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Lake Ardath Waterbirds

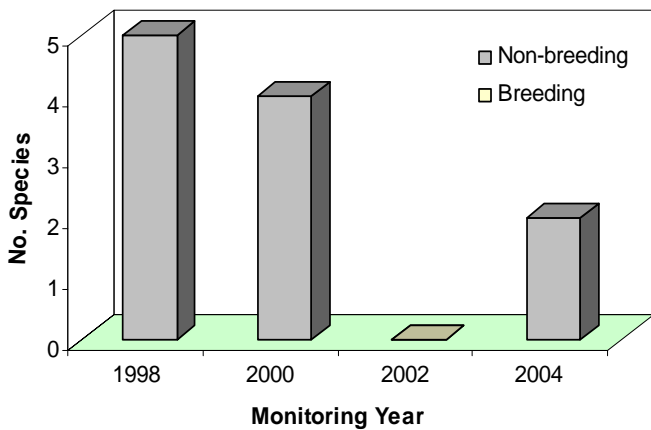
The Wheatbelt Wetlands Monitoring Program

The Wheatbelt Wetlands monitoring program commenced in 1997 with 5 wetlands and was expanded to 25 wetlands by 1999. Lake Ardath was first surveyed in 1998. 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.



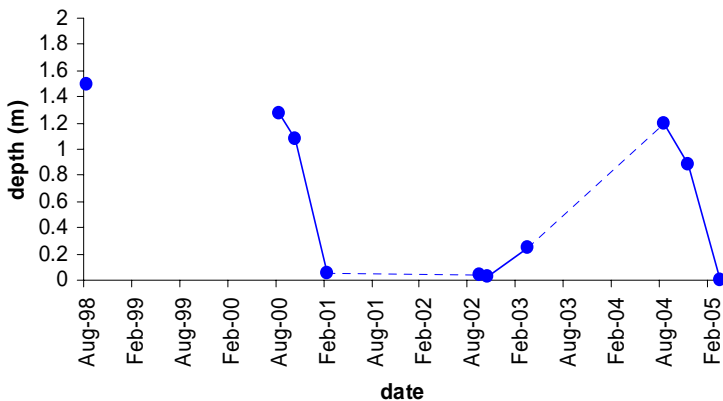
Waterbirds were surveyed at Lake Ardath in late Winter (August), Spring (October) and Autumn (March) of each sampling year since 1998, i.e. 1998, 2000, 2002, and 2004. The lake was almost dry (depth 2-5 cm) and hypersaline (221-224 mS/cm) for all of the 2002 monitoring year and no bird species were recorded.

Waterbird Species Richness at Lake Ardath



Lake Ardath was not an important wetland for waterbirds during the monitoring period; only 66 birds from 6 species were recorded. Of the six species recorded, only the Grey Teal and Australian Shelduck were regularly present and these are ubiquitously distributed and relatively common. Three species (see Table 1) were only recorded once. Richness and abundance were highest (18 birds of 5 species) in late Winter 1998. At this time water depth was 1.5 m, resulting in the flooding of sapphire flats around the lake- inflow and providing habitat for Black-tailed Native-hen and Black-winged Stilt.

Depth at gauge for Lake Ardath

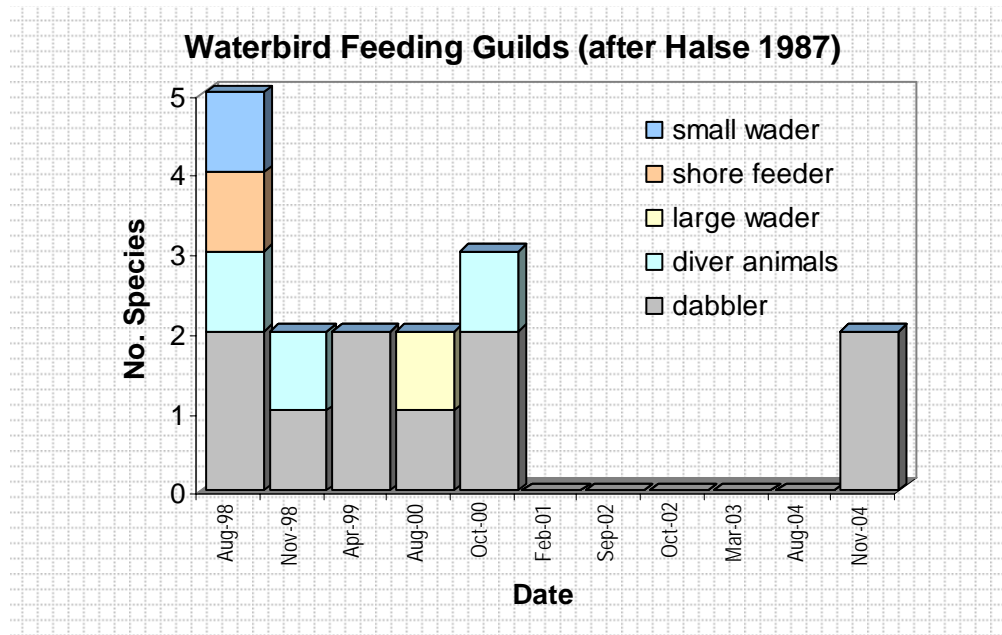


The low value of the wetland to waterbirds was principally because of relatively high salinity (32mS/cm-224mS/cm) coupled with high water depth. The lakes steep shore slopes meant that lake depth remained high until the lake became quite small thus greatly restricting the availability of shoreline habitat for species such as waders and shore feeders. At 1m depth the lake had a salinity approaching that of sea water in most years. In Spring 2004 lake depth was 0.88m but no waterbirds were recorded



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Lake Ardath Waterbirds



The feeding guild structure observed at Lake Ardath is simple with only one or two guilds present on most occasions. In late winter 1998 when lake depth was 1.5m (the highest recorded) four guilds were present. However the low re-occurrence of species suggests an opportunistic use of the wetland rather than the presence of a resident waterbird fauna.

TABLE 1 Waterbird species list for Lake Ardath compiled from three surveys each sampling year. % Occurrence is the proportion of surveys, with depth greater than 0 m, for which the species was recorded

species	1998	2000	2002	2004	% Occurrence
Grey Teal	√	√	0	√	66.6
Australian Shelduck	√	√	0	√	44.4
Hoary-headed Grebe	√	√	0	0	33.3
White-faced Heron	0	√	0	0	11.1
Black-tailed Native-hen	√	0	0	0	11.1
Black-winged Stilt	√	0	0	0	11.1

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.