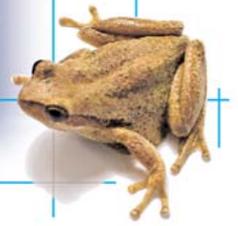




# NRM Education

water biodiversity climate change food air waste transport purchasing



## Birds Project

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This document outlines a unit of work that uses birds to explain species diversity for students in Yr 3 and above. It aims to teach students about the variety of different birds, their behaviour and their niche in a particular ecosystem.

### Session One – Introduction to Birds (each session could take 30-60 min)

- Discussion – talk about commonly known local birds; myths about birds; favourite birds; introduced birds.
- HW – compile a list of local birds that students commonly see either at home or at school

### Session Two – an investigative approach to classifying birds

- Briefly discuss HW lists from session one.
- A set of 60 coloured bird cards to help students become familiar with SA birds is downloadable at [www.nrmeducation.net.au](http://www.nrmeducation.net.au) under Birds/Teaching resources on the Home Page. Distribute the bird cards for further familiarisation.
- Teacher sets up lesson by dividing class into seated teams (3 or 4 teams is ideal) and explains that the class will now be playing a competitive game to learn more about birds and their behaviour
- Teacher asks students to name any bird (willie wagtail is a good one to start with) and enters that name on the board in the grid shown on the next page. *NB: only the column headings should be written in to start with, all other boxes on the grid should be empty at this stage.*

Teacher then guides an investigative approach to filling in the rest of the table, awarding a point to each team for answers given. *NB: students should suggest the names of birds for each row. If they suggest a second bird in a category (e.g. they suggest wren, which is an insect-eater, after willie wagtail), tell them that you now are looking for birds that might eat things other than insects.*

The aim is to develop a complete list of information for one bird in each of six arbitrarily chosen feeding groups (e.g. insect-eaters, nectar-eaters etc).

Remember to award a prize to the winning group!

HW - get students to fill out a similar table using different bird species.



Bird feeding group	Where seen?	Personality	Feeds on?	Territory: migratory/ seasonal/ or sedentary?	Since European settlement +/- or?
(Insect eaters) e.g. <b>willie wagtail</b>	<i>on lawn</i>	<i>cheeky</i>	<i>Small insects, flying insects</i>	<i>sedentary</i>	<b>+</b>
(Nectar eaters) <i>white-plumed honeyeater</i>			<i>nectar, insects</i>		
(Seed eaters) e.g. <i>crested pigeon</i>			<i>Seeding grasses</i>		
(Larger insect eaters) e.g. <i>magpie</i>			<i>Larger insects + larvae</i>		
(Birds of prey) e.g. <i>eagle</i>			<i>Small animals</i>		
(Water birds) e.g. <i>seagull</i>			<i>food in or near water</i>		

### Session Three: Deepening knowledge

- Provide lists of other birds and get students to sort them according to the six arbitrary categories (insect-eater, nectar-eater, seed eater etc).
- Distinguish between native and exotic birds (e.g. starlings, sparrows) and discuss differences

### Session Four: Ecology- how birds and plants assist each other

- Look at the symbiotic relationships between flowering plants and birds - discuss pollination.

This leads to discussing links between birds and tree health – insects are controlled naturally by foraging woodland birds such as honeyeaters and pardalotes. Species loss due to habitat fragmentation and degradation (lack of understorey habitat for these birds) contributes to the explosion of insect pest numbers, hence stressed gums – key words: lerps, psyllids, dieback, pardalotes, honeyeaters, local extinctions, stress and habitat



### Session Five: Field trip

- Visit two or three markedly different habitats (e.g. lawn expanse/parkland; conservation park/bushland/bush-garden; riverbank/dam/beach/lake) and take note of different species observed.
- Discuss what you saw, drawing conclusions about what species you saw in each ecosystem and why they might be there

Ask questions such as: why would you not expect to find a *pelican* in the *bushland*? Why would you expect to find a *honeyeater* in a *gum tree*?

Take field guides/binoculars

HW - research a native bird from your local area and present a talk on it to the class. Discussion in the talk could include the bird's habitat needs, diet, nesting, is it an increaser/decreaser (+/-) since European settlement?

### Session Six: "Bring Back the Birds" series of articles on native birds

Discuss this series published in Messenger Press and available free from [chall@barossa.sa.gov.au](mailto:chall@barossa.sa.gov.au) on request. A bird calendar is also available on request.



## Appendix

### 1 *Best websites for info on birds:*

Birds Australia [www.birdsaustralia.com.au](http://www.birdsaustralia.com.au)

Freecall 1300 730 075

-link for feeding ecology: [/about-birds/feeding-ecology.html](http://about-birds/feeding-ecology.html)

Backyards4wildlife [www.backyards4wildlife.com.au](http://www.backyards4wildlife.com.au)

[www.floraforfauna.com.au](http://www.floraforfauna.com.au) – matches local flora with local fauna.

### 2 *Useful books*

**A Field Guide to Australian Birds** by Simpson & Day

**“The Australian Bird Garden: Creating Havens for Native Birds”** by Graham Pizzey – a gem of a book.

**Bird materials** available on loan from **Nature Education Centre** - 39 Osmond Tce Norwood, 5067. tel 8363 0328 - including stuffed birds, educational kits on birds/eggs/nests, live finches. Membership \$95 pa

### 3 *Background information for teachers*

Why study birds? For many people, birds are their only connection with nature, as they are easily seen whether you live in a city or the country.

The key distinguishing feature that separates birds from all other animals is that they have *feathers*.

The best way of finding out what a bird eats is to look at the shape of its beak. The “structure is related to function” rule applies.

Refer to an excellent overview of feeding ecology ie what birds eat, in [www.birdsaustralia.com.au/about-birds/feeding-ecology.html](http://www.birdsaustralia.com.au/about-birds/feeding-ecology.html)



#### 4 Common SA birds and their diets table:

<p><b>1 Magpie</b> Insects, especially grasshoppers; also spiders, crickets, larvae and seeds. Omnivorous.</p>	<p><b>2 Murray magpie</b> Insects, spiders, small lizards &amp; frogs</p>	<p><b>3 Galah</b> Eat seeds from the ground, native plants, fruit, nuts, cereal crops</p>	<p><b>4 Starling (introduced)</b> Mostly on small insects and other small animals, esp in pastures, but will concentrate on any suitable food source incl. grapes, &amp; other fruit</p>
<p><b>5 Red wattlebird</b> Nectar from flowering plants eg banksias, grevilleas, &amp; eat insects and fruit</p>	<p><b>6 White-plumed honeyeater</b> All honeyeaters with their brush tongue feed on nectar from flowering plants. Also insects and lerps (sap-sucking insects) on gum leaves</p>	<p><b>7 Crimson rosella</b> Seeds of wattles &amp; gums, but also blossoms &amp; insects and their larvae. May also feed on orchard fruits</p>	<p><b>8 New Holland honeyeater</b> All honeyeaters with their brush tongue feed on nectar from flowering plants. Also insects and lerps (sap-sucking insects) on gum-leaves</p>
<p><b>9 Willie wagtail</b> Small insects, either on ground or in the air</p>	<p><b>10 Red-rumped parrot</b> Grass seeds including kangaroo &amp; wallaby grasses</p>	<p><b>11 Crested pigeon</b> Mostly native seeds and those of introduced crops and weeds. Some leaves &amp; insects.</p>	<p><b>12 Little raven</b> Grains, fruits, insects, small animals, eggs, refuse and carrion</p>
<p><b>13 Grey shrike-thrush</b> Searches for food on ground, generally around fallen logs, also on limbs and trunks of trees. Varied diet of frogs &amp; lizards, spiders, and birds' eggs. Fruits &amp; seeds on occasion.</p>	<p><b>14 Nankeen kestrel</b> Hovers in flight to seek out small animals on ground such as small lizards, mice, as well as insects</p>	<p><b>15 Noisy miner</b> Insects and nectar. Compared with other honeyeaters is an inferior lerp-gatherer.</p>	<p><b>16 Striated pardalote</b> Invertebrates - lerps and other sap-sucking insects found on the leaves of eucalypts</p>
<p><b>17 Pacific black duck</b> Seeds, inflorescences, aquatic insects, crustaceans/shrimps</p>	<p><b>18 Musk lorikeet</b> Mainly nectar with its brush-like tongue, pollen, also flowers and fruits and sometimes insects</p>	<p><b>19 Common bronzewing pigeon</b> Native seeds, plants and wasted wheat grain from wheat fields</p>	<p><b>20 Laughing kookaburra</b> Insects, spiders, lizards, frogs, small birds, and snakes</p>