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## Lake Coomalbidgup Waterbirds

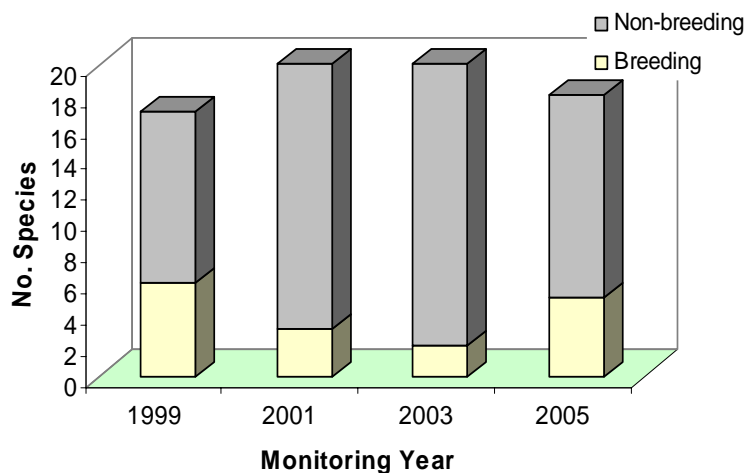
### The Wheatbelt Wetlands Monitoring Program

The Wheatbelt Wetlands monitoring program commenced in 1997 with 5 wetlands and was expanded to 25 wetlands by 1999. Lake Coomalbidgup was first surveyed in 1999. Each wetland in the program is surveyed at least every second year for aquatic invertebrates and waterbirds and water chemistry and ground water parameters are measured. Waterbirds are surveyed using binoculars and a spotting scope to count all birds present. Lake Coomalbidgup is heavily wooded with dead standing trees and only a perimeter 200m wide strip (about half of the wetted area) can be effectively surveyed. While this affects absolute abundance estimates the surveyed area is over 4 km long and is unlikely to result in missed species. Evidence of breeding is recorded when observed, i.e. broods or nests with eggs, however, nests are not searched for and these data will be incomplete.



Waterbirds were surveyed at Lake Coomalbidgup in late Winter (August), Spring (October) and Autumn (March) of each sampling year since 1999, i.e. 1999, 2001, 2003, and 2005. The lake was inaccessible, due to flooding, in autumn of the 1999 sampling year.

### Waterbird Species Richness at Lake Coomalbidgup



Lake Coomalbidgup has a rich bird fauna with a total of 30 species recorded since monitoring began. Species richness per survey ranged from 9 to 16 species (mean = 13.36) and annually ranged from 18 to 20 species (mean = 19.25). Ten species (33%) were recorded in all sampling years while twelve species (40%) were recorded in two or fewer surveys. Of this latter group six species were small waders which appeared only after Autumn 2003 when water levels dropped below 1m for the first time in the monitoring period. These statistics point to a stable waterbird assemblage which is relatively similar from year to year.

Nine species were recorded breeding and 90% (54) of recorded broods occurred during spring surveys. Many breeding species were ducks with the Musk Duck and Blue-billed Duck the most notable, however, most breeding records were for the Eurasian Coot.

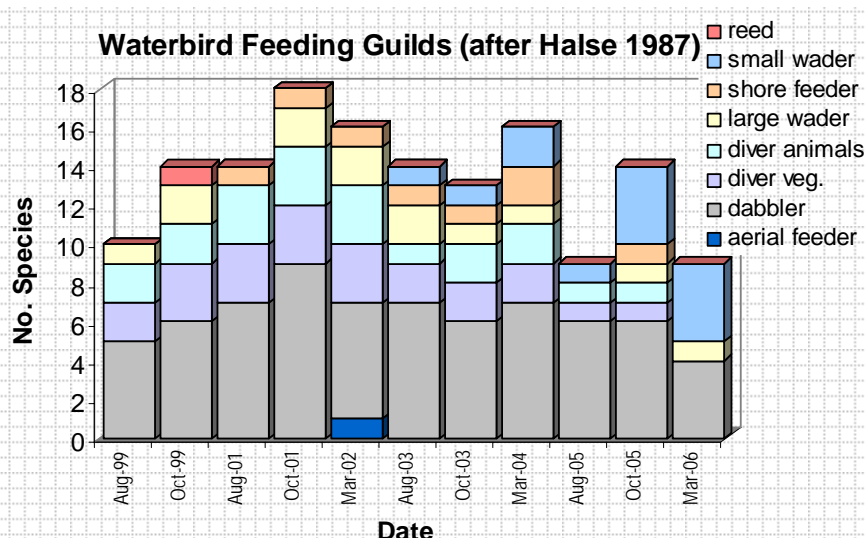
While dominated by dabblers on most sampling occasions all recognised feeding guilds were recorded (see figure overleaf) and species richness was spread across many

feeding guilds (mean = 5 guilds per survey). Large waders and shore feeding species persisted at Lake Coomalbidgup, despite depths generally greater than 1m, because of the great length of shoreline. Small waders became increasingly diverse, as a feeding guild, as water levels declined below 1m depth and shore length and area of shallows increased further.



Department of  
Environment and Conservation

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### Further reading:

Cale D.J., Halse S.A. and Walker C.D. (2005) Wetland monitoring in the Wheatbelt of Western Australia: site descriptions, waterbird, aquatic invertebrate and groundwater data. *Cons. Sci. W. Aust.* **5** (1): 20-135

Halse S.A. (1987) *Probable effect of increased salinity on the waterbirds of Lake Toolibin*. Technical Report No. 15. Dept. Conservation and Land Management, Perth Western Australia.

TABLE 1 Waterbird species list for Lake Coomalbidgup compiled from three surveys each sampling year except 1999 when the lake was inaccessible for the third survey. % Occurrence is the proportion of surveys for which the species was recorded

Species	1999	2001	2003	2005	% Occurrence
Grey Teal	√	√	√	√	100.0
Pink-eared Duck	√	√	√	√	100.0
Hoary-headed Grebe	√	√	√	√	90.9
Eurasian Coot	√	√	√	√	90.9
Chestnut Teal	√	√	√	√	81.8
Pacific Black Duck	√	√	√	√	81.8
Australasian Shoveler	√	√	√	√	72.7
Musk Duck	√	√	√	0	72.7
White-faced Heron	√	√	√	√	72.7
Black Swan	√	√	√	√	63.6
Australian Shelduck	0	√	√	√	54.5
Hardhead	√	√	√	√	54.5
Little Pied Cormorant	√	√	√	0	54.5
Black-fronted Dotterel	0	0	√	√	54.5
Australian Wood Duck	0	√	√	√	45.5
Australasian Grebe	√	√	0	0	36.4
Blue-billed Duck	√	√	0	0	36.4
Nankeen Night Heron	√	√	0	0	27.3
Freckled Duck	0	√	√	0	18.2
Yellow-billed Spoonbill	√	0	√	0	18.2
Australian White Ibis	0	√	√	0	18.2
Sharp-tailed Sandpiper	0	0	0	√	18.2
Swamp Harrier	0	√	0	0	9.1
Clamorous Reed-Warbler	√	0	0	0	9.1
Straw-necked Ibis	0	0	√	0	9.1
Black-winged Stilt	0	0	0	√	9.1
Common Greenshank	0	0	0	√	9.1
Common Sandpiper	0	0	√	0	9.1
Red-capped Plover	0	0	0	√	9.1
Red-kneed Dotterel	0	0	0	√	9.1