



# IBIS

## AUSSIE BATTLER OR URBAN PEST?

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**A new radio-tracking study is discovering some surprising facts about the lifestyle of the Australian White Ibis, a one-time wetland dweller now resident in Australian cities.**

One fine day in August 1982, keen birdwatcher Alan Morris was enjoying a quiet picnic on the foreshore of Sydney Harbour when a flurry of activity drew his attention to a group of Australian White Ibis nesting in the date palm above him. ‘So what?’ you may say – most Sydneysiders see these curious birds camping in palm trees or raiding rubbish bins every day.

But it hasn’t always been that way. Before 1970, white ibis didn’t visit Sydney very often, preferring their traditional inland wetlands and coastal habitats (see fact file). Nor did they breed here – in fact, when Alan reported his picnic findings, he became the first person to record them breeding in eastern New South Wales.

The group that rained on his picnic that day stemmed from some captive birds released into the grounds of Taronga Zoo in the early 1970s. Now, thanks to further breeding, some avian magnetism and the bird’s ability to exploit urban food and water resources, Sydney’s white ibis population numbers more than three and a half thousand.

Meanwhile, wetlands in inland New South Wales have experienced an extended period of largely dry years. At Macquarie Marshes, a traditional white ibis stronghold northwest of Dubbo, surveys of the main colony sites in 2006 failed to find the birds nesting at all. But in the 15 years from 1986 to 2000, wildlife ecologist Richard Kingsford found white ibis nests at Macquarie Marshes in most years – sometimes in large numbers, such as in 1998 (11,000 nests) and 1990 (5500 nests).

### FACT FILE

The Australian White Ibis *Threskiornis molucca* is one of three ibis species native to Australia. Found in inland swamps and coastal wetlands, white ibis also forage in moist grasslands and increasingly in parks and on rubbish tips. Their traditional diet includes frogs, fish, crayfish, worms, beetles and crickets.

Like the other two species (the Straw-necked Ibis and the Glossy Ibis), the Australian White Ibis is colonial, roosting and breeding in groups of a dozen or so to several thousand, with large groups of them flying in V-formation to transient feeding grounds.

White ibis nest in trees, usually surrounded by water. The most common clutch has two to three eggs, and both parents share incubation (three weeks) and feeding of the young (eight weeks).

Australian White Ibis are now known to live for up to 26 years – a specimen that had been banded as a nestling in 1980 on Phillip Island, Victoria, recently washed up on a beach just 53 kilometres from its birthplace.

Has the lack of water in inland river systems from drought, exacerbated by the diversion of river flows for irrigation, turned the tide on the Australian White Ibis? With a lack of feeding and breeding habitat in the bush, how will they survive? Cities appear to have become drought refuges for the white ibis and, if the future wetness of inland wetlands can no longer be taken for granted, they could be here to stay.

Unfortunately their habits of raiding rubbish bins, nesting noisily and whitewashing the footpath have made them unpopular with some local councils and residents. White ibis also rate as an airstrike hazard, and when you consider the damage caused by a typical two-kilogram bird (see photo page 6), you can understand why airport managers want to avoid having them cross flight paths with passenger planes.

For these reasons, the Department of Environment and Conservation (NSW) issues licenses to some urban land managers that allow them to destroy nests and eggs. People used to believe that the adults were largely 'sedentary' and that the species as a whole would not be affected if a few 'rogue colonies' near airports were controlled. But the recent lack of white ibis breeding in the Macquarie Marshes and the establishment of urban populations suggest they are more mobile than previously thought – if 'managed' populations are recolonised by immigrants, then urban control may be harming the species overall.

## Before 1970, white ibis didn't visit Sydney very often, preferring their traditional inland wetlands and coastal habitats

So to manage the urban populations responsibly, we need to know more about their mobility. And our radio-tracking research has found that Sydney's urban ibis colonies are far from isolated – there is considerable interchange between them, even over quite large distances.

To discover this, we have fitted leg bands and radio transmitters to 20 birds at each of three Sydney colonies and we monitor their movements regularly. Rather than chasing individual birds around Sydney, we visit the largest colonies and record the presence of individuals that we recognise by the unique frequencies of their transmitters.

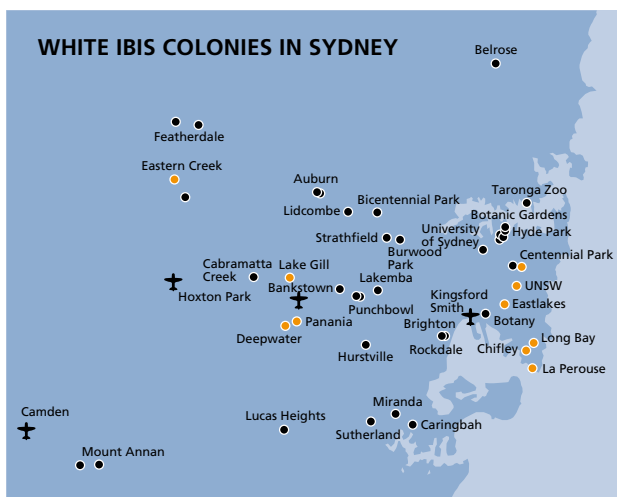
To see just how mobile they are, take a look at the 'diary' and map. We've seen birds from Centennial Park scavenging on rubbish tips at Belrose, Lucas Heights, Eastern Creek and Gosford. They've also moved to nearby colonies in the Royal Botanic Gardens, Botany and Long Bay. Tip birds from Eastern Creek have turned up in Featherdale Wildlife Park, Mount Annan Botanic Gardens, Jack's Gully Tip at Camden, Lake Gillawarna, Belrose and Centennial Park. Breeding birds from Lake Gillawarna have made daily foraging trips to their local tip at Panania as well as longer flights to Eastern Creek.

### DIARY OF AN IBIS

Actual movements of the white ibis known as 151.27 MHz (the frequency of its radio transmitter).

<b>Saturday 20 May</b>	Meet the crowd at Eastern Creek for lunch
<b>Thursday 25 May</b>	Sleep over at Deepwater Reserve
<b>Friday 26 May</b>	Breakfast at Panania Tip
<b>Monday 29 May</b>	Bunk down at Centennial Park
<b>Thursday 15 June</b>	Spend the night at Eastlakes golf course, before early round next day
<b>Saturday 24 June</b>	Café lunch on Bunnerong Road, Chifley
<b>Friday 14 July</b>	Picnic lunch at La Perouse
<b>Sunday 10 September</b>	Catch evening lecture at NSW Uni – sleep over
<b>Monday 18 September</b>	Go to gaol (Long Bay)
<b>Monday 25 September</b>	Party at Lake Gillawarna
<b>Saturday 11 November</b>	Yearlies at UNSW

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- White ibis colonies in Sydney
- Areas visited by 151.27 MHz
- ✈ Airports

Just as significant are the birds we haven't seen again – 12 per cent dropped off our radar completely within three months of capture, potentially moving to colonies further afield. Only a third of the tagged birds remaining after three months had not moved from home.

Our research is still in its early stages, but the consequences for ibis management are becoming clear. »



This aircraft collided with a white ibis on take-off. Photo © Sydney Airport Corporation Limited.



A new use for a long bill. Photo R Major.

» If the birds are as mobile as our research suggests, we think there is a risk that nest and egg destruction could affect the total white ibis population because it would reduce the number of birds available to recolonise the traditional breeding grounds once environmental flows to wetlands are restored. Nest destruction may well incite birds to desert a nesting colony, but the empty space might soon be filled by the next breeding pair, wasting management resources.

A better solution may be to make the local breeding habitat unsuitable. For example, in response to concerns from Sydney International Airport and users of Centennial Park in urban Sydney, nesting palms were removed from some islands within the park's ponds. This has helped reduce the park's white ibis population from a peak of 1400 to 350 – but at what cost to the species? If large ibis colonies near airports are unacceptable, then we need to provide for them elsewhere, for example by creating alternative wetland refuges or boosting environmental flows to restore their natural habitat in places like the Macquarie Marshes.

Our research is continuing and will no doubt increase our understanding of the Australian White Ibis. But next time you see one with its head disappearing into a garbage bin, perhaps you'll think of the inland wetlands and remember that local actions can have global implications.

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### IBIS SPOTTERS NEEDED!

If you see white ibis with coloured bands on their legs, please note the colour and position of the bands and report it to John Martin (phone 9339 6678, or email [john.martin@cp.nsw.gov.au](mailto:john.martin@cp.nsw.gov.au)). For more information on leg bands go to: <http://birdsinyard.net/surveys/ibis.cfm>

Photo R Major.