology-ecology</u>

*Tree hollows:* <u>https://www.nespthreatenedspecies.edu.au/news/gimme-shelter-conserving-hollow-nesting-birds</u>

Australian birds: http://birdlife.org.au/all-about-birds/australias-birds/find-a-bird

*Carnaby's Black Cockatoo:* <u>http://www.environment.gov.au/biodiversity/threatened/publications/factsheet-carnabys-black-cockatoo-calyptorhynchus-latirostris</u>

*Bird Conservation in Australia:* <u>https://www.environment.gov.au/system/files/resources/c1ed12d3-5960-4b17-92a0-795b9e8bf016/files/birds-05.pdf</u>

Mistletoebirds and seed dispersal: <u>https://www.youtube.com/watch?v=XG2LMrEhkdw</u>

Links to information about bird species of WA including their ecology:

https://en.wikipedia.org/wiki/List\_of\_birds\_of\_Western\_Australia; https://www.birdsinbackyards.net/finder

Birds in gardens:

https://www.birdsinbackyards.net/sites/www.birdsinbackyards.net/files/page/attachments/doc\_16\_guidelines\_domestic\_gard\_eners\_0.pdf

Prepared by Ken Mills, Esperance Wildflower Society, May 2020. Email: xenus40@westnet.com.au