



# Colonial waterbird breeding

DR KATE BRANDIS

Pink-eared Duck. Photo: Kate Brandis

*Dr Kate Brandis, Australian Wetlands and Rivers Centre, University of New South Wales, reports on colonial waterbird breeding in the Lowbidgee, NSW, 2010*

**Following significant rainfall in the Murrumbidgee catchment in southern NSW during spring 2010, wetlands on the Lowbidgee floodplain became flooded. Several waterbird colonies were established including ibis breeding in two colonies at Torry Plains.**

Torry Plains is a privately owned property managed primarily for flood-irrigated organic wheat production. In addition to delivering water to wheat crops, the infrastructure is being used to manage water delivery to the two biggest ibis colonies in the Lowbidgee.

There are approximately 20,000 ibis breeding in two colonies, Telephone Bank and Eulimbah. All three Australian species of ibis are breeding: Straw-necked Ibis, Australian White Ibis and Glossy Ibis. Ibis nesting began during October 2010 and continued into December with new nests still being established. At some of the earlier nest sites, Straw-necked Ibis have been recorded re-nesting with a second clutch laid in late November.

The Telephone Bank colony was established on inundated Tangled Lignum *Muehlenbeckia florulenta*, interspersed with River Red Gums *Eucalyptus camaldulensis* and River Cooba *Acacia stenophylla*. In contrast, the Eulimbah colony was established exclusively on channelised lignum with no other tree or shrub species present.

In addition to ibis, 36 additional waterbird species were recorded during Oct-Dec 2010, of which 26 species were breeding. Other species included shorebirds, ducks, egrets, herons and the endangered Australasian Bittern.

The Australian Wetlands and Rivers Centre at the University of New South Wales was commissioned by landholders in the Lowbidgee to monitor the reproductive success of the two ibis breeding colonies. This information was used to help manage water delivery to the colony sites to maximise breeding success.

Over 700 individually marked nests were monitored at fortnightly intervals to follow the progression of eggs to chicks and finally fledglings. To date, success rates have been excellent with more than 85% of eggs hatching. Nest monitoring was carried out on predominantly Straw-necked Ibis nests, but also Glossy Ibis, Royal Spoonbill and a small group of Little Pied Cormorants. Unusually, the Little Pied Cormorants nested in lignum, underneath nests of both Australian White Ibis and a Royal Spoonbill.

Nest monitoring will continue until all chicks have fledged, which is anticipated to be early 2011. The results of this study will be used to manage future breeding events at these two sites and improve our understanding of the breeding ecology of colonial waterbirds.



Straw-necked Ibis, Lowbidgee wetlands. Photo: Kate Brandis



**WATERBIRDS RECORDED AT LOWBIDGEE WETLANDS OCT – DEC 2010**

Plumed Whistling-Duck*	White-faced Heron
Musk Duck*	Little Egret
Freckled Duck*	Nankeen Night-Heron*
Black Swan*	Glossy Ibis*
Australian Wood Duck*	Australian White Ibis*
Pink-eared Duck*	Straw-necked Ibis*
Grey Teal*	Royal Spoonbill*
Pacific Black Duck	Yellow-billed Spoonbill*
Hardhead*	Purple Swamphen*
Blue-billed Duck*	Black-tailed Native-hen*
Hoary-headed Grebe*	Eurasian Coot*
Great Crested Grebe	Black-winged Stilt*
Australasian Darter*	Red-necked Avocet*
Little Pied Cormorant*	Red-kneed Dotterel
Little Black Cormorant*	Masked Lapwing
Australian Pelican	Sandpiper sp.
Australasian Bittern*	Whiskered Tern*
White-necked Heron*	Gull-billed Tern
Eastern Great Egret*	Silver Gull
Intermediate Egret*	

*\*Species recorded breeding at the wetlands*

**Editor's Note:** The Lowbidgee floodplain is adjacent to the lower Murrumbidgee River, downstream of Hay, particularly in the vicinity of the junction of the Murrumbidgee and Lachlan Rivers. In early January 2011, Kate sent through the following update to this article.

*A brief update to the article I wrote in early December. We have now completed seven monitoring trips. Both colonies are showing high success rates with very little observed chick mortality. There have been second clutches laid in the Telephone Bank colony, and these have hatched and there are chicks in nests.*

*Unfortunately the floods that have travelled down the Murrumbidgee from Wagga Wagga have inundated a number of new nests in the Eulimbah colony. Chicks that were big enough moved to higher lignum, but some nests with eggs and very young chicks were inundated. However, anecdotally, there are new eggs being laid as the flood waters receded. If this is the case we will also be monitoring these new nests.*



Left: Nankeen Night-Heron juvenile. Top right: Telephone-Bank ibis colony. Bottom right: Monitoring nests. Photos: Kate Brandis