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## Yaalup Lagoon Waterbirds

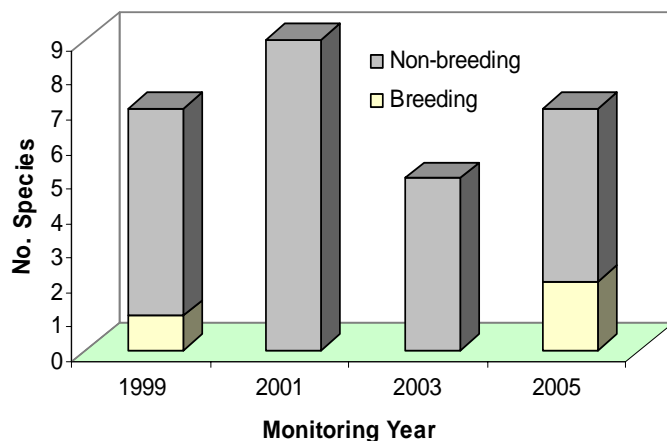
### The Wheatbelt Wetlands Monitoring Program

The Wheatbelt Wetlands monitoring program commenced in 1997 with 5 wetlands and was expanded to 25 wetlands by 1999. Yaalup Lagoon 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. 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 Yaalup Lagoon in late Winter (August), Spring (October) and Autumn (March) of each sampling year since 1999, i.e. 1999, 2001, 2003, and 2005. A total of 11 species have been recorded since monitoring began.



### Waterbird Species Richness at Yaalup Lagoon



With up to nine species in any one survey the waterbird assemblage at Yaalup Lagoon was not particularly species rich. The assemblage was characterised by the consistent presence of five species, i.e. Grey Teal, Pacific Black Duck, Australian Wood Duck, Australian Shelduck and Eurasian Coot which were recorded in all years and most surveys (>50%). The most abundant of these species was the ubiquitous Grey Teal which occurred in low to moderate numbers (range 2-114 birds).

Only two species, Grey Teal and Pacific Black Duck, have been recorded breeding since monitoring commenced. Species richness and depth were ( $r=0.65, df 10, p<0.05$ ) correlated with more species occurring at greater depth, however, richness did not fall below 4 species despite increasingly lower depths in the range 1.0 m to 0.2 m.

Because of the relatively low species richness and high re-occurrence of nearly half the recorded species, Yaalup lagoon consistently supported a similar waterbird community from season to season. Five guilds were recorded with Dabblers and Shore feeding species

occurring on all occasions. While dabblers and 'Diver-animal' guilds were represented by multiple species other guilds were represented by a single species each over the entire monitoring period.



Department of  
Environment and Conservation

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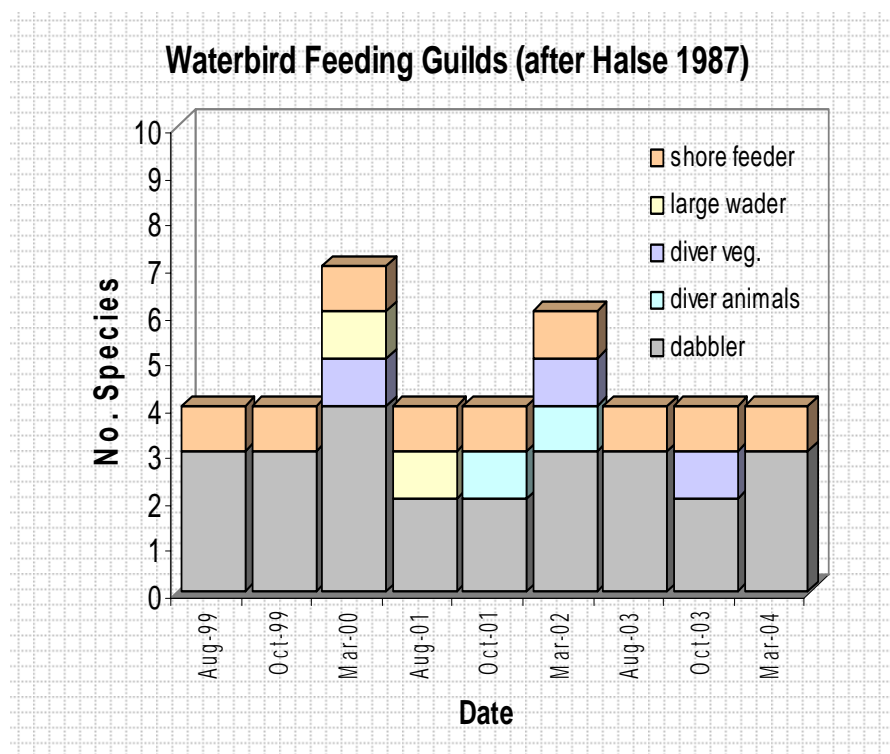


TABLE 1 Waterbird species list for Yaalup Lagoon compiled from three surveys each sampling year. % Occurrence is the proportion of surveys for which the species was recorded

Species	1999	2001	2003	2005	% Occurrence
Grey Teal	√	√	√	√	91.7
Pacific Black Duck	√	√	√	√	91.7
Australian Wood Duck	√	√	√	√	91.7
Australian Shelduck	√	√	√	√	58.3
Eurasian Coot	√	√	√	√	50.0
White-faced Heron	√	0	0	√	33.3
Chestnut Teal	√	√	0	0	25.0
Pink-eared Duck	0	0	0	√	25.0
Hoary-headed Grebe	0	√	0	0	8.3
Little Pied Cormorant	0	√	0	0	8.3
Yellow-billed Spoonbill	0	√	0	0	8.3

**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.