



A Guide to the **Birds** of Barrow Island



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Gorgon Project

Operated by Chevron Australia
in joint venture with



Osaka Gas | Tokyo Gas | Chubu Electric Power

About the Authors

Dr Dorian Moro

Dorian Moro works for Chevron Australia as the Terrestrial Ecologist in the Australasia Strategic Business Unit. His Bachelor of Science (Hons) studies at La Trobe University (Victoria), focused on small mammal communities in coastal areas of Victoria. His PhD (University of Western Australia) focused on the invasive species ecology of house mice on Thevenard Island. Dr Moro has experience with wildlife recovery projects at various locations, particularly on islands off Western Australia, including a field program on sub-Antarctic Macquarie Island. At Chevron Australia, Dr Moro provides strategic technical advice and support on matters related to ecological monitoring and management of terrestrial and subterranean ecology of fauna, flora and marine vertebrate fauna (particularly marine turtles) and promotes environmental stewardship by clearly communicating the values of Barrow Island to the workforce.

Isobel MacAulay

Isobel MacAulay works for Chevron Australia as an Environmental Horizons Graduate for the Australasia Strategic Business Unit. Her Bachelor of Science (Hons) studies at the University of Sydney (New South Wales) investigated the ecotoxicological consequences of the emerging field of nanotechnology. She has also completed a Graduate Certificate of Applied Science (University of Sydney), focusing on ecology and Geographical Information Systems (GIS). Prior to her graduate position, she participated in the Chevron Vacation Program and was involved in developing avenues for promoting environmental stewardship. Part of her role with the Australasia Strategic Business Unit Environment Team is to continue to develop an attitude of environmental stewardship throughout the company by demonstrating the unique characteristics of Barrow Island.

Chevron's Policy on Working in Sensitive Areas

Protecting the safety and health of people and the environment is a Chevron core value. Therefore, we:

- Strive to design our facilities and conduct our operations to avoid adverse impacts to human health and to operate in an environmentally sound, reliable and efficient manner.
- Conduct our operations responsibly in all areas, including environments with sensitive biological characteristics.

Chevron strives to avoid or reduce significant risks and impacts our projects and operations may pose to sensitive species, habitats and ecosystems. This means that we:

- Integrate biodiversity into our business decision-making and management through our Operational Excellence (OE) management system.
- Drive and assess our performance relating to biodiversity through key OE expectations, such as Environmental Stewardship, and processes, including HES Due Diligence for Property Transfers; Environmental, Social and Health Impact Assessment; and Risk Management.
- Understand that humans and the natural environment are interdependent and interact with each other in various ways. In managing our impacts we consider those interrelationships and the functions ecosystems perform in supporting sustainable economic development.

Chevron recognises that our activities could affect particularly sensitive or valuable biodiversity inside or outside of legally-designated protected areas. Therefore we:

- Decide whether and how to operate in a protected or sensitive area, based on consideration of the specific circumstances of the area and operation involved.
- Operate in such areas only with government legal authorisation, and where we are confident we can comply with all regulatory requirements and use operating practices appropriately protective of the area.
- Use our OE processes to avoid or minimise potential risks of our operations to sensitive biological resources and seek ways to make positive contributions to biodiversity conservation in the area.

Chevron undertakes activities to raise internal and external awareness of the importance of conserving biodiversity and how the company is addressing it. This includes:

- Communicating about our biodiversity-related activities to employees and outside audiences, such as through our Corporate Responsibility report.
- Engaging with government, local communities and others to understand and work to address significant biodiversity issues in areas where we operate.
- Participating in industry associations and other forums to share and promote best practices for biodiversity conservation.
- Seeking to understand and, where appropriate, participating in development of external policy-making activities that affect our operations, such as those adopted under the UN Convention on Biological Diversity and national, regional and local biodiversity policies and plans.
- Working with a variety of external organisations to make positive contributions to biodiversity conservation in areas where we operate and globally.

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Barrow Island is the home of the Gorgon Project - one of the world's largest natural gas projects and the largest single resource project in Australia's history. The Gorgon Project will develop the Greater Gorgon Area gas fields, located about 130 kilometres off the north-west coast of Western Australia.

The Chevron-operated Gorgon Project is a joint venture between the Australian subsidiaries of Chevron (approximately 47 percent), ExxonMobil (25 percent), Shell (25 percent), Osaka Gas (1.25 percent), Tokyo Gas (1 percent) and Chubu Electric Power (0.417 percent).

Introduction

About Barrow Island

Barrow Island is a nature reserve located approximately 70 kilometres off the north-west coast of Western Australia. It is Western Australia's second largest island. The nature reserve is approximately 25 km long by 10 km wide and totals approximately 23,400 hectares above the high-tide mark; however, the reserve's area is much greater as it also extends into the intertidal zone.

Over geological time, the land mass that became Barrow Island experienced several sea level changes connecting and separating the flora and fauna from the nearby Australian mainland. More recently, 8,000 to 10,000 years ago, rising sea levels once again separated Barrow Island from the mainland.





Barrow Island has a special place in Western Australia's history, geography and environmental management. In 1910, Barrow Island was designated as a Class 'A' status Nature Reserve reflecting its importance as a refuge for wildlife species, some of which are native to Barrow Island and some of which have vulnerable and/or threatened populations on the mainland.

While Barrow Island is an important island from an environmental perspective, it also hosts one of Australia's largest onshore oilfields, and is now home to the Gorgon Project.

Barrow Island is vested in the Conservation Commission of Western Australia and is a model for environmental management. After oil was discovered on Barrow Island in 1964, the island was actively managed by West Australian Petroleum up to 2000, and since then by Chevron Australia. This management has ensured the nature conservation values and production values on the island are



balanced between oil extraction, wildlife and landscape conservation, and the study and preservation of features of archaeological, historic and scientific interest.

Almost 2600 species of terrestrial and subterranean plants and animals have been regularly recorded on Barrow Island. These include 378 native plants, 13 mammal species (including two species of bats), at least 119 types of terrestrial and migratory birds, 43 species of terrestrial reptiles, three subterranean vertebrates (an eel, a fish and a snake), over 2000 terrestrial invertebrates, and at least 34 species of subterranean invertebrates.

The marine environment is just as diverse, hosting a rich community of coral, seagrass, macroalgae and other benthic invertebrate species. Four species of marine turtle nest on Barrow Island, with Flatback and Green Turtles being the most common.

The continued survival of many of these species on Barrow Island is a direct result of the absence of introduced predators (foxes, cats)



and competitors (rabbits, goats) that have contributed to their decline on the mainland; the maintenance of environmental processes on the island; and the resilience of species that have evolved in an environment which experiences natural dynamic climatic change over time.

Chevron Australia's key environmental objective is to protect the conservation and biodiversity values of Barrow Island. This means ensuring the survival of the wildlife habitats upon which they depend. Protection of the island's conservation values focuses on four key areas: quarantine management to ensure non-indigenous species do not enter the island; workforce education on the environmental values of Barrow Island; progressive rehabilitation to reinstate disused production areas; and careful planning to maintain the ecosystem functions. Over the past 40 years, a strict environmental management plan has enabled petroleum activities to successfully coexist with Barrow Island's unique flora and fauna.



Birds of Barrow Island

All birds on Barrow Island and its surrounding islands are protected. Birds occupy and use a variety of habitats, including coastal dunes, intertidal flats and mangroves; inland creeklines; west coast cliffs; and inland scrub on limestone ridges or valleys.

Of the 119 bird species regularly recorded on Barrow Island, 68 are protected under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), 47 are residents or regular migrants to the island, and the remainder are vagrants or local migrants from the mainland. The island hosts a variety of land and coastal birds, including transient species that move throughout the Pilbara mainland, residents, regular visitors that are loyal to particular sites on the island, and regular migrants.

Regular migrants occur around Barrow Island's coastline, and some have nests on the beaches, with eggs that camouflage well with the sand. Migratory waders visit the island over summer, with many



Photo - Jim Bennett

subadults also wintering on Barrow Island. Barrow Island is a regionally significant site for 32 species of migratory waders including Grey-tailed Tattlers, Ruddy Turnstones, and Red-necked Stints. The portion of the East Asian–Australasia Flyway populations recorded on Barrow Island for these species is 6.6%, 5.5%, and 2.4% respectively. Bandicoot Bay is particularly important as a feeding and resting area for migratory waders.

The Bandicoot Bay Conservation Area extends from Stokes Point on Barrow Island around Bandicoot Bay to the easternmost point on Middle Island. This area includes the largest intertidal sand/mudflat community in the Montebello/Barrow Islands Marine Conservation Reserves; it has a diverse range of invertebrates; and it includes representative areas of macroalgal, seagrass and rocky shore/ intertidal reef platform communities. The shorebirds in these areas mostly roost near their foraging sites.



There are 11 species of gulls and terns regularly recorded from Barrow Island and its surrounding areas, including Fairy Terns, which have declined significantly in eastern Australia. Fairy Terns nest on offshore islands between Barrow Island and the Montebello Islands where there are few native predators. Western Australia now harbours the majority of the total Australian population of Fairy Terns. Fairy Terns have been recorded on Barrow Island throughout the year, with high counts between November and April. Recent shorebird surveys indicate that Fairy Terns mainly occur between the south-east and south-west of Barrow Island. Scientific names of birds follow the taxonomy of Birds Australia.

Other birds are vagrants from the mainland, or resident landbirds. Landbirds include Spinifexbird, White-winged Fairy-wren (Barrow Island), Singing Honeyeater, White-breasted Wood Swallow, Welcome Swallow, Bar-shouldered Dove, Pipit, some raptors, and resident shorebirds.



This booklet on birds is part of a series of Barrow Island nature books, created to help Chevron Australia personnel and visitors to the island understand the diverse and interesting wildlife that exists on Barrow Island. All wildlife is protected on the island so when visiting please ensure that you do not touch or handle flora or fauna without a valid license or permit. If you would like further information about the birds on the island, do not hesitate to contact one of the environmental specialists on-site or in the Australasia Strategic Business Unit.

Enjoy reading about birds on Barrow Island and please look out for additional booklets in this series.

Eastern Osprey

(*Pandion cristatus*)

Description: The Osprey has a brown back with a white head and underparts. It has a black band through its eye and down its neck, and has brown mottling on its chest. Females tend to have brown mottled flecks on their chest.

Distribution: The Osprey is distributed over most of the Australian coast, including major inland rivers and waterways, except it is rarer on the coastlines of South Australia, New South Wales, Victoria and Tasmania. It is known to nest around the Barrow Island coastline including its offshore islands, and around some of the Chevron facilities (such as the main Chevron camp).

Preferred Habitat: Coastal areas such as mangroves, estuaries, wetlands and offshore islands.

Behaviour and Breeding: The Osprey's main source of food is fish which it catches by snatching the fish from the water with its talons.

Breeding typically occurs from April to September. The Osprey builds large nests of sticks, lined with seaweed, on rocky outcrops, although it accepts building nests on artificial platforms on the island. The nest is usually placed on a cliff or dead tree and the same nest is often used during every breeding season. The clutch size of the Osprey is usually two or three eggs. The young fly when they are 52 to 58 days old.

Conservation Status: All birds remain protected on Barrow Island and surrounds. The Osprey is listed as of least concern in the 2008 *International Union for Conservation of Nature Red List*. It is not listed on the *Wildlife Conservation Act 1950* (WA) and is a listed marine species under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).



Photo - Russell Lagdon

Black-shouldered Kite

(*Elanus axillaris*)

Description: The Black-shouldered Kite is a small white raptor with grey and white wings. It has prominent black feathers on its shoulders and a 'comma' marking around its bright red-orange eyes. Its legs and feet are yellow.

Distribution: The Black-shouldered Kite can be found throughout inland Barrow Island. It is often seen at dawn or dusk hovering in search of prey.

Preferred Habitat: Open areas such as limestone outcrops and open spinifex country.

Behaviour and Breeding: The Black-shouldered Kite feeds mainly on rodents and small reptiles and can also eat insects, such as grasshoppers. When looking for food, the kite has a characteristic flight pattern - it glides with its wings in a V-shape and when it sees something, it remains in one spot and beats its wings rapidly. The breeding season peaks in spring and the female lays three or four eggs in a nest of sticks and leaves. The young can feed themselves seven days after fledging and leave their parents within a month.

Conservation Status: All birds remain protected on Barrow Island and surrounds. The Black-shouldered Kite is not listed on the *Wildlife Conservation Act 1950* (WA). It is also not listed in the *2008 International Union for Conservation of Nature Red List* nor the *Environment Protection and Biodiversity Conservation Act*.



Photo - Harry Butler

Brahminy Kite

(Haliastur indus)

Description: The Brahminy Kite has a white head, neck and chest. Its upper body and wings are a chestnut brown and the wings are tipped with black feathers.

Distribution: The Brahminy Kite can be found along the northern Australian coastline from Western Australia to northern New South Wales. It is also a common species in tropical Asia. On Barrow Island, it is distributed on the coast.

Preferred Habitat: Coastal mudflats and mangroves on Barrow Island, including offshore islands.

Behaviour and Breeding: The kite mainly feeds on fish, however, they also can eat frogs, crabs, snakes, insects and small birds. The breeding season extends from April to October with the females laying one or two eggs. A new nest is usually made each season from sticks, driftwood, leaves, and seaweed. Sometimes they may use the nest from an Osprey. These kites are particularly aggressive when defending their nest and the young.

Conservation Status: All birds remain protected on Barrow Island and surrounds. The Brahminy Kite is listed as of least concern in the *2008 International Union for Conservation of Nature Red List*. It is not listed on the *Wildlife Conservation Act 1950 (WA)*, but is a listed marine species under the *Environment Protection and Biodiversity Conservation Act*.



Photos - Russell Lagdon

Spotted Harrier

(Circus assimilis)

Description: The Spotted Harrier is a medium-sized raptor with a short, broad head with an owl-like facial ruff and yellow eyes. It has long yellow legs and a slender tail with a wedge shaped tip. Its upper body is blue-grey with black-tipped wings and it has a white-spotted chestnut breast. The female birds are generally larger than the males.

Distribution: The Spotted Harrier is found throughout the Australian mainland and on Barrow Island.

Preferred Habitat: Primarily inland open woodlands and native grasslands.

Behaviour and Breeding: The diet of the Spotted Harrier includes terrestrial mammals, birds and reptiles. It occasionally feeds on large insects and rarely on carrion. It builds its nest in trees; the nest is made of a platform of twigs and sticks lined with green leaves. The female lays a clutch of two to four eggs and guards the young while the male hunts for food.

Conservation Status: All birds remain protected on Barrow Island and surrounds. The Spotted Harrier is listed as of least concern in the *2008 International Union for Conservation of Nature Red List*. It is not listed on the *Wildlife Conservation Act 1950 (WA)* nor the *Environment Protection and Biodiversity Conservation Act*.



Photos - Top: A Patchle, Bottom: Tony Morris

White-bellied Sea Eagle

(*Haliaeetus leucogaster*)

Description: The White-bellied Sea Eagle is white with dark grey on its back, wings and base of the tail. It has a large hooked grey bill and white legs and feet with black talons. Young birds are brown and look similar to Wedge-tail Eagles.

Distribution: The White-bellied Sea Eagle can be found around the entire coastline of Australia, including offshore islands, major inland rivers and waterways.

Preferred Habitat: Coastal including offshore islands.

Behaviour and Breeding: The eagle feeds on a range of aquatic animals including fish, marine turtles and sea snakes, yet it will prey on landbirds and mammals. Sea eagles will also feed on carrion.

Breeding season lasts from May to October and an average clutch has two eggs. Nesting is done in a nest made from sticks and the nest is used for multiple breeding seasons. Nests are smaller than those of Ospreys, and the White-bellied Sea Eagle is known to use Osprey nests during some seasons. Males will share the egg-sitting while the female feeds.

Conservation Status: All birds remain protected on Barrow Island and surrounds. The White-bellied Sea Eagle is listed as of least concern in the *2008 International Union for Conservation of Nature Red List*. It is not listed on the *Wildlife Conservation Act 1950 (WA)* and is a listed marine species under the *Environment Protection and Biodiversity Conservation Act*.



Photos - Russell Lagdon

Australian Hobby

(*Falco longipennis*)

Description: The Australian Hobby, one of the smaller raptors (300-350 mm), has blue-grey upper parts and a black 'cap and mask' on its head. The neck is white and the rest of the underbelly is a reddish brown. It is similar to, though smaller than, the Peregrine Falcon or Brown Falcon.

Distribution: The hobby is found throughout Australia.

Preferred Habitat: Open spinifex and other inland vegetated areas.

Behaviour and Breeding: The hobby will feed on insects, small mammals and small birds, up to their own body size. It can follow other birds in direct pursuit or in power dives from above. Like the Brown Falcon, the nesting females are fed by the male, often leaving the nest and taking food from his talons in flight.

Nests, made of sticks, are located at the top of tall trees.

They have also been observed nesting in the nests of other bird species on Barrow island.

Conservation Status: All birds remain protected on Barrow Island and surrounds. The Australian Hobby is listed as of least concern in the *2008 International Union for Conservation of Nature Red List*. It is not listed on the *Wildlife Conservation Act 1950 (WA)* nor the *Environment Protection and Biodiversity Conservation Act*.



Photos - Top: Russell Lagdon, Bottom: Michael Dawes

Nankeen Kestrel

(*Falco cenchroides*)

Description: The Nankeen Kestrel is Australia's smallest falcon and is commonly sighted on Barrow Island. Adult male kestrels are identifiable by their grey heads and tails, while adult females have a brown head and rufous tail. The female birds are generally larger than the males. It is also known for the distinctive reddish-brown colour on its wings and mantle. When viewed from beneath when hovering, the Nankeen Kestrel appears white. Males have a single tail band whereas females have multiple tail bands.

It is similar to, though smaller than, the Brown Falcon.

Distribution: The kestrel is distributed across inland parts of Australia and on Barrow Island.

Preferred Habitat: Sparsely vegetated areas of Barrow Island.

Behaviour and Breeding: The kestrel can often be seen hovering with its body kept horizontal, clearly displaying a black band near its tail tip. When prey is sighted, it will slowly drop down, then hover again until within striking distance. The kestrel feeds on small terrestrial mammals, insects and reptiles.

The Nankeen Kestrel often mates for life. Females lay up to five eggs which hatch after four weeks' incubation. It will often use abandoned nests of other birds and have been known to chase out a nest's occupants.

Conservation Status: All birds remain protected on Barrow Island and surrounds. The Nankeen Kestrel is listed as of least concern in the *2008 International Union for Conservation of Nature Red List*. It is not listed on the *Wildlife Conservation Act 1950 (WA)* and is a listed marine species under the *Environment Protection and Biodiversity Conservation Act*.



Photos - Top: Bill Muir, Bottom: Russell Lagdon

Eastern Reef Egret

(*Egretta sacra*)

Description: The Eastern Reef Egret has two colour forms. The white form has white plumage on body and wings, a yellow and grey bill and yellow-grey legs. The dark form has a slate-grey body and wings with a small white streak on its throat. The dark form has yellowish-grey legs.

Distribution: The Eastern Reef Egret is found along most of the coast of Australia and many of the offshore islands, including Barrow Island.

Preferred Habitat: Beaches, rocky shores, tidal rivers, inlets, mangroves and exposed coral reefs.

Behaviour and Breeding: The Eastern Reef Egret feeds during the day and night on small fish, crustaceans and insects. It breeds throughout the year and makes nests in trees or on the ground under shrubs or rock ledges. The stick nest is lined with seaweed. Two to three eggs are laid in a clutch and are incubated by both sexes.

Conservation Status: All birds remain protected on Barrow Island and surrounds. The Eastern Reef Egret is listed as of least concern in the *2008 International Union for Conservation of Nature Red List*. It is listed in the *Wildlife Conservation Act 1950 (WA)* as a migratory bird protected by an international agreement (CAMBA), and it is a listed marine and migratory species under the *Environment Protection and Biodiversity Conservation Act*.



Photo - Simon Walder

Pied Oystercatcher

(Haematopus longirostris)

Description: The Pied Oystercatcher has an orange-red bill, eyes and eye-rings and pink legs. Females tend to be larger than males.

It can be distinguished from the closely-related Sooty Oystercatcher by its white breast and underbelly.

Distribution: The Pied Oystercatcher is found in coastal areas throughout Australia, except for areas with unbroken sea cliffs. It is common on the beaches of Barrow Island.

Preferred Habitat: The oystercatcher lives in areas with mudflats, sand banks and sandy ocean beaches. It spends a lot of time in the intertidal zones where its food is found.

Behaviour and Breeding: The oystercatcher feeds on bivalves and oysters, prying the shells apart with their specially adapted bills. It also feeds on worms, crustaceans and insects.

The Pied Oystercatcher breeds from October to January. The nest is on sand, shell grit or shingle above the high water mark. The clutch consists of two to three eggs, which are camouflaged with a brown and black speckled pattern. Eggs are laid in shallow scrapes on sandy beaches above the water mark, and may be moved by rolling by the parent if disturbed.

Conservation Status: All birds remain protected on Barrow Island and surrounds. The Pied Oystercatcher is listed as of least concern in the *2008 International Union for Conservation of Nature Red List*. It is not listed in the *Wildlife Conservation Act 1950 (WA)* nor the *Environment Protection and Biodiversity Conservation Act*.



Photo - Chevron Australia

Sooty Oystercatcher

(*Haematopus fuliginosus*)

Description: The Sooty Oystercatcher has a bright red-orange beak, eyes and eye-rings and pink legs, similar to the Pied Oystercatcher. However, its plumage is completely black, which distinguishes it from the Pied Oystercatcher.

Distribution: The Sooty Oystercatcher is found along the Australian coastline, including offshore islands.

Preferred Habitat: Prefers exposed rocky shores and headlands but can also be found on sandy or stony beaches, or mudflats.

Behaviour and Breeding: The oystercatcher feeds on molluscs, crustaceans, worms, starfish and small fish.

Breeding occurs in spring and summer in coarse sand and shells. The female lays two to three, rarely four, eggs and both parents incubate the eggs and care for the young.

To avoid predators from attacking the nest, adults will feign injury and death to draw predators away from the nest. Chicks are well camouflaged with the sand.

Conservation Status: All birds remain protected on Barrow Island and surrounds. The Sooty Oystercatcher is listed as of least concern in the *2008 International Union for Conservation of Nature Red List*. It is not listed in the *Wildlife Conservation Act 1950 (WA)* nor the *Environment Protection and Biodiversity Conservation Act*.



Photo - Jiri Lochman

Beach Stone-curlew

(*Esacus magnirostris*)

Description: The Beach Stone-curlew has brown upper parts, with darker shoulders and a white wing stripe. Its yellow eyes have a black band that passes across them, with white bands above and below the black band. The throat and breast is grey, with white under parts. The bill is yellow with a black tip.

Distribution: Coastal across northern Australia, including offshore islands.

Preferred Habitat: Beach Stone-curlews inhabit the coasts and will either forage on the intertidal platforms or rest in the shade of trees along the foreshore during high tides.

Behaviour and Breeding: The Beach Stone-curlew often occurs in pairs. It tends to be shy and wary, and often sneaks forward in a crouched position. The bird can be quite vocal, emitting a mournful sound (wee-loo). Its diet comprises crabs and other marine invertebrates. Breeding occurs typically during the summer season. The nest is a hollow scratched on a beach just above the high-tide line, either in shingle or sand. One egg is laid, sometimes two, which camouflages well with its background. Eggs may be moved to another site on the beach by rolling if disturbed.

Conservation Status: All birds remain protected on Barrow Island and surrounds. The Beach Stone-curlew is listed as of least concern in the 2008 *International Union for Conservation of Nature Red List*. It is not listed on the *Wildlife Conservation Act 1950 (WA)*, and as a listed marine species under the *Environment Protection and Biodiversity Conservation Act*.



Photos - Top: Russell Lagdon, Bottom: Bill Muir

Bar-shouldered Dove

(*Geopelia humeralis*)

Description: The Bar-shouldered Dove has a blue-grey head, throat and upper breast. The wings and tail of the dove are grey-brown, also with dark barring. There is a pinkish bar on the lower breast. The legs and feet are red. Its distinguishing feature is a reddish-bronze patch on the hind neck interspersed with dark barring.

Distribution: The dove is found in humid areas in the north-western, northern and eastern areas of Australia. It can be found across Barrow Island.

Preferred Habitat: Scrubby bush, mangroves and woodlands. It has a preference for areas where water occurs.

Behaviour and Breeding: The diet of the dove includes the seeds of grasses, herbs and sedges. Doves are occasionally observed feeding on the water droplets which transpire from mangrove leaves.

The dove makes a nest platform out of twigs and roots in the fork of a branch. Both parents incubate the eggs and feed the young. Nesting may occur throughout the year although is favoured during the March to July period in northern Australia. Doves usually occur in small groups.

Conservation Status: All birds remain protected on Barrow Island and surrounds. The Bar-shouldered Dove is listed as of least concern in the *2008 International Union for Conservation of Nature Red List*. It is not listed in the *Wildlife Conservation Act 1950 (WA)* nor the *Environment Protection and Biodiversity Conservation Act*.



Photo - Russell Lagdon

White-winged Fairy-wren (Barrow Island)

(*Malurus leucopterus edouardi*)

Description: The female White-winged Fairy-wren is dull grey-brown on top and whitish underneath, with a blue-grey tail. During the breeding period, the male fairy-wren is mostly black with white wings and a dark blue tail. During the non-breeding period the male fairy-wren looks similar to the female, except that the male has a black, rather than brown, bill. Fairy-wrens can be up to 15 cm in length.

Distribution: There are three subspecies of white-winged fairy-wrens, of which one is restricted to Barrow Island.

Preferred Habitat: Hummock grasslands and shrubs growing on sand or rocky plains, sandhills or interdunes.

Behaviour and Breeding: The diet of the fairy-wren consists of seeds, beetles, flies, insects and other invertebrates. It lives in social groups with one breeding pair, and their young. At night they cluster in their social group and the young tend to surround the breeding parents. The breeding season for the fairy-wren occurs between April and October. The nest is domed, often lined with white feathers, and is built from grass, leaves and roots on the ground between clumps of spinifex, although nests have been found in a variety of low shrubs. The clutch usually consists of three eggs.

Conservation Status: All birds remain protected on Barrow Island and surrounds. The wren is listed as vulnerable under the *Environment Protection and Biodiversity Conservation Act* and the *Wildlife Conservation Act 1950 (WA)*. It is not listed on the *2008 International Union for Conservation of Nature Red List*.



Photos - Russell Lagdon

Singing Honeyeater

(Lichenostomus virescens)

Description: The Singing Honeyeater has a grey-brown upper body with a broad black band from the bill through the eye and down the neck. Underneath this band there is a yellow streak. It has a pale grey breast with dark grey streaks.

Distribution: The honeyeater is widespread around Australia, excepting the south-west forests of WA. It is widespread across Barrow Island.

Preferred Habitat: Coastal and open shrublands and woodlands, especially with acacias.

Behaviour and Breeding: The diet of the honeyeater consists of insects, and nectar and fruits when these are seasonally available.

The bird forms long-term pairs for breeding. The nest is made up of various items such as grasses, roots and mammal fur and usually contains two eggs. The female incubates the egg, however, both parents feed the young.

The Singing Honeyeater can be quite vocal at dawn.

Conservation Status: All birds remain protected on Barrow Island and surrounds. The Singing Honeyeater is listed as of least concern in the *2008 International Union for Conservation of Nature Red List*. It is not listed on the *Wildlife Conservation Act 1950 (WA)* nor the *Environment Protection and Biodiversity Conservation Act*.



Photo - Dorian Moro

White-breasted Woodswallow

(*Artamus leucorhynchus*)

Description: The White-breasted Woodswallow has a characteristic white underbelly which is cut off at the neck by a dark grey-blue throat. The upper parts and tail are also dark grey.

Distribution: The woodswallow is found in the northern coastal regions of Western Australia and the Northern Territory and through most of Queensland, New South Wales, western Victoria and north-eastern South Australia.

Preferred Habitat: Occupies a variety of vegetated and man-made areas near water.

Behaviour and Breeding: The woodswallow feeds mostly on insects but can also use its brush-tipped tongue to feed on nectar.

The bird builds a nest from grasses, roots and twigs in the fork of trees or hollow stumps. Both parents incubate the three or four eggs. Nests are often built near raptor nests.

The White-breasted Woodswallow is a sociable species, with several (often in clusters of 50 to 60 birds) seen sitting side-by-side on branches or similar structures.

Conservation Status: All birds remain protected on Barrow Island and surrounds. The White-breasted Woodswallow is listed as of least concern in the *2008 International Union for Conservation of Nature Red List*. It is not listed on the *Wildlife Conservation Act 1950 (WA)* nor the *Environment Protection and Biodiversity Conservation Act*.



Photo - Russell Lagdon

Welcome Swallow

(*Hirundo neoxena*)

Description: The upper parts of the Welcome Swallow are blue-black with dull white underneath. The swallow also has a reddish-brown throat, forehead and upper breast. It has a forked tail.

Distribution: The swallow is widely distributed around Australia, however, it is more common in the southern regions than in the far north. This bird is commonly seen flying around the infrastructure of Barrow Island, and will establish nests under the shelter of roof eaves to raise young.

Preferred Habitat: The swallow lives in a variety of habitats, apart from the dry inland areas and heavily forested regions.

Behaviour and Breeding: The swallow feeds on a wide range of insects, catching them while in flight. On Barrow Island, pairs breed usually from August to December and they often nest in areas near facilities. The nest is built from mud and grass and lined with feathers and fur. The female incubates the clutch of three to five eggs. Both parents feed the young. While the Welcome Swallow can be migratory in some places, it does not migrate on Barrow Island. Pairs will return to the same nest between years.

Conservation Status: All birds remain protected on Barrow Island and surrounds. The Welcome Swallow is listed as of least concern in the *2008 International Union for Conservation of Nature Red List*. It is not listed on the *Wildlife Conservation Act 1950 (WA)* and as a listed marine species under the *Environment Protection and Biodiversity Conservation Act*.



Photos - Russell Lagdon

Spinifexbird

(Eremiornis carteri)

Description: The upper parts of the Spinifexbird are reddish-brown with a rich brown forehead. Its underbelly is white and it has a long dark brown tail.

Distribution: The Spinifexbird is distributed in the northern arid regions of Western Australia, central Northern Territory and central Queensland. It ranges across the inland parts of Barrow Island.

Preferred Habitat: Includes spinifex and dense grasses.

Behaviour and Breeding: The Spinifexbird feeds mainly on insects and seeds.

The breeding season normally occurs from August to November, or following heavy rain. The nest is a deep cup built from grass, and is located close to the ground. There are usually two eggs in each clutch.

Conservation Status: The Spinifexbird is listed as of least concern in the *2008 International Union for Conservation of Nature Red List*. It is not listed on the *Wildlife Conservation Act 1950 (WA)* nor the *Environment Protection and Biodiversity Conservation Act*.



Photo - Russell Lagdon

Zebra Finch

(*Taeniopygia guttata*)

Description: The Zebra Finch is mainly grey, with characteristic black 'tear drop' eye stripes and 'zebra like' black and white barring on the rump and upper tail. The sides of the belly are chestnut with many white spots. The remainder of the belly and the undertail are white. The male is distinguished from the female by its chestnut cheek patches. The legs and feet are orange-yellow.

Distribution: The Zebra Finch is common and widespread across Australia's drier interior and arid coast.

Preferred Habitat: The Zebra Finch inhabits a wide range of habitats (mainly dry spinifex grasslands, and bordering watercourses) across Barrow Island. While it is commonly found on the mainland in social flocks of up to 100 or more birds, it tends to occur in small flocks on Barrow Island. Originally a periodic visitor to Barrow Island, the Zebra Finch now occurs as a resident and persists in areas where there is available water, such as the camp facilities and associated infrastructure.

Behaviour and Breeding: The Zebra Finch pairs for life, and typically breeds after substantial rains. The male gathers almost all the nesting material, with which the female constructs the loose dome-shaped nest with an entrance ramp. The female selects the nest site, but both sexes care for the two to eight eggs she lays, and the young. The Finch is known to use the sides of Osprey nests to nest in. It nests communally with some clutches reaching up to 20 or more eggs.

The Zebra Finch feeds in flocks on fallen or ripening grass seeds. Insects may be taken at any time of the year, but are particularly favoured when feeding young.

Conservation Status: All birds remain protected on Barrow Island and surrounds. The Zebra Finch is not listed on the *Wildlife Conservation Act 1950 (WA)* nor the *Environment Protection and Biodiversity Conservation Act*.



Photos - Top: Dorian Moro
Bottom: Bill Muir

Silver Gull

(Chroicocephalus novaehollandiae)

Description: Silver Gull plumage is white with a grey back. Flight feathers have black tips and white stripes. Its eyes are white with a red eye-ring, and its bill and legs are scarlet. Chicks up to one year old are mottled brown and grey in their underparts with black-brown eyes, bills and legs.

Distribution: The Silver Gull is common along coasts of Australia, including inland waterways, and around the Barrow Island coastline and offshore islands.

Preferred Habitat: Coastal dunes and beaches.

Behaviour and Breeding: The Silver Gull typically breeds on offshore islands where predation is lower. It nests on any available material on the ground. There are two to four blotched eggs per clutch, which camouflage well with the background. Groups of gulls establish a pecking order when it comes to feeding. Nesting duties are shared between parents.

Conservation Status: All birds remain protected on Barrow Island and surrounds. The Silver Gull is listed as of least concern in the *2008 International Union for Conservation of Nature Red List*. It is not listed on the *Wildlife Conservation Act 1950 (WA)*, and is a listed marine species under the *Environment Protection and Biodiversity Conservation Act*.



Photo - Dorian Moro

Caspian Tern

(*Hydroprogne caspia*)

Description: The Caspian Tern is a large gull (about 560 mm with additional 60 mm tail length) with a black crown, forehead and nape. Its upper body is medium grey and it has a white underside. It has a massive scarlet bill that distinguishes it from other similar terns.

Distribution: The Caspian Tern is distributed around Australia, and is commonly seen on the coastline of Barrow Island.

Preferred Habitat: Coastal dunes and beaches.

Behaviour and Breeding: The Caspian Tern is usually seen alone or in pairs. It is an aggressive bird with a loud deep call (kraah or kaah). The tern breeds across the year in northern Australia. The Caspian Tern does not nest on Barrow Island, but nests on adjacent offshore islands in the absence of predators. One to two eggs are laid on the sand, which the adults aggressively protect on approach by people or predators.

Conservation Status: All birds remain protected on Barrow Island and surrounds. The Caspian Tern is listed as of least concern in the *2008 International Union for Conservation of Nature Red List*. It is not listed on the *Wildlife Conservation Act 1950 (WA)*, and is a listed marine species under the *Environment Protection and Biodiversity Conservation Act*.



Photos - Top: Simon Walder, Bottom: Mike Baird

Crested Tern

(*Thalasseus bergii*)

Description: The Crested Tern is a medium-sized gull (about 460 mm with additional 160 mm tail length) with a grey back and tail (in breeding plumage) and darker grey wings; its underparts are white. The crested crown is black, becoming speckled white in its non-breeding plumage. It has a yellow beak (its key distinguishing feature from the Caspian Tern), and its legs are black.

Distribution: The Crested Tern is distributed around Australia, and is commonly seen along the coastline of Barrow Island and offshore islands.

Preferred Habitat: Coastal dunes and beaches.

Behaviour and Breeding: This tern is usually seen in flocks. It feeds almost exclusively on fish near the surface. The Crested Tern does not nest on Barrow Island, but nests on adjacent offshore islands in the absence of predators. This species will nest in colonies. It breeds from March to June in northern Australia. One, occasionally two, eggs are laid in a shallow depression in the sand.

Conservation Status: All birds remain protected on Barrow Island and surrounds. The Crested Tern is listed as of least concern in the 2008 *International Union for Conservation of Nature Red List*. It is not listed on the *Wildlife Conservation Act 1950 (WA)*, and as a listed marine species under the *Environment Protection and Biodiversity Conservation Act*.



Photos - Top: Chevron Australia, Bottom: Jim Bennett

Bridled Tern

(*Onychoprion anaethetus*)

Description: The Bridled Tern has a black crown and nape and the back, upper wings and tail are all sooty-brown. The forehead of the bird is white with a black line over the eye. Its eyes, beak and legs are all black, while its underbelly is white.

Distribution: The Bridled Tern is found in tropical and subtropical waters and coastlines worldwide. In Australia, it is widespread and can be found breeding on many islands off the western, northern and north-eastern coastline. The Bridled Tern nests on Double Island and some of the Lowendal Islands, off the north-eastern coast of Barrow Island.

Preferred Habitat: Rocky continental islands and rock stacks.

Behaviour and Breeding: The Bridled Tern feeds on a range of fish, crustaceans and insects. Most of the foraging for food occurs at sea by swooping at fish close to the surface. The Bridled Tern is rarely found on mainland coastlines and prefers offshore islands. The nest of the Bridled Tern is usually found in rocky areas, crevices, cliffs or among coral rubble and grasses. Breeding occurs in spring and summer with an average clutch size of just one egg.

Conservation Status: All birds remain protected on Barrow Island and surrounds. The Bridled Tern is listed as of least concern in the *2008 International Union for Conservation of Nature Red List*. It is listed on the *Wildlife Conservation Act 1950 (WA)* as a migratory bird protected by two international agreements (CAMBA and JAMBA) and it is a listed marine and migratory species under the *Environment Protection and Biodiversity Conservation Act*.



Photos - Top: Jim Bennett, Bottom: Simon Walder

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Sighting Records

Species	Date	Locality
Eastern Osprey		
Black-shouldered Kite		
Brahminy Kite		
Spotted Harrier		
White-bellied Sea-eagle		
Australian Hobby		
Nankeen Kestrel		
Eastern Reef Egret		
Pied Oystercatcher		
Sooty Oystercatcher		
Bar-shouldered Dove		



Species	Date	Locality
White-winged Fairy-wren		
Singing Honeyeater		
White-breasted Woodswallow		
Welcome Swallow		
Spinifex bird		
Zebra Finch		
Silver Gull		
Caspian Tern		
Crested Tern		
Bridled Tern		
Beach Stone-curlew		



Other Species Recorded

Species	Date	Locality
Phasianidae (pheasants and quails)		
Brown Quail		
Anatidae (ducks, geese and swans)		
Black Swan		
Australian Wood Duck		
Grey Teal		
Podicipididae (grebes)		
Australasian Grebe		
Procellariidae (shearwaters)		
Wedge-tailed Shearwater		
Diomedeidae (albatrosses)		
Yellow-nosed Albatross		
Hydrobatidae (storm-petrels)		
Wilson's Storm Petrel		
Sulidae (gannets and boobies)		
Masked Booby		
Brown Booby		
Anhingidae (darters)		
Darter		
Phalacrocoracidae (cormorants)		
Little Pied Cormorant		
Pied Cormorant		
Little Black Cormorant		
Great Cormorant		

Species	Date	Locality
Pelecanoididae (pelicans)		
Australian Pelican		
Fregatidae		
Lesser Frigatebird		
Ardeidae (herons and egrets)		
White-faced Heron		
Little Egret		
Great Egret		
Striated Heron		
Nankeen Night Heron		



Species	Date	Locality
Accipitridae (kites, hawks and eagles)		
Square-tailed Kite		
Black-breasted Buzzard		
Whistling Kite		
Wedge-tailed Eagle		
Falconidae (falcons)		
Brown Falcon		
Otidae (bustards)		
Australian Bustard		
Scolopacidae (sandpipers)		
Black-tailed Godwit		
Bar-tailed Godwit		
Little Curlew		
Whimbrel		
Little Whimbrel		
Eastern Curlew		
Marsh Sandpiper		
Common Greenshank		
Wood Sandpiper		
Terek Sandpiper		
Common Sandpiper		
Grey-tailed Tattler		

Species	Date	Locality
Scolopacidae (sandpipers) continued		
Ruddy Turnstone		
Great Knot		
Red Knot		
Sanderling		
Red-necked Stint		
Sharp-tailed Sandpiper		
Curlew Sandpiper		
Recurvirostridae (stilts and avocets)		
Black-winged Stilt		
Banded Stilt		
Charadriidae (lapwings and plovers)		
Pacific Golden Plover		
Grey Plover		
Red-capped Plover		
Lesser Sand Plover		
Greater Sand Plover		
Oriental Plover		
Glareolidae (pratincoles)		
Australian Pratincole		
Laridae (gulls and terns)		
Gull-billed Tern		
Lesser Crested Tern		
Roseate Tern		

Species	Date	Locality
Laridae (gulls and terns) continued		
Common Tern		
Little Tern		
Fairy Tern		
White-winged Black Tern		
Lesser Noddy		
Columbidae (pigeons and doves)		
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Peaceful Dove		
Cacatuidae (cockatoos)		
Galah		
Little Corella		
Cockatiel		
Psittacidae (lorikeets and parrots)		
Budgerigar		
Cuculidae (cuckoos)		
Oriental Cuckoo		
Pallid Cuckoo		
Horsfield's Bronze Cuckoo		
Black-eared Cuckoo		
Strigidae (hawk-owls)		
Southern Boobook Owl		
Tytonidae (barn owls)		
Barn Owl		

Species	Date	Locality
Apodidae (swifts)		
Fork-tailed Swift		
White-throated Needletail		
Halcyonidae (forest kingfishers)		
Red-backed Kingfisher		
Sacred kingfisher		
Meliphagidae (honeyeaters)		
Spiny-cheeked Honeyeater		
Brown Honeyeater		
Crimson Chat		



Photo - Jim Bennett

Species	Date	Locality
Dicruridae (flycatchers)		
Magpie-lark		
Willie Wagtail		
Campephagidae (cuckoo-shrikes)		
Black-faced Cuckoo-shrike		
White-winged Triller		
Artamidae (woodswallows)		
Masked Woodswallow		
Black-faced Woodswallow		
Corvidae (ravens and crows)		
Little Crow		
Motacillidae (pipits and true wagtails)		
Richard's Pipit		
Yellow Wagtail		
Passeridae (finches and allies)		
Painted Firetail		
Hirundinidae (swallows)		
Tree Martin		
Fairy Martin		
Sylviidae (Old World warblers)		
Brown Songlark		
Zosteropidae (silveryeyes)		
Yellow White-eye		