Protected Species Identification Guide for Victoria's Commercial Fishers





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Contents

Introduction	3
Birds	5
Albatrosses	5
Gulls	7
Gannet, Penguin and Prion	8
Petrels and Sea-Eagle	9
Shearwaters (Muttonbirds)	10
Terns	11
Cormorants (Shags)	13
Coot	14
Waterfowl	15
Grebes	18
Mammals	19
Seals	19
Sea Lion	20
Whales	21
Dolphins	23
Native Rats	24
Reptiles and Amphibians	25
Turtles	25
Snakes	26
Lizard and Frog	27
Fish	29
Sharks	29
Marine, Estuarine and Freshwater	30
Wallie, Establic and Freshwater	00
Sygnathids	33
Pipefish	33
Sea Horses	34
Sea Dragon	35
Image and Text Credits	36
Index	42



Introduction

What is this quide for?

This species identification guide has been developed for Victorian commercial fishers who are required to report on interactions with protected species. Accurate identification of species is critical in ensuring that any commercial fishing impacts on protected species are properly reported and understood.

What it is/isn't

This guide has been compiled based on protected species that commercial fishers are likely to come into contact with while fishing, and species currently listed as threatened under Victoria's Flora and Fauna Guarantee Act 1988 (FFG Act). For example, birds that feed by diving and occur in areas where fishing activity takes place have been included, but wading birds, which are unlikely to be impacted by commercial fishing operations, have not.

This guide is not an exhaustive list of species covered by the reporting requirements. Common species that are readily identifiable such as silver gulls (seagulls) or pelicans also have not been included. More comprehensive guides and smart phone apps should be consulted for further information.

In Victoria, all native mammals, birds, reptiles and amphibians, fish listed under the FFG Act and sygnathids (sea horses, sea dragons etc) are protected species. Interactions with any of these species should be reported, regardless of whether they appear in this identification guide.

How this guide works

The species in this guide are organised according to class of animal (eg bird, mammal) and are coloured to indicate whether they are found in inland or coastal areas.



Birds	5
Albatrosses	5
Gulls	
Gannet, Penguin and Prion	8
Petrels and Sea-Eagle	9
Shearwaters (Muttonbirds)	10
Terns	
Cormorants (Shags)	13
Coot	14
Waterfowl	15
Grebes	18

Albatrosses



Photo: JJ Harrison

Grey-headed Albatross

Thalassarche chrysostoma

• Length: 70 - 85 cm

• Wingspan: 1.8 - 2.05 m

- · Grey head, neck and mantle
- Black bill with yellow stripes on top and bottom
- White body

Coastal



Photo: Natalie Tapson

Light-mantled Sooty Albatross

Phoebetria palpebrata

• Length: 78 - 90 cm

Wingspan: 1.8 - 2.2 m

- Sooty brown plumage with grey mantle, back and rump
- White crescent around each eye

Coastal



Photo: JJ Harrison

Southern Royal Albatross

Diomedea epomophora

• Length: 112 - 123 cm

• Wingspan: 2.9 - 3.3 m

- Pure white head and body
- Pink bill with black line on cutting edge
- Dark brown or black wings with white upper wing

Albatrosses

Shy Albatross

Thalassarche cauta

Length: 90 - 99 cm

Wingspan: 2.1 - 2.6 m

White head and neck, pale grey cheeks

Grey bill with yellow tip

 Grey-black mantle, tail and upper wing



Photo: JJ Harrison

Sooty Albatross

Phoebetria fusca

- · Length: 85 cm
- Sooty brown plumage with head darker than body
- Fine white crescent above eye
- Black bill with pale yellow/orange stripe
- Slender, pointed wings, wedge shaped tail

Coastal

Photo: JJ Harrison

Wandering Albatross

Diomedea exulans

- Largest of the albatross family
- Wingspan: 2.5 3.5 m
- White head and back with fine grey wavy lines on feathers
- Pale pink bill
- White tail, tipped with black



Photo: JJ Harrison

Albatrosses and Gulls

Coastal



Photo: Liam Quinn

Black-browed Albatross

Thalassarche melanophris

- Length: 80-95 cm
- Most common member of albatross family
- White with black brow, back, upper wing and tail
- Black edges to underwing
- Orange-yellow bill
- Bluish-grey legs and feet

Coastal



Photo: JJ Harrison

Pacific Gull

Stercorarius antarcticus

- Length: 58 66 cm
- Wingspan: 137 157 cm
- Mostly white with dark wings and back, black band on tail
- Thick, powerful, red-tipped yellow bill
- Yellow legs and feet

Coastal



Photo: Jason Quinn

Kelp Gull

Larus dominicanus

- Length: 54 65 cm
- Wingspan: 128 142 cm
- Black upperparts and wing
- White head, underparts, tail and wing tips
- Yellow bill with red spot
- Greenish-yellow legs

Gannet, Penguin and Prion

Australasian Gannet

Morus serrator

- Length: 84—95 cm
- Mostly white, black flight feathers at the wingtips
- Yellow head
- · Pale, blue-grey bill edged with black
- Bill has backward pointing serrations
- Spectacular plunge divers

Little Penguin

Eudyptula minor

- Length: 30 33 cm
- Blue head, upperparts and flippers
- White underneath
- Pink feet above with black soles and webbing

Coastal



Photo: JJ Harrison

Coastal



Photo: M Kuhn

Fairy Prion

Pachyptila turtur

- Length: 23 28 cm
- Wingspan: 56 cm
- Short, narrow bill with strong hook
- Grey-blue above, darker grey crown, grey eye stripe
- Triangular tail with dark tip



Photo: JJ Harrison

Petrels and Sea-Eagle

Coastal

Photo: Liam Quinn

Northern Giant Petrel

Macronectes halli

- Wingspan: 1.5 2.1 m
- Large straw-coloured bill, tipped with pinkish-red or orange
- Pale grey eye
- Dark crown with a whitish face and throat

Coastal



Photo: Natalie Tapson

Southern Giant Petrel

Macronectes giganteus

- Length: 87 cm
- Wingspan: 1.8 2.05 m
- Greenish-tipped, straw coloured bill
- Pale underwing leading edge near body

Coastal



Photo: MagicFlute1983

White-bellied Sea-Eagle

Haliaeetus leucogaster

- Length: 75 85 cm
- Wingspan: 180 220 cm
- White head, breast, belly and legs
- Grey back and wings with black tips
- Grey tail with white tip
- Bluish-grey bill with black tip

Shearwaters (Muttonbirds)

Flesh-footed Shearwater

Ardenna carneipes/Puffinus carneipes

Length: 40 - 47 cm

Wingspan: 99 - 107 cm

Blackish-brown plumage

Flesh coloured bill with black tip

· Flesh-pink legs and feet



Photo: Teddymacollege

Fluttering Shearwater

Puffinus gavia

- · Length: 37 cm
- Dark grey-brown upper parts, white under parts
- Long, thin, dark bill
- Rapid bursts of fluttering, interspersed with short glides
- Seen in Aust from Feb Aug



Photo: JJ Harrison

Short-tailed Shearwater

Puffinus tenuirostris

Length: 40 - 45 cm

· Wingspan: 1m

Dark brown plumage

Short, blackish-brownish tail

Slender bill with hooked end



Photo: JJ Harrison

Terns

Coastal

Photo: Hans Hillewaert

Coastal

Photo: DELWP

Coastal and Inland

Photo: Dick Daniels

Common Tern

Sterna hirundo

- Length: 31 35 cm
- Wingspan: 77 98 cm
- 6 9 cm fork in tail
- Grey upperparts, very pale grey underparts
- Black cap
- Orange-red legs
- Common in eastern Victoria

Crested Tern

Thalasseus bergii

- Length: 46 49 cm
- Wingspan: 125 130 cm
- Grey upperparts, white underparts, shaggy black crest
- Long, yellow bill

Caspian Tern

Hydroprogne caspia, formerly Sterna caspia

- Largest tern, length: 53 60 cm
- Wingspan: 127 145 cm
- Long, thick, red-orange bill with small black tip
- White head with a black cap and white neck, belly and tail
- Pale grey upper wings and back
- Known breeding colonies in Corner Inlet, Mud Island and Mallacoota

Terns

Gull-billed Tern

Gelochelidon nilotica, formerly Sterna nilotica

- Length: 33 42 cm
- Wingspan: 76 91 cm
- Thick, black, gull-like bill
- White plumage with black crown, grey back and upper wings



Photo: Frankzed

Little Tern

Sternula albifrons

- Length: 20 28 cm
- Wingspan: 41 47 cm
- Breeding birds have black cap. with band extending beyond eye to the bill
- · Otherwise white and pale grey plumage
- Slender with narrow wings and long, deeply forked tail



Photo: JJ Harrison

Fairy Tern

Sterna nereis

- Length: 22 27 cm
- Wingspan: 44 53 cm
- Bulky, round bodied
- · Pale grey-white plumage, with a black crown, nape, ear coverts and patch in front of the eyes
- White forehead, yellow-orange bill



Photo: JJ Harrison

Cormorants (Shags)

Coastal and Inland

Photo: Heather

Great (Black) Cormorant

Phalacrocorax carbo

Length: 70 - 102 cm

Wingspan: 121 - 160 cm

- Black plumage with white and vellow chin
- Grey bill, black feet and legs

Coastal and Inland



Photo: Heather

Little Black Cormorant

Phalacrocorax sulcirostris

- Length: 60 65 cm
- Wingspan: up to 105 cm
- Black plumage
- Long, slender grey bill
- Found in large flocks, sometimes flv in V formation

Coastal



Photo: JJ Harrison

Black-faced Cormorant

Phalacrocorax fuscescens

- Length: 60 70 cm
- Black upperparts, face and bill
- White underparts
- Dark grey bill, blue-green eyes
- Only found in coastal and marine areas

Cormorants and Coot

Pied Cormorant

Phalacrocorax varius

- Length: 65 85 cm
- Black, glossed-green back with white underparts
- Black stripes on thighs
- Long, grey, hooked bill
- Orange eye patch
- Flies in V formation

Little Pied Cormorant

Microcarbo melanoleucos

- Length: 56 58 cm
- Black above and white below
- Short, yellow bill
- Small crest
- Solitary benthic feeder

Eurasian Coot

Fulica atra

- Length: 32 42 cm
- Black plumage with white frontal shield and bill

Coastal and Inland



Photo: Jorg Hempel

Coastal and Inland



Photo: SeanMack

Coastal and Inland



Photo: Theleastweasel

Waterfowl

Coastal and Inland



Photo: Dale Gillard

Blue-billed Duck

Oxyura australis

- Length: 40 cm
- Adult breeding male has black head, chestnut to brown body and wings, blue bill
- Adult female and non-breeding male has medium grey plumage with light barring to head and body, dark bill

Coastal and Inland



Photo: PsJeremy

Chestnut Teal

Anas castanea

- Male has glossy green head and white flank patch
- Female and juvenile male similar to Grey Teal but darker
- Common in brackish coastal lagoons, saltwater estuaries and lower reaches of creeks

Coastal and Inland



Photo: JJ Harrison

Grey Teal

Anas gracilis

- Mottled brown with white and green flashes on wings
- Males and females share same colouration
- Lighter coloured neck and paler face than female chestnut teal

Waterfowl

Hardhead

Arthya australis

- Medium size, dark brown with white feathers under tail
- Male has white eyes
- Generally found on large lakes, swamps and rivers with deep, still water



Photo: Quoll2

Freckled Duck

Stictonetta naevosa

- · Heavily bodied, dark grey, brown
- Off-white speckles all over
- Underwings pale
- Distinctive shaped bill, adult breeding male has bright red base of bill



Photo: Frankzed

Musk Duck

Biziura lobata

- Dark grey-brown, slightly pin-striped plumage
- Male has pendulous lobe of skin beneath the bill
- Stiff tail
- Prefers deep, still lakes and wetlands



Photo: MdeKool

Waterfowl

Inland

Photo: Quartl

Dusky Moorhen

Gallinula tenebrosa

- Length: 34 38 cm
- Dark grey-black with brown tinge to upperparts
- Orange-yellow legs
- Red bill with yellow tip

Inland

Photo: Quartl

Purple (Eastern) Swamphen

Porphyrio porphyrio

- Length: 44—48 cm
- Purple-blue neck, breast and belly
- Red bill and face shield

Grebes

Australasian Grebe

Tachybaptus novaehollandiae

- Length: 25 27 cm
- Breeding plumage dark brown above, glossy-black head and neck
- Non breeding plumage dark greybrown above, silver-grey below
- Chestnut facial stripe from behind the eye to base of neck
- Common on freshwater lakes and rivers

Great Crested Grebe

Podiceps cristatus

- Length: 46 51 cm
- Wingspan: 59 73 cm
- Long neck and head with distinctive black crest
- Dark brown wings, white underparts
- · Long, pointed, straight bill
- Juveniles have striped black and white heads

Hoary-headed Grebe

Poliocephalus poliocephalus

- Length: 25—30 cm
- Small, dark grey and white bird
- Black head with silvery-white streaking
- Narrow black streak down back of neck

Inland



Photo: JJ Harrison

Inland



Photo: Tony Hisgett

Inland



Photo: JJ Harrison

Mammals	19
Sea Lion	
Dolphins	
Native Rats	

Seals

Coastal



Photo: Chris Phutully

Australian Fur Seal

Arctocephalus pusillus

- Length: 1.5 2.5 m
- Adult male: greyish brown with paler chest and dark brown belly
- Adult female: pale fawn to greyish brown with pale chest and brown belly
- Larger than other fur seals, males are heavy chested with thick, dark mane

Coastal



Photo: Alexandre Roux

New Zealand Fur Seal

Arctocephalus forsteri

- Length: 1.5 2 m
- Smaller than Australian fur seal and darker in colour
- Sharply pointed snout
- Grey to brown, female lighter underneath

Coastal



Photo: Brian Gratwicke

Sub-Antarctic Fur Seal

Arctocephalus tropicalis

- Length: 1.5 2 m
- Dark grey with contrasting whitish-yellow face and chest
- Males have prominent black crest and thick mane
- Seen occasionally in Victoria

Seals and Sea Lion

Leopard Seal

Hydrurga leptonyx

- Length: 4 4.5 m
- Silver to dark blue-grey with pale silver underneath.
- Dark areas spotted darker grey and black
- · Long neck, large, flat, reptilian head
- Seen occasionally in Victoria



Photo: DELWP

Southern Elephant Seal

Mirounga leonina

- Length: 4 6.5 m
- Dark brown with lighter brown underneath
- Adult male noticeably larger than female with trunk-like nose
- Cumbersome on land

Coastal



Photo: Natalie Tapson

Australian Sea Lion

Neophoca cinerea

- Length: 1.8 2.5 m
- Adult male: chocolate brown, yellow crown with dark muzzle, greyer back, dusky abdomen and flippers
- Adult female: Dark back and top of head, creamy-yellow underbody and sides of head
- · Seen occasionally in Victoria



Photo: Diver Dave

Whales



Photo: Jerry Kirkhart

Blue Whale

Balaenoptera musculus

- Length: 31 33.5 m
- Silver-grey to grey-black
- Slender, streamlined body
- Tall, straight, powerful blow
- Occur along Continental shelf from Nov - May, especially west of Cape Otway



Photo: DFLWP

Humpback Whale

Megaptera novaeangliae

- Black or bluish-grey upper body, white underside
- Throat pleats
- Long pectoral fins (1/3 body length)
- Prominent double blow holes
- Usually seen autumn spring





Photo: Kat Kellner

Killer Whale (Orca)

Orcinus orca

- Length: 8.5 10 m
- Mainly black with white throat to abdomen and rear flanks
- Grey-white patch behind dorsal fin
- Round body with huge head and blunt nose
- Tall dorsal fin in males

Whales

Pilot Whale

Globicephala melas

- Length: 5.5 7 m
- Black body with white diagonal strip towards the eyes, white saddle behind dorsal fin and anchor shaped pattern underneath
- · Beakless with round, bulbous head
- Dorsal fin is broad at the base and curved back towards tail
- Very long pectoral flippers

Southern Right Whale

Eubalaena australis

- Length: 16 18 m
- Black body, may have irregular white blotches underneath
- Callosities (growths) form rough white markings on head
- V-shaped blow
- Seen during winter, especially around Warrnambool



Photo: Alexander Baxevanis



Photo: Willem

Dolphins



Photo: Juanma Carrillo

Bottlenose Dolphin

Tursiops truncatus

- · Length: 3 m
- Dark bluish-grey, which shades gradually to off-white or pinkish underneath
- Prominent curved-back dorsal fin
- Stubby beak set off from robust head

Coastal

Photo: Charlton-Robb K, Gershwin LA, Thompson R, Austin J, Owen K, McKechnie S

Burrunan Dolphin

Tursiops australis

- Length: to 2.6 m
- Dark grey upper side of the body, a paler grey midline, and a cream underside
- Described as distinct species in 2011
- Found in Port Phillip Bay and Gippsland Lakes



Photo: Bertrand

Common Dolphin

Delphinus delphis

- · Length: 2 m
- Dark colouring on top, large yellowish panel on chest bordered by white flanks
- Small, round head with shirt and stocky beak

Native Rats

Swamp Rat

Rattus lutreolus

Body length: up to 20 cm

Tail length: up to 14 cm

Dark grey to dark brown body fur

Brown feet

Inland

Photo: Doug Beckers

Water Rat (Rakali)

Hydromys chrysogaster

• Body length: 23 - 37 cm

Tail length: 24 - 25 cm

Webbed hind legs

 Black to brown fur with orange to white belly

Dark tail with white tip



Photo: ZooPro

Reptiles and Amphibians	25
Turtles	25
Snakes	26
Lizard and Frog	27

Turtles



Photo: U.S. Fish and Wildlife Service Southeast Region

Leatherback Turtle

Dermochelys coriacea

- Shell length: nearly 2 m
- Largest of sea turtle species
- Mainly blackish above with grey-white speckles on head
- Streamlined, ridged shell
- Limbs modified as flippers, with front flippers especially large
- Upper beak notched in middle to form two prongs

Broad-shelled Turtle

Chelodina expansa

- Length of carapace: up to 45 cm
- Broad, flat upper shell, narrower lower shell
- Very long neck, long, relatively flat head, neck and head dark grey

nland



Photo: Sam Fraser Smith

Inland



Photo: Alexandre Roux

Eastern Snake-necked Turtle

(Long-necked Turtle)

Chelodina longicollis

- Shell length: up to 20 cm
- Flat circular shell, black to brown with yellow patches
- Long neck, webbed feet with claws

Snakes

Highland Copperhead Snake

Austrelaps ramsayi

- Length: up to 1.2 m
- Body light grey to red-brown, pale white-yellow to pink-orange underneath
- Lips with dark vertical stripes and white edges around scales

Mano

Photo: Nathan Johnson

Lowland Copperhead Snake

Austrelaps superbus

- Length: up to 1.7 m
- Grey to red-brown
- Pale white-yellow to pink-orange underneath
- Lips with faint vertical stripes

Inland

Photo: Peter Shanks

Tiger Snake

Notechis scutatus

- · Length: to 2 m
- Colour varies from uniform light brown to black
- Broad, flattened head
- Striped markings not always present



Photo: DELWP

Lizard and Frog

Inland



Photo: Vasco Pyjama

Swamp Skink

Lissolepis coventryi formerly Egernia coventryi

- Length: to 25 cm
- Greenish back with prominent black shoulder stripe on each side from nape to base of tail

Inland



Photo: Tnarg 12345

Growling Grass Frog

Litoria raniformis

- Length: up to 104 mm
- Olive to bright emerald green with irregular gold, black or bronze spotting, white belly
- Warty back with pale green mid-dorsal stripe
- Cream or yellow stripe underlined by a dark brown stripe runs from the nostril, through the eye, above the inner ear and down the sides of the body
- No webbing on fingers but toes almost entirely webbed

Fish	29
Sharks	29
Marine, Estuarine and Freshwater	30

Sharks

Coastal



Photo: Ken Bondy

Coastal



Photo: Klaus Stiefel

Coastal



Photo: Patrick Doll

(Great) White Shark

Charcarius Taurus

- Length: up to 6.4 m
- Blue-grey to greyish-brown above, abruptly changing to a white underside
- Pointed snout
- Very high first dorsal fin, very small anal and second dorsal fins
- Crescent-shaped tail
- Large triangular serrated teeth

Grey Nurse Shark

Charcarius carcharias

- Length: up to 3.6 m
- Greyish-brown above, paler below
- Flattened, bluntly pointed snout
- Dagger-like teeth
- Dorsal, pelvic and anal fins of similar size
- Slow moving
- Rare in Victorian waters

Short Finned Mako Shark

Isurus oxyrinchus

- Length: up to 4 m
- Brilliant metallic blue above, white below
- Cylindrical in shape with vertically elongated tail
- Fastest species of shark, can jump up to 9 m in air
- Found in offshore Bass Strait in warmer waters

Marine, Estuarine and Freshwater

Australian Mudfish

Neochanna cleaveri

- Length: up to 14 cm
- Scaleless, tubular body
- · Rounded fins with fleshy bases
- Small pelvic fins, very small eyes, large tubular nostrils
- Found in coastal wetlands, estuarine and marine waters to 5 m.



Photo: Tarmo A. Raadik

Cox's Gudgeon

Gobiomorphus coxii

- Length: to 19 cm
- Dark brown to greenish brown, fading to pale brown or cream below
- Blue, gold and yellow flecks on lower lateral scales
- Dark midlateral stripe or series of midlateral blotches
- Single black spot above pectoral fin base

Inland



Photo: © Gunther Schmida/Lochman LT

Empire Gudgeon

Hypseleotris compressa

- Length: to 12 cm
- Females brown to golden, whitish below
- Males in breeding season become bright orange-red on head and belly
- Rare in Victoria



Photo: © Gunther Schmida/Lochman LT

Freshwater

Inland



Photo: © Gunther Schmida/Lochman LT

Freshwater Herring

Poamalosa richmondia

- · Length: 32 cm
- Usually silvery overall with greenish tinge
- 2 indistinct stripes below midline
- Fins colourless to yellowish
- Slender compressed body, single triangular pointed dorsal fin
- Found around Mallacoota in Victoria

Inland



Photo: Jarod Lyon

Murray Cod

Maccullochella peelii

- Length: up to 1.8 m
- Round, depressed head with rounded snout and concave forehead
- Large mouth and jaws
- Olive green with small brown spots, creamy white undersides

Inland



Photo: Tarmo A. Raadik

Australian Grayling

Prototroctes maraena

- Length: 17 33 cm
- Silvery with olive-grey back and whitish belly to olive green or brownish back with dark mid-lateral streak and greyish fins
- Large, bright yellow eyes, rounded snout and small head
- Strong cucumber smell when caught

Freshwater

Silver Perch

Bidyanus bidyanus

- Length: 40 60 cm
- Dark grey to grey-brown above, fading to silver and white, fins whitish to grey
- Compressed elongate-oval body covered in small thin scales
- Small head, small eyes positioned high on head
- Single long-based dorsal fin divided into 2 sections

Trout Cod

Macullochella macquariensis

- Length: 40 85 cm
- · Bluish grey or dark to light brown
- Small dark irregular spots extending to lower sides and base of fins
- Dusky grey to brownish fins with white or creamy margins

Photo: Jarod Lyon

Yarra Pygmy Perch

Edelia obscura or Nannoperca obscura

- Length: up to 7.5 cm
- Dusky, pale brownish-grey, sometimes greenish with a pale belly
- Spots along midline and clear, faint yellow to black fins
- Found from Bunyip River basin in West Gippsland through southern Victoria



Photo: MDBA Gunther Schmida



Photo: MDBA Gunther Schmida

Sygnathids	33
Pipefish	33
Sea Horses	34
Sea Dragon	35

Pipefish

Coastal



Photo: Saspotato

Spotted Pipefish

Stigmatopora argus

- Length: to 25 cm
- Very long body and snout
- No tail fin
- Usually greenish-brown with dark or pale spots

Coastal



Photo: Saspotato

Widebody Pipefish

Stigmatopora nigra

- Similar to spotted pipefish
- Variable colour, from greenish to brownish depending on habitat, females often with orange line along side
- During breeding season, females have swollen trunk, males have small pouch on underside of tail

Coastal



Photo: Saspotato

Port Phillip Pipefish

Vanacampus phillip

- Moderately long snout
- Brownish with blue bars on sides and indistinct bars and spots
- Common in bays and estuaries

Pipefish and Sea Horses

Ringback Pipefish

Stipecampus cristatus

- Length: up to 25 cm
- Brown to yellowish brown
- 9–11 narrow, irregular pale bars or blotches along the back
- Elevated snout ridge
- Found on reefs to 15 m
- Seasonally migrates into Port Phillip Bay, often in large numbers

Big-bellied Sea Horse

Hippocampus abdominalis

- Length: up to 35 cm
- Compressed body
- Large abdomen, completely encased in bony rings,
- Prehensile tail
- Found in depths to 100 m

Potbelly Sea Horse

Hippocampus bleekeri

- Length: up to 30 cm
- Very similar to the Big Belly Seahorse, dispute about whether a separate species
- Longer snout and commonly has head filaments

Coastal



Photo: Saspotato

Coastal



Photo: Mark6Mauro

Coastal



Photo: Saspotato

Sea Horses and Sea Dragons

Coastal



Photo: Saspotato

Coastal



Photo: Saspotato

Shorthead Sea Horse

Hippocampus breviceps

- Length: up to 10 cm
- Smallest sea horse found in southern waters
- Short snout, fleshy tendrils on head and body
- Found on reefs to 15 m
- common in Port Phillip Bay, Victoria, especially in patches of Sargassum seaweed

Weedy Sea Dragon

Phyllopteryx taeniolatus

- Length: up to 45 cm
- Usually silvery overall with greenish tinge
- 2 indistinct stripes below midline
- Fins colourless to yellowish
- Slender compressed body, single triangular pointed dorsal fin
- Usually found in kelp-covered rocky reefs from 3 to 50 m

Image	Page No.	Photographer	Source	Licence
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Introduction	3
Birds	5
Australasian Gannet	
Australasian Grebe	18
Black-browed Albatross	7
Black-faced Cormorant	13
Blue-billed Duck	15
Caspian Tern	11
Chestnut Teal	15
Common Tern	11
Crested Tern	11
Dusky Moorhen	17
Eurasian Coot	14
Fairy Prion	8
Fairy Tern	12
Flesh-footed Shearwater	10
Fluttering Shearwater	10
Freckled Duck	16
Great (Black) Cormorant	13
Great Crested Grebe	18
Grey-headed Albatross	5
Grey Teal	15
Gull-billed Tern	12
Hardhead	16
Hoary-headed Grebe	18
Kelp Gull	7
Light-mantled Sooty Albatross	5
Little Black Cormorant	13
Little Penguin	8
Little Pied Cormorant	14
Little Tern	12
Musk Duck	16
Northern Giant Petrel	9
Pacific Gull	7
Pied Cormorant	14
Purple (Eastern) Swamphen	17
Short-tailed Shearwater	10
Shy Albatross	6
Sooty Albatross	6
Southern Giant Petrel	9
Southern Royal Albatross	5
Wandering Albatross	6
White-bellied Sea-Eagle	9

Fish	29
Australian Grayling	31
Australian Mudfish	30
Cox's Gudgeon	30
Empire Gudgeon	30
Freshwater Herring	31
(Great) White Shark	29
Grey Nurse Shark	29
Murray Cod	31
Short Finned Mako Shark	29
Silver Perch	32
Trout Cod	32
Yarra Pygmy Perch	32
Mammals	19
Australian Fur Seal	19
Australian Sea Lion	20
Bottlenose Dolphin	23
Blue Whale	21
Burrunan Dolphin	23
Common Dolphin	23
Humpback Whale	21
Killer Whale (Orca)	21
Leopard Seal	20
New Zealand Fur Seal	19
Pilot Whale	22
Southern Elephant Seal	20
Southern Right Whale	22
Sub-Antarctic Fur Seal	19
Swamp Rat	24
Water Rat (Rakali)	24
Reptiles and Amphibians	25
Broad-shelled Turtle	25
Eastern Snake-necked Turtle (Long-necked Turtle)	25
Growling Grass Frog	27
Highland Copperhead Snake	26
Leatherback Turtle	25
Lowland Copperhead Snake	26
Swamp Skink	27
Tiger Snake	26

Sygnathids	33
Big-bellied Sea Horse	34
Port Phillip Pipefish	33
Potbelly Sea Horse	34
Ringback Pipefish	34
Shorthead Sea Horse	35
Spotted Pipefish	33
Weedy Sea Dragon	35
Widebody Pipefish	33
Image & Text Credits	36

