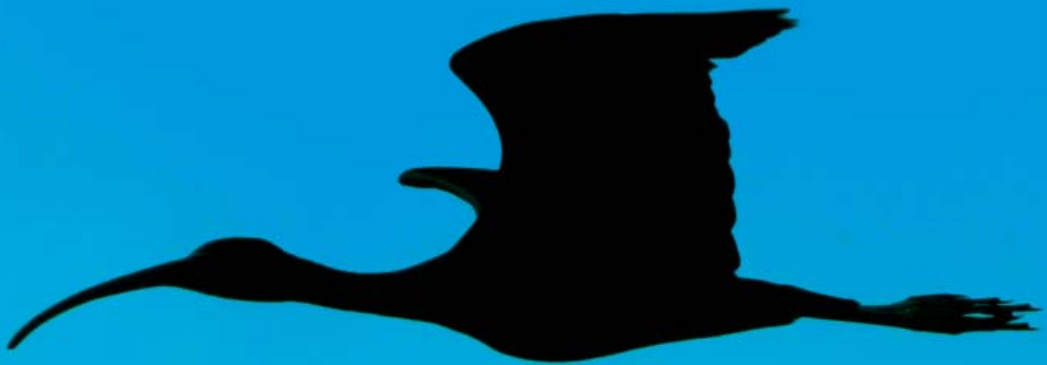


Wild about IBIS



LIVING WITH URBAN WILDLIFE



Department of **Environment & Climate Change** NSW



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Additional References:

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DEC/G. Ross



DEC/C. Legoe

Caring for an urban icon



Geoffrey Ross,
Wildlife Management Officer



The graceful nature and incredible adaptation of Australia's wetland birds to the harsh environment has captivated many people.

This booklet, the third in the NSW National Parks and Wildlife Service 'Wild about' series, explores our current knowledge and relationships with ibis in the urban landscape. Included in this outline is a brief insight into the population and ecology of ibis taken from the work of many researchers, in particular NPWS Wildlife Management Officer Geoff Ross.

Due to the ongoing dry conditions in western NSW, Australian White Ibis numbers have dramatically increased in regions along the East Coast. Geoff explains that the population shift has raised "concern for the White Ibis and wetland species in NSW" and he proposes "a re-evaluation of current ibis management."

You are invited to explore these issues and to appreciate these wonderful birds as a vital part of our wetland ecology.



AUSTRALIAN WHITE IBIS

Threskiornis molucca

Australian White Ibis is one of three native Australian species. Australian White Ibis have an all white body, black head and neck with red patches under the wings.

QUICK FACTS

Length:	65 – 75cm
Weight:	Males: 1.7 – 2.5kg Females: 1.4 – 1.9kg
Wingspan:	110cm – 125cm
Beak length:	Males: >16.7cm Females: < 16.7cm
Clutch Size:	1 – 4 eggs
Egg Incubation:	21 – 23 days
Fledgling age:	48 days
Clutches per season:	1 – 3
Sexual maturity:	3 years
Breeding season:	Varies with location, Sydney: June – February
Habitat:	Freshwater wetlands, tidal mudflats, mangroves and urban habitats
Diet:	Wide range including: Aquatic invertebrates (especially freshwater crayfish and crickets) and urban waste
Status:	Common

STRAW-NECKED IBIS

Threskiornis spinicollis

The Straw-necked Ibis is distinguished by iridescent black wings and breast, white underparts and neck ring, a black featherless head and distinctive straw like feathers on the neck.

QUICK FACTS

Length:	60 – 70cm
Weight:	1.1 – 1.5kg
Wingspan:	100cm – 120cm
Clutch Size:	2 – 5 eggs
Egg Incubation:	24 days
Fledgling age:	Around 4 weeks
Clutches per season:	Unknown
Breeding season:	September – November in south eastern Australia
Habitat:	Grasslands, freshwater wetlands, irrigated pasture, crops, airfields, sewage ponds
Diet:	Wide range including frogs, fish, beetles, spiders, crickets and freshwater snails
Status:	Common to inland NSW Occasionally sighted in Sydney

GLOSSY IBIS

Splegadis falcinellus

The Glossy Ibis is the smallest of the three ibis found in Australia. The entire body is covered in dark purple to brown coloured feathers.

QUICK FACTS

Length:	55 – 65 cm
Weight:	0.5kg
Wingspan:	80 – 95cm
Clutch Size:	2 – 6 eggs
Egg Incubation:	21 days
Fledgling age:	25 days
Clutches per season:	Unknown
Breeding season:	Oct – Dec in southern Australia, Feb – April in northern Australia
Habitat:	Wetlands with good vegetation, including wet pasture, grasslands and ricefields
Diet:	Mainly aquatic invertebrates and insects
Status:	Common to inland NSW Rarely sighted in Sydney

Australian White Ibis

birdphotos.com.au



Straw-necked Ibis

birdphotos.com.au



Glossy Ibis

birdphotos.com.au



Our heritage

The Australian White Ibis is a native wetland bird and part of our amazing natural heritage. Like all native species, ibis are protected under the *NSW National Parks and Wildlife Act 1974*.

Australian White Ibis (*Threskiornis molucca*) are found in Tasmania, up the East Coast and across Northern Australia, and in a narrow band down the West Australian coast. Beyond Australia their range extends to Papua New Guinea, Solomon Islands and as far west as the Moluccas Islands in Indonesia. Occasionally they are found in New Zealand.

Whilst related, the Australian White Ibis and the Black-headed Ibis of Asia (*Threskiornis melanocephalus*) are separate species to the Sacred Ibis of Africa (*Threskiornis aethiopicus*).



AT RISK

Australia is one of the driest continents on earth and many native waterbirds, like the ibis, travel great distances in search of suitable freshwater wetlands and estuaries. Ibis respond to the cycles of climate by adapting and breeding when conditions are right and are known to be heavily reliant upon flood waters of inland rivers. Australian White Ibis prefer to forage in and around wetlands, freshwater swamps, on mudflats, wet pasture or lawn.

Traditional breeding locations for wetland birds in NSW include the Macquarie Marshes, Gwydir Wetlands, Balranald, Narran Lakes, Barrenbox Swamp and Lake Cowal. (The 20,000 ha Macquarie Marshes (in Western NSW) are internationally significant and listed under the Ramsar Convention on Wetlands in 1986, they provide one of the most important nesting areas for ibis in NSW).

Research in the Macquarie marshes suggests an absence of significant Australian White Ibis breeding events since the year 2000. There have been significant modifications to wetland hydrology (recent floods covered only 50% of the original area), and subsequent bushfires which have damaged nest trees.

Aerial surveys of the marshes in 2004 recorded less than 20 waterbirds in the area, and in 2005, less than 10. These observations indicate a wetland in crisis and a need to nurture breeding populations of waterbirds including those currently roosting in urban areas.

A symbol of healthy wetlands

Australian White Ibis are an integral part of our cultural heritage. Their long-term presence in the landscape is reflected in Indigenous Culture and stories across Australia. For thousands of years ibis have been sacred to communities, and an indicator of environmental wellbeing.

Nesting colonies of wetland birds such as Australian White Ibis, heron and egrets are a sign of a healthy wetland ecosystem, and their population health is indicative of the vitality of the wetlands they inhabit.

In inland areas waterbird breeding is contingent upon the quality and amount of water, the timing of flooding and the availability of food. The arrival of Australian White Ibis in urban environments may be an indication of decreasing quality and long-term changes in the inland ecosystems of NSW, or a long term climatic cycle.

The NSW **National Parks and Wildlife Service** is interested in working with communities in the care of native wildlife populations where they occur, especially when there are significant habitat challenges for waterbird species in their natural habitat.

HOMING INSTINCT

Whilst newly fledged ibis fly long distances (trips up to 3,200 km are recorded) most return to traditional sites to nest. It is essential that ibis instincts and needs are understood and that populations are able to utilise available habitat. A key question for the species and for population management in NSW is whether the ibis will return inland.



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Learning about ibis

Understanding the movement of wetland birds and their adaptation to changed conditions helps the NPWS and local councils learn about ibis and their needs.

Tracking and recording ibis over many years provides some insight into their life history, where they forage, how far they migrate, if they return to their colony of birth, and how long they might live.

For more than a decade in NSW, individual birds have been tagged with lightweight coloured leg bands to help researchers understand ibis habits.

Banded birds have been recorded in parks, landfill and urban areas up to 28 km from the original banding site. Birds banded as juveniles in Sydney have been resighted outside of Sydney as far away as Tweed Shire, Currumbin Valley (Qld), Sunshine Coast (Qld) and Townsville (Qld). A bird banded in Victoria has been sighted in Papua New Guinea.

You can get involved with the annual ibis count, and other local management activities. Details are on the NPWS website: www.nationalparks.nsw.gov.au/npws.nsf/content/white_ibis_survey_online_form



DEC/C.Legoe



DEC/C.Legoe & J.Martin



DEC/G.Ross

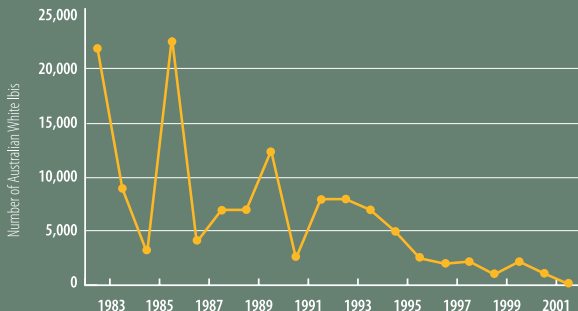
Protecting ibis

The Sacred Ibis of the Middle East is a symbol of the wisest of Egyptian Gods, *Toth*. This species is now in danger of extinction. Although Australian White Ibis are currently considered an abundant species, particularly in our urban environments, they have not been doing well in their traditional habitat. The Australian White Ibis needs to be cared for on a whole population basis, across the landscape, to avoid the plight of the Sacred Ibis.

The Australian White Ibis have been researched locally, and in key habitat areas across NSW. Aerial surveys conducted over eastern Australia since 1983 indicate that numbers of Australian White Ibis have decreased dramatically in the inland river systems.

Our understanding of breeding success in urban environments, dispersal patterns, immigration, survivorship and recruitment back into breeding populations is currently limited. As a consequence, our management of breeding populations should proceed with caution.

Numbers of Australian White Ibis recorded by aerial survey of 10 survey bands across eastern Australia between 1983 – 2002 by Kingsford et.al. (2003).



The Egyptian God, *Toth*, is represented as a man with the head of an ibis. *Toth* is considered the great mediator, the counsellor, and the patron of knowledge.



Coastal refuge or new home?

Australian White Ibis have been visiting Sydney in increasing numbers for the last 50 years (with breeding records since 1970). There has been a simultaneous increase at other locations along Australia's eastern coast - including Brisbane, the Gold Coast, the NSW North Coast and Central Coast.

Since 1980, breeding colonies have established in the Royal Botanic Gardens and Centennial Parklands, at Lake Gillawarna (Bankstown) and Cabramatta Creek. There are now many smaller colonies across numerous Local Government Areas (LGA) particularly near the coast.

Changes to their natural habitat cause the birds to move to places where water and food are more predictable. As a result of changes to inland wetlands ibis are now part of the urban environment in NSW.

The decline in traditional ibis habitat and nesting sites places an emphasis upon responsible ibis management in urban areas and to nurture existing ibis communities.



IBIS NESTING, FORAGING AND FEEDING AREAS AROUND SYDNEY 2006



The good life in Sydney

The normal diet of Australian White Ibis consists mainly of aquatic invertebrates, in particular freshwater crayfish and crickets. The Australian White Ibis is held in high regard by many farmers due to the belief that they help control Australian locust plagues.

Unfortunately, Australian White Ibis supplement their diet in the “big smoke” from landfill sites, bins and litter. This can be harmful to their health.

By observing the behaviour of ibis populations we can better understand their needs. The NPWS is working with local governments to balance community interests and their needs, particularly in urban landscapes.

What is needed is to keep ibis populations healthy.



A balanced approach

Individual colonies of Australian White Ibis are currently managed under Section 121 of the NSW National Parks and Wildlife Act 1974.

Caution is required in managing large breeding colonies in urban areas as there is potential to cause considerable impact on the national status of the species.

To achieve management outcomes and sustain healthy ibis populations in the Sydney region the following **principles** need to be considered:

- A coordinated approach across local government areas and reserves will best address ibis food sources
- Individual site management plans for ibis breeding colonies need to be coordinated across the landscape, and include habitat management practices that impact least upon the overall species status
- Community awareness, understanding and assistance are required to help protect ibis from threats and to care for waterbird populations as part of a broader landscape view.

Management of urban food sources and breeding sites is a **balancing act**. Recommended **management practices** include:

- Covering of public garbage bins and skips
- Improved litter management
- Refined management of landfill and waste transfer
- Humane disturbance techniques and habitat manipulation using proven practices and experienced providers
- Nest and egg relocation from large breeding colonies using qualified providers
- Integrated planning across regions and local government areas.

Further steps in **managing interactions between ibis and people** include:

- Interpretation and education programs in public parks to actively discourage public bird feeding
- Netting of larger outdoor public eating areas
- Community education initiatives on litter, bird feeding and the ecology of Australian White Ibis.

DEC/G.Lego



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Mutual benefits

Well managed urban landscapes can accommodate ibis populations for mutual benefit and enjoyment.

Ibis can also enhance our local environment. They do a great job aerating the soil while they probe for insects on our playing fields and public parks.

An ibis breeding colony is a spectacular display of nature at work and provides a great educational opportunity for our children. Such opportunities are important in understanding nature and our role in caring for ecosystems in the urban environment.

As we learn more about the care of wetlands and wetland species there will be opportunities to help restore suitable habitat, and to encourage ibis nesting away from airports and the most popular public picnic areas.

We already know the importance of managing our wastes and litter so the health of ibis and other species is not harmed.

With ongoing observation and research, and through community understanding, we can continue to care for and enjoy ibis communities in our towns and cities.



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HOW YOU CAN HELP

1. Recycle responsibly
2. Allow native birds to feed naturally
3. Prevent birds accessing waste and litter
4. Report sightings of colour banded birds to the Australian Bird and Bat Banding Scheme (ABBBS) via:
Email: abbbs@deh.gov.au
Phone: (02) 62742407
Online: www.deh.gov.au/biodiversity/science/abbbs/recovery.html

5. Take part in the Annual Community Ibis Count.
Information needed:

- Colour bands are placed on both legs of the ibis. It is important to report each bands position (right or left leg, upper or lower leg, above or below another band) and its colour
- Location of sighting and additional information such as closest street name or latitude and longitude are very useful
- Date of sighting
- Time of sighting
- Activity of ibis.

Online forms: www.nationalparks.nsw.gov.au/npws.nsf/content/white_ibis_survey_online_form

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Further information

BIRDLIFE INTERNATIONAL

<http://www.birdlife.org>

AUSTRALIAN GOVERNMENT—

DEPARTMENT OF ENVIRONMENT AND HERITAGE

<http://www.deh.gov.au/water/wetlands>

AUSTRALIAN TRANSPORT SAFETY BUREAU

Fact sheet on management of ibis at airports

http://www.atsb.gov.au/publications/2004/pdf/05_ibis.pdf

NSW National Parks and Wildlife Service

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