

# Protected Species ID Guide



**Natural Heritage Trust**  
*Helping Communities Help Australia*  
An Australian Government Initiative



**Australian Government**  
**Australian Fisheries Management Authority**

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- Commonwealth Scientific and Industrial Research Organisation
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- Australian Antarctic Division

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We further acknowledge the support and advice from a number of experts including Col Limpus, Rohan Clarke, David Harasti, Barry Baker and Rosemary Gales.

This guide has been compiled by Kathy Colgan of K Colgan and Associates.

# Introduction

All the native species described in this guide are protected in Australia. This guide is for Commonwealth fishers to use when reporting protected species interactions to enable accurate identification of the species. This guide covers the range of protected species which fishers do or have the potential to interact with.

Protected species are an integral part of the ecosystems that support fisheries. Removing any part of an ecosystem can have severe consequences and can have implications for the fishery and its management if it is deemed to be occurring at an unacceptable level. AFMA, industry and scientists are working to minimise interactions with protected species in Commonwealth fisheries.

With AFMA's implementation of an ecosystem based approach to fisheries management, increased focus is being directed at reducing bycatch, a fundamental part being accurate reporting of protected species interactions.

As long as operators are fishing in accordance with their fishery's accredited management arrangements, it is not

an offence to interact with a protected species even if the animal dies. However, it is an offence not to report these interactions to DEH or AFMA.

Operators must report all interactions with protected species. An interaction is any contact operators and their fishing gear has with a protected species, including hooking it on a line, catching it in a net or even a collision with a boat.

All operators need to do is fill out the listed marine and threatened species form (or Wildlife reporting form) in your logbook and then submit it to AFMA. Under agreed reporting arrangements, AFMA will report interactions to DEH on the operator's behalf, by fishery, through periodic summary reports of interactions.

Under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), animals that are classified as protected. These are divided into four different categories – threatened species, migratory species, marine species and all cetaceans.

For further information contact AFMA on 1300 723 621





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# Bill Guide

*After Simpson & Day (1995), inside front and back cover*  
*After Slater (1970), p189-197*

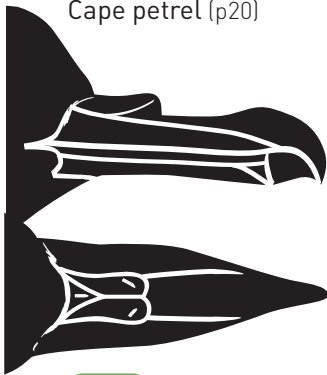
Westland petrel (p22)



White-chinned petrel (p23)



Cape petrel (p20)



Wandering albatross (p12)

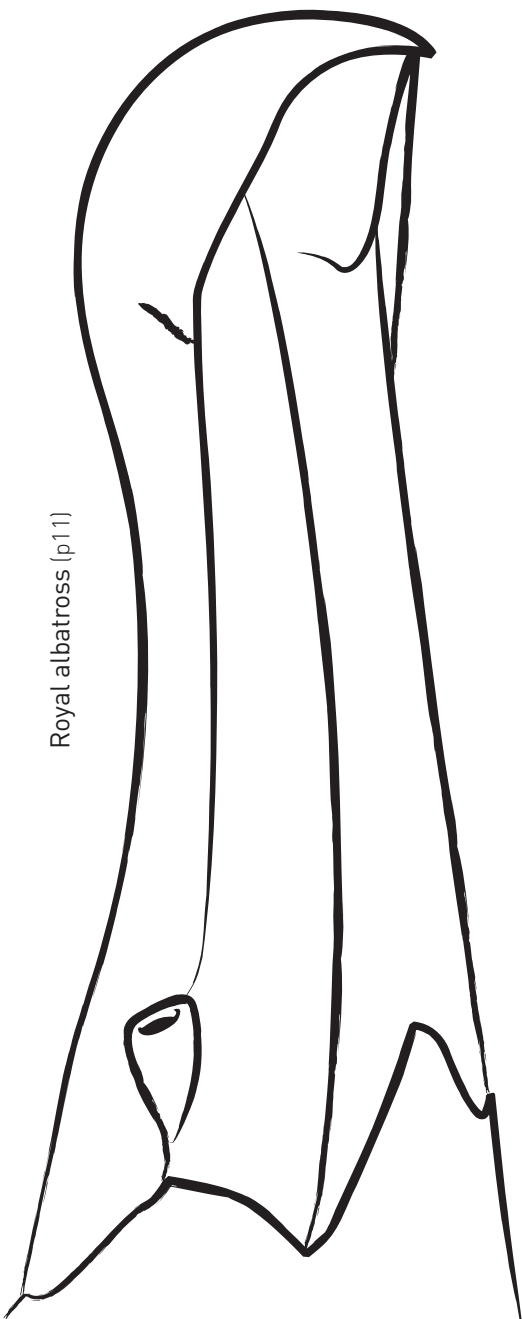


# Bill Guide

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After Slater (1970), p189-197

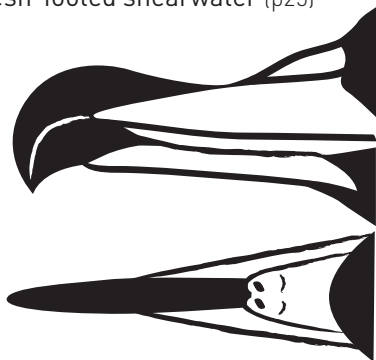
Royal albatross (p11)



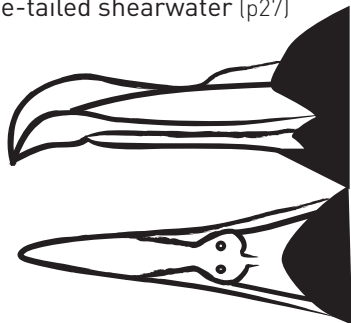
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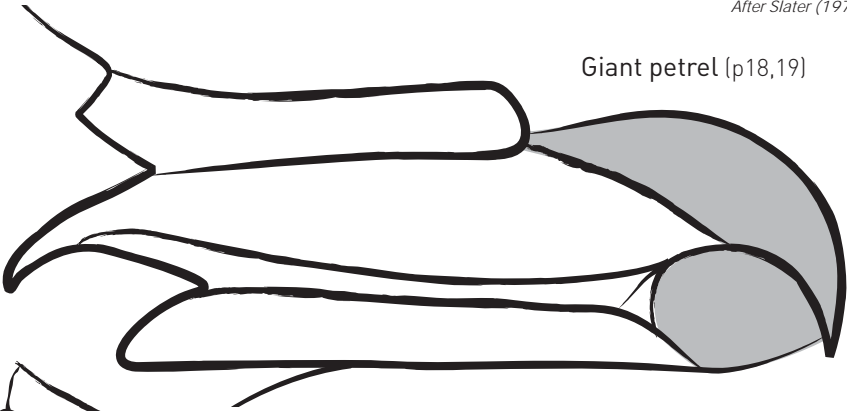


# Bill Guide

After Simpson & Day (1995), inside front and back cover

After Slater (1970), p189-197

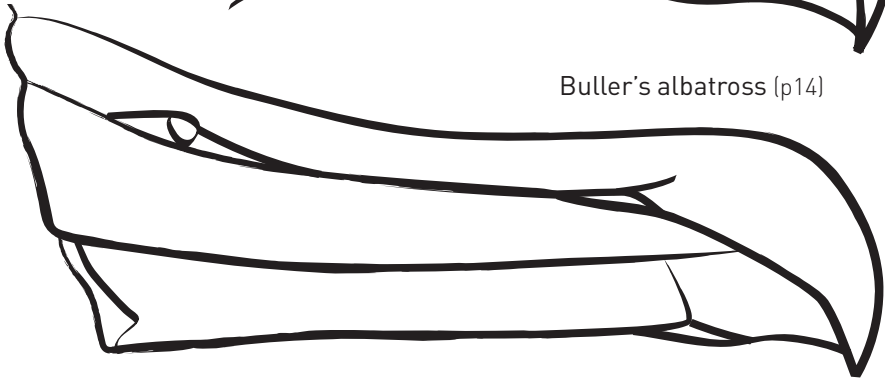
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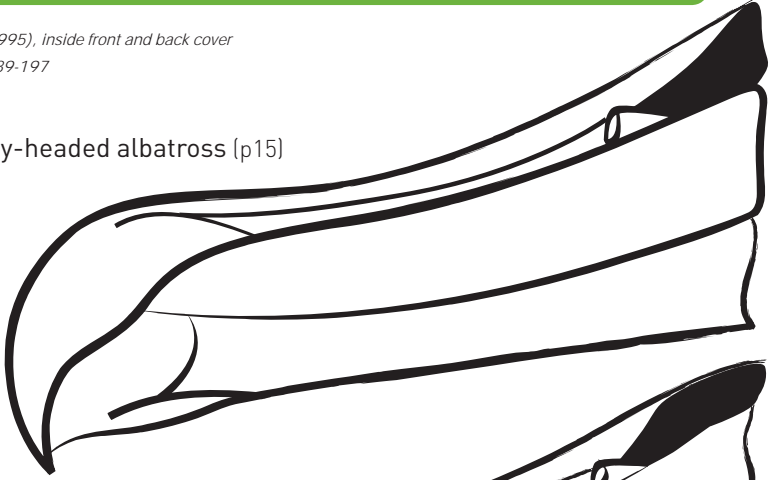
Wilson's storm petrel (p24)



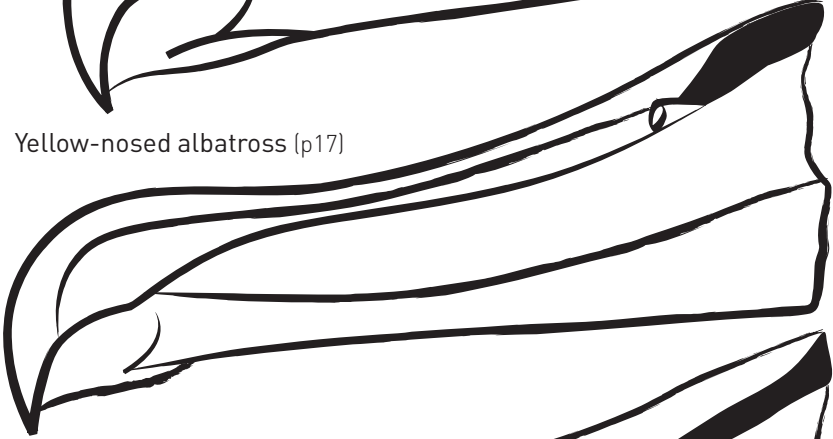
# Bill Guide

After Simpson & Day (1995), inside front and back cover  
After Slater (1970), p189-197

Grey-headed albatross (p15)



Yellow-nosed albatross (p17)



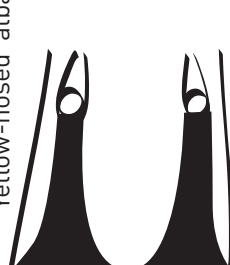
Shy albatross (p16)



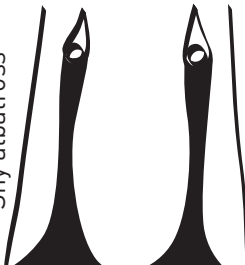
Grey-headed albatross



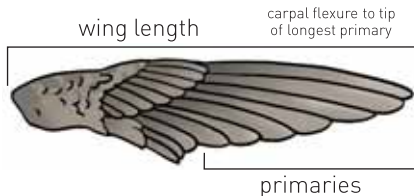
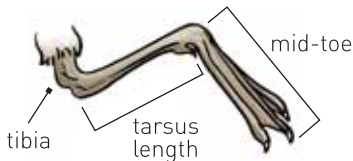
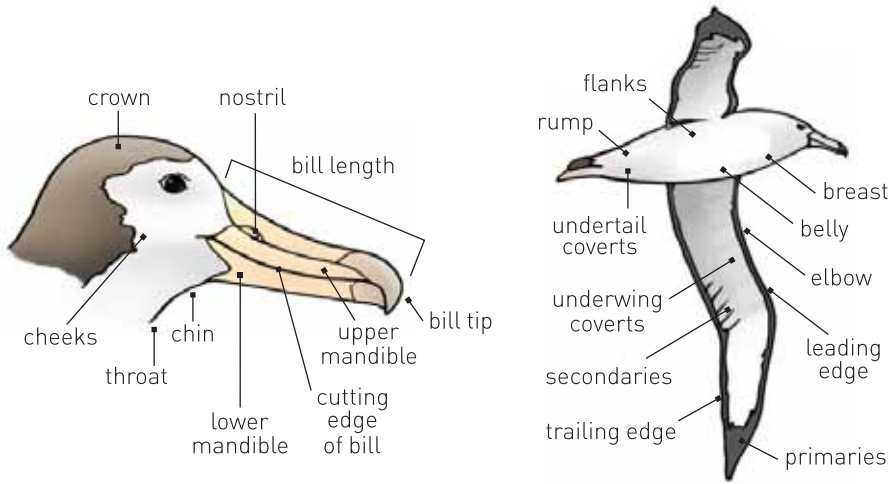
Yellow-nosed albatross



Shy albatross



# Identifying Features of Albatross

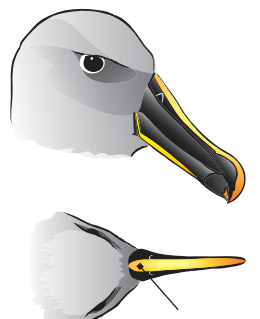


After Onley & Bartle (1999), p19

Yellow-nosed albatross (p17)

Buller's albatross (p14)

Grey-headed albatross (p15)



After Onley & Bartle (1999), p35

# Royal Albatross

Southern Royal

white leading edge  
of upperwing

body and  
head white

horn-coloured bill with thin  
black line on cutting edge



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## Royal albatross

*Diomedea* spp.

CAAB No: 40040005

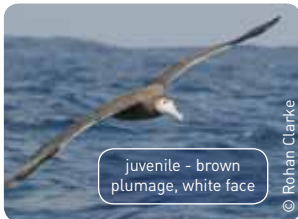
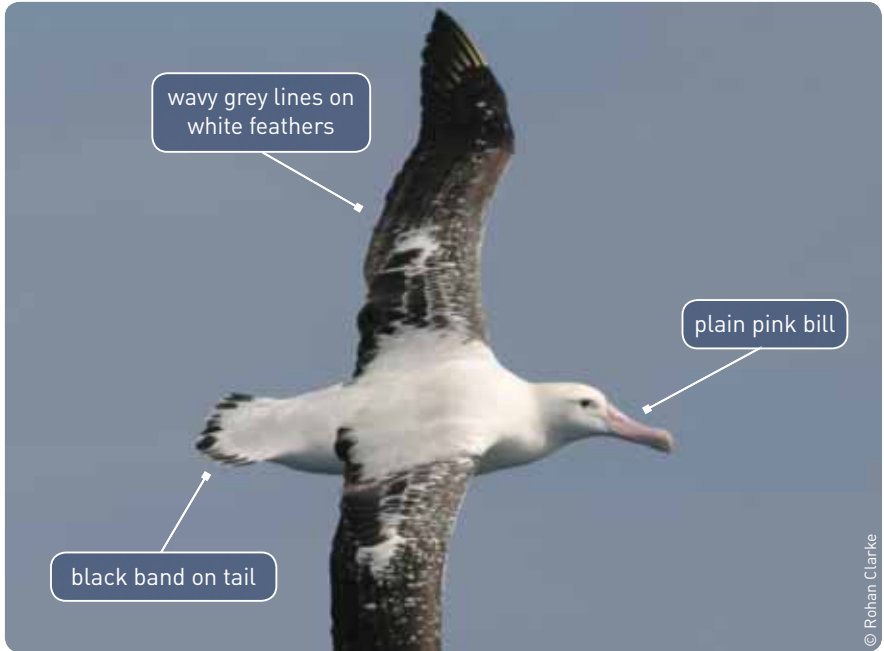
FAO Code: DIP



- Very large birds
- Horn-coloured bills with a thin black line on the cutting edge
- Body, head and tail are white with variable dark spots on the crown, back and tip of tail
- Northern Royal has all black underwing
- Southern Royal upperwing gets whiter with age
- No black band on tip of tail, unlike Wandering albatross
- Length: 110 - 120cm, Wingspan: 320 - 340cm
- Similar species: Wandering and Amsterdam albatrosses



# Wandering Albatross



## Wandering albatross

*Diomedea exulans*

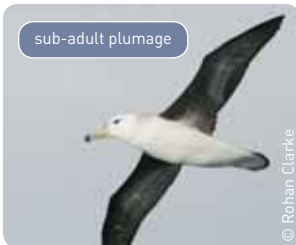
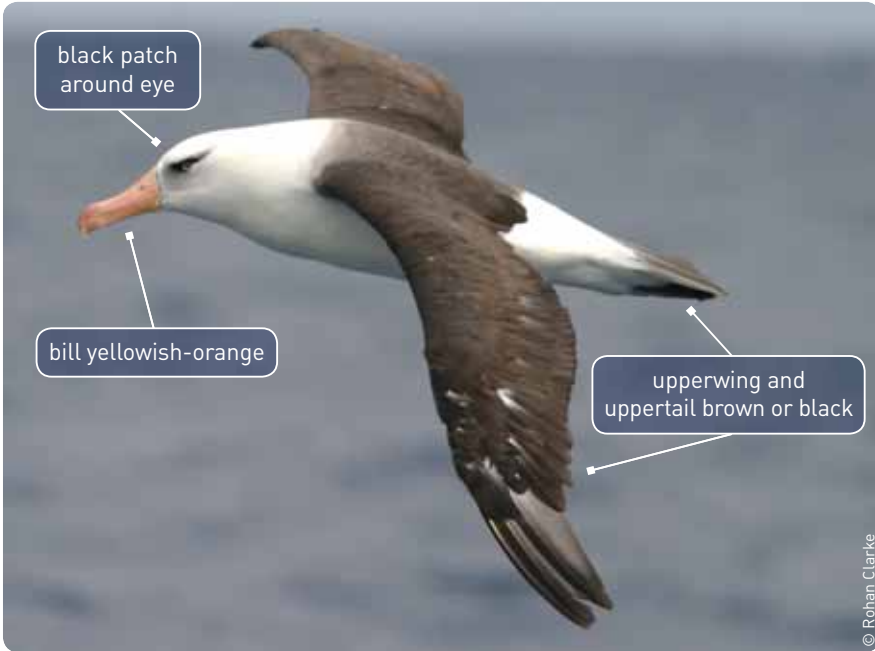
CAAB No: 40040006

FAO Code: DIX



- Plain pink bill
- Plumage variable: become whiter with age; most retain brown crowns and a few dark tail feathers
- Even the palest birds usually have fine, grey, wavy lines on the white feathers
- Black band on tip of tail, unlike Royal albatross
- Juveniles are dark brown with white face, throat and underwing
- Length: 110 - 120cm, Wingspan: 320 - 340cm
- Similar species: Royal and Amsterdam albatrosses

# Black-browed Albatross



## Black-browed albatross

*Thalassarche melanophrys / impavida*

CAAB No: 40040007

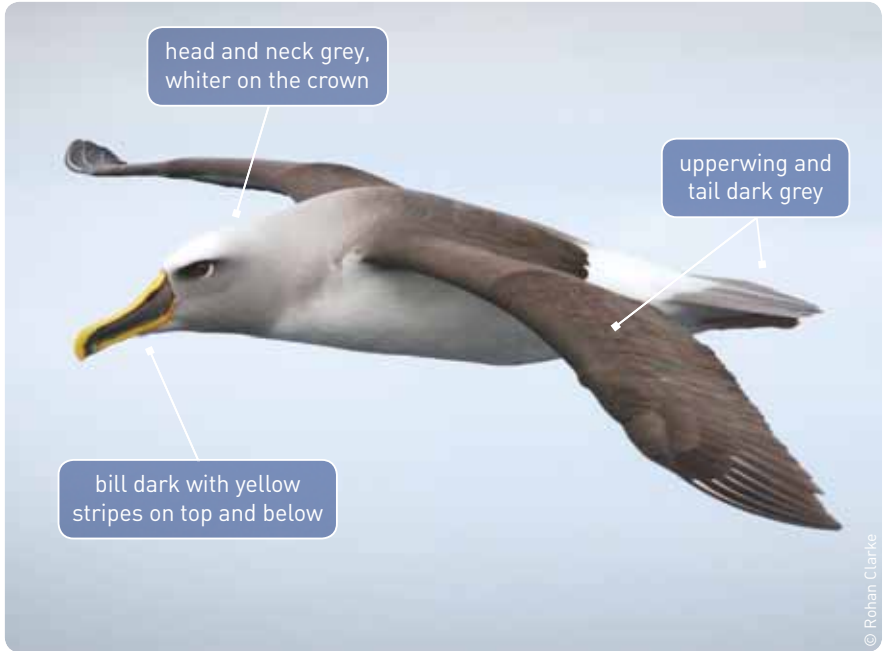
FAO Code: DIM



- Bill yellowish-orange
- Head white with black patch around eyes
- Upperwing and uppertail black or brownish-black
- Underwing white with wide black margins
- Length: 85 - 90cm, Wingspan: 220 - 230cm
- Similar species: Grey-headed, Buller's and Yellow-nosed albatrosses
- New Zealand birds (*impavida*) have white eye, remaining birds (*melanophrys*) have black eye



# Buller's Albatross



## Buller's albatross *Thalassarche bulleri*

CAAB No: 40040001

FAO Code: DIB



- Bill dark with yellow stripes on top and below
- Broad yellow stripe on top of bill, rounded at base
- Head and neck grey, whiter on the crown
- Body white
- Upperwing and uppertail dark grey-brown
- Underwing white with clear black margins
- Length: 75 - 80cm, Wingspan: 205 - 215cm
- Similar species: Grey-headed, Salvin's and Yellow-nosed albatrosses



# Grey-headed Albatross



## Grey-headed albatross *Thalassarche chrysostoma*

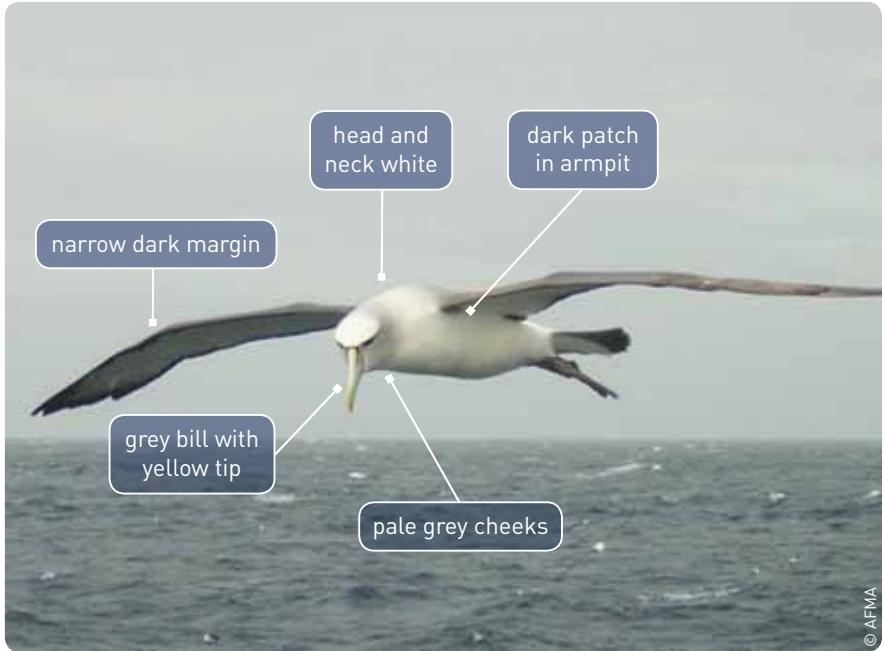
CAAB No: 40040004  
FAO Code: DIC



- Bill dark with yellow stripes on top and below
- Stripe on top of bill tapers towards the base
- Head and neck grey no white cap
- Body white
- Upperwing and uppertail dark grey-brown
- Underwing white with smudgy black margins
- Length: 80 - 85cm, Wingspan: 215 - 225cm
- Similar species: Buller's, Yellow-nosed and Black-browed albatrosses



# Shy Albatross



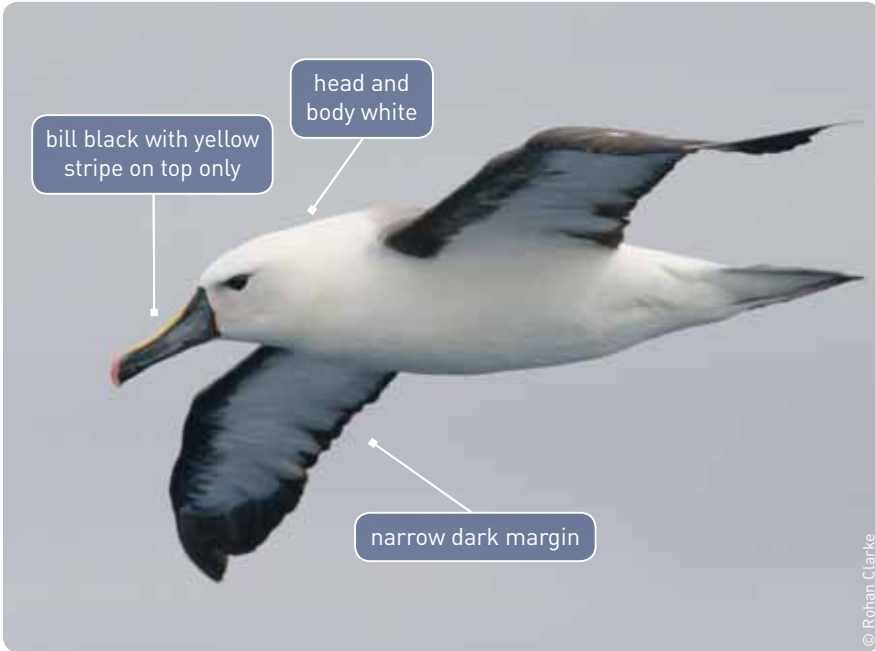
## Shy albatross *Diomedea cauta*

CAAB No: 40040002  
FAO Code: DCV



- Adults have a pale grey bill with a light yellow tip often with a dark smudge on the tip of the lower mandible
- Adults have a white head and neck with a pale grey wash on the cheeks
- Underparts white, underwing white with narrow dark margin and dark thumbprint under arm
- Juveniles have dark grey bills with blackish tips, grey necks and heads with whitish caps and a greyish collar
- Length: 95- 105cm, Wingspan: 250 - 260cm

# Yellow-nosed Albatross



## Yellow-nosed albatross

*Diomedea chlororhynchos/*  
*bassi*

CAAB No: 40040003

FAO Code: DCR



- Black bill with yellow stripe on top only
- Indian Ocean bird (*chlororhynchos*) has white head
- Atlantic Ocean bird (*bassi*) has light grey head and neck which becomes whiter as feathers wear
- Black patch in front of eyes
- Body white, upperwing and uppertail grey-brown
- Underwing white with narrow black margins
- Length: 70 - 80cm, Wingspan: 200 - 210cm
- Similar species: Buller's, Grey-headed, Salvin's and Black-browed albatrosses



# Northern (Hall's) Giant Petrel



© Rohan Clarke



© Rohan Clarke



© AAD

## Northern (Hall's) giant petrel

*Macronectes halli*

CAAB No: 40041008

FAO Code: MAH



- Large, straw-coloured bill, tipped reddish-pink or orange with a large single nostril-tube on top
- Adults have a dark crown, whitish face and throat
- Eyes pale grey
- Immature birds are a sooty-brown colour with dark brown eyes
- Much larger than other petrels and similar in size to a small albatross
- Length: 85 - 95cm, Wingspan: 160 - 200cm
- Similar species: Southern giant petrel and Sooty albatross

# Southern Giant Petrel



## Southern giant petrel *Macronectes giganteus*

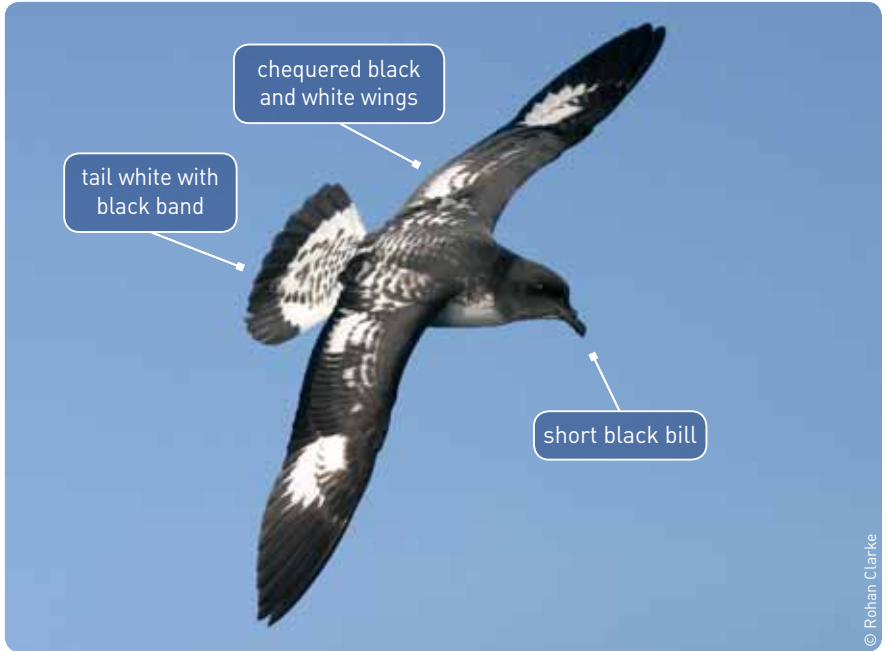
CAAB No: 40041007  
FAO Code: MAI



- Largest petrel
- Large straw-coloured bill, greenish tip with a large single nostril-tube on top
- Adults are grey-brown with head, neck and breast mottled whitish
- Eyes pale grey
- Juveniles blackish-brown, with dark brown eyes
- 3% of the population are white with some dark feathers
- Length: 85 - 90cm, Wingspan: 190 - 200cm
- Similar species: Northern giant petrel and Sooty albatross



# Cape Petrel



## Cape petrel

*Daption capense*

CAAB No: 40041003

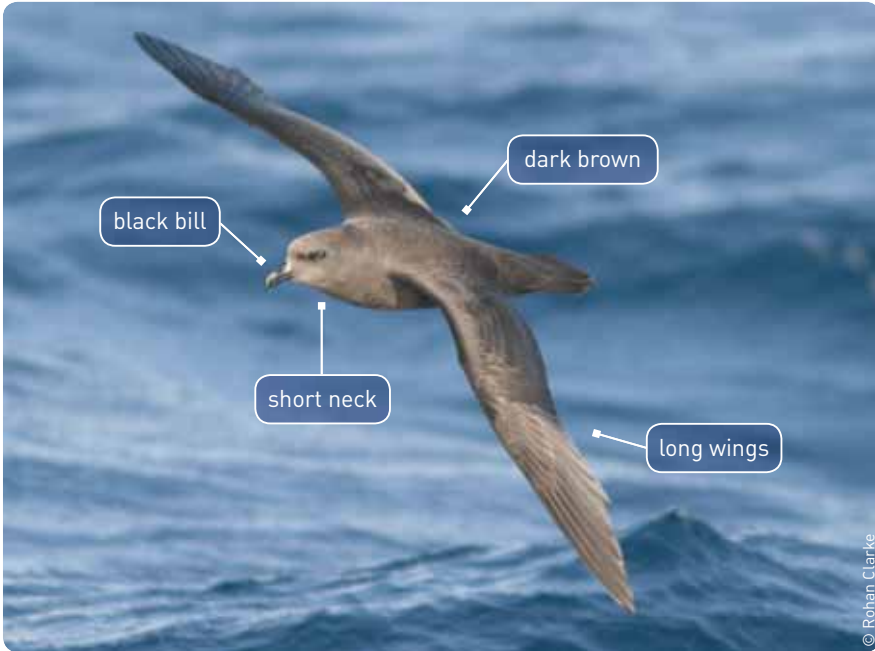
FAO Code: DAC



- Black and white petrel
- Bill black and short
- White underwings with narrow black margins
- Back wings and rump chequered black and white
- Tail white with a black band at the end
- Length: 35 - 40cm, Wingspan: 85 - 90cm
- Similar species: Antarctic petrel



# Great-winged Petrel



## Great-winged petrel *Pterodroma macroptera*

CAAB No: 40041031  
FAO Code: PDM



- Large, dark brown petrel
- Often with a pale patch around the black bill
- Short neck
- Long wings
- Can be confused with White-chinned petrel, but identifiable by bill colour
- Length: 40 - 45cm, Wingspan: 95 - 100cm
- Similar species: Sooty and Short-tailed shearwaters, White-chinned and Providence petrels



# Westland Petrel



**Westland petrel**  
*Procellaria westlandica*

CAAB No: 40041021

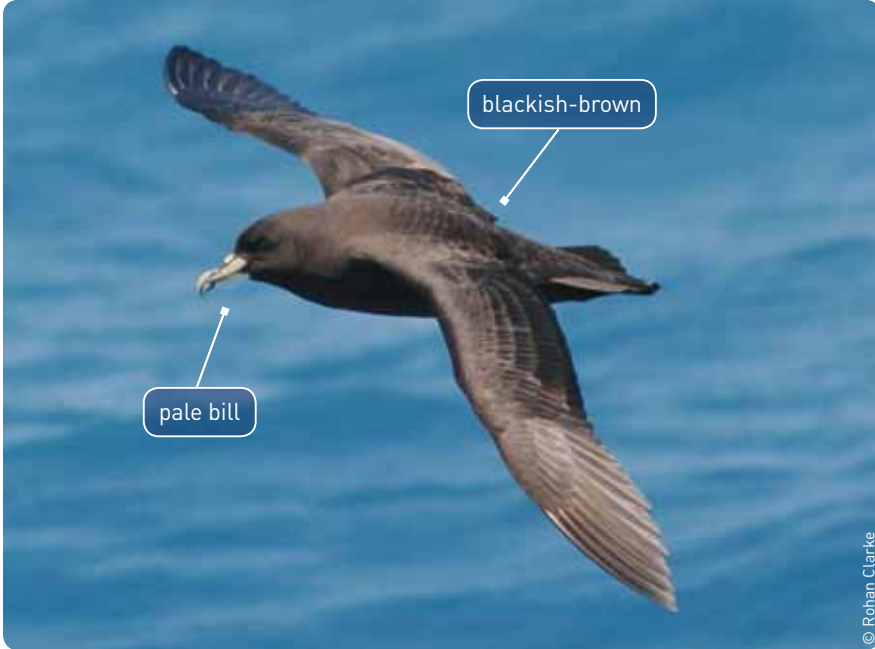
FAO Code: PCW



- Bill whitish to yellow horn with dark ridge and cutting edge and dark tip
- Very similar to the Black petrel but larger, longer billed, short necked with broader wings
- Dark legs and black feet
- Is sometimes confused with the White-chinned petrel: White-chinned petrel has a pale, not a black tip to bill
- Length: 50 - 55cm, Wingspan: 135 - 140cm
- Similar species: White-chinned, Black and Great-winged petrels and Flesh-footed shearwater



# White-chinned Petrel



## White-chinned petrel *Procellaria aequinoctialis*

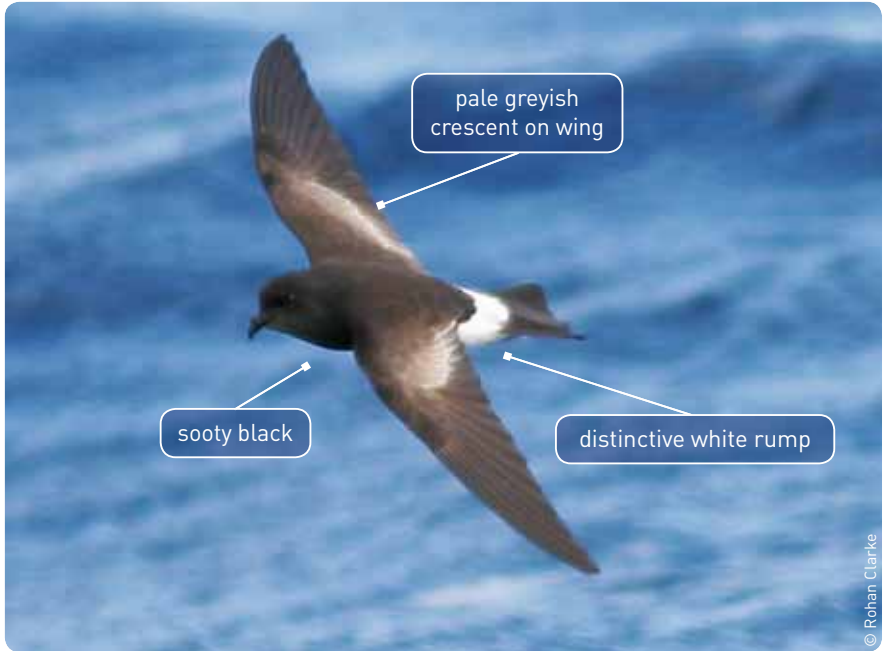
CAAB No: 40041018  
FAO Code: PRO



- Large blackish-brown petrel with pale bill and in some birds a small white patch on the chin
- Longish pale bill can be whitish, bluish, yellowish or greenish with a strongly hooked tip
- Underwing brown
- Black feet
- Can be confused with Great-winged petrel, but distinguishable by bill colour
- Length: 50 - 55cm, Wingspan: 135 - 140cm
- Similar species: Westland and Black petrels and Flesh-footed shearwater



# Wilson's Storm Petrel



## Wilson's storm petrel

*Oceanites oceanus*

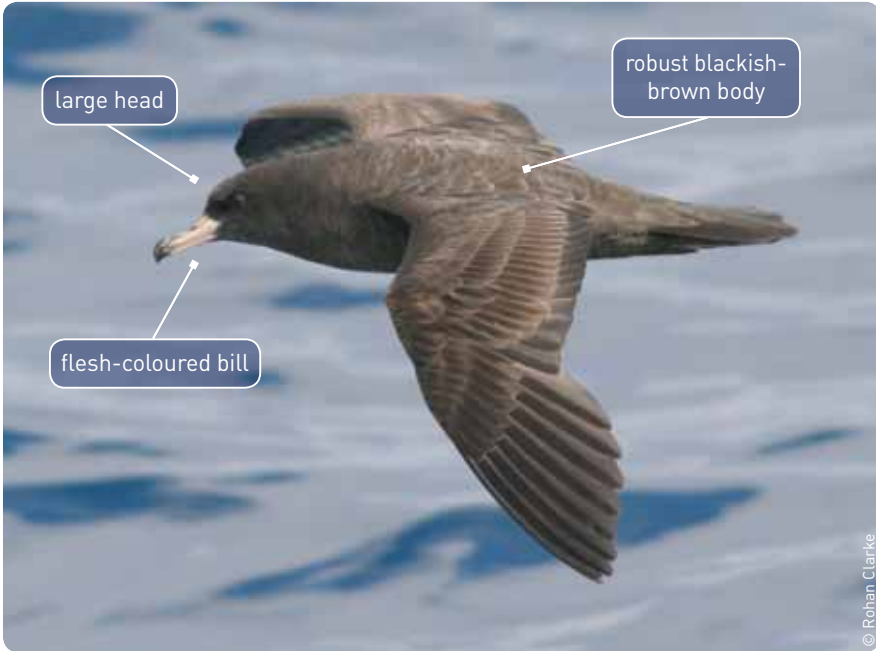
CAAB No: 40042004

FAO Code: OCO



- Sooty black in colour
- Distinctive white rump
- Wings rounded
- Pale greyish crescent on the upper wing
- Long black legs and feet with yellow webs
- Very small compared to other petrels
- Length: 15 - 20cm, Wingspan: 38 - 43cm
- Similar species: other small storm petrels

# Flesh-footed Shearwater



© Rohan Clarke



© Rohan Clarke

## Flesh-footed shearwater

*Puffinus carneipes*

CAAB No: 40041038

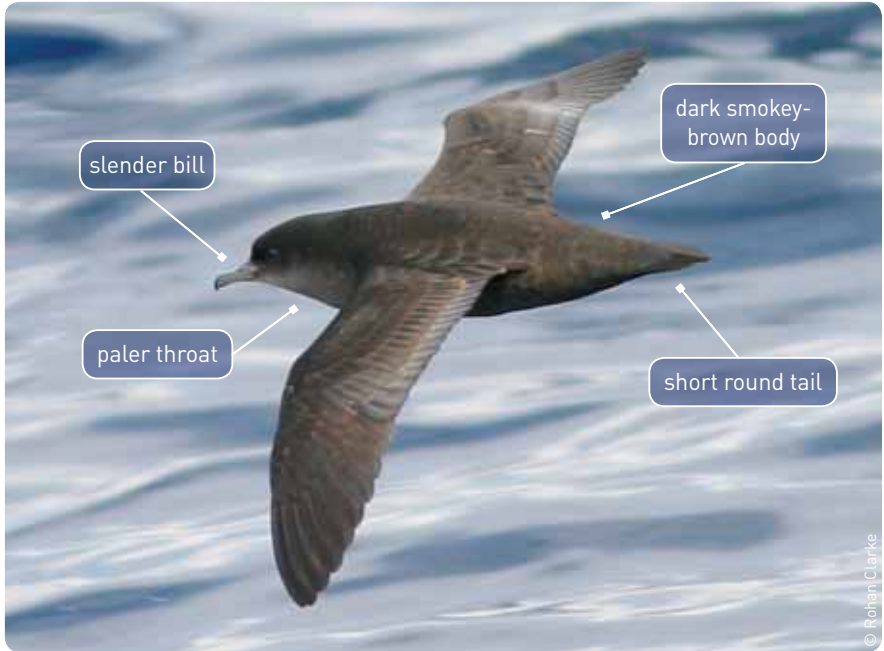
FAO Code: PFC



- Large, pale, flesh-coloured bill with blackish tip
- Large head, robust, blackish-brown
- Brown underwing
- Tail short, either square or weakly wedge-shaped
- Legs and feet pale pink
- Length: 40 - 45cm, Wingspan: 100 - 110cm
- Similar species: Wedge-tailed shearwater, White-chinned, Westland and Parkinson's petrels



# Short-tailed Shearwater



## Short-tailed shearwater

*Puffinus tenuirostris*

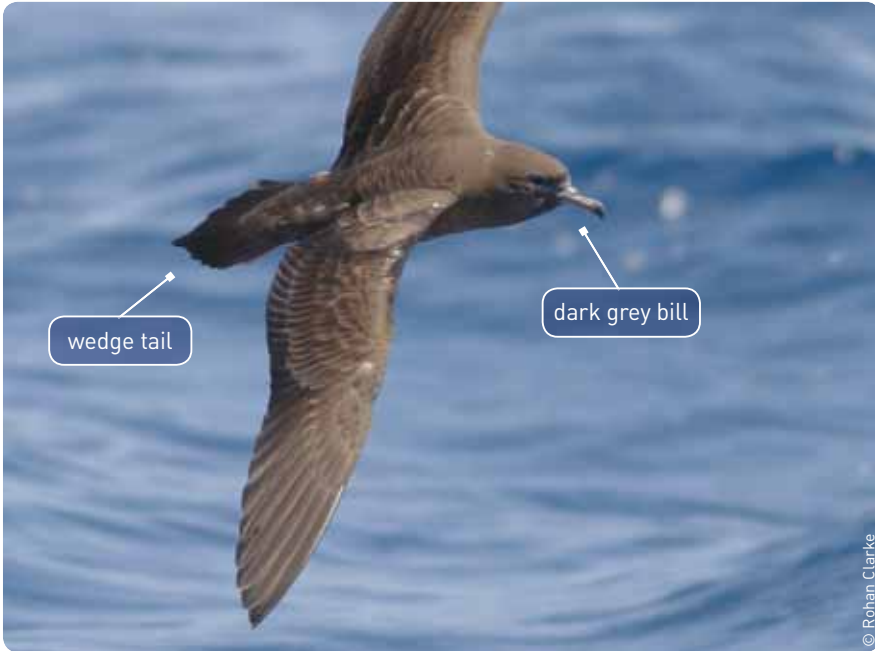
CAAB No: 40041047

FAO Code: PFT



- Also known as the “muttonbird”
- Bill slender and shorter than 3.5cm
- Dark smoky-brown with a paler throat
- Some have whitish underwing
- Tail short and rounded
- Often seen in huge groups of tens of thousands
- Length: 40 - 45cm, Wingspan: 95 - 100cm
- Similar species: Sooty, Flesh-footed and Wedge-tailed shearwaters

# Wedge-tailed Shearwater



## Wedge-tailed shearwater

*Puffinus pacificus*

CAAB No: 40041045

FAO Code: PFZ



- Also known as the “muttonbird”
- Bill usually dark grey, some can have a pale horn with a black tip
- Has broad wings and flies close to the water
- Longish wedge-shaped tail, looks pointed in flight
- Feet flesh-coloured and do not extend beyond the tail in flight
- Length: 40 - 45cm, Wingspan: 100 - 105cm
- Similar species: Flesh-footed shearwater



# Boobies



## Boobies

*Sulidae*

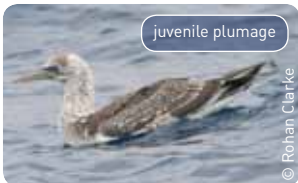
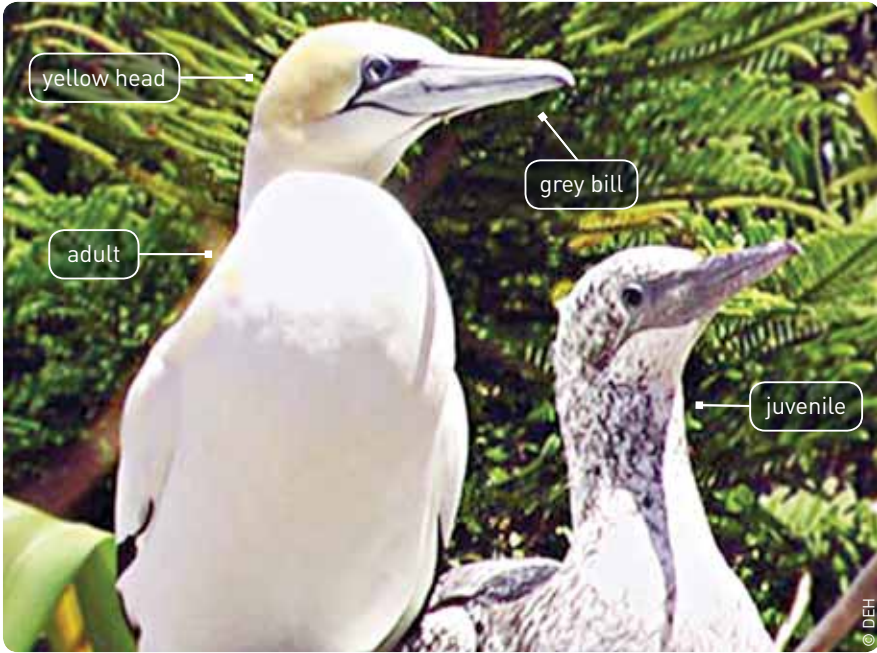
CAAB No: 40047000



- Straight-billed birds that fold back wings to enable them to dive into the sea from great heights
- Masked booby: white with dark brown flight feathers, bill yellow in males and dull green-yellow in females, eyes yellow, feet blue-grey or blue-green, length 74 - 86cm, wingspan 152 - 170cm
- Red-footed booby: distinguished by feet which vary in colour from flesh-pink to cherry-red, length 65 - 80cm, wingspan 140 - 152cm
- Brown booby: brown with white belly and underwing, length 65 - 75cm, wingspan 140 - 145cm



# Australasian Gannet



## Australasian gannet

*Morus serrator*

CAAB No: 40047002

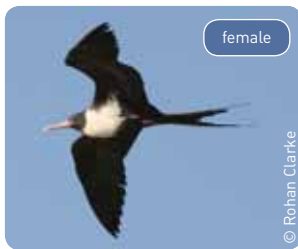
FAO Code: MVR



- Straight-billed birds that dive into the sea
- Grey bill
- Head yellow
- Adult body white
- Short black stripe in centre of throat
- Black feet, green on toes
- Juvenile body grey-brown
- Length: 80 - 85cm, Wingspan: 165 - 175cm



# Frigatebirds



## Frigatebirds

*Fregatidae*

CAAB No: 40050000



- Black or black and white with long bills strongly hooked at the tip
- Adult male has a red throat pouch that resembles a balloon when inflated
- Great frigatebird: mainly black, males have grey bill, black eye-ring and dull pink feet; females have dull pink bill, red eye-ring, length 85 - 100cm, wingspan 200 - 250cm
- Lesser frigatebird: similar to the Great frigatebird and have a small patch of white on the underwing, length 70 - 85cm, wingspan 180 - 190cm



# Cormorants

Pied cormorant



© Rohan Clarke

Little pied cormorant



© Rohan Clarke

## Cormorants

Subfamily *Phalacrocoracinae*

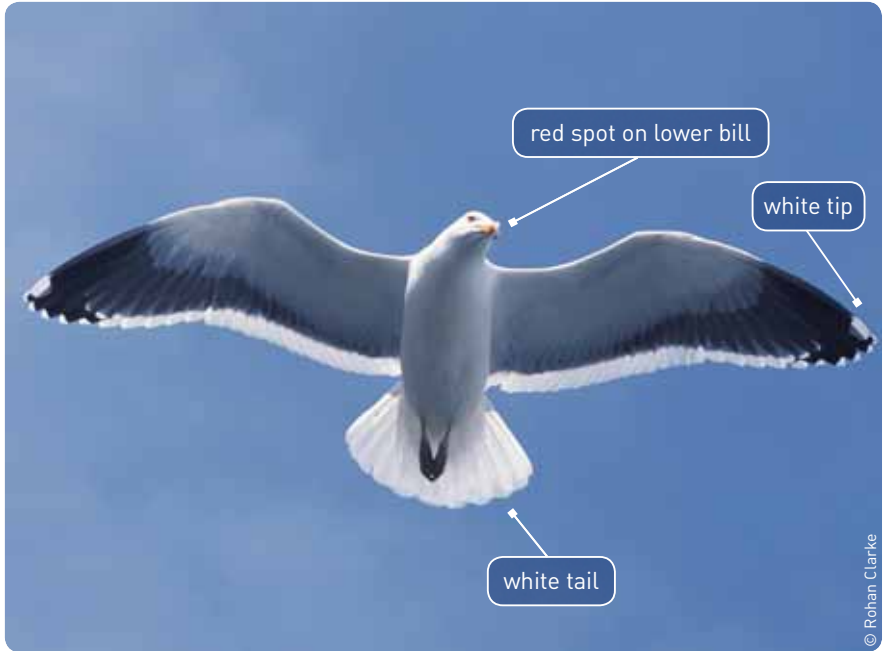
CAAB No: 40048000



- Great (Black) cormorant: largest cormorant, dark horn, hooked bill, yellow throat pouch and face, length 70 - 95cm, wingspan 130 - 150cm
- Little black cormorant: small black body, dark grey slender bill, length 58 - 65cm, wingspan 80 - 100cm
- Black-faced cormorant: distinctive white breast, dark grey bill, black throat pouch and face, length 60 - 70cm, wingspan 100 - 110cm
- Pied cormorant: white breast, slender pale hooked bill, length 65 - 80cm, wingspan 120 - 150cm
- Little pied cormorant: stubby yellow-sided bill, white eyebrow extends to side of neck, length 55 - 65cm, wingspan 80 - 85cm



# Kelp Gull



## Kelp gull

*Larus dominicanus*

CAAB No: 40128012

FAO Code: LDO



- Bill thinner than the Pacific gull with a red spot on the lower bill
- Body white
- White tips and spots on primary feathers
- Tail all white
- Legs green-grey to yellowish
- Juveniles are dark brown with a black beak
- Length: 55 - 60cm, Wingspan: 125 - 140cm
- Similar species: Pacific gull

# Pacific Gull



## Pacific gull *Larus pacificus*

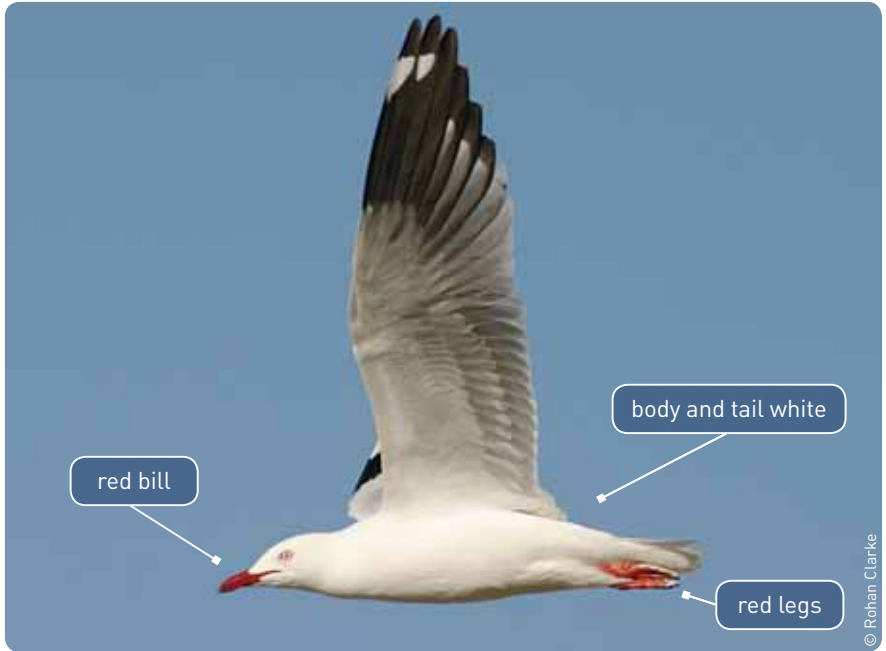
CAAB No: 40128014



- Thick yellow bill with a scarlet tip
- Body white
- Black upperwings and wingtips
- Tail white with a black horizontal band across it
- Yellow legs
- Juveniles are dark brown with a black beak
- Length: 55 - 70cm, Wingspan: 130 - 150cm
- Similar species: Kelp gull



# Silver Gull



## Silver gull

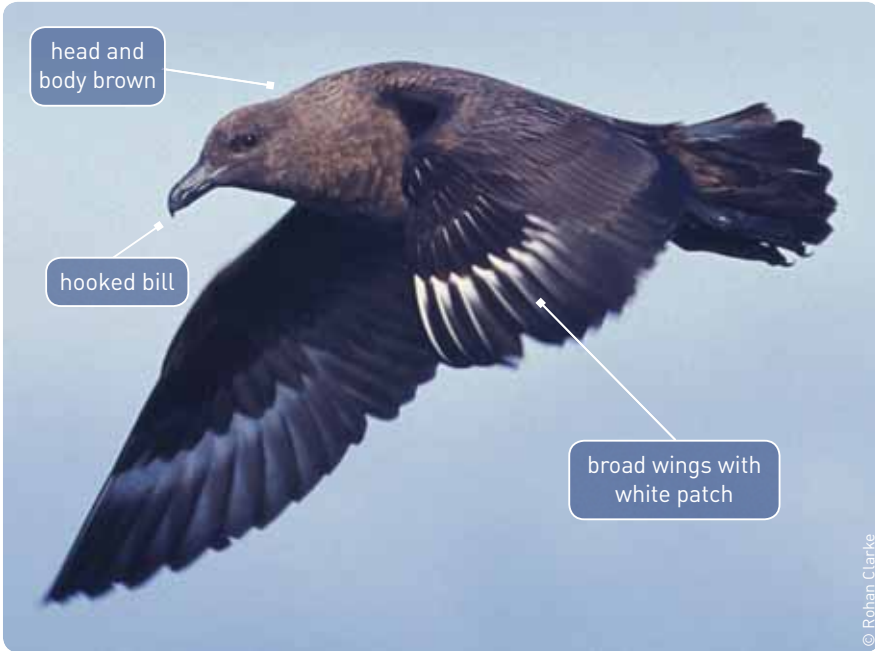
*Larus novaehollandiae*

CAAB No: 40128013



- Familiar Australian seagull
- Bill red
- Eyes white
- Body white with silver-grey upperwings
- Tail white
- Legs red
- Juveniles have black eyes, bill and legs with mottled brown upperwings
- Length: 35 - 45cm, Wingspan: 90 - 95cm
- Similar species: Black-billed gull from New Zealand

# Antarctic (Great) Skua



## Antarctic (Great) skua

*Catharacta antarctica*

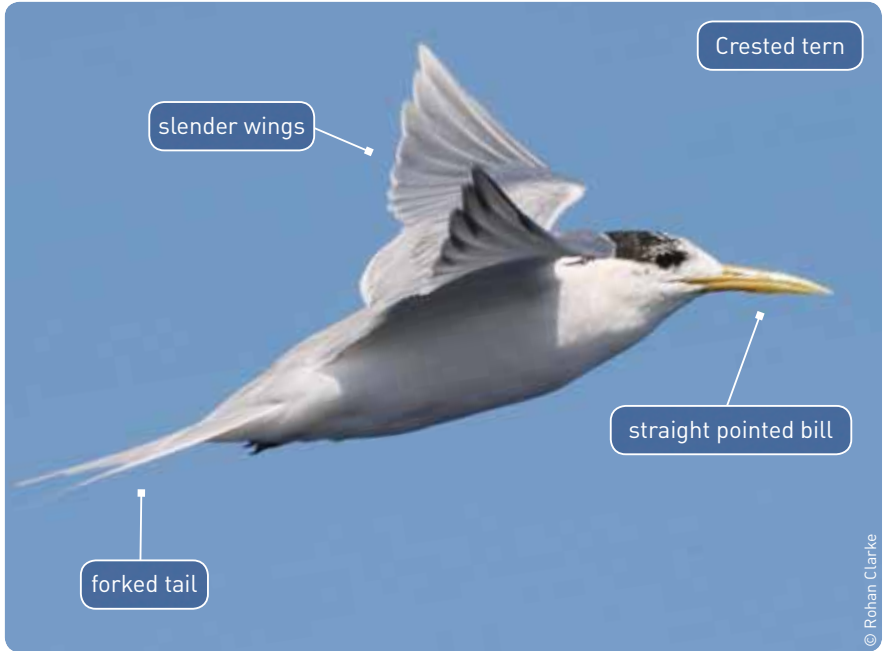
CAAB No: 40128004



- Similar in shape to a stout brown gull with a hooked black bill
- Head and body brown with variation in colour depending on when moulting has occurred; dark brown just after moult and paler with wear
- Wings broad with a large white patch
- Juveniles are darker brown, sometimes mottled with smaller white wing patches
- Length: 60 - 65cm, Wingspan: 145 - 150cm
- Similar species: South Polar skua



# Terns



## Terns

*Laridae*

CAAB No: 40128000



- Australia has 22 species of terns and noddies
- Terns are related to gulls but have straighter, more pointed bills, slender wings and more fragile legs
- Many terns have blackish bills in non-breeding plumage, some becoming red in breeding plumage
- All are middle sized and white bellied in non-breeding plumage and grey, white or pinkish in breeding plumage

# Noddies



## Noddies

*Laridae*

CAAB No: 40128000



- A distinct group of terns; dark with pale caps
- Broader wings than other terns
- Tail broad and rounded with a notch
- Feet and legs more robust than other terns
- Generally tropical



# Australian Pelican



© Rohan Clarke



© Rohan Clarke



© AFMA

## Australian pelican *Pelicanus conspicillatus*

CAAB No: 040046000

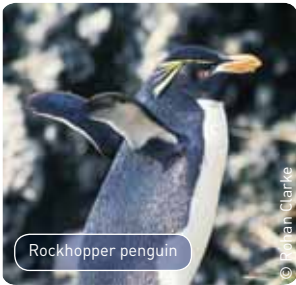


- Large black and white bird with a large bill and a pink throat pouch
- Long neck
- Black upperwing with white patch
- White underwing
- Tail white with black tip
- Short legs
- In juveniles the parts of the bird that will become black appear brown
- Length: 165 - 170cm, Wingspan: 250 - 260cm



# Penguins

Gentoo penguin



Rockhopper penguin



King penguin

## Penguins *Spheniscidae*



- Flightless southern hemisphere marine birds
- Readily recognised by their distinctive features
- All penguins have dark backs and white fronts
- Large webbed feet set far back on the body to enable them to walk upright
- Penguins feed underwater
- With the exception of the Little penguin, all species are rare around mainland Australia



# Antarctic Prion



**Antarctic prion**  
*Pachyptila desolata*

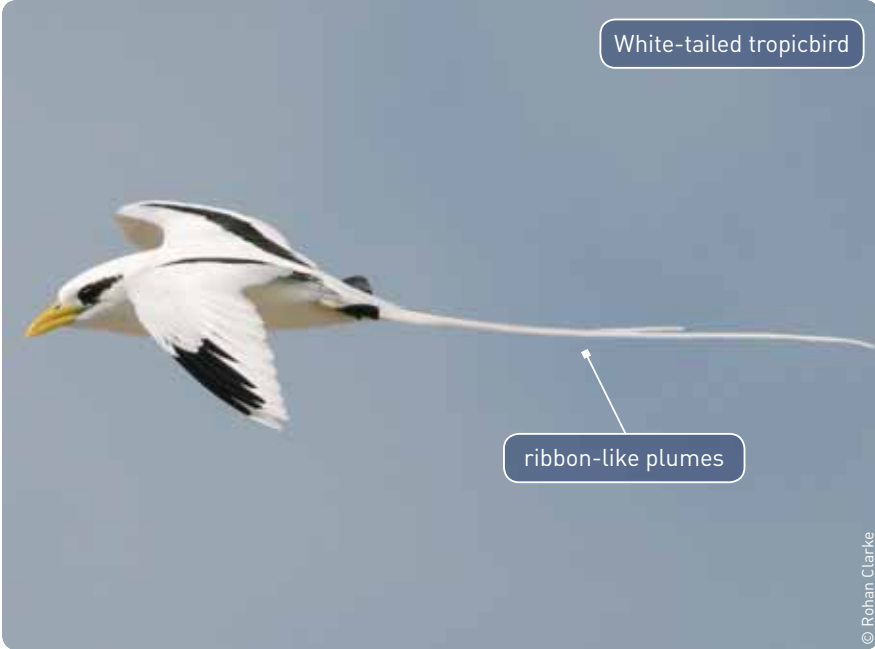
CAAB No: 40041011



- Grey crown
- Broad, white eyebrow emphasised by dark grey line through the eye, curving down the neck
- "M" band on the wing
- White sides to the head
- Very similar to other prions which differ mostly in the size and shape of their bills
- There are 5 other related species in the prion group
- Length: 25 - 30cm, Wingspan: 60 - 65cm

# Tropicbirds

White-tailed tropicbird



ribbon-like plumes

© Rohan Clarke



Red-tailed tropicbird

© DEH



White-tailed tropicbird

© Rohan Clarke

## Tropicbirds

*Phaethontidae*

CAAB No: 40045000



- Two species of Tropicbird occur: Red-tailed and White-tailed
- Red-tailed: the larger of the tropicbirds, body and wings white, sometimes with pink colouration, robust red bill, tail mainly white with two distinctive ribbon-like plumes, length 75 - 80cm, wingspan 105 - 110cm
- White-tailed: the smaller of the tropicbirds, yellow bill, black patch on white wing, longer white tail streamers, larger black comma-shaped eyebrow, length 75 - 80cm, wingspan 90 - 95cm





# Mammals

## Cetaceans (whales, dolphins, porpoises)

### Baleen Whales

Southern right whale	<i>Eubalaena australis</i>	46
Humpback whale	<i>Megaptera novaeangliae</i>	47

### Toothed Whales

False killer whale	<i>Pseudorca crassidens</i>	48
Killer whale	<i>Orcinus orca</i>	49
Long-finned pilot whale	<i>Globiocephala melas</i>	50
Short-finned pilot whale	<i>Globiocephala macrohynchus</i>	51
Sperm whale	<i>Physeter macrocephalus</i>	52
Common dolphin	<i>Delphinus delphis</i>	53
Bottlenose dolphin	<i>Tursiops aduncus / T. truncatus</i>	54
Indo-Pacific humpback dolphin	<i>Sousa chinensis</i>	55
Snubfin dolphin	<i>Orcaella heinsohni</i>	56

<b>Dugong</b>	<i>Dugong dugon</i>	57
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### Sea Lions and Seals

Australian sea lion	<i>Neophoca cinerea</i>	58
Australian fur seal	<i>Arctocephalus pusillus</i>	59
New Zealand fur seal	<i>Arctocephalus forsteri</i>	60
Sub-Antarctic fur seal	<i>Arctocephalus tropicalis</i>	61
Southern elephant seal	<i>Mirounga leonina</i>	62
Leopard seal	<i>Hydrurga leptonyx</i>	63



# Relative Sizes of Cetaceans

## Baleen whales

Southern right whale (p46)  
up to 16m



Humpback whale (p47)  
up to 15m



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## Toothed whales

Sperm whale (p52)  
11 - 18m



Killer whale (p49)  
5.5 - 9.8m



Long-finned pilot whale (p50)  
3.8 - 6m



False killer whale (p48)  
4.3 - 6m



Short-finned pilot whale (p51)  
3.6 - 6.5m



Bottlenose dolphin (p54)  
1.9 - 3.9m



Indo-Pacific humpback dolphin (p55)  
2 - 2.8m



Snubfin dolphin (p56)  
2.1 - 2.6m



Common dolphin (p53)  
1.7 - 2.4m



# Baleen and Toothed Whales



© GBRMPA

## Baleen whales

*Mysticeti*

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- Whales with baleen plates instead of teeth
- Tail: broad flukes with distinct notch in the middle
- Some have callosities - growths above the eye, by the blowhole and on the chin



© Dennis Burman

## Toothed whales

*Odontoceti*

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- Teeth
- Number of teeth vary from 2-250
- Single blowhole
- Except for the Sperm whale, toothed whales are smaller than most baleen whales
- Most toothed whales can swim quickly



# Southern Right Whale



## Southern right whale

*Eubalaena australis*

CAAB No: 41110001

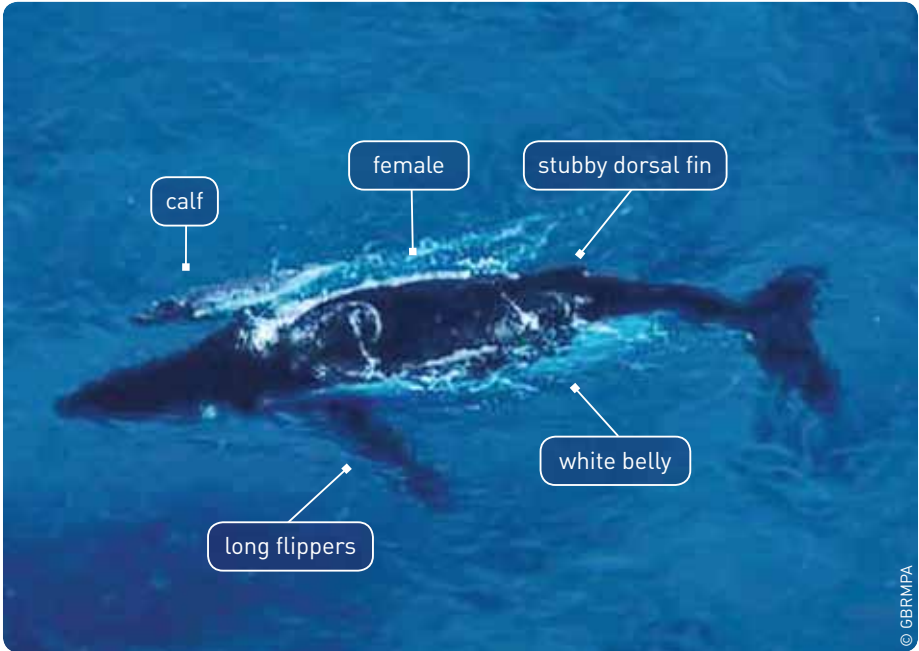
FAO Code: EUA



- Adults mainly black
- Large head with barnacle-like callosities
- Strongly arched mouth
- Blow is u-shaped
- Prominent splash guard
- Large, round body with no fin on back
- Paddle-shaped small flippers
- Black underneath tail
- Smooth trailing edges of fluke
- Adults grow up to 16m



# Humpback Whale



## Humpback whale

*Megaptera novaeangliae*

CAAB No: 41112006

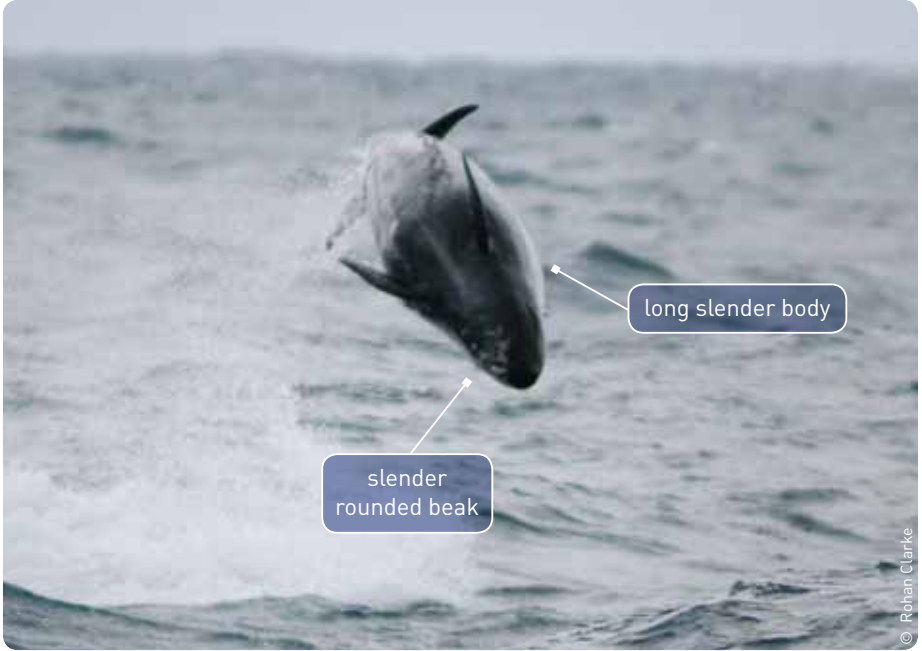
FAO Code: HUW



- Head and flippers can have protuberances which make them look knobbly
- The blow is tall and bushy, wide relative to height
- Large stocky body with back and sides black or dark grey, belly usually white
- Low, stubby dorsal fin with hump
- Very long flippers, black on top and white on the underside
- Irregular, wavy edges on flukes (tail)
- Black and white underneath fluke
- Adults grow up to 15m



# False Killer Whale



## False killer whale *Pseudorca crassidens*

CAAB No: 41116013  
FAO Code: FAW



- Uniform dark body colour
- Long slim body with slender and rounded beak
- Prominent dorsal fin with rounded tip
- Distinguishable “elbow” on flippers
- Can also occur with other cetaceans such as Bottlenose dolphins
- Often occurs in groups
- Adults grow up to 6m

# Killer Whale



## Killer whale

*Orcinus orca*

CAAB No: 41116011

FAO Code: KIW



- Clearly visible black and white pattern
- Robust, heavy body
- White patch behind each eye
- Dorsal fin very tall and triangular in adult males, smaller and swept back in females
- Grey saddle-patch behind the dorsal fin
- Large, paddle-shaped flippers
- Usually in groups
- Adults grow up to 10m



# Long-Finned Pilot Whale



© Dennis Burman



© Dennis Burman

## Long-finned pilot whale

*Globicephala melas*

CAAB No: 41116004

FAO Code: PIW



- Black or dark grey
- Rounded, bulging forehead
- Dorsal fin sweeps backwards
- Often has a grey patch behind the dorsal fin
- Stocky but elongated body
- Distinctive very long flippers
- Often occurs in small groups of 10-50 animals, occasionally in large groups of up to 1000 or more
- Adults grow up to 7m



# Short-Finned Pilot Whale



**Short-finned pilot whale**  
*Globicephala macrorhynchus*

CAAB No: 41116003  
FAO Code: SHW

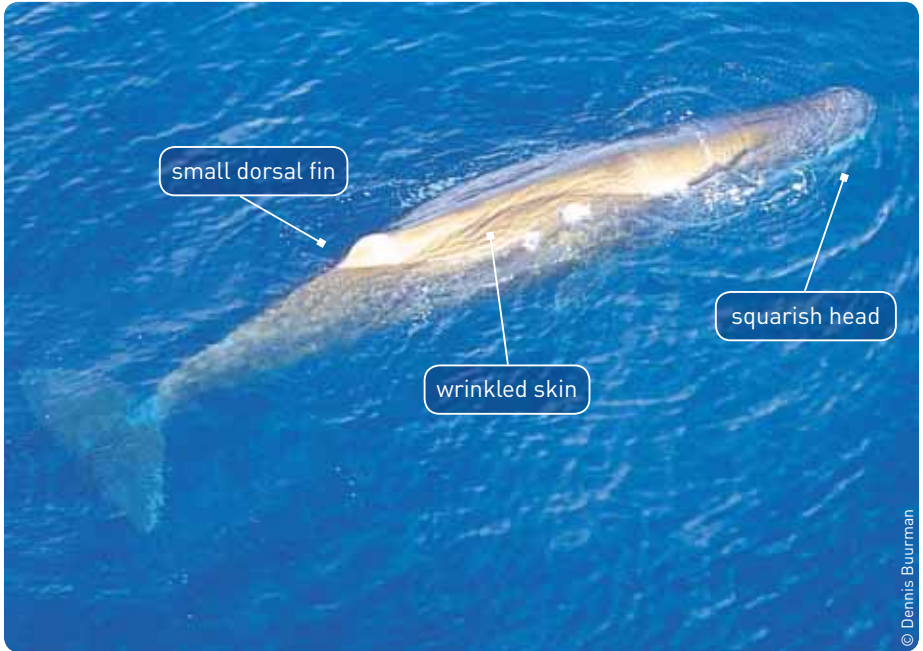


- Black or dark grey in colour
- Stocky but elongated body with bulging forehead
- Dorsal fin sweeps backwards
- The grey saddle-shaped marking behind the dorsal fin is not always present
- Similar to Long-finned pilot whale with shorter, slender, sickle-shaped flippers
- Occurs in groups of up to 30 animals, occasionally in very large groups of several hundred
- Found in tropical and temperate waters
- Adults grow up to 6m





# Sperm Whale



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## Sperm whale

*Physeter macrocephalus*

CAAB No: 41119003

FAO Code: SPW



- Squarish head
- Dark grey but can look reddish-brown in sunlight
- Small dorsal fin which can look more like a hump
- Bumps along the back between dorsal fin and tail
- Single blow hole on the left side of the snout
- Distinctive wrinkled skin
- Broad flukes (tail) raised on diving
- Can be found in groups
- Often motionless at surface, dives for long periods
- Adults grow up to 18m



# Common Dolphin



## Common dolphin *Delphinus delphis*

CAAB No: 41116001  
FAO Code: DCO



- Dorsal surface of head, back and dorsal fin dark
- Prominent fin and beak
- Distinctive figure of eight pattern on sides
- White underside and lower sides
- Yellowish-tan patch on sides
- Dark line from flipper to beak or rostrum
- Very active, usually in large pods
- Adults grow up to 2m



# Bottlenose Dolphin



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© GBRMPA

## Bottlenose dolphin

*Tursiops aduncus/T. truncatus*

CAAB No: 41116019

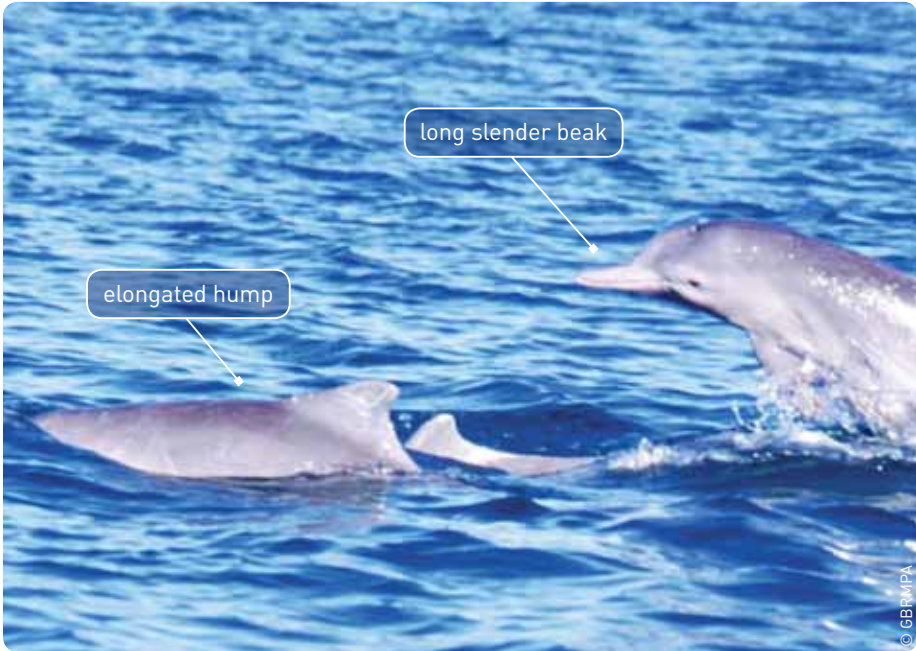
FAO Code: DB0



- Dark or light grey in colour
- Distinct beak with a sharp crease between the beak and forehead
- Rounded forehead
- Prominent dorsal fin sickle-shaped and curved backwards
- Usually seen in small groups
- Often bow-rides
- Adults grow up to 3.5m



# Indo-Pacific Humpback Dolphin



## Indo-Pacific humpback dolphin

*Sousa chinensis*

CAAB No: 41116014

FAO Code: PHI



- Colour usually grey, thought to grow lighter with age making some animals almost white
- Long slender beak
- Robust body
- Small fin sits on elongated hump
- Mostly comes to the surface only to breathe
- Usually occurs in small groups of 1-6
- Found in coastal waters
- Adults grow up to 3m



# Snubfin Dolphin



## Snubfin dolphin

*Orcaella heinsohni*

CAAB No: 41116010

FAO Code: IRD



- Body often pale grey
- Distinctive large rounded melon (forehead) which overlaps the mouth
- Small dorsal fin with blunt, rounded tip
- Long, broad spatulate flippers
- Short dives
- Slow swimmer
- Found in coastal waters
- Adults grow up to 2.7m
- Previously known as the Irrawaddy dolphin

# Dugong



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## Dugong

*Dugong dugon*

CAAB No: 41206001

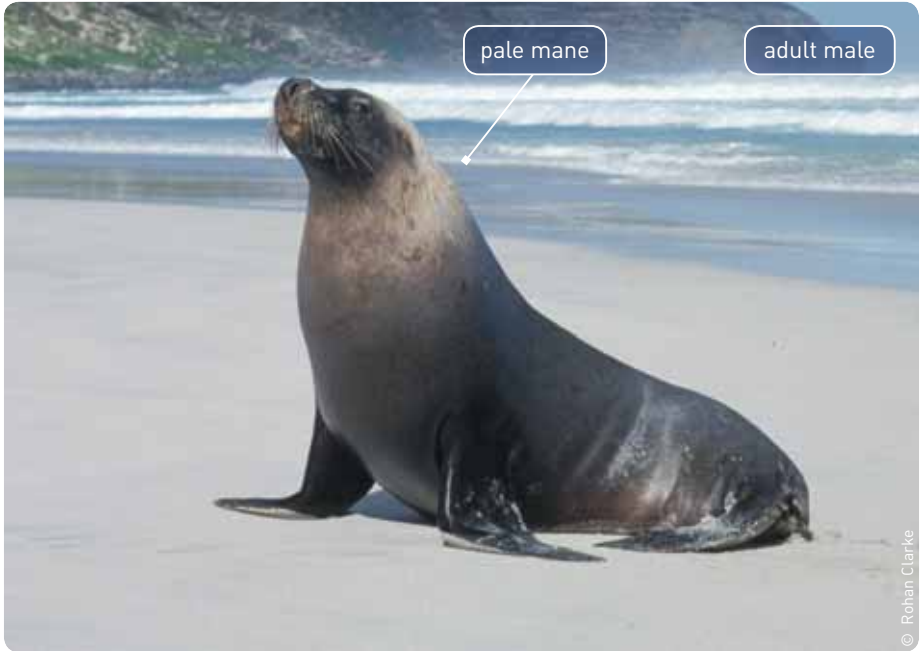
FAO Code: DUG



- Grey to bronze above
- Broad, rounded upper lip with bristles
- No dorsal fin
- Almost white on the underside
- Paddle-like forelimbs
- Flattened fluked tail
- Up to 3m in length
- Feed on aquatic vegetation and are found primarily in seagrass beds, in shallow coastal water and estuaries



# Australian Sea Lion



## Australian sea lion

*Neophoca cinerea*

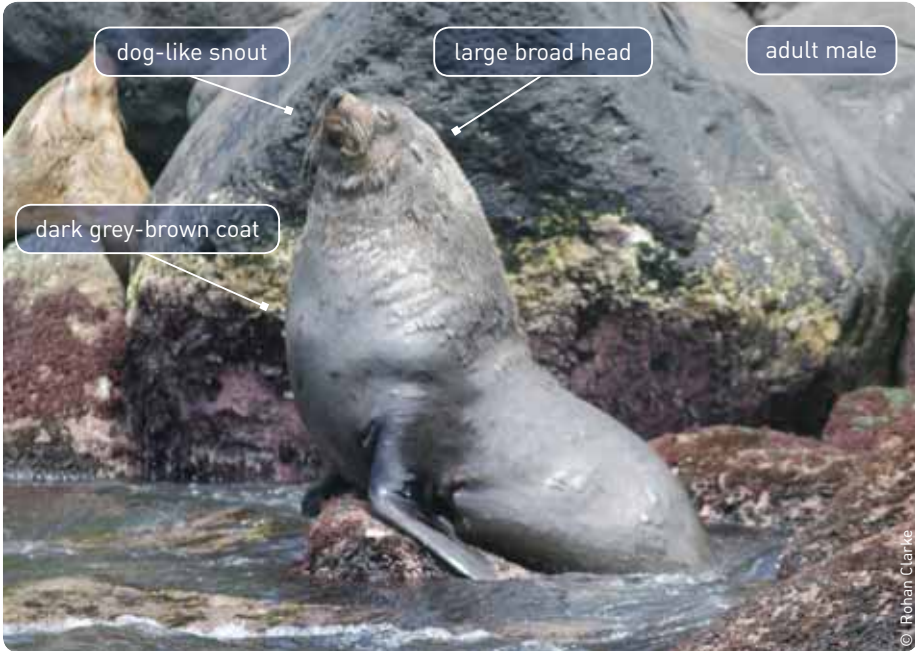
CAAB No: 41131005

FAO Code: ASL



- Both sexes have stocky bodies, a large head and short narrow flippers
- Male is dark brown with pale coloured mane on the back of the neck
- Adult males up to twice the weight and length of females
- Females are silver-grey to fawn on the back and creamy coloured underneath
- Juveniles have a similar colouration to females

# Australian Fur Seal



## Australian fur seal *Arctocephalus pusillus*

CAAB No: 41131003  
FAO Code: SEK



- Adult male head large and broad; adult female head smaller and narrower
- Rounded snout (dog-like) and long backward sweeping facial whiskers
- Robust body covered in thick, brown layered hair, except on the front and back flippers
- Mature males carry a dark mane of coarse hair
- Dark grey-brown coat, adult females are paler on underside especially on throat and chest





# New Zealand Fur Seal



## New Zealand fur seal

*Arctocephalus forsteri*

CAAB No: 41131001

FAO Code: SNZ



- Males reach 2.5m in length and may weigh 185kg
- Females reach 1.5m in length and may weigh 70kg
- Coat is dark grey-brown, paler on the under surface
- Adult males have a long upwards pointy snout with a conspicuous black tip
- Oar-shaped front flippers
- Fur colour when dry: males uniform dark grey to brown with pale muzzle; females brown to dark brown with greyish tones and a lighter brown muzzle

# Sub-Antarctic Fur Seal



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## Sub-Antarctic fur seal *Arctocephalus tropicalis*

CAAB No: 41131004  
FAO Code: SSF



- Similar to the New Zealand fur seal but has a two-tone coat
- Adult males have a tuft on the forehead
- Flippers short and broad
- Uncommon in Australian waters



# Southern Elephant Seal



## Southern elephant seal

*Mirounga leonina*

CAAB No: 41136004

FAO Code: SES



- Dark grey or brown
- Large distinctive nose in males, especially mature males which have a trunk-like proboscis
- No obvious neck separating head from body in well-fed animals
- Largest species of seal: adult males can reach 4-5m in length, females 2-3m



# Leopard Seal



## Leopard seal *Hydrurga leptonyx*

CAAB No: 41136001  
FAO Code: SLP



- Large head, long snout and gaping jaws, giving the animal a reptilian appearance
- Long body, dark grey to silver with darker grey flippers and spotting on the shoulder area, throat and sides
- Member of the 'true seal' group, whose locomotion on land is a wriggling action - a series of muscular body ripples





# Fish

## Sharks

Grey nurse shark	<i>Carcharias taurus</i>	66
Great white shark	<i>Carcharodon carcharias</i>	67
Whale shark	<i>Rhincodon typus</i>	68

## Rays

Freshwater sawfish	<i>Pristis microdon</i>	69
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## Pipefish

<i>Syngnathidae</i>	70
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## Seadragons

<i>Syngnathidae</i>	71
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## Seahorses

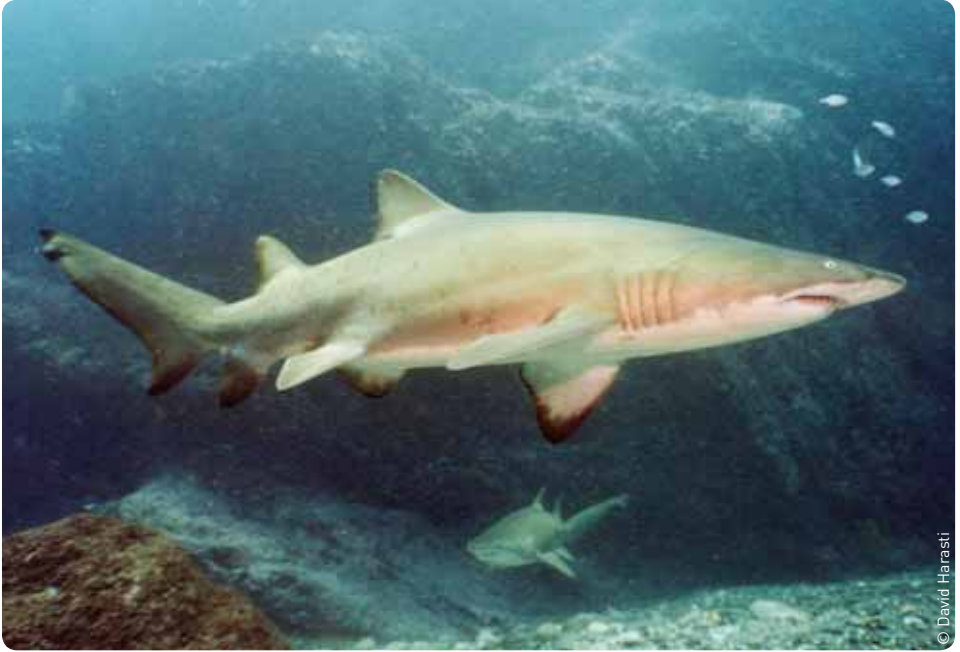
<i>Syngnathidae</i>	72
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## Handfish

<i>Brachionichthys</i>	73
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# Grey Nurse Shark



© David Herasti



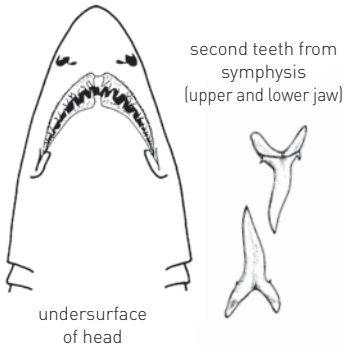
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## Grey nurse shark

*Carcharias taurus*

CAAB No: 37008001

FAO Code: CCT



- Large stout body, coloured grey to grey-brown dorsally, with a paler off-white underbelly
- Cone-shaped snout
- May have reddish or brownish spots on tail fin and posterior half of body, particularly in juveniles
- Similarly sized first and second dorsal fins and an asymmetrical tail fin
- Adults grow to at least 3.6m

*Line illustrations (underside of head and teeth) by Georgina Davis from Last, P.R. & Stevens, J.D. (1994)*

# Great White Shark



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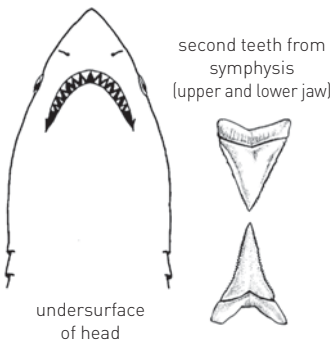
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## Great white shark *Carcharodon carcharias*

CAAB No: 37010003  
FAO Code: WSH



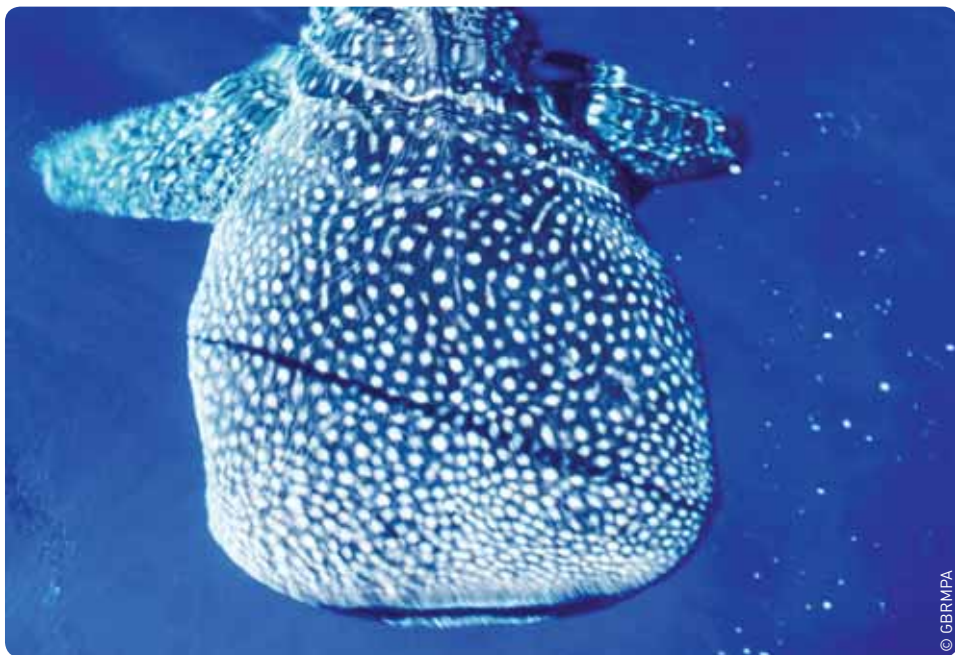
- Coloured blue-grey to grey-brown on the upper surface and white below
- Large serrated triangular teeth
- Moderately stout, torpedo-shaped body
- A distinctive lateral keel along the body midline immediately before a crescent-shaped tail
- Grow to at least 6m



Line illustrations (underside of head and teeth) by Georgina Davis from Last, P.R. & Stevens, J.D. (1994)



# Whale Shark



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## Whale shark

*Rhincodon typus*

CAAB No: 37014001

FAO Code: RHN



- Broad, flattened head
- Minute teeth
- Distinctive patterning of light spots and stripes over a dark background, fading to a light colour on the underside
- This natural camouflage allows it to 'blend' into its surroundings when viewed from any angle
- The largest living shark
- Adults grow up to 12m



# Freshwater Sawfish



**Freshwater sawfish**  
*Pristis microdon*



- A highly modified ray
- Up to five sawfish species are found in Australia
- Found in fresh or brackish water in the rivers of northern Australia, sometimes more than 100km inland
- Not normally found in the sea
- Grows to at least 2.8m



# Pipefish



## Pipefish

*Syngnathidae*

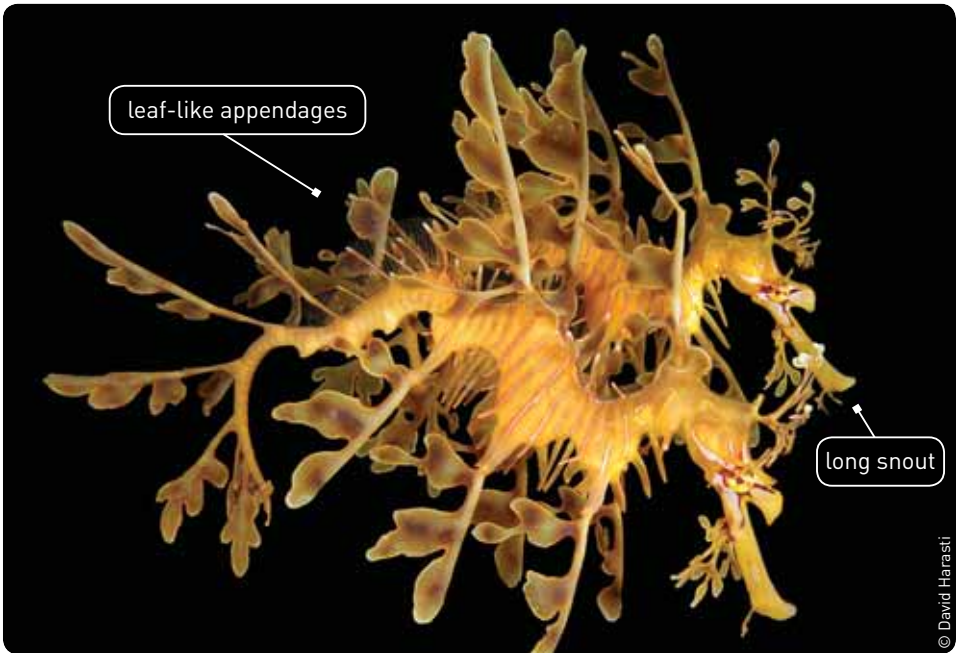
CAAB No: 37282000



- A distinctive tube-like snout with no teeth
- Elongated bodies encased in bony rings
- Small pectoral fins and a single dorsal fin
- Found in sheltered areas in coral reefs, seagrass beds and sandy lagoons



# Seadragons



## Seadragons

*Syngnathidae*

CAAB No: 37282000



- Distinct from seahorses by their longer and unusually shaped bodies with spines and many leaf-like appendages
- They have long tails that can not be bent and longer snouts than seahorses
- Can be observed along reefs with kelp or along the edge of sand areas feeding on very small shrimp-like mysids and other small crustaceans
- Grow up to 45cm



# Seahorses



© David Harasti

## Seahorses *Syngnathidae*

CAAB No: 37282000



- Elongate bony bodies and long snouts
- Swim slowly upright in the water, or wrap their tails around objects such as seagrass fronds to hold them in place for feeding or for stabilisation during turbulent water conditions such as storms
- Use camouflage to blend in with surroundings before using an ambush predatory feeding behaviour on small crustaceans



## Handfish

*Brachionichthys*

CAAB No: 37209000



- Slow moving, bottom living fish
- Short rounded body, tapers towards the tail
- The body is covered with tiny spines
- Can grow to 150mm
- Spotted handfish: pinkish-white with orange spots
- Red handfish: red with pink areas, covered in fleshy wart-like papillae
- Ziebell's handfish: pinkish-white with purple/brown spots and yellow fins (Waterfall Bay handfish may be a colour morph of this species)



# Reptiles

## Sea snakes

Peron's (Horned) sea snake	<i>Acalyptophis peronii</i>	76
Dubois sea snake	<i>Aipysurus duboisii</i>	77
Stagger-banded (Eyedoux's) sea snake	<i>Aipysurus eyedouxii</i>	78
Olive sea snake	<i>Aipysurus laevis</i>	79
Stoke's sea snake	<i>Astrotia stokesii</i>	80
Hardwick's sea snake	<i>Lapemis hardwickii</i>	81
Elegant sea snake	<i>Hydrophis elegans</i>	82
Ornate sea snake	<i>Hydrophis ornatus</i>	83

## Turtles

Loggerhead turtle	<i>Caretta caretta</i>	85
Green turtle	<i>Chelonia mydas</i>	86
Hawksbill turtle	<i>Eretmochelys imbricata</i>	87
Pacific (Olive) ridley turtle	<i>Lepidochelys olivacea</i>	88
Flatback turtle	<i>Natator depressus</i>	89
Leatherback turtle	<i>Dermochelys coriacea</i>	90

## Crocodiles

Saltwater crocodile	<i>Crocodylus porosus</i>	91
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# Peron's (Horned) Sea Snake



## Peron's (Horned) sea snake

*Acalyptophis peronii*

CAAB No: 39125001



- Small head with horn-like processes
- Thin forebody, thick hindbody
- Cream to pale brown, some snakes have pale cross bands, broad across the back and tapering on the sides of the snake
- Bands can become obscure in older adults
- Length: 100 - 120cm



# Dubois Sea Snake



## Dubois sea snake

*Aipysurus duboisii*

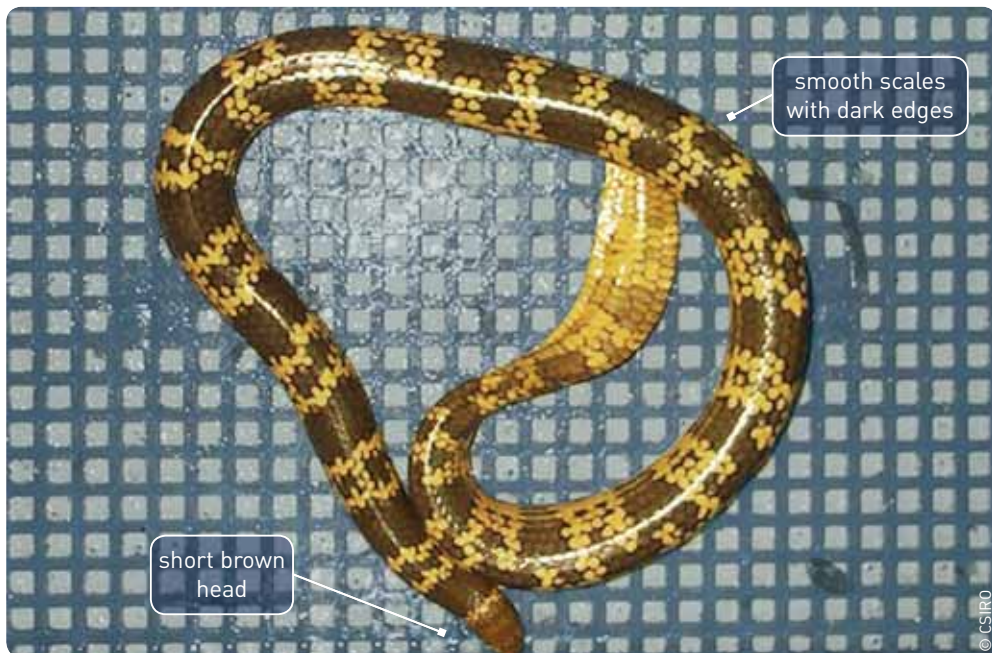
CAAB No: 39125003



- Very variable in colour and pattern, ranging from dark purplish-brown to uniform brown, to pale cream or salmon with dark cross bands
- Underside ranges from cream to uniform dark brown
- Smooth scales
- Length: 70 - 100cm



# Stagger-banded (Eyedoux's) Sea Snake



## Stagger-banded (Eyedoux's) sea snake

*Aipysurus eyedouxii*

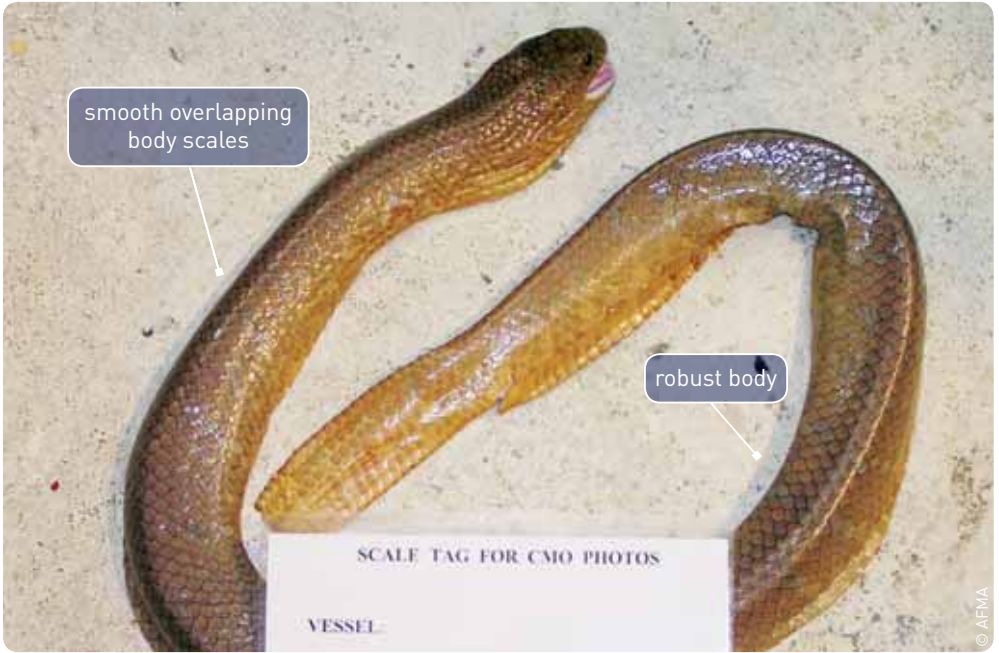
CAAB No: 39125004



- Short head, uniformly brown or with dark brown flecks
- Body scales are overlapping and smooth with dark edges
- Colour range cream, salmon or yellowish-brown to golden brown with dark cross bands
- Length: 90 - 105cm



# Olive Sea Snake



## Olive sea snake

*Aipysurus laevis*

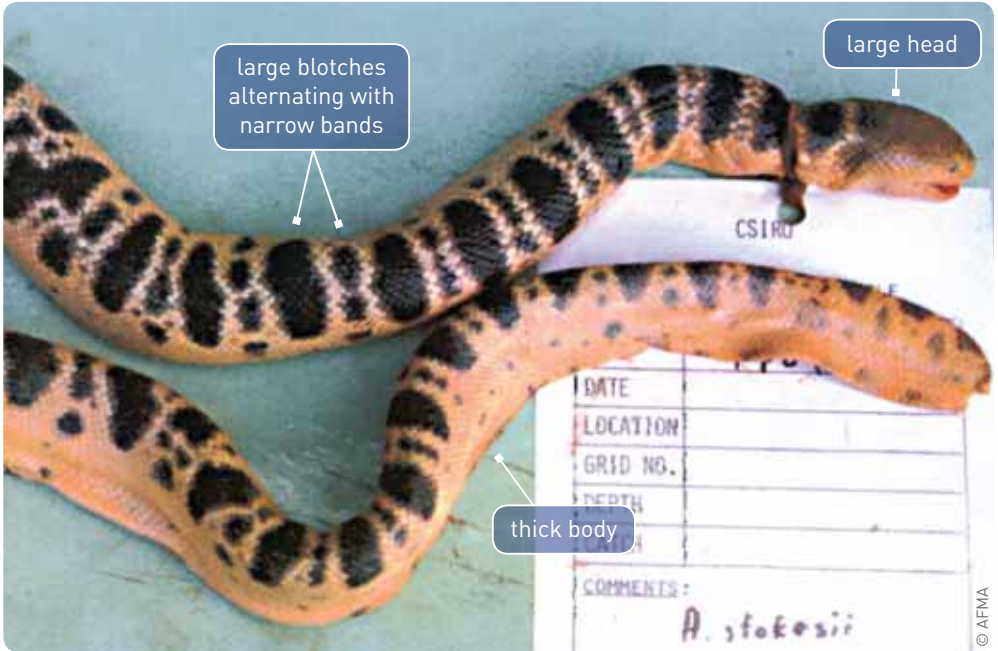
CAAB No: 39125007



- Robust body and a distinctive head
- Body scales are smooth and overlapping
- Colouration is very variable ranging from dark brown or purplish-brown on the dorsal side fading to paler brown on the ventral side
- Most specimens have creamy white scales scattered over their body
- Length: 120 - 200cm



# Stoke's Sea Snake



## Stoke's sea snake

*Astrotia stokesii*

CAAB No: 39125009



- Large head and thick neck
- Very large with a very thick body
- Yellowish-brown to dark brown, with or without large blotches alternating with narrow bands
- Pattern very noticeable with juveniles and fading with adults
- Adult colour can vary from creamy-white to grey or almost black
- Length: 120 - 200cm

# Hardwick's Sea Snake



## Hardwick's sea snake

*Lapemis hardwickii*

CAAB No: 39125031



- The head varies in colour from olive to black, there may be yellow patterns along the sides and across the mouth
- Upperbody olive-grey, underside yellowish-cream
- A zigzag line divides the body into an upper and lower half
- Some animals can have dark grey blotches on the dorsal side which can form bands around the whole body
- Colour variation in both juveniles and adults
- Length: 90 -110cm



# Elegant Sea Snake



## Elegant sea snake

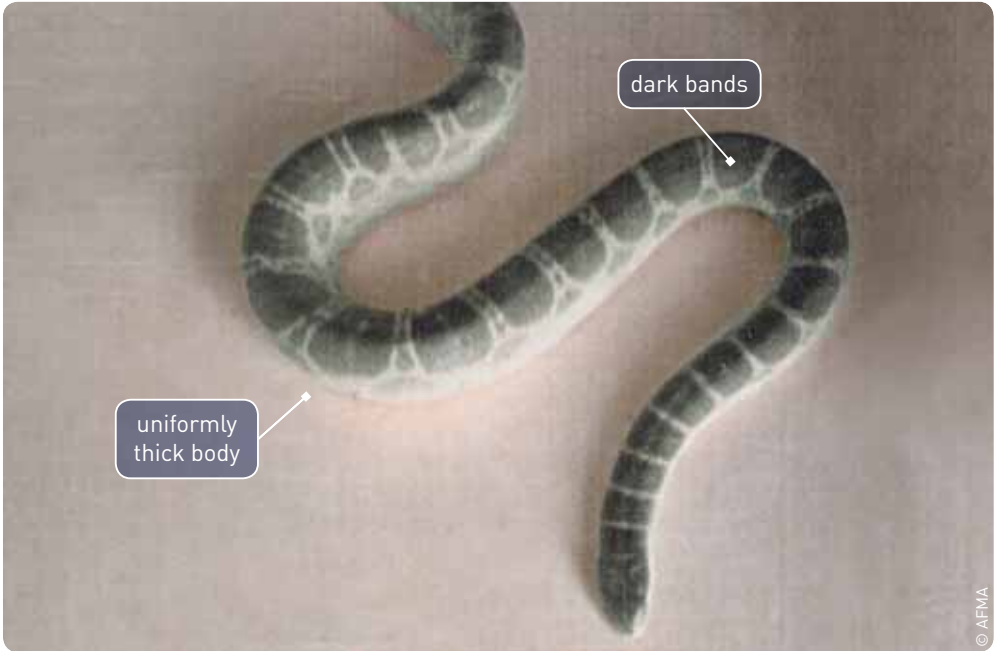
*Hydrophis elegans*

CAAB No: 39125021



- Slender neck and forebody head is indistinct from body, becoming thicker towards a paddle-like tail
- Body scales smooth or with short keels
- Colour in adults is very variable ranging from pale grey to fawn to brown with a series of cross bars or blotches along the length of the snake
- Juvenile pale brown with black head and 35-55 blackish bands
- Very variable species where juveniles may differ markedly from adults
- Length: 170 - 200cm

# Ornate Sea Snake



## Ornate sea snake

*Hydrophis ornatus*

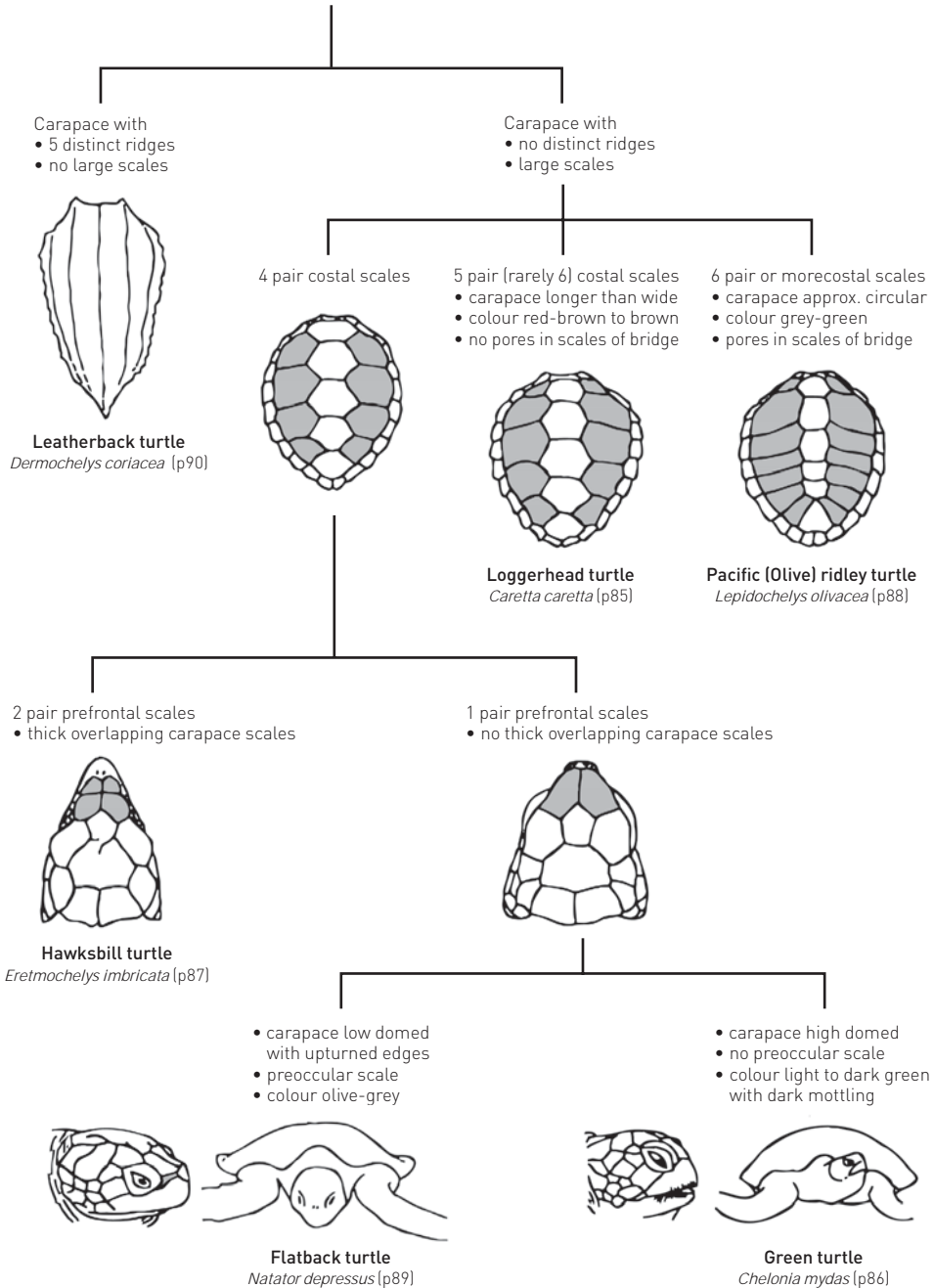
CAAB No: 39125028



- Large head, uniformly thick body, indistinct neck
- Head may be grey to olive-green
- Grey to bluish-grey in colour with 30-60 dark bands or dorsal blotches which become less distinct with age
- Underside is cream or whitish
- Juvenile bands are sharper, sometimes forming complete rings
- Length: 100 - 150cm

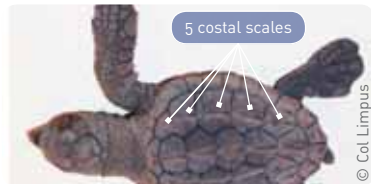
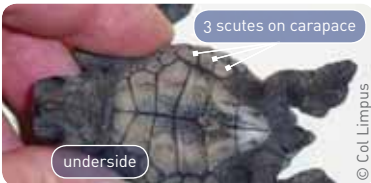
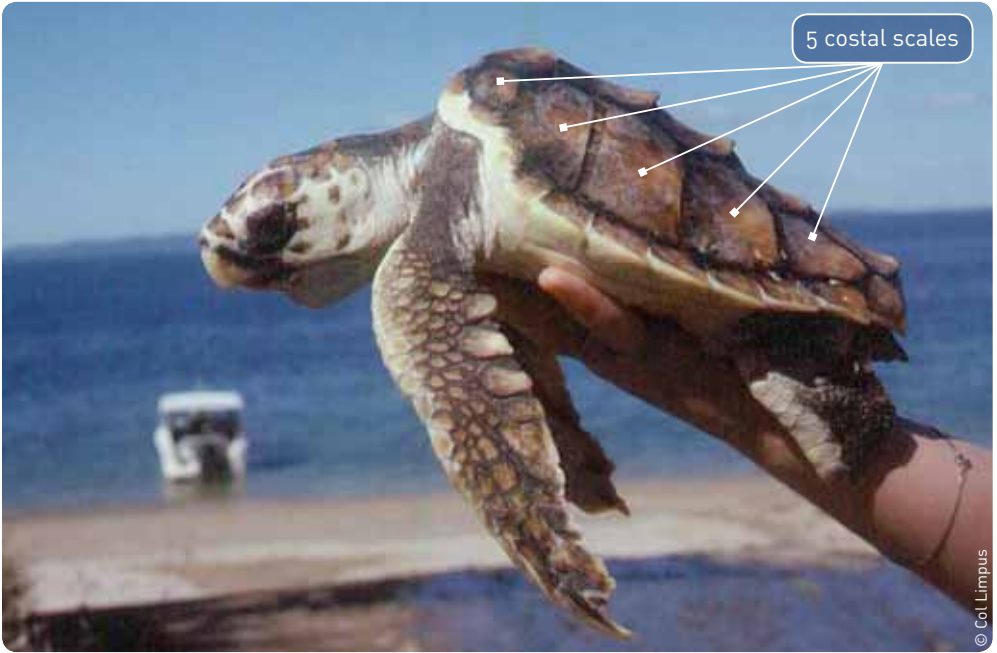


# Indo-Pacific Marine Turtle ID Key





# Loggerhead Turtle



## Loggerhead turtle

*Caretta caretta*

CAAB No: 39020001

FAO Code: TTL

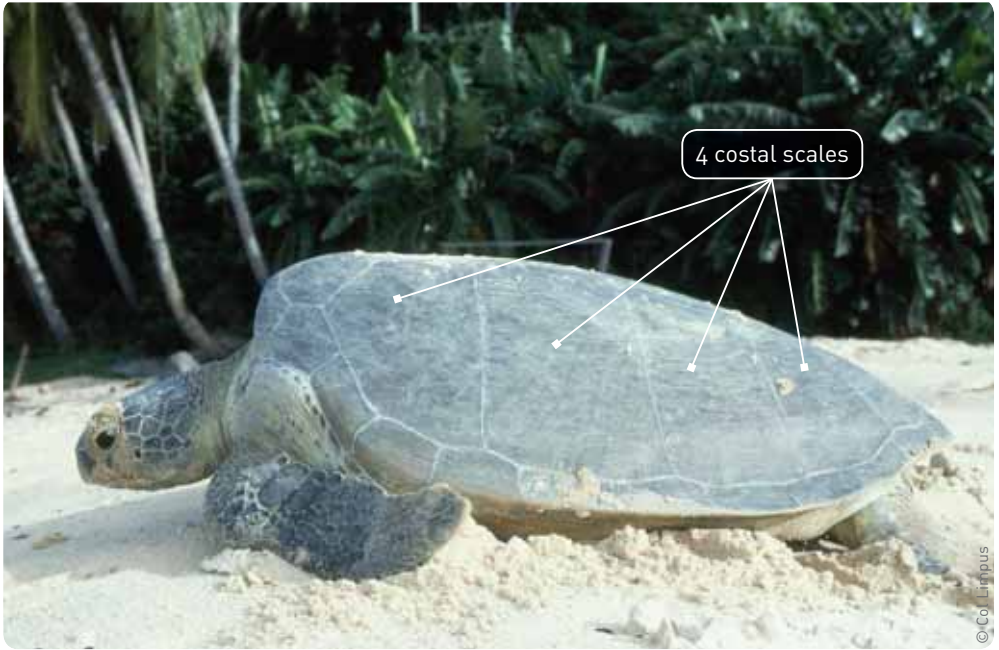


- Head can be very large especially in older turtles
- Shell heart-shaped
- Large carapace scales, not overlapping
- 5 pairs of costal scales
- No inframarginal pores (see p84)
- Dark brown to brown sometimes with darker spots
- Carapace length: 125 - 150cm





# Green Turtle



## Green turtle

*Chelonia mydas*

CAAB No: 39020002

FAO Code: TUG



- Snout not beak-like
- No preocular scale
- 1 pair of prefrontal scales
- Large carapace scales, not overlapping
- 4 pairs of costal scales
- No inframarginal pores (see p84)
- Olive-green with brown, dark brown and black markings
- Underside cream
- Carapace length: 140 - 160cm

# Hawksbill Turtle



## Hawksbill turtle

*Eretmochelys imbricata*

CAAB No: 39020003

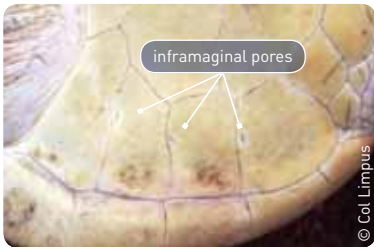
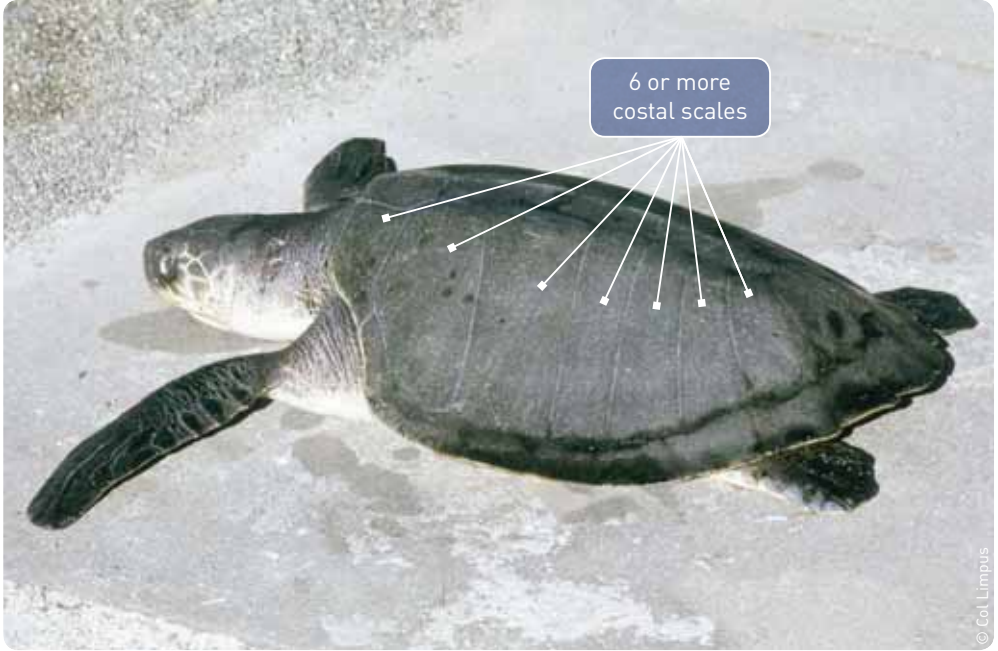
FAO Code: TTH



- Upper jaw juts forward to form a beak-like snout
- 2 pairs of prefrontal scales
- Large, overlapping carapace scales
- 4 pairs of costal scales
- No inframarginal pores (see p84)
- Narrow heart-shaped shell
- Olive-green to brown with reddish-brown and black markings
- Underside whitish
- Carapace length: 90 - 110cm



# Pacific (Olive) Ridley Turtle



## Pacific (Olive) ridley turtle *Lepidochelys olivacea*

CAAB No: 39020004

FAO Code: LKV



- Snout not beak-like
- Nearly round shell, can be broad and heart-shaped
- Large carapace scales
- 6 or more pairs of costal scales
- Inframarginal pores
- Olive-grey to brown, often without any markings
- Underside whitish
- Carapace length: 55 - 75cm

# Flatback Turtle



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## Flatback turtle *Natator depressus*

CAAB No: 39020005  
FAO Code: FBT



- Snout not beak-like
- No preocular scale
- 1 pair of prefrontal scales
- Carapace depressed with upturned edges
- Large carapace scales, not overlapping
- In adults the carapace is covered by thin fleshy skin
- 4 pairs of costal scales
- No inframarginal pores (see p84)
- Olive-grey to pale grey-green shell with no pattern
- Carapace length: 75 - 105cm





# Leatherback Turtle



## Leatherback turtle *Dermochelys coriacea*

CAAB No: 39021001

FAO Code: DKK



- Leathery carapace without large scales with 7 distinctive longitudinal ridges
- Front flippers very large in adults, with no claws
- Very dark grey to black, can have paler markings
- Can grow very large
- Carapace length: 170 - 290cm

# Saltwater Crocodile



© GBRMPA



© GBRMPA



## Saltwater crocodile *Crocodylus porosus*

CAAB No: 39140002

FAO Code: CRH



- Easily identifiable
- Broad snout which distinguishes this species from the Freshwater crocodile which has a slender snout
- Grey to almost black with darker mottling



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Protected species?

# Don't get caught just report!

As long as operators are fishing in accordance with their fishery's management arrangements, it is not an offence to interact with a protected species even if the animal dies. However, it is an offence NOT to report these interactions. All you need to do is fill out the appropriate section in your logbook and then submit it to AFMA.

- 1. Report any sightings, collisions or catch of protected species.**
- 2. Fill in wildlife form in your logbook.**
- 3. Submit this form to AFMA.**

**For more information  
contact AFMA Direct on 1300 723 621  
or go to [www.afma.gov.au](http://www.afma.gov.au)**