

Wild about **TERNs**

LOOKING AFTER OUR SHOREBIRDS



Department of **Environment & Climate Change** NSW



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NPWS Community Programs Sydney Basin

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Additional References:

Higgins, P.J., & S.J.J.F. Davies (Eds) 1996. *Handbook of Australian, New Zealand & Antarctic Birds*. Volume 3: Snipe to Pigeons. Oxford University Press, Melbourne

Pizzey, G. and Knight, F. (1997) *Field Guide to the Birds of Australia*. Angus and Robertson, Sydney.

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Little Tern in flight

Return and renewal for the Little Tern

People and shorebirds love the same places – the beautiful sheltered areas along our NSW coastline. Healthy populations of one of these species, the Little Tern, are a great indicator of ecosystem integrity and vigour.

This booklet provides an outline of research and the results of proactive management in NSW over the last fifteen years. This commitment of researchers and many volunteers has been necessary to recover Little Tern populations from the extinction vortex.

You are invited to learn more about Little Terns and to help ensure their populations have suitable habitat free from dogs, foxes, seagulls and other predatory impacts, and from the inadvertent impact of people upon their breeding and feeding areas.

In this way we can ensure this beautiful little traveller and other migratory shorebirds can prosper, and are part of the joy of life for future generations.

ST GEORGE & SUTHERLAND SHIRE LEADER



Geoffrey Ross, Wildlife Management Officer, NSW Department of Environment & Climate Change

Good hosts

In the true traditions of Australian life, it is important we are good hosts, and provide food and shelter for our Little Terns.

You could easily be mistaken in thinking that Little Tern are a common sight.

Each year for centuries these adept little travellers have been making their annual migration from the Northern Hemisphere to breed at special places along the NSW coastline.

The Little Tern is in fact listed an endangered species in NSW, Queensland, Victoria, Tasmania and South Australia. It is also listed under international treaties for migratory species.

To help in the recovery of Little Tern populations, NPWS staff and many community members have become actively involved. Since 1993 people have worked around the clock during the Little Tern breeding season (September to March), protecting habitat, nests, eggs and chicks along the NSW coast.

As a result of this proactive management there is a chance the threatened populations of Little Tern may survive. However, without ongoing investment and active human intervention the breeding populations of Little Tern in south-eastern Australia remain in clear danger.

You are invited to help the recovery and survival of our Little Tern populations. You can help protect remaining shorebird breeding areas from disturbance by people, vehicles, dogs and other predators.

You can also volunteer in habitat restoration projects in your local area.

Ultimately, it is the good will of local communities and planners that will secure the future for shorebird species, and for the health and resilience of the ecosystems upon which we all depend.



Return and renewal

In NSW each September the shrill peeping call of the Little Tern announces their arrival. They can be observed fluttering and swooping in spectacular aerial courtship manoeuvres above their favourite fishing grounds.

Birds in breeding plumage can be distinguished by their bright yellow bills. The elaborate courtship also involves gathering on the beach to pass fish to prospective mates. Once paired the birds seek out a suitable area just above high tide. Here the male scrapes a simple nest in the sand.

This renewal process takes place from Wallagoot Lake, South Turoos Heads and Botany Bay in the south, to the Entrance, Old Bar and Manning Point, and at Nambucca Heads, Bongil Bongil, Red Rock, Station Creek and Lake Cakora in the north of the State.

Egg laying can commence as early as October and (depending on the success of initial clutches) can continue for up to three months. One to three brown-speckled cream coloured eggs are laid. For the next 19-22 days, the parents take turns to incubate the eggs.

After hatching the mottled brown chicks remain close to the nest for a further 3-5 days. During this period the young rely on their camouflage to avoid detection from predators and will not move when threatened. They are fed small fish by their parents and remain completely dependent until (another 15-20 days).

In March the whole family heads off on their northern pilgrimage to return in the following spring.

Little Tern nesting



DEC

Little Tern eggs



DEC

Little Tern chick



DEC/APR/DJF

Little Tern chick

About Terns



D. PRINDEL



Little Tern

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LITTLE TERN

Sterna albifrons

The smallest Tern in the Australasian region, it has a forked tail and is distinguished by a white triangle above the bright yellow bill, usually with a black tip.

QUICK FACTS

Length:	20 - 28 cm
Weight:	50 grams
Wingspan:	45 - 55 cm
Bill length:	26 - 32 mm
Clutch size:	1 - 3 speckled eggs
Egg incubation:	17 - 22 days
Fledgling age:	17 - 19 days
Clutches per season:	Usually one but may lay again if eggs are destroyed by predators
Sexual maturity:	3+ years
Breeding season:	October to February in NSW
Habitat:	Sheltered coastal environments, harbours and bays (occasionally seen inland on rivers)
Migration:	NSW birds travel north to Indonesia and other Asian wetlands around March
Diet:	Plunges into shallow water for small fish, crustaceans, insects and other invertebrates
Status:	Listed as Endangered (E1) in NSW

FAIRY TERN

Sternula nereis

Only slightly larger than the Little Tern but with more white on the forehead with and an orange bill.

QUICK FACTS

Length:	22 - 27 cm
Weight:	70 grams
Wingspan:	44 - 55 cm
Clutch size:	1 or 2
Egg incubation:	19 -21 days
Fledgling age:	21 days
Clutches per season:	1
Breeding season:	September to March
Habitat:	Coastal waters and coastal salt lakes
Diet:	Primarily fish, some crustaceans and invertebrates may be from inside fish
Status:	Protected in NSW, a rare visitor but may be expanding its range in Australia

COMMON TERN

Sterna hirundo

Summer visitor to Australia with black legs and bill. (Legs and bill are red in the winter when breeding in northern hemisphere)

QUICK FACTS

Length:	32 - 37 cm
Weight:	120 grams
Wingspan:	72 - 82 cm
Bill length:	30 - 33 mm
Clutch size:	1 - 3 speckled eggs
Egg incubation:	21 - 27 days
Fledgling age:	26 days
Clutches per season:	1, rarely 2
Sexual maturity:	Unknown
Breeding season:	Breeding season May to August. (in the Northern Hemisphere)
Habitat:	Coastal beaches, estuaries, large lakes and offshore waters
Diet:	Mainly fish but also some insects and crustaceans
Status:	Protected in NSW. (Migratory species)



Fairy Tern



Common Tern

CRESTED TERN

Thalasseus bergii

Second largest Australian Tern and common on shorelines.
Pale yellow bill, shaggy black feathers on head.

QUICK FACTS

Length:	40 - 50 cm
Weight:	310 grams
Wingspan:	90 - 115 cm
Bill length:	53 - 66 mm
Clutch size:	1 sometimes 2
Egg incubation:	21 - 24 days
Fledgling age:	38 - 40 days
Clutches per season:	1
Breeding season:	Breeds on off-shore islands in small colonies from October to December
Habitat:	Common on coastal shorelines, often mixes with other shorebirds and gulls
Diet:	Dives for small fish
Status:	Protected in NSW

CASPIAN TERN

Hydroprogne caspia

Largest Tern in the world, larger than Silver gulls.
Has a thick brilliant red bill.

QUICK FACTS

Length:	53 - 60 cm
Weight:	680 grams
Wingspan:	130 - 145 cm
Clutch size:	2
Egg incubation:	20 - 22 days
Fledgling age:	30 - 40
Clutches per season:	1
Breeding season:	September to January
Habitat:	Coastal and inland waters
Diet:	Dives into water, feeding on fish
Status:	Protected in NSW. (Migratory species)



Why Little Terns are endangered

A major challenge for this species is to reach breeding age. Until recently only a small number of birds were reaching fledging, with fewer and fewer Little Terns reaching breeding age.

The most serious cause of poor breeding success is disturbance by humans, their vehicles and their dogs.

The use of 4WD and other beach vehicles can have a significant impact upon breeding success. When disturbed, Little Terns will abandon their nests, giving natural predators such as gulls and crows the opportunity to move in and eat the helpless chicks and eggs.

Without disturbance, Little Terns can defend themselves against these natural predators, using their superior flying skills and mobility in the air to mob the intruders and drive them away from the breeding colony.

Little Terns have no defence at all other than camouflage against introduced predators such as foxes and dogs. Foxes will invade nesting colonies of Little Terns at night and can decimate the number of eggs and chicks in a very short space of time.



Protection

Migratory species like Little Terns are susceptible to extinction. Their habitat is fragile especially as it is left unprotected when they travel.

In Australia this species is protected by International agreements and as well as Commonwealth and New South Wales laws. International agreements include the Japan-Australia Migratory Bird Agreement (JAMBA) and the China Australia Migratory Bird Agreement (CAMBA). As a result, the Little Tern is protected as a migratory species under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999. Under NSW law, the Little Tern is listed as "endangered" (E1). There is a substantial fine for disturbing Little Tern habitat in NSW.

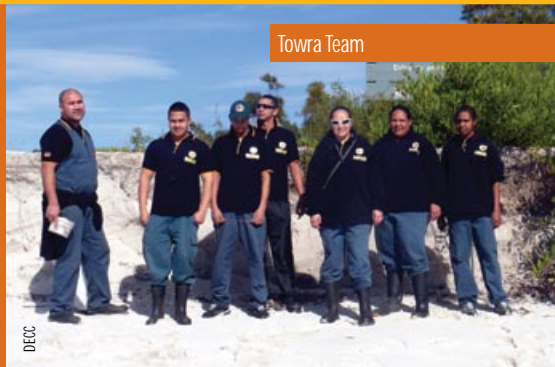
A recovery plan for the species has been approved under the Threatened Species Conservation Act 1995. It identifies protection of nesting habitat, particularly from human disturbance and introduced predators, as a high priority action.

NPWS staff rely upon the assistance of volunteers and community groups to undertake actions identified in the Little Tern Recovery Plan. This contributes to the success of breeding events and fledging of Little Tern chicks.

Regular patrols by NPWS staff monitor breeding sites and track activity of potential predators. NPWS staff value the assistance of volunteers and communities in recovery actions that increase Little Tern breeding success.

Cultural Custodians

Indigenous Communities along the coast assist in patrolling areas, reminding the people of Cultural connections between humans and other species. People who assist in Little Tern research and management and provide advice and information to visitors, are helping with the traditional role of Cultural custodians.



Coastal refuge

Little Terns are one of many migratory species which come to Australian shores. Each year thousands of migratory shorebirds visit our coastline.

Some come from as far away as Siberia to feast on the fish in the shallows and roost on sheltered shores. Some, like the Little Tern, come to breed, others come to feed on the rich invertebrate life before returning to summer breeding grounds in the Northern Hemisphere.

Significant breeding and feeding areas may also be recognised under the Convention on Wetlands of International Importance (otherwise known as the Ramsar Convention). Under this Convention, Australia is obliged to promote the conservation of wetlands and waterfowl, and to ensure the ecological character of the nature reserve is conserved and protected.

With the potential impact of development and global warming, we need to not only protect existing areas, but set aside other healthy areas to meet the changing needs of our well travelled friends.

Towra Spit Island breeding area



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Caspian Tern in flight



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Crested Terns



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A success story!

The 2007-2008 breeding season saw the return of a Little Tern banded as a chick on Towra Spit Island in January 1995. This bird was female with a specific combination of coloured leg bands. In January and February she was sighted repeatedly around Botany Bay with her mate and three fledgling chicks. Sightings like this give hope that efforts to protect breeding sites are proving effective.

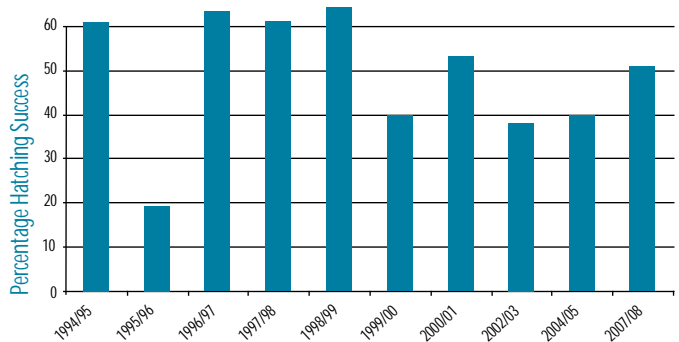


Little Tern, Towra Point

One good tern deserves another

This chart looks at breeding success at Towra Spit Island in Botany Bay.

In the 1995/96 season, foxes and ravens killed many of the chicks. Increased efforts in controlling these predators as well as increased efforts in patrols and protection of the habitat has brought the hatching success rate back up.



Percentage of chicks that survived at the Towra Spit Island nesting colony in the years in which detailed monitoring has taken place.

Together we can make a difference

Active management of Little Tern colonies aims to reduce threats and to help increase the breeding success of these amazing travellers. Strategies implemented at nesting areas across NSW include:

- Annual vegetation management at known nesting sites to ensure that habitat is available
- Guidance fencing to help people avoid trampling or disturbing nesting birds
- Specific controls for introduced predators
- Signposting of nesting sites to warn people they may be approaching a sensitive area and to guide appropriate behaviour
- Engaging trained wardens to monitor the breeding success of Little Terns.



How you can help

- Do not disturb Little Terns roosting on the beach.
- Observe any restrictions in place to protect nesting colonies. Landing on Towra Spit Island in Botany Bay is prohibited between October and February. In Yuraygir National Park, vehicles are not permitted on the beach south of Station Creek to Red Rock at any time.
- Observe dog restrictions on beaches and do not take dogs into areas where Little Terns nest or roost. On the coast near Taree, dogs are not permitted on parts of the Manning River Estuary and Farquhar Inlet between June and March each year.
- Report any sightings of colour banded birds. *Record the colour of each band and what leg each band is on.*
- *Do not feed seagulls or ravens.* Populations of these two species have increased in number in recent years and their superabundance now threatens less aggressive native birds like Little Terns.
- Observe fishing restrictions in aquatic reserves and Marine Parks. These are the breeding areas for the fish upon which Little Tern feed.
- Support government initiatives within the community to improve water quality in our bays and estuaries such as the 'DRAIN IS JUST FOR RAIN' educational campaign and the 'It's a living thing' program.
- Report any signs of foxes in the vicinity of Little Tern colonies.



Renewing connections

Local Aboriginal People are working with NPWS on numerous projects to preserve, protect and improve *Country*.

Community based teams assist in the protection of shorebird habitat, locating nests, eggs and chicks, and in educating boating and fishing communities about the importance of safe breeding areas.

The *Towra Team* in Botany Bay is one of the many Community groups renewing Aboriginal connections, Culture and *Country*.

Towra Team projects include dune stabilization works, comprehensive weeding and bush regeneration to reduce the impact of introduced plants, and the extensive fox baiting program.

The renewal of languages, stories and Cultural stewardship is also important to Communities and for the education of young people.

You are invited to learn about Cultural connections to the Little Tern and other native species through the NPWS Aboriginal *Discovery* program.



Dean Kelly mentoring the Towra team



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Mitchell Island Kids



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Further information

THREATENED SPECIES INFORMATION

www.threatenedspecies.environment.nsw.gov.au

BIRDLIFE SPECIES SEARCH

www.birdlife.org/datazone/species

INFORMATION ABOUT THE RAMSAR WETLANDS

www.environment.gov.au/water/environmental/wetlands/ramsar/

SEARCH THE ATLAS OF NSW WILDLIFE

www.wildlifeatlas.nationalparks.nsw.gov.au/wildlifeatlas

SEARCH FOR THE LITTLE TERN IN THE BIRD FINDER

www.birdsinbackyards.net/finder

NPWS RESEARCH

Ross, G. and Ryall, S. (2008) Management of the Little Tern, *Sterna albifrons*, at Towra Spit Island, Botany Bay National Park

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