Marine protected species in the Northern Territory

Identification guide



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ENQUIRIES

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About this guide

The Northern Territory has one of the world's most intact marine environments and is home to an array of marine species protected under international agreements and national legislations.

Marine protected species in the Northern Territory: Identification guide has been compiled by the Department of Primary Industry and Resources, Fisheries Division (NT Fisheries).

The guide will help you identify some of the Territory's common marine protected species, ranging from sawfish to sea snakes, sea turtles to large marine mammals. Correctly identifying protected species provides valuable information about populations within Territory waters.

Please note, this guide is not an exhaustive list of marine protected species in the Territory. The guide covers the range of protected species that fishers may encounter.

Marine protected species have been identified based on their listing under the following national and international agreements:

- the Australian Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)
- the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)
- the International Union for the Conservation of Nature (IUCN) Red List of Threatened Species.

Reporting

Protected species inhabit areas where fishing activities take place, occasionally resulting in interactions between fishers and these species.

An interaction is considered to be any physical contact between a person, fishing gear or fishing vessel and a protected species, including captures, entanglements and collisions.

It is a legal requirement for commercial fishing operators (including fishing tour operators) to report interactions with protected species in their statutory fishing logbooks.

As long as operators are fishing in accordance with fisheries legislation, it is not an offence to unintentionally interact with a protected species. However, it is an offence not to report these interactions to NT Fisheries in accordance with logbook requirements.

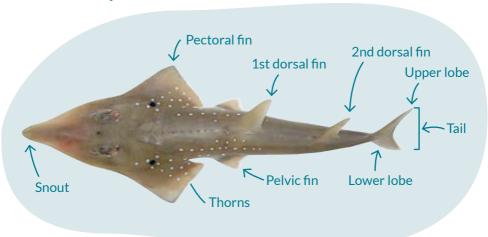
Recreational fishers are encouraged to report any interactions with marine protected species to the Department of Environment and Natural Resources through NT Marine WildWatch. The program can be used to report on interactions with marine protected species, including strandings, injuries or entanglements.

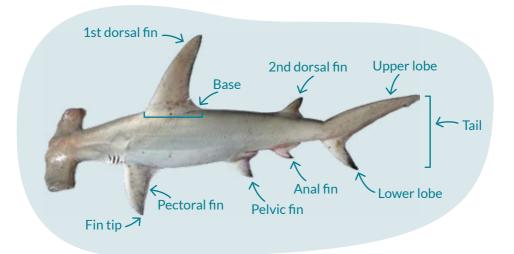
You can report interactions to NT Marine WildWatch on 1800 453 941 or at www.wildwatch.nt.gov.au.

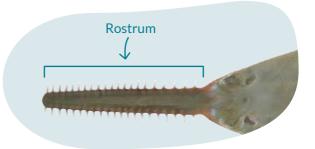
Table of contents

About this guide3	Olive-Ridley Turtle	27
Reporting4	Flatback Turtle	28
	Leatherback Turtle	29
Anatomy6	Stoke's Sea Snake	30
Sawfish7	Spine-Bellied Sea Snake	31
Green Sawfish7	Elegant Sea Snake	32
Narrow Sawfish8	Olive Sea Snake	33
Largetooth Sawfish9	Horned Sea Snake	34
Dwarf Sawfish10	Yellow-Lipped Sea Krait	35
Guitarfish and Wedgefish11	Marine Mammals	36
Whitespotted Wedgefish11	Humpback Dolphin	36
Eyebrow Wedgefish12	Australian Snubfin Dolphin	37
Giant Shovelnose Ray13	Indo-Pacific Bottlenose Dolphin	38
Sharks and Rays14	Bottlenose Dolphin	
Scalloped Hammerhead14	Common Dolphin	
Great Hammerhead15	Spotted Dolphin	
Winghead Shark16	False Killer Whale	
Grey Nurse Shark17	Melon-Headed Whale	
Speartooth Shark18	Humpback Whale	
Northern River Shark19	Killer Whale	
Oceanic Whitetip Shark20	Bryde's Whale	46
Whale Shark21	Sei Whale	
Manta Ray22	Dugong	48
Kuhls Devilray23		
Reptiles24	Seahorses and pipefish	
Loggerhead Turtle24	Seahorse	
Green Turtle25	Pipefish	50
Hawksbill Turtle26	Acknowledgements	51

Anatomy







Green Sawfish

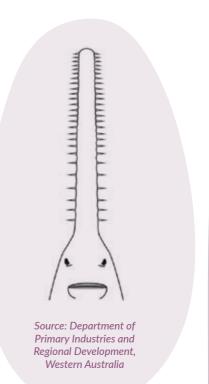
(Pristis zijsron)

CAAB No: 37 025001



Source: CSIRO Australian National Fish Collection

- 23-37 pairs of teeth extending to snout, spaced further apart near base
- Teeth noticeably closer to each other at the rostrum tip than at its base
- Lower lobe on tail small or non-existent
- Olive to greenish-brown on top, white underneath
- Dorsal fin starts slightly behind pelvic fin
- Rough skin
- Size: From 80cm at birth to at least 540cm when fully grown



Narrow Sawfish

(Anoxypristis cuspidata)

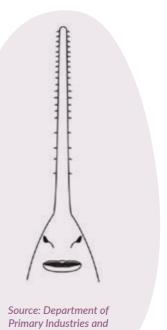
CAAB No: 37 025002



Source: CSIRO Australian National Fish Collection

Other common names: Knifetooth Sawfish, Pointed Sawfish

- 16-26 pairs of white teeth on slender rostrum
- Teeth beginning some distance from head
- Distinct enlarged lower lobe on tail
- Slate-grey often with blueish tinge on top, tips of fins often paler, white underneath
- Smooth skin
- Size: From 70cm at birth to at least 350cm when fully grown



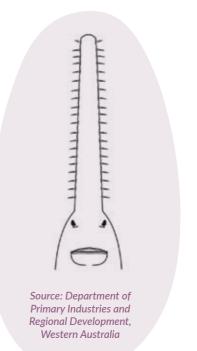
Regional Development, Western Australia

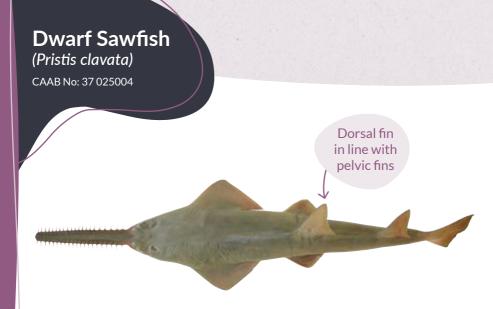


Source: CSIRO Australian National Fish Collection

Other common names: Freshwater Sawfish, Common Sawfish

- 14-24 pairs of teeth extending to snout, teeth equally spaced and forward facing
- Dorsal fin begins well forward of smaller pelvic fins
- Distinct lower lobe of tail fin
- Yellowish to grey colour on top with distinct yellowish fins, white underneath
- Rough skin
- Size: From around 70-90cm at birth to at least 600cm when fully grown

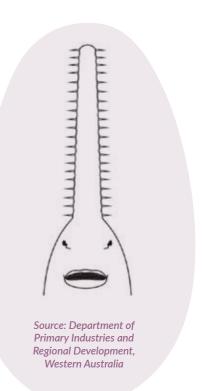




Source: CSIRO Australian National Fish Collection

Other common name: Broad-billed sawfish

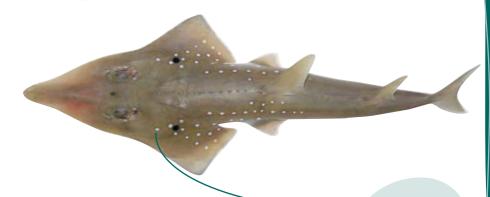
- 18-24 pairs of teeth on rostrum
- Teeth all of similar size, uniformly separated and not forward facing
- Dorsal fin begins slightly behind or over pelvic fin origin
- Greenish-brown or greenish-grey colour on top, white underneath
- Rough skin
- Size: From 65cm at birth to at least 320cm when fully grown



Whitespotted Wedgefish

(Rhynchobatus australiae)

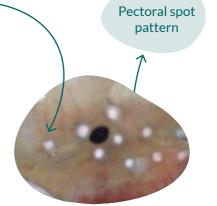
CAAB No: 37 026001



Source: CSIRO Australian National Fish Collection

Other common names: Whitespotted Guitarfish, Bottlenose Wedgefish

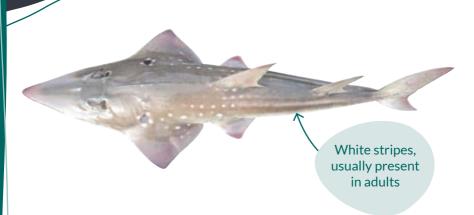
- Line of three white spots above black pectoral marking with two white spots below
- Row of white spots along sides from pectoral fins to second dorsal fin
- Small thorns on back and around eyes, absent on snout
- Distinct eyebrow marking
- Triangular, bottle-shaped snout
- Pale grey to yellowish-brown on top, white underneath
- Distinct space between pectoral and pelvic fins
- Size: From 46-50cm at birth to at least 300cm when fully grown



Eyebrow Wedgefish

(Rhynchobatus palpebratus)

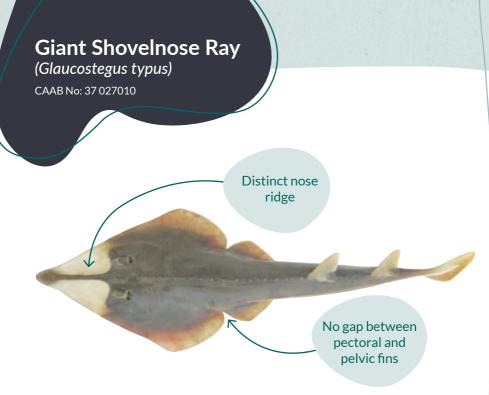
CAAB No: 37 026004



Source: CSIRO Australian National Fish Collection

- Distinct black pectoral fin marking, usually surrounded by three or four white spots.
- White horizontal stripes along the sides of the tail trunk, spots present in juveniles
- Small thorns around head, shoulders and above eyes
- Two to four rows of white spots from the side fin up to the dorsal fin base

- Dark-yellowish to grey on top, white underneath
- Dorsal fin narrowly pointed in adults
- First dorsal fin taller than second
- Size: Up to at least 260cm when fully grown



Source: CSIRO Australian National Fish Collection

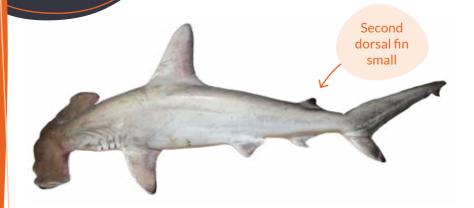
Other common names: Common Shovelnose Ray, Giant Guitarfish

- Broadly triangular, semi-opaque snout with a distinct nose ridge
- Snout tip narrowly rounded
- Row of irregularly shaped thorns along body midline
- Yellowish or greyish-brown on top, tips of pectoral and pelvic fins a paler yellow, white underneath
- Dorsal fin well behind pelvic fins
- Size: From 38-40cm at birth to at least 270cm when fully grown

Scalloped Hammerhead

(Sphyrna lewini)

CAAB No: 37 019001

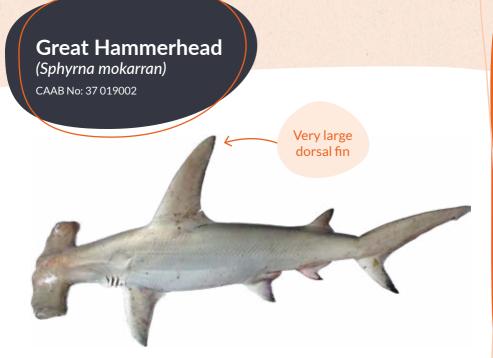


Source: Queensland Government

- First dorsal fin moderately tall, second dorsal fin small
- Scalloped shaped ridges on front edge of head
- Head bulging forward towards middle, with central indentation
- Dusky-tipped fins, usually present in juveniles
- Juveniles identified primarily by size of dorsal fin
- Olive, bronze or brownish-grey on top, pale underneath
- Size: From 45-50cm at birth to 350cm when fully grown

Scalloped shaped ridges on front edge of head





Source: Queensland Government

- Very large dorsal fin, relatively large second dorsal fin
- Front edge of head nearly flat, with central indentation
- Dusky-tipped fins, usually present in juveniles
- Juveniles identified primarily by size of dorsal fin
- Bronze to greyish-brown on top, white underneath
- Size: From 65cm at birth to 6m when fully grown

Front edge of head nearly flat with central indentation

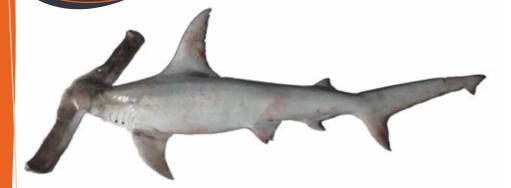
Source: Queensland Government



Winghead Shark

(Eusphyra blochii)

CAAB No: 37 019003



Source: Queensland Government

Other common name: Slender Hammerhead

- Wide, slender head
- Tall dorsal fin, with smaller second dorsal fin
- Grey to greyish-brown on top, pale underneath
- Size: From 45-47cm at birth to 190cm when fully grown



Grey Nurse Shark

(Carcharias taurus)

CAAB No: 37 008001



Source: Carlie Bansemer

- Protruding dagger-like teeth
- Both dorsal fins almost of equal size
- Bronze-grey on top and pale underneath
- First dorsal fin further back on body
- Reddish-brown or black spots may be present on tail and tail fin
- Size: From 100cm at birth to 320cm when fully grown

Speartooth Shark

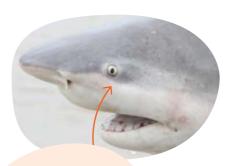
(Glyphis glyphis)

CAAB No: 37 018041



Source: Grant Johnson and Peter Kyne

- Grey waterline mark just below eye and short, broadly rounded snout distinguishes Speartooth Sharks from Northern Sharks
- Grey on top, white underneath
- Second dorsal fin two-thirds the size of the first dorsal fin
- Large second dorsal fin distinguishes Speartooth Sharks from Bull Sharks
- Can be mistaken for Northern River, Bull, Pigeye or Lemon shark
- Size: Up to 200-300cm when fully grown



Waterline mark just below eye Source: Grant Johnson and Peter Kyne

Northern River Shark

(Glyphis garricki)

CAAB No: 37 018042



Source: Grant Johnson and Peter Kyne

- Grey waterline mark more than an eye width below eye and elongated snout distinguishes Northern River Sharks from Speartooth Sharks
- Grey on top, white underneath
- Second dorsal fin two-thirds the size of first dorsal fin
- Large second dorsal fin distinguishes Northern River Sharks from Bull Sharks
- Can be mistaken for Speartooth, Bull, Pigeye or Lemon Shark
- Size: Up to 200-300cm when fully grown



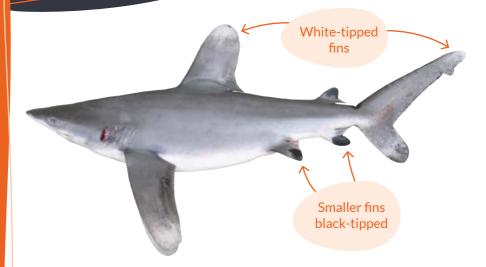
Waterline mark more than an eye width below eye

Source: Grant Johnson and Peter Kyne

Oceanic Whitetip Shark

(Carcharhinus longimanus)

CAAB No: 37 018032

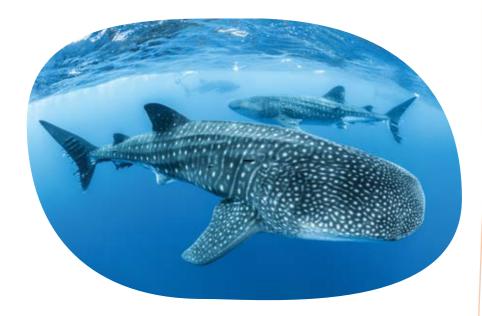


Source: CSIRO Australian National Fish Collection

- White-tipped fins
- Large, broadly rounded dorsal and pectoral fins
- Bronze-grey on top, pale underneath

- Black tips on pelvic, anal and second dorsal fins
- Size: From 60-65cm at birth to 200cm when fully grown

Whale Shark (Rhincodon typus) CAAB No: 37 014001



Source: Simon J Pierce

- Distinctive pattern of light spots and stripes over dark grey-blue body, fading to light colour underneath
- Broad, flattened head

- Blunt snout
- Small teeth
- Size: Up to 12m when fully grown

Manta Ray (M. alfredi and M. birostris)

CAAB No: 37 041005/37 041004



Source: CSIRO Australian National Fish Collection

- Large flat body
- Horn-shaped fins protruding from chin
- Mostly black on top, white shoulders and wing patches, white underneath
- Small dorsal fin, triangular at base of tail
- Whip-like tail
- Size: Adult wing span ranges from 5-9m



Source: CSIRO Australian National Fish Collection

Other common name: Pygmy Devilray

- Large wing-like fins with curved tips
- Dark grey to grey-brown on top, white underneath
- Size: Average adult wing span of 1.3 metres
- Can be mistaken for a Longhorned Pygmy Devilray (*M. eregoodoo*), which has dark blotches on underside and leading edge of wings.



Loggerhead Turtle

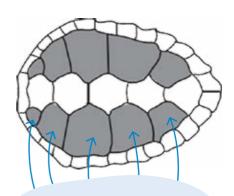
(Caretta caretta)

CAAB No: 39 020001



Source: Colin Limpus

- Large heads, especially with older turtles
- Five pairs of side scales
- Large shell scales, not overlapping
- Heart-shaped shell
- Shell dark brown to brown, sometimes with darker spots
- Size: Average adult shell length 125–150cm



Five pairs of side scales

Source: Queensland Government



- Rounded snout
- Four pairs of side scales
- Large shell scales, not overlapping
- Shell olive green with dark brown and black markings
- Size: Average adult shell length 140–160cm

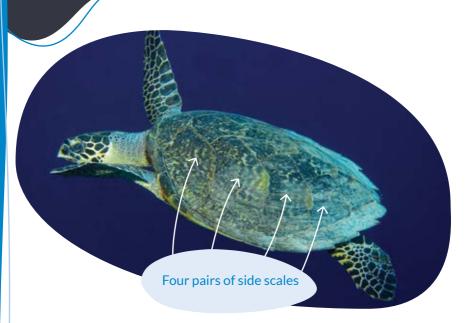


Rounded snout
Source: Tristan Simpson

Hawksbill Turtle

(Eretmochelys imbricata)

CAAB No: 39 020003



Source: Tristan Simpson

- Distinct beak-like snout
- Four pairs of side scales
- Large, overlapping shell scales
- Narrow heart-shaped shell
- Shell olive green or brown with reddish-brown or black markings
- Size: Average adult shell length 90-110cm



Beak-like snout

Source: Tristan Simpson

Olive-Ridley Turtle

(Lepidochelys olivacea)

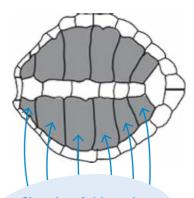
CAAB No: 39 020004



Source: Colin Limpus

Other common name: Pacific Ridley Turtle

- Rounded snout
- Six or more pairs of side scales
- Nearly round shell, can be broad and heart-shaped
- Shell olive-grey to brown, often without any markings
- Size: Average adult shell length 55-75cm



Six pairs of side scales
Source: Queensland Government

Flatback Turtle

(Natator depressus)

CAAB No: 39 020005





Source: Tristan Simpson

- Rounded snout
- Four pairs of side scales
- Shell depressed with upturned edges
- Adult shell covered by thin fleshy skin
- Shell olive-grey to pale green with no pattern
- Size: Average adult shell length 75-105cm



Rounded snout
Source: Belinda Norris

Leatherback Turtle

(Dermochelys coriacea)

CAAB No: 39 021001



Source: Ian Bell

- Leathery shell with five distinctive longitudinal ridges
- Shell dark grey to black with paler markings present in some individuals
- Front flippers very large in adults with no claws
- Average adult shell length 170-290cm

Distinct ridges along shell

Source: Ian Bell



Stoke's Sea Snake

(Hydrophis stokesii)

CAAB No: 39 125009



Source: Ruchira Somaweera

- Large head and thick neck
- Dark distinct blotch-shaped markings on top
- Small overlapping scales on belly
- Adults less patterned, colour can vary from creamy-white to grey or almost black
- Size: Up to 120–200cm when fully grown
- Very common in Territory waters



Small overlapping scales on belly

Spine-Bellied Sea Snake

(Hydrophis curtus)

CAAB No: 39 125031



Source: Ruchira Somaweera

Other common name: Hardwicks Sea Snake

- Short and wide relative to body size
- Distinct enlarged hexagonal scales on sides
- Adult males in breeding season have predominant spine-like enlarged scales on belly
- Size: Up to 90-110cm when fully grown
- Very common in Territory waters



Enlarged scales on belly

Elegant Sea Snake

(Hydrophis elegans)

CAAB No: 39 125021



- Slender head and forebody compared to wider hindbody
- 35-55 distinct dark bands
- Bands widest on top and often broken into spots on flank
- Size: Up to 170-200cm when fully grown

Olive Sea Snake

(Aipysurus laevis)

CAAB No: 39 125007



Source: Ruchira Somaweera

Other common name: Golden Sea Snake

• Robust body and distinctive head

 Can be olive-coloured, often without any markings, or lighter colour with prominent darker speckled scales

• Size: Up to 120–200cm when fully grown



Lighter colour with prominent darker speckled scales

Horned Sea Snake

(Hydrophis peronii)

CAAB No: 39 125001



Source: Ruchira Somaweera

Other common names: Peron's Horned Sea Snake, Dragonhead

- Distinct horn-like scales above eyes
- Head small relative to body
- Size: Up to 100–120cm when fully grown

Distinct horn-like features



Yellow-Lipped Sea Krait

(Laticauda colubrina)

CAAB No: 39 124001



Source: Ruchira Somaweera

Other common names: Banded Sea Krait, Wide-faced Sea Krait

- Yellow upper lip extending to eye, head usually black
- Broad black and white bands along body
- Usually white bands darker on top and white underneath
- Smooth scales
- Amphibious snake, often seen on land and in water
- Size: Up to 80–150cm when fully grown
- Not common in Territory waters

Humpback Dolphin

(Sousa sahulensis)

CAAB No: 41 116014



Source: Carol Palmer

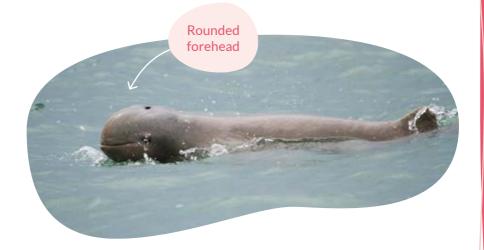
- Slightly rounded forehead
- Grey to dark grey on top from above eyes to lower belly, light-grey underneath
- Beak long and cylindrical
- Dorsal fin short and triangular with wide base
- White marking and dark flecks on head and back hump, common in adults
- Size: Up to 1–2.7m when fully grown
- Common in Territory waters



Australian Snubfin Dolphin

(Orcaella heinsohni)

CAAB No: 41 116010



Source: Carol Palmer

Previously known as Irrawaddy Dolphin

- Distinctive large rounded forehead
- No beak
- Small dorsal fin with blunt, rounded tip
- Paddle-like flippers

- Body often pale grey, but may be subtly tricoloured – brownish on top, lighter grey-brown along sides, white underneath
- Size: Up to 2-2.7m when fully grown
- Common in Territory waters

Indo-Pacific Bottlenose Dolphin

(Tursiops aduncus)

CAAB No: 41 11<u>6020</u>



Source: Carol Palmer

Other common names: Spotted Bottlenose Dolphin, Coastal Bottlenose

- Beak short and thick
- Distinct dark grey-blue on top, paler grey below, with white, sometimes black speckled belly
- Differentiated from Common Bottlenose Dolphin by absence of blaze on top
- Sociable and inquisitive
- Size: Up to 2.6m when fully grown
- Common in Territory waters



No blaze on top

Source: Carol Palmer

Bottlenose Dolphin

(Tursiops truncatus)

CAAB No: 41 116019



Source: Melinda Brown

- Distinct beak with sharp crease between beak and forehead
- Body colour varies from grey to dark grey on top, light grey sides, light grey or white underneath
- Prominent hooked dorsal fin
- Size: Up to 3.5m when fully grown
- Common in Territory waters

Distinctive colouration of top and sides

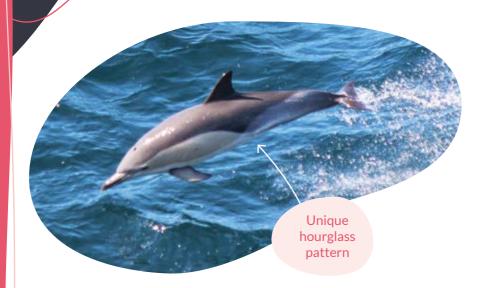
Source: Lindsey Jones



Common Dolphin

(Delphinus delphis)

CAAB No: 41 116001



Source: Lindsey Jones

Other common name: Short-Beaked Common Dolphin

- Unique hourglass pattern, grey on top, cream sides, white underneath
- Long beak with distinct crease between forehead and beak
- High dorsal fin
- $\bullet \;$ Size: Up to 2m when fully grown
- Occasionally present in Territory waters



Distinctive colouration

Source: Melinda Brown

Spotted Dolphin

(Stenella attenuata)

CAAB No: 41 116 015



Source: Lindsey Jones

- Long thin beak, separated from head by distinct crease
- Upper and lower jaws darkly coloured, separated by thin, white lips
- Dorsal fin narrow with hooked tip
- Dark grey on top extending from beak to mid back behind dorsal fin, light-grey underneath

- White spots may be present
- Immature individuals generally uniformly coloured
- Size: Up to 2.5m when fully grown
- Occasionally present in Territory waters

False Killer Whale

(Pseudorca crassidens)

CAAB No: 41 116013



Source: NOAA Fisheries

- Rounded overhanging forehead, no beak
- Dark grey to black body
- Dorsal fin crescent-shaped and located more than half way along body
- Long slender body
- Size: Up to 4-6m when fully grown
- Occasionally present in Territory waters



Distinct rounded forehead

Source: Jochen Zaeschmar

Melon-Headed Whale

(Peponocephala electra)

CAAB No: 41 116012



Source: NOAA Fisheries

- Small, poorly defined beak
- Mostly dark grey all over with darker grey on top
- Lips often light grey
- Head triangular shape from above

- Size: Up to 2.7m when fully grown
- Not common in Territory waters



CAAB No: 41 112006



Source: Melinda Brown

- Knobbly looking head and flippers
- Irregular, wavy edges on tail
- Black to dark grey on top, white underneath
- Size: Up to 15m when fully grown
- Occasionally present in Territory waters



Stumpy dorsal fin of mother and calf

Source: Carol Palmer



Irregular, wavy edges on tail

Source: Carol Palmer

Killer Whale

(Orcinus orca)

CAAB No: 41 116011



Source: Carol Palmer

- Black body with white patches behind eyes, dorsal fin and lower belly
- Very tall dorsal fin

- Paddle-shaped flippers
- Size: Up to 10m when fully grown
- Not common in Territory waters

Bryde's Whale (Balaenoptera edeni)

CAAB No: 41 112003



Source: NOAA Fisheries

- Three ridges running from snout to blowhole distinguishes Bryde's Whale from Sei Whale
- Dorsal fin crescent-shaped, located three quarters down the body
- Dark grey on top and whitish-yellow underneath
- Size: Up to 12m when fully grown
- Not common in Territory waters

Sei Whale

(Balaenoptera borealis)

CAAB No: 41 112002

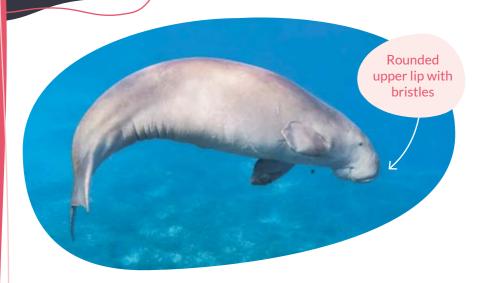


Source: NOAA Fisheries

- Single ridge running from snout to blowhole distinguishes
 Sei Whale from Bryde's Whale
- Slender, hooked dorsal fin located two-thirds down body
- Dark grey on top, sides may be light grey, pale underneath

- Slim, streamlined body
- Tail small in relation to body size
- Size: Up to 12-16m when fully grown
- Not common in Territory waters

Dugong (Dugong dugon) CAAB No: 41 206001



- Broad, rounded upper lip with bristles
- No dorsal fin
- Paddle-like flippers
- Flattened tail

- Grey-brown on top, slightly lighter grey underneath
- Size: Up to 3.3m when fully grown
- Common in Territory waters



CAAB No: 37 282000



Source: Millie Banner

- Elongated bony body
- Tube-like snout with no teeth
- Small side fins and single dorsal fin
- Size: From 1cm at birth to 36cm when fully grown

Pipefish (Syngnathidae) CAAB No: 37 282000



- Snake-like body
- Distinctive tube-like snout with no teeth
- Elongated body encased in bony rings
- Small pectoral fins and single dorsal fin

Acknowledgements

NT Fisheries wishes to thank all those who provided images and suggestions for improving this guide, particularly Dr Peter Kyne, Dr Carol Palmer, Dr Ruchira Somaweera and Dr Vinay Udyawer.

The photos and diagrams in this publication are reproduced with the kind permission of Millie Banner, Carlie Bansemer, Dr Ian Bell, Melinda Brown, Grant Johnson, Lindsey Jones, Dr Peter Kyne, Belinda Norris, Dr Carol Palmer, Simon J. Pierce, Tristan Simpson, Dr Ruchira Somaweera and Jochen Zaeschmar. We would also like to thank the CSIRO Australian National Fish Collection, NOAA Fisheries, the Queensland Government and the Department of Primary Industries and Regional Development, Western Australia.



