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## Lake Pleasant View Waterbirds

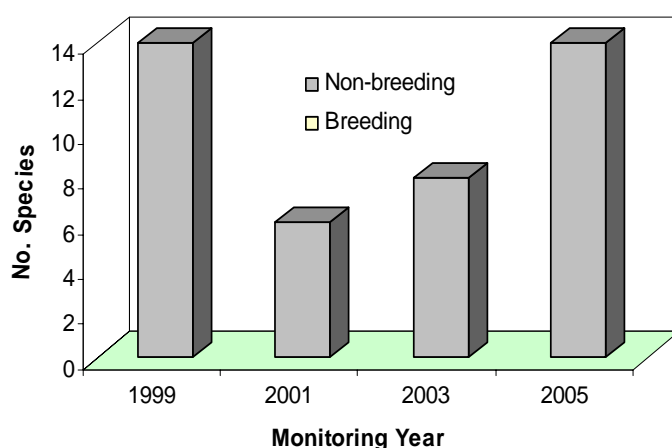
### The Wheatbelt Wetlands Monitoring Program

The Wheatbelt Wetlands monitoring program commenced in 1997 with 5 wetlands and was expanded to 25 wetlands by 1999. Lake Pleasant View 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 Lake Pleasant View 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 18 species have been recorded since monitoring began.



### Waterbird Species Richness at Lake Pleasant View



On any one sampling occasion the Lake Pleasant View waterbird community was characterised by a small number of species represented by a few individuals each. While between 6 and 14 species were recorded over a whole year the maximum number of species recorded in any single survey was 10, in Spring 1999. At this time 110 birds were counted also representing the highest recorded abundance. Mean richness per survey was 6.4 species and mean total abundance was 27.25 birds. Richness was negatively correlated with electrical conductivity of lake water ( $r = -0.58$  df10,  $p < 0.05$ ).

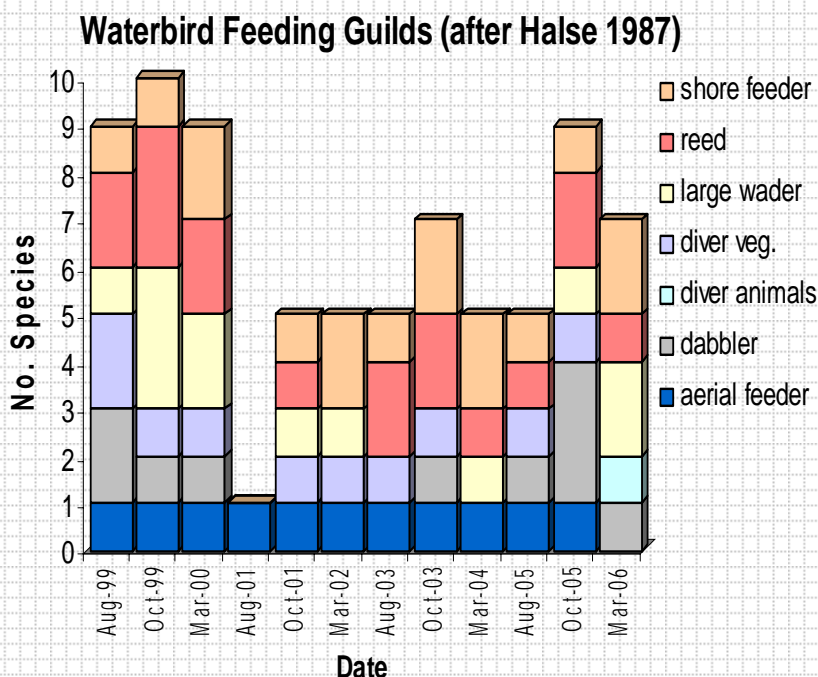
Richness increased with increasing depth until the lake was slightly less than 1m deep. At greater depth excessive flooding of lake margins restricted richness by reducing the usefulness of the wetland to species such as Australasian White Ibis, White-faced Heron and Australasian Bittern which were otherwise regular visitors. Very low water levels were recorded during late winter 2001 when the Swamp Harrier was the only species recorded.

Most recorded species appeared to be only irregular users of the wetland, however, four species, Swamp Harrier, Little Grassbird, Purple Swamphen and Musk Duck were recorded in every year and in two thirds or more of all surveys. These birds would appear to represent the core resident species with most others probably short term visitors. No breeding was recorded for any species.



Department of  
Environment and Conservation

## Lake Pleasant View Waterbirds



The distribution of waterbird richness across functional feeding groups gives an indication of the large array of available niches for waterbirds at Lake Pleasant View. The mean number of feeding guilds present during a survey was 4.75 and all feeding guilds except small waders were represented at some time. On most occasions, a guild was represented by only a single species; however, dabbler, reed, shore feeder and large wader guilds were represented by multiple species on many occasions. While low bird abundance suggests similarly low food reserves within the wetland, the complex guild structure suggests a diverse range of niches and food sources are present.

TABLE 1 Waterbird species list for Lake Pleasant View 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
Swamp Harrier	√	√	√	√	91.7
Purple Swamphen	√	√	√	√	91.7
Musk Duck	√	√	√	√	75.0
Little Grassbird	√	√	√	√	66.7
Clamorous Reed-Warbler	√	0	√	√	58.3
Australasian Bittern	√	0	√	√	41.7
White-faced Heron	√	√	0	√	41.7
Pacific Black Duck	√	0	√	√	33.3
Australian White Ibis	√	√	√	0	33.3
Australian Shelduck	√	0	0	√	25.0
Grey Teal	0	0	0	√	16.7
Yellow-billed Spoonbill	√	0	0	√	16.7
Hardhead	0	0	0	√	8.3
Little Pied Cormorant	0	0	0	√	8.3
Dusky Moorhen	√	0	0	0	8.3
Baillon's Crake	√	0	0	0	8.3
Spotless Crake	√	0	0	0	8.3
Straw-necked Ibis	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.