

Salinity and waterbird decline in the Wheatbelt

By Dr Stuart Halse, Principal Research Scientist CALM Woodvale

Annual counts of ducks, coots and swans conducted by CALM and Birds Australia in the late 1980s and early 1990s suggested that about 1.5 million waterfowl occur in south-western Australia. Ducks, coots and swans make up about 70 per cent of waterbirds so it is likely the total south-west waterbird population was more than two million birds.

Whether there are still two million waterbirds in the south-west is unknown. However, there is considerable anecdotal evidence that populations of most waterbird species in the Wheatbelt have declined during the past 50 years. The most obvious exceptions are the Australian shelduck and Australian wood duck. The shelduck

Salinisation is the main cause of waterbird decline in the Wheatbelt.

is the most salt-tolerant species of duck, which has actually thrived in the face of salinisation, but the main reason for the success of both species is

probably that they nest in trees away from the water and utilise farm dams. These habitats have changed relatively little.

Salinisation is the primary cause of the waterbird decline in the Wheatbelt and has three main detrimental effects. Firstly, many birds require fresh water for drinking and the animals and plants they feed upon do not occur in salinised wetlands. Secondly, the

loss of fringing sedges around a wetland removes day-time shelter and breeding habitats of secretive species such as bitterns, crakes and rails. Thirdly, as trees within the wetland boundary die the nesting habitat of many waterbirds is lost. Even though species such as the grey teal continue to nest in holes in dead trees, after 20 to 30 years these tree skeletons collapse leaving little breeding habitat except for those species that nest on water (like swans and grebes) or on the ground (many shorebirds like stilts and avocets).

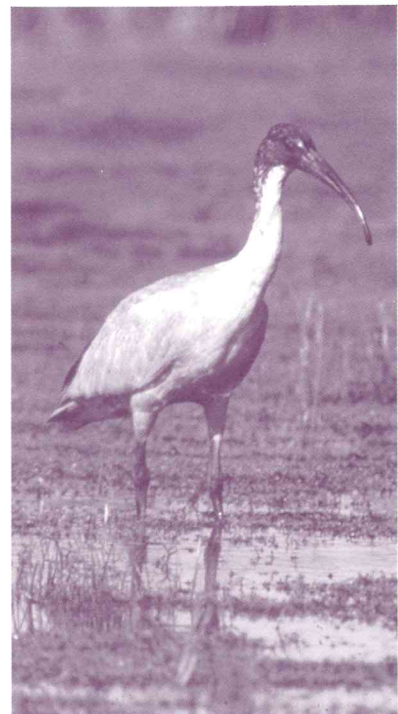
The loss of sedges from nearly all Wheatbelt wetlands has resulted in the virtual disappearance of the shy but rather spectacular brown bitterns from that region.

The loss of live trees has led to most breeding colonies of colonially nesting birds (egrets, night herons, ibis, spoonbills and cormorants) being abandoned. However, just as waterbirds respond quickly to new habitats, they will take advantage of any wetland rehabilitation in the Wheatbelt and there is hope that targeted management programs may be able to return species and breeding colonies to the region.

Targeted management programs may be able to return species and breeding colonies to the region.

Coming events

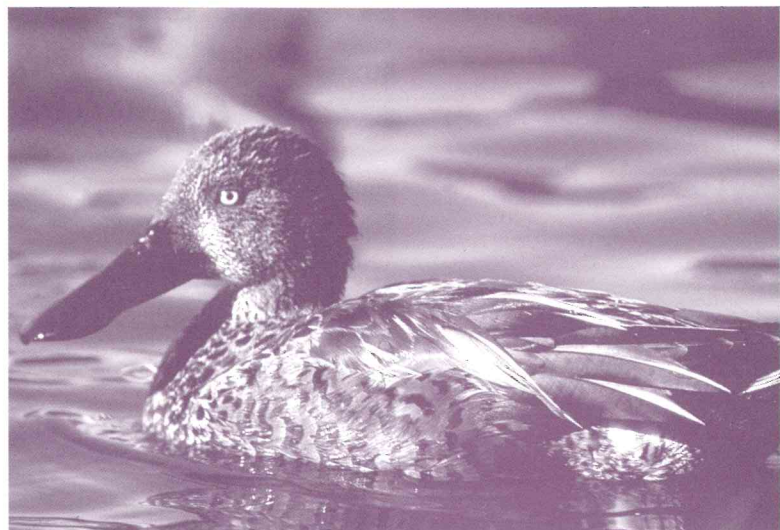
- State Landcare Conference – October 2005
- Completion of surface water demonstration site
- Wetland sampling
- Seed collection for revegetation programs
- Groundwater monitoring bores to be established at priority wetlands
- Publication of the Catchment Landholder Survey



Sacred ibis.



Pacific black duck.



Australasian shoveller.