# Marine wildlife of WA's north-west IDENTIFICATION GUIDE



Department of **Biodiversity**, **Conservation and Attractions** 



# Protecting Western Australia's marine wonders

### Top tips for conserving marine life

- When boating, 'go slow for marine life below', especially over coral reef, shallow areas and in channels where dugongs, turtles and other marine wildlife feed.
- Anchor only in sand to protect fragile reef, sponge and seagrass communities.
- Take your rubbish home.
- Visit the Explore Parks website for more information.
- If you find a stranded, sick or injured dolphin, dugong, turtle, whale or seabird, please call the Wildcare Helpline on (08) 9474 9055.
- If you find a tagged turtle or other animal, please note the number and contact your closest DBCA Parks and Wildlife Service office.
- Fish for the future! Abide by fish size, bag and possession limits set by the Department of Primary Industries and Regional Development Fisheries Division and help protect our fish, some of which are unique to WA.





WA's coastline spans more than 13,500km and is home to some of the world's most remarkable ecosystems and marine wildlife, including massive whale sharks, humpback whales and several threatened species of marine turtle. Many of the State's marine plants and animals are found nowhere else in the world.

Our unique marine areas include Australia's largest fringing reef at Ningaloo Marine Park and the spectacular Muiron Islands Marine Management Area. The Montebello Islands Marine Park and nearby Barrow Island Marine Park protect more than 62,500ha of ocean surrounding hundreds of low-lying offshore islands and islets fringed with coral reefs and populated with colourful tropical fish and other marine animals.

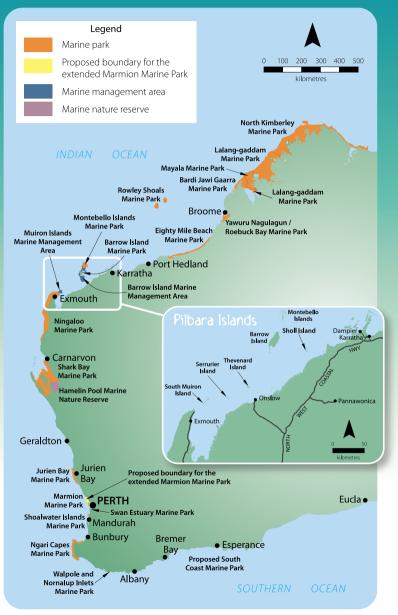
Many marine parks are jointly managed with Traditional Owners to help conserve and celebrate Aboriginal land, sea country and culture.

Marine parks protect natural features and aesthetic values while enabling recreational and commercial uses that do not compromise conservation values. Within marine parks there may be four types of management zones:

- Recreation zones provide for conservation and recreation, including recreational fishing.
- General use zones are managed to conserve natural resources while allowing sustainable commercial fishing, as well as petroleum exploration and production where they will not affect sensitive marine habitats. Most recreational activities can be undertaken in these zones, which form the majority of most marine parks.
- Sanctuary zones ('no take' areas) provide the strongest form of protection for the marine
  environment. The public is encouraged to visit and enjoy sanctuary zones, whether by diving,
  boating or simply exploring rock pools.
- Special purpose zones are managed for a particular use or issue, such as the protection of cultural and heritage values including customary food and resources or cultural sites, protection of habitat or nursery grounds, seasonal events such as whale watching, or a particular type of commercial fishing. Commercial and recreational activities may be allowed if compatible with the primary purpose of a special purpose zone.

Download brochures (including detailed zoning maps) on all of WA's marine parks at exploreparks.dbca.wa.gov.au.

# WA marine parks and reserves



# Islands - an important refuge

WA's islands are important refuges for many threatened species. They provide habitat free from many of the pressures (such as introduced predators, bushfires, or four-wheel-driving on beaches) and types of disturbance (people walking pets on beaches, light pollution) found on the mainland. Islands are significant breeding and nesting areas for marine turtles, shorebirds and seabirds. Many islands are nature reserves and are protected under the *Conservation and Land Management Act 1984*.

The sandy beaches of islands scattered between Dirk Hartog Island National Park and the Kimberley region provide important nesting habitat for five species of marine turtle (flatback, green, hawksbill, loggerhead and olive ridley). The flatback turtle nests on many Pilbara Islands including Locker, Thevenard, Barrow and the Montebello group, and the mainland coast near Onslow, Port Hedland, Eighty Mile Beach Marine Park and Cape Domett in the Kimberley. This species only nests on Australian beaches.

Migratory shorebirds including the critically endangered bar-tailed godwit, eastern curlew, curlew sandpiper and the great knot forage and roost on the intertidal flats, mangroves, sandy spits and beaches of many Pilbara islands. Adult shorebirds are usually seen from August through to May each year, while the juveniles may remain year-round. Seabirds such as roseate, caspian and fairy terns nest on many of the islands during winter, at times in colonies numbering in the thousands.

### Protecting island habitats is crucial for the survival of threatened species which rely on them.

- No uninvited visitors. Introduced species can cause extinctions of island flora and fauna.
   Keep your boat clean inside and out. Ensure shoes and gear are free from soil, seeds, rodents, geckos and insects and that hull fouling is minimised.
- No pets. Pets may stress, injure or kill turtles, shorebirds and seabirds and are not permitted in nature reserves, so leave them at home.
- Camp only on islands where camping is permitted. Minimise the use of lights at night, as this may disturb turtles and birds. Use a portable fuel stove (not heat beads) as an alternative to campfires. Contact the local DBCA Parks and Wildlife Service office for more information.
- Minimise disturbance. Keep visits ashore brief and avoid areas used by turtles, shorebirds
  and seabirds for nesting, resting and feeding.
- Leave no trace. Take rubbish home and dispose of it properly.

# Management of our unique marine animals

The Commonwealth's Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and WA's Biodiversity Conservation Act 2016 (BC Act) allow species, sub species and varieties of native flora and fauna to be listed as threatened or specially protected if they are at risk of extinction, are rare, or are otherwise in need of special protection. Species featured in this guide may have the following BC Act conservation status:

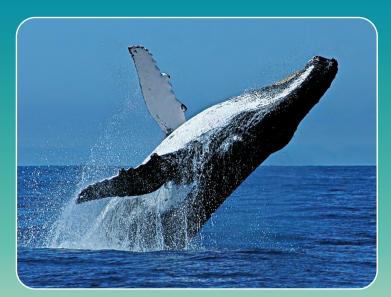
- critically endangered at extremely high risk of extinction in the wild
- endangered at very high risk of extinction in the wild
- vulnerable at high risk of extinction in the wild
- specially protected meets a specially listed category of protection.

Many species in this guide are also granted protection in Australia under the EPBC Act as a 'migratory' species due to being listed under international conventions and agreements that Australia is party to, 'marine' species which have been specially listed by the Minister for Environment, or 'cetacean' in which all species of whales and dolphins are protected in Australian waters.

DBCA develops management plans for specially protected species and participates in recovery plans for threatened marine animals to actively plan for and manage the conservation of marine wildlife in WA coastal waters. DBCA's Marine Monitoring Program is working to inform managers, by recording the status of marine fauna, the threats they face and our management responses.

Long-term systematic integrated marine monitoring, together with evaluation and reporting of change, is a key management strategy for measuring the success of marine fauna management plans, as early detection of problems allows adaptive management for the conservation of these species.

The Commonwealth EPBC Act also provides for protection of species deemed at risk from extinction across their range. This allows for protection of species that may not yet be listed as threatened in WA, but in areas of Australia may be facing significant threats such as population decline, are rare, or deemed to need special protection.



# Humpback whale (Megaptera novaeangliae)

### SPECIALLY PROTECTED

**Description** Humpback whales have distinctive throat grooves and bumps on their heads (tubercles). They have very long pectoral fins with knobs on the front edge and a humped dorsal fin that shows as the whale arches its back when it dives. They are blackish, with white undersides and sides. The underside of the tail fluke is usually white with black patterning. Adults are approximately 12-16m long, with females generally slightly larger than males. Adults may weigh up to 45 tonnes.



Habitat and behaviour From May to August, humpback whales migrate north to calving grounds between Ningaloo Marine Park and the Kimberley, and between September and November they travel south to their feeding grounds in the Antarctic. As they are often accompanied by calves on the southern migration, they tend to stay much closer to the coast than they do when heading north. Important resting areas during this migration include the Lacepede Islands, Pender Bay, Eighty Mile Beach Marine Park, Nickol Bay, Exmouth Gulf, Shark Bay Marine Park and Ngari Capes Marine Park. Whales are sensitive to disturbance, so boats must not approach closer than 100m, or separate a group, or mother and calf.

# Other large whales











# Blue whale (Balaenoptera musculus)

### ENDANGERED

The largest living animal on Earth, the Antarctic blue whale averages 25-26m long, but females can reach more than 30m and weigh more than 160 tonnes. The pygmy blue whale (*Balaenoptera musculus brevicauda*), the cousin of the Antarctic blue whale, is occasionally encountered off the Ningaloo coast and reaches about 24m in length. The huge size, mottled bluish-grey colour and small stubby dorsal fin positioned well back on the body distinguish blue whales from other species.

# Sei whale (Balaenoptera borealis) ENDANGERED

These threatened whales are rarely seen. They are long and streamlined, with a single central ridge on the top of the body and a bi-coloured head. Adult sei whales can grow to 17-21m.

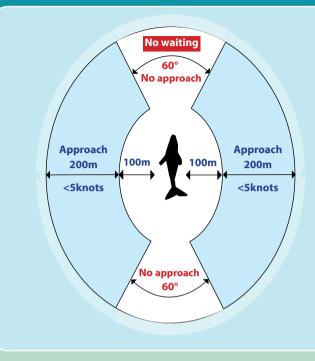
# Bryde's whale (Balaenoptera edeni)

### SPECIALLY PROTECTED

This species is distinguished from the sei whale by the three ridges which run from the front of the head to the blowhole. It has broad, notched tail flukes, pointed flippers and a dorsal fin set well back along the slender body. It is dark grey, with white patches on the chin and throat. Adults may reach up to 14m long. The blow rises in a cloud 3-4m high.

### Dwarf minke whale (Balaenoptera acutorostrata)

The smallest of the seven great whales at about 8m long, minke whales are regularly seen off WA's coast, particularly at Ningaloo. The most distinctive feature is the narrow, sharply triangular head on which there is a single raised ridge. The pectoral fin is white at the base. Minke whales arch their backs while diving, but do not raise their tail flukes. Their blows are about 2-3m high. They are inquisitive and will approach boats.



# Whale watching protocol

A vessel must not approach closer than 300 metres within a 60-degree arc to the front or rear of the whale, or 100 metres to the side of the whale. This is called the separation distance and it must always be observed including when a vessel is underway, drifting or anchored.

Where a whale approaches a vessel and the distance between the whale and the vessel becomes less than the separation distance, the person in charge of the vessel must place the motor in neutral or move the vessel, at less than six knots, away from the whale until the vessel is at least the separation distance.

A vessel must not block the direction of travel of a whale.

A vessel must not cause a whale to alter its direction or speed of travel.

A vessel must not disperse or separate a group of whales.

Swimming with, feeding or touching whales is not permitted. Such actions may cause stress to whales and endanger people. If you are in the water and a whale approaches, you must maintain a minimum 100 metre distance between yourself and the whale.

Please note the above protocol is for whale watching in Western Australian State waters. Please refer to the National Guidelines for Whale and Dolphin Watching 2017 when whale watching in Commonwealth waters.

# Bottlenose dolphins

### SPECIALLY PROTECTED

**Description** The common bottlenose dolphin (*Tursiops truncatus*) is largely found in offshore waters, while the coastal Indo-Pacific bottlenose dolphin (*Tursiops aduncus*) is usually seen closer to the coast. Bottlenose dolphins are sleek and streamlined, have a prominent dorsal fin and can vary in size, shape and colour depending on where they are found. In general, they have a dark grey back and light grey belly. The larger common bottlenose dolphin can grow to 2-4m in length and weigh 220-500kg. The smaller Indo-Pacific bottlenose reaches a maximum length of 2.7m and weigh up to 230kg.

Habitat and behaviour Bottlenose dolphins may be seen along the coast, in estuaries and even in rivers, or well offshore in the open ocean. They can be found in all of WA's marine parks. Dolphins eat fish and cephalopods such as squid, octopus and cuttlefish and their predators include orcas, tiger sharks and white sharks. Other risks include entanglement in fishing equipment, boat strikes, habitat destruction and degradation, pollution and disease. It is also possible that the dolphins' key prey species are in decline, reducing the amount of food available to them.



# Australian humpback dolphin (Sousa sahulensis)

### SPECIALLY PROTECTED

**Description** The most obvious features of this dolphin are the long thin beak, small triangular dorsal fin and distinctive hump under the dorsal fin. The maximum length is less than 3m. Its colour varies by age, with juveniles tending to be darker than adults. The undersides are pale and the dorsal fin may be white in older animals and males. The tail is relatively large.

Habitat and behaviour Though largely tropical, the Australian humpback dolphin is found in some subtropical areas in association with warm currents e.g. Shark Bay. Australian

humpback dolphins occur in tropical waters along the coast and around islands, favouring shallow water depths, but they have been sighted at the Montebello Islands some 60km from the mainland, where the water gets to 20m. They also live in mangrove channels, bays and estuaries. They are generally boat shy, do not bowride and spend less time at the water surface than bottlenose dolphins. They are frequently seen in Ningaloo Marine Park and Dampier Archipelago, where they are relatively abundant.





# Australian snubfin dolphin (Orcaella heinsohnii)

### SPECIALLY PROTECTED

**Description** The Australian snubfin dolphin is dark on top, a lighter shade of brown around the middle and the belly is white. Depending on the light and water colour, this species can look as though it is white to dark brown. It has a rounded forehead with no beak, unlike most other dolphin species in Australia. It has a particularly small, rounded (snubbed) dorsal fin and a distinct crease around the neck, which is quite flexible. The average length of this animal is about 2m. With age, their bodies become very scarred from interactions with each other and sharks.



Habitat and behaviour The Australian snubfin dolphin inhabits rivers, estuaries and coastal waters of northern Australia, from Exmouth Gulf in WA to Queensland. This species is found in groups of up to 20. The largest known population in WA is in Yawuru Nagulagun/ Roebuck Bay Marine Park, which is home to about 130 individuals. They are occasionally sighted in Exmouth Gulf and across the Pilbara and thought to be visitors rather than viable populations. Australian snubfins are not known to bowride, but have been observed occasionally leaping from the water. Snubfins are sometimes seen spitting water when capturing their prev.

# Other species of whales and dolphins





### Killer whale (Orcinus orca) SPECIALLY PROTECTED

These stocky, black and white whales have broad flippers and rounded heads. The dorsal fins are extremely high and the straight fins of males may reach 1.8m. Females have shorter, more dolphin-like fins. Males may reach more than 9m in length though females are smaller. They live in pods of up to 40. Orcas are transient in WA waters and often follow migrating humpback whales to feed on the calves and old, sick or injured animals. They are sometimes seen off Ningaloo in winter, preying on the newborn humpback whale calves.

### False killer whale (Pseudorca crassidens)

This medium-sized whale has a long, slender body and narrow, tapered head with a rounded snout. Its dorsal fin is high and curved and the narrow, tapered flippers have a distinct hump or elbow on the front edge. The body is black with a grey chest, although the sides of the head are sometimes light grey. Average length is 4.5–5.5m. They use coastal water and sometimes strand.

### Spinner dolphin (Stenella longirostris) SPECIALLY PROTECTED

Spinner dolphins have a distinct tri-colour pattern, with a dark dorsal surface, light grey sides and a white underside. The head is slender, with a long narrow beak. They range in length from 1.3–2.3m and weigh from 23–78kg. Spinner dolphins are predominately a pelagic species and occur in tropical and suptropical waters. Large groups are occasionally seen in Ningaloo Marine Park.

### Short-finned pilot whale (Globicephala macrorhynchus)

These whales are brownish-grey to black, with a pinkish-grey anchor shape on the undersides, but have shorter flippers (less than 18 per cent of the body length), with less of an elbow than long-finned pilot whales. They grow to 5.5m long. They live in large groups in tropical and subtropical waters and often strand en masse.







# Dugong (Dugong dugon)

### SPECIALLY PROTECTED

**Description** Dugongs are light brown, with rotund bodies. Young calves are pale brown. Adults can grow up to 3m long and weigh between 200-400kg. They have a flattened, fluked tail like a dolphin, but (unlike dolphins) have no fin on the upper back. They also have paddle-like flippers and a distinctive head shape. Their nostrils are near the front of the head and they have whiskers to help them locate the seagrass they forage on. Male dugongs have tusks that scar the females' backs following mating.

### Habitat and behaviour Dugongs live in the

shallow, warm waters of northern Australia from Shark Bay Marine Park in WA, around the north to Moreton Bay in Queensland. Often referred to as 'sea cows', dugongs feed on seagrass, usually in quite shallow water 1-5m deep, but are known to feed on seagrass at depths of over 20m. They are the only herbivorous marine mammals. Their movement over an area can be followed by the sand cloud made as they move along the sea floor. Their movements are usually slow and graceful. Shark Bay, Ningaloo Coast, Exmouth Gulf, Pilbara coast, Eighty Mile Beach and the Kimberley are known areas which support dugong populations.





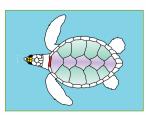
# Hawksbill turtle (Eretmochelys imbricata)

### VULNERABLE

**Description** This turtle species is best recognised by the prominent beak and thick overlapping scales on the shells of juveniles and younger adults. In older and larger hawksbills the overlapping scales are much less obvious. The shell is variable in colour and ranges from a light honey colour through reddish-brown to almost black. This turtle species can reach lengths of up to 1m and adult females weigh about 50-60kg.

Habitat and behaviour WA has the only large population of the hawksbill turtle remaining in the Indian Ocean. These turtles live near coral and rocky reefs in warm tropical waters. In WA they nest from the Ningaloo Marine Park northwards and there is a major colony on Rosemary Island in the Dampier Archipelago. Nesting may occur all-year-round, but in WA it peaks between October and January. Females only breed once every two to four years or more, but may nest up to six times during the breeding season.









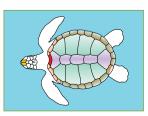
# Flatback turtle (Natator depressus)

### VULNERABLE

**Description** The flatback turtle has an olive-grey shell. The shell is flattened on top, has four pairs of costal scales (the large scales on either side of the shell) and upturned edges. This large marine turtle reaches up to 1m long and weighs up to 90kg.

Habitat and behaviour Flatback turtles inhabit coastal waters, rather than deep oceans. This species nests only in northern Australian waters, although it also forages in nearby waters in Indonesia and Papua New Guinea. Flatbacks nest on most islands with beaches in the Dampier Archipelago and on Barrow and Thevenard islands. From Onslow northwards, most turtle nesting beaches on the mainland are flatback rookeries, with significant rookeries at Mundabullungana, Port Hedland, Eighty Mile Beach Marine Park and Cape Domett.









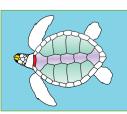
# Green turtle (Chelonia mydas)

### VULNERABLE

**Description** The high-domed shell of the green turtle is light to dark green, with grey mottling and with four pairs of costal scales. They are cream-coloured underneath. Adults reach about 1m long and weigh from 100-125kg.

Habitat and behaviour The green turtle is found in all of the world's tropical and temperate oceans and is listed as threatened under WA legislation. Like other sea turtles, the species spends almost its entire life at sea. During the summer months, the females come ashore to nest on some mainland beaches and many offshore islands in northern Australia. The hatchlings dig their way out of the nests and journey to the sea from January to April. Individual female turtles breed once every 3–6 years.









# Loggerhead turtle (Caretta caretta)

### ENDANGERED

**Description** Most loggerhead turtles are less than 1m long and weigh up to 150kg. The huge head is characteristic – the loggerhead is the only turtle where the head comprises at least a fifth of the body length. The shell is more or less heart-shaped, quite elongated and has five pairs of costal scales (shown in green in the illustration). It is usually tan to dark brown above and much lighter below.

Habitat and behaviour The loggerhead turtle is the most threatened turtle which nests in Australia. It mostly inhabits warm, shallow seas and estuaries, but also occurs in the deep ocean where people fish with long lines. Some loggerhead turtles which nest in WA waters migrate to feeding grounds in the Northern Territory and Indonesia. They mate and nest in tropical and subtropical areas including those in WA, predominantly in Shark Bay Marine Park, Ningaloo Marine Park and Muiron Islands Marine Management Area. They begin to breed in about October. Individual females only nest every 2-5 years. The young hatch from late December to early April.









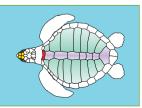
# Olive ridley turtle (Lepidochelys olivacea)

### ENDANGERED

**Description** The olive ridley turtle is the smallest of Australia's sea turtles and only grows to about 70cm long. The almost circular, greyish-green shell has six or more pairs of costal scales (shown in green in the illustration below). There are two claws on the front and rear flippers.

Habitat and behaviour It has recently been discovered that olive ridley turtles nest in WA, in the Lalang-gaddam Marine Park and elsewhere in the Kimberley, but they are very scarce. They live in shallow, protected tropical and subtropical seas, particularly in softbottomed areas, where they forage for jellyfish, gastropods, sea stars and small crabs. Turtles found off WA rarely leave Australian continental waters.



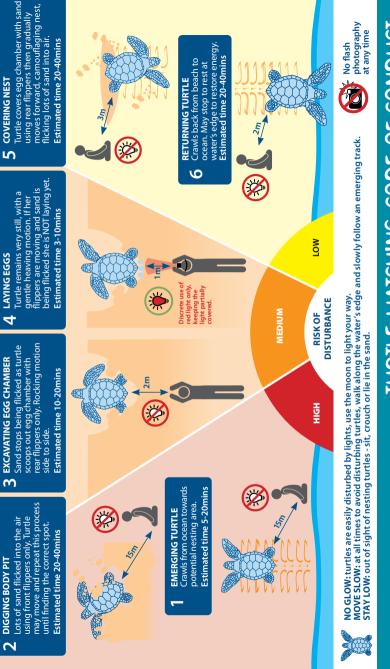




# Nesting turtles

Turtle watching is becoming increasingly popular. To avoid disturbing turtles, increase their nesting success and support long-term survival of the species, it is important to follow the Turtle Watching Code of Conduct:

- No glow. Refrain from using torches to search for turtles. This discourages turtles from emerging
  and may make nesting turtles return to the water. Avoid flash photography at all times.
- Move slow. Turtles can detect sudden movements, so move slowly.
- Stay low. Walk close to the water's edge, out of sight of nesting turtles.
- If you see a marine turtle nearby STOP where you are, DROP slowly to a sitting position and stay very still like a ROCK. Wait until she has moved up the beach to begin digging.
- Walk or sit on the beach in a tight group. The recommended group size for self-guided visitors is five people.
- Avoid excess noise.
- If you can see sand being flicked into the air, stay at least 15m away.
- When sand flicking has stopped you may approach a nesting turtle. Wait until she is laying before crawling up behind her on your stomach ('commando crawl').
- Do not move closer than 1m behind her. She will be quite still when laying her eggs. If sand is spraying or she is using her flippers, she is not laying.
- Always position yourself behind the turtle and stay low (sit, crouch or lie on the sand). If you are getting covered in sand as she digs, you are too close!
- Be patient. She may take time to rest or abandon the nest for a variety of reasons, including hitting an obstacle or the sand being too dry.
- Let her return to the ocean unimpeded. Sit behind her at all times, no closer than 2m. Do not attempt to touch the turtle.
- Avoid using lights, torches or campfires on turtle nesting beaches. Light can deter nesting turtles and disorientate hatchlings.
- Do not leave litter on nesting beaches. Please leave all beaches by 11pm to allow a period
  of undisturbed nesting to occur.



# IURILE WATCHING CODE OF CONDUCT

# Hatching turtles

In natural conditions very few marine turtle hatchlings survive to adulthood. Additional human-induced pressures have further decreased their likelihood of survival. To minimise human impact on hatchlings:

- Do not touch or handle hatchlings.
- Do not use any form of light or flash photography as this will disturb and disorientate hatchlings. Disorientated hatchlings are exposed to greater predation and risk being stranded on the beach, where they will dehydrate and die.
- Do not disturb the nest.
- Stand at least 1m away from the nest.
- Do not compact the sand. Other hatchlings may still be in the nest waiting to emerge.
- Stand still when hatchlings are moving down the beach to avoid stepping on them.
- Allow hatchlings to move to the sea without disturbance or assistance. It is important that
  hatchlings make their own way to the ocean by using their flippers. This helps to exercise
  their lungs, allowing them to swim and dive when they reach the water. As a result,
  hatchlings are able to find their nesting beach when they are mature enough to breed.
- Remain behind hatchlings at all times.
- Do not illuminate hatchlings in the water.
- Please do not drive your vehicle on turtle nesting beaches. Hatchlings become trapped in wheel ruts, greatly decreasing their chance of survival.



# Estuarine crocodile (Crocodylus porosus)

**Description** The upper bodies of estuarine or saltwater crocodiles are a mottled grey, brown or blackish colour. The snout is broader than that of the freshwater crocodile. They can reach up to 7m, but individuals more than 5m long are rarely seen.

Habitat and behaviour Estuarine crocodiles inhabit the open ocean, seashores, mudflats, estuaries, freshwater rivers and billabongs along the Kimberley coast and northern Pilbara. Adult crocodiles feed on fish, crustaceans, birds, mammals and reptiles such as turtles. During the wet season, females lay up to



50 eggs in nests on riverbanks. They become especially aggressive while breeding. Crocodiles are superb hunters and are exceptionally fast on both land and in the water. They can remain hidden underwater for long periods so you won't always see them. Visitors to the Kimberley should not paddle, clean fish, prepare food or camp at the water's edge. Returning regularly to the same spot at the water's edge is dangerous. If in doubt do not swim or use small boats where crocodiles may live and never hang any part of the body over the boat's edge.

**Be Crocwise** Crocs are common, they move around and they are deadly. Your personal safety is your responsibility so 'be crocwise'—download the **Crocodile safety and myth busting fact sheet** and follow the guidelines to be crocwise in croc country.

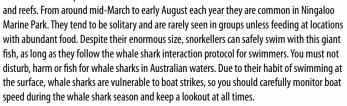


# Whale shark (Rhincodon typus)

### SPECIALLY PROTECTED

**Description** The whale shark is the world's largest fish, growing to at least 14m long. They have a mouth up to 1.5m wide, a broad, flat head and two small eyes near the front of the head. The body is mostly grey, marked with lots of white spots and stripes (in a pattern unique to each individual whale shark), with a white belly. Three ridges run along each side of the shark and there are five large pairs of gills.

Habitat and behaviour Whale sharks are known to inhabit both deep and shallow coastal waters of coral atolls







# Green sawfish (Pristis zijsron)

### VULNERABLE

**Description** One of only a handful of fish listed as threatened in WA, the green sawfish is a ray that grows to more than 7m. It has a shark-like body, a flattened head and an exceptionally long snout, studded with 24-28 pairs of unevenly-spaced teeth which resemble a saw. The upper body is greenishbrown or olive with whitish undersides.

Habitat and behaviour This species was once widely distributed in the northern Indian Ocean to South Africa, around south-east Asia and around northern Australia. It may

now be extinct in south-east Asia and has disappeared from New South Wales and southern Queensland, so northern Australia may be the last region with significant populations. Green sawfish occur in inshore marine waters, estuaries, river mouths, embankments and along sandy and muddy beaches, from 1m to more than 70m in depth. A recent study has identified the Ashburton River as the only known pupping ground for the green sawfish in WA. They are fully protected in Australian waters, it is illegal to take green sawfish.





# Grey nurse shark (Carcharias taurus)

### VULNERABLE

**Description** The grey nurse shark has a large, stout body, grey to greyish-brown above and off-white below. Reddish or brownish spots may occur in the tail fin and the rear of the body. They grow to at least 3.6m. They are slow, but strong swimmers and are thought to be more active at night.

Habitat and behaviour A cosmopolitan species, the grey nurse shark is found in inshore subtropical and temperate waters around continental landmasses. It has occasionally been recorded off the continental shelf. Grey nurse sharks are often seen hovering in or near deep sandy gutters or rocky caves, and

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near inshore rocky reefs and islands, usually at depths of between 15-40m. These sharks are generally harmless to people, but have been greatly depleted through fishing.



# Manta rays

### SPECIALLY PROTECTED

**Description** These gentle giants are the largest of all rays. They have a small tail that lacks a stinging barb. In 2017 scientist reclassified the oceanic manta ray and the reef manta ray to the genus Mobula. Both the larger oceanic manta ray (*Mobula birostris*) and the smaller reef manta ray (*Mobula alfredi*) are frequently seen off the Ningaloo Coast. Their dorsal surface is typically black with a white underbelly. A unique black, blotchy pattern on the underbelly can be used to identify each individual. The oceanic manta ray can attain widths of up to 7m, whereas the reef manta can grow to around 5m in width.



Habitat and behaviour Manta rays can be found throughout the world's temperate to tropical waters. The reef manta is common in Ningaloo Marine Park, particularly Coral Bay, where there is a resident population year-round. The oceanic manta is less common, but is encountered from time-to-time. Despite their size, manta rays are filter feeders, feeding on small microscopic organisms called zooplankton.



# Keeping our islands pest free

Thousands of islands lie off the Pilbara and Kimberley coasts. These incredibly special places can act as arks, preserving wildlife, native plants and ecological communities which are threatened or no longer found on mainland Australia. It is therefore crucial that non-native animals and plants, even small insects and seeds, are not carried to

the islands. When boating, please follow these important quarantine procedures

- · ensure your boat is clean and baited with anti-rodent baits
- check that your clothing, shoes and gear are free from soil or seeds
- · check your food to ensure it is free of pests and insects
- · don't take pets; they can introduce disease and are not permitted in nature reserves
- don't bring firewood; it can carry pests and fires are not allowed in nature reserves
- take all rubbish with you on departure and dispose of it on the mainland.

### Cane toads

Cane toads (*Rhinella marina*), which were deliberately introduced into Australia in 1935 in an attempt to control sugar cane beetles in Queensland, are now major environmental pests. They have spread, both naturally and with human assistance, throughout much of Queensland, northern New South Wales, northern parts of the Northern Territory and northern WA. Cane toads have a significant impact on native fauna, with some species becoming locally extinct.

Cane toads can swim reasonable distances, but are often transported to islands by hiding in cool moist places like camping gear, fishing gear and any other equipment that provides them with protection from the heat. They have colonised some offshore islands in Queensland and the Northern Territory, where they have had a major impact on wildlife.

Please help protect important islands and carefully check your boat and gear before leaving, to ensure you don't have any toad 'hitchhikers'. If you find a suspected cane toad stowaway, capture the animal using gloves, bring it back to shore and send a photo to 0400 693 807 to confirm its identification before it is euthanased.

All WA cane toad sightings should be reported to 0400 693 807 or email canetoads@dbca.wa.gov.au

# Reporting sightings of marine fauna

The marine fauna sightings app, by the Department of Primary Industries and Regional Development (DPIRD), is designed to allow users to submit information about sightings of marina fauna to help researchers gain a better understanding of their movements and behaviour.

Download the free app from Google (for android) or Apple, and note down as many details as you can from the list below:

- time and date
- · species name and description, plus photos if you have them
- number of adults and calves
- their movements (travelling, resting, playing, breaching etc)
- location
- any further comments that could help explain the event.

If however you find a stranded, sick or injured marine mammal, please call the Wildcare Helpline on (08) 9474 9055.

Alternatively you can connect online with **DPIRD Fisheries**.







# More information

For more information, view our DBCA office locations and contact details online.



Department of **Biodiversity**, **Conservation and Attractions** 



Whale shark. Photo - Dani Rob

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