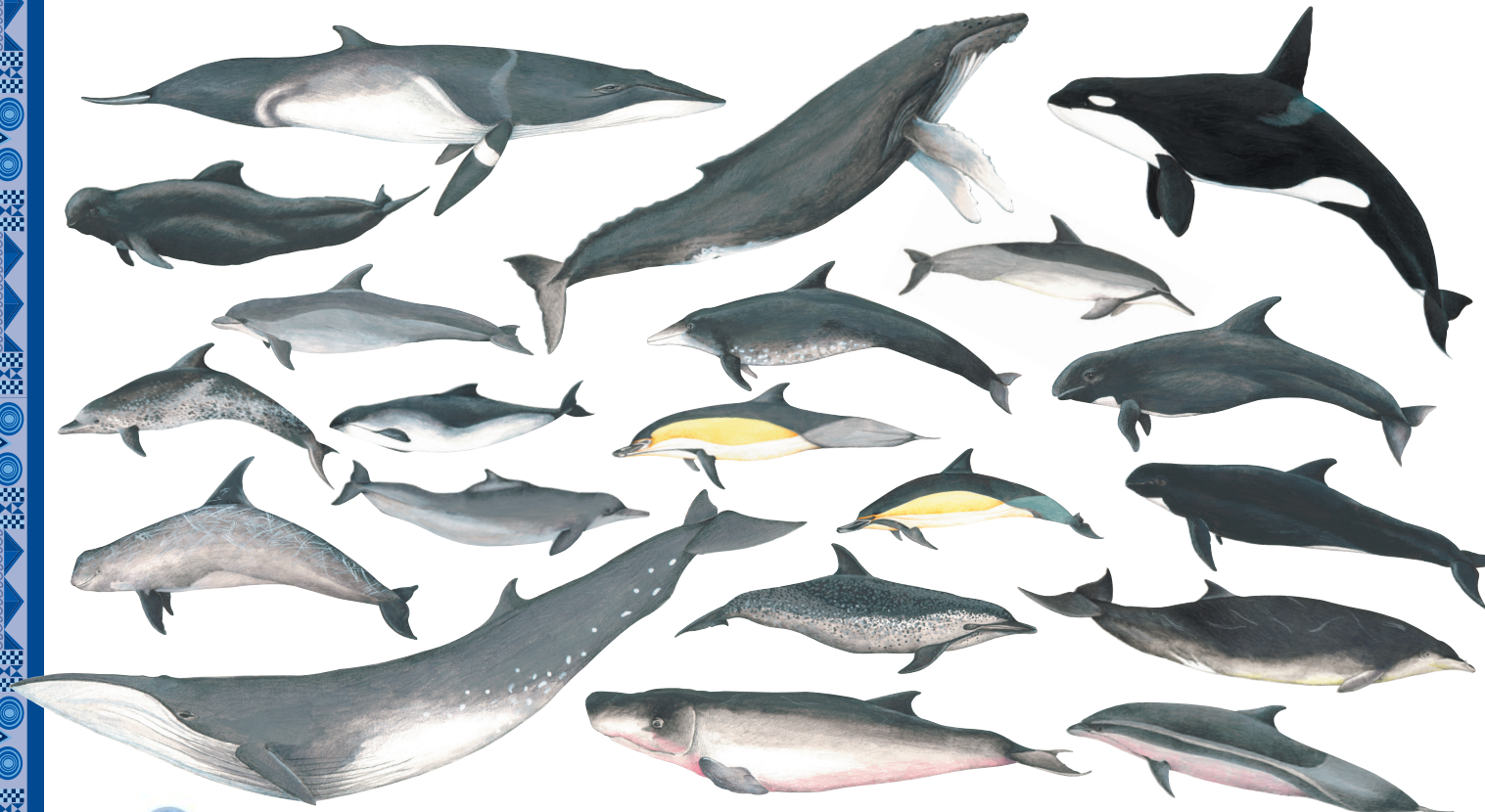


FIELD GUIDE TO THE CETACEANS OF WEST AFRICA



for a living planet®



a WWF WAMER Publication • Ruth H. Leeney • Illustrations by Sue Ranger



WWF *for a living planet®*

ACKNOWLEDGEMENTS

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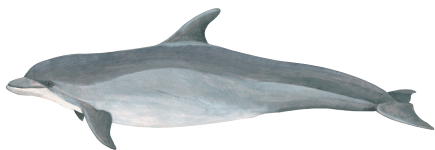
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INTRODUCTION TO CETACEANS

The world's cetacean fauna comprises over 80 species of whale, dolphin and porpoise.

TOOTHED WHALES



The suborder *Odontoceti* (odontocetes or toothed whales) includes sperm whales, beaked whales, oceanic dolphins, river dolphins and porpoises. Odontocetes have teeth of varying number, and a single blowhole.

BALEEN WHALES



The suborder *Mysticeti* (mysticetes or baleen whales) includes the 'great whales', which have baleen instead of teeth, and two blowholes.

Most of the species of baleen whales were exploited by the whaling industry in the 19th and 20th centuries, leading to depletion of populations of many species. Recovery of these populations has been variable, with some still vulnerable to extinction. However, many of the cetacean species now requiring conservation are odontocetes, particularly the smaller species of oceanic and coastal dolphins. These species are subject to an increasing array of threats including bycatch in fishing gear, pollution and loss of habitat as a result of coastal development.

CETACEANS IN WEST AFRICAN WATERS

The cetaceans of West Africa have been afforded little attention to date, and there is a paucity of data relating to species diversity, abundance and distribution. The majority of our knowledge comes from records of bycatch and strandings. These data can provide basic information on the species present in coastal waters and interacting with fisheries, but is by no means an accurate way of assessing the cetacean fauna of a region. Future efforts to survey coastal and offshore areas will be required if the cetaceans of West Africa are to be conserved.

This guide focuses on the northern coast of West Africa, covering Morocco, Western Sahara, Mauritania, Senegal, The Gambia, Guinea Bissau, Guinea, Sierra Leone and Cape



Verde, between latitudes of 36°N and 7°N. It includes coastal and offshore habitats, and describes all species which have been reported as strandings and sightings, as well as those which are likely found in West African waters but have not so far been reliably documented in the region.

ORGANISATION OF THE GUIDE

This guide lists all of the cetacean species whose known range includes some part of the coastal and offshore waters between Morocco, Cape Verde and Sierra Leone. The taxonomic order follows that given in *Marine Mammals of the World: Systematics and Distribution* by Dale W. Rice (Society for Marine Mammalogy, 1998). The mysicetes are presented first, followed by the odontocetes. For each species, the scientific name, as well as the common names in English, French and Portuguese, are listed. Diagnostic features and surface behaviour of each species are given, to aid positive identification of both cetaceans sighted at sea and stranded animals. Some basic information on each species then follows, including average maximum length of adult individuals (L) in metres, range and habitat type, feeding habits, reproduction and conservation status. Where data were available, details of the known distribution, records of sightings or strandings of each species in West African waters have been given, in addition to its worldwide distribution.



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HUMPBACK WHALE

Megaptera novaeangliae (Borowski, 1781)

F: Baleine à bosse

P: Balaeia-de-bossas

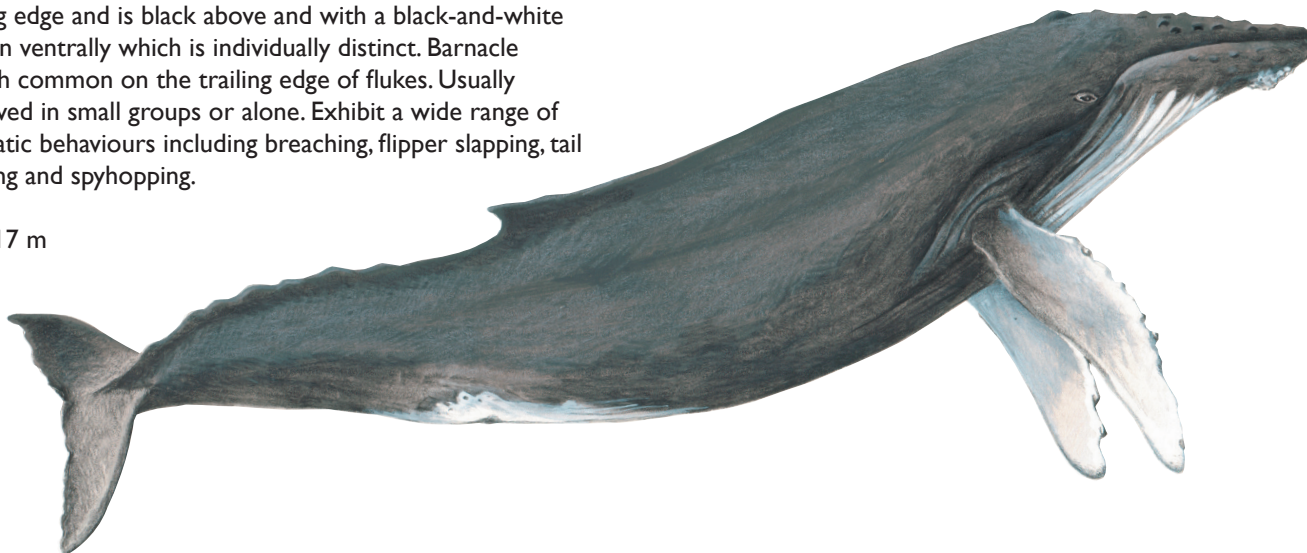
Diagnostic features & surface behaviour

Body is black above and black, white or mottled ventrally. Small black dorsal fin situated on a hump on the back. The extremely long flippers (about one third of total body length) are usually white ventrally and may be white or mottled on the dorsal surface. Tail fluke has a serrated trailing edge and is black above and with a black-and-white pattern ventrally which is individually distinct. Barnacle growth common on the trailing edge of flukes. Usually observed in small groups or alone. Exhibit a wide range of acrobatic behaviours including breaching, flipper slapping, tail slapping and spyhopping.

L: 16-17 m

Range and habitat

Found in all major oceans, primarily in coastal and continental shelf waters, but migrating whales pass through deep waters. Humpback whales feed during summer in high latitudes and migrate to tropical or sub-tropical waters, to mate and calve during the winter. In West Africa, humpback whales are commonly sighted in Cape Verde waters during the winter months.





Feeding & reproduction

Feeding occurs in productive, high latitude regions during the summer. Prey is primarily krill and a variety of small schooling fish. Feeding may be individual or co-operative. Calves are born in the tropics in midwinter, after a gestation period of about 12 months. Calving interval is 2 to 3 years. Calves are usually nursed for one year.



Humpback whale breaching. This species often engages in aerial behaviour.

Threats & Conservation status

Humpback whale populations were drastically reduced by commercial whaling during the 20th century. Most populations appear to now be recovering well, but whales in some populations still die from entanglement in fishing gear.

Classified as Vulnerable by the IUCN Red List.



Each individual has a different, recognisable pattern on the underside of the tail fluke.

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MINKE WHALE

Balaenoptera acutorostrata Lacépède, 1804

F: Baleine de minke/ petit rorqual

P: Balaeia anã

Diagnostic features & surface behaviour

Dark grey or black dorsal surface and white underneath. Falcate dorsal fin two thirds of the way along the back, appears small in relation to body size. Dorsal fin appears simultaneously with the blowholes when surfacing. Sharply pointed head which looks v-shaped when seen from above. Minkes arch their body before diving but do not raise their flukes above water. Characteristic white band across the pectoral fins. Blow rarely visible. Usually seen alone or in small groups. Minke whales often approach or display curiosity towards boats.

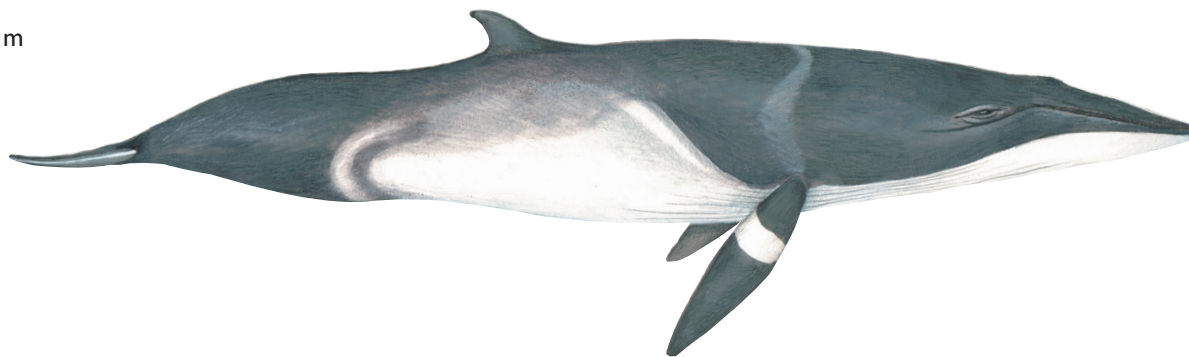
L: 10.7 m

Range and habitat

Among the most widely distributed of all the baleen whales, minke whales occur in the North Atlantic and North Pacific. They are frequently observed in coastal or shelf waters. Occasionally sighted in the Strait of Gibraltar. Small baleen whales have been reported from the waters of The Gambia and are assumed to be minke whales.

Feeding & reproduction

Diet consists of krill and small schooling fish such as capelin and herring. Little is known about reproduction in minke whales. Calving is thought to occur in winter, possibly in tropical waters.





Threats & Conservation status

Initially considered too small to hunt, the overexploitation of large whale species led whalers to target minke whales in the 20th century. This species has since made a good recovery in most parts of its range; however, hunting still occurs in the North Atlantic, North Pacific and Antarctic.

Classified as Lower Risk Near Threatened by the IUCN Red List.



Minke whales have a small, recurved dorsal fin, two thirds of the way along the back. Minke whales are often seen feeding in association with groups of actively feeding birds.



The white band on the pectoral fin is clearly visible underwater.



Minke whales are curious and will often spyhop, raising their sharply pointed heads above water to observe vessels.

BRYDE'S WHALE

Balaenoptera edeni Anderson, 1879

F: Rorqual de Bryde

P: Balaiea-de-Bryde

Diagnostic features & surface behaviour

Dark grey dorsal surface, grey or white ventrally. Prominent falcate dorsal fin two thirds of the way along the back. Three longitudinal ridges on top of the rostrum are diagnostic of this species. Bushy or columnar blow. Dorsal fin and blow-holes appear simultaneously on surfacing. Usually seen alone or in small groups. Breaching is occasionally observed.

L: 15.6m

Range and habitat

Worldwide in tropical and temperate waters. This species may make limited seasonal movements but, unlike other baleen whale species, does not undertake large-scale migrations. Distribution unknown in West African waters.

Feeding & reproduction

Bryde's whales feed on small schooling fish and krill. Nothing is known of reproduction in this species.





Threats & Conservation status

Having never been exploited to the same extent as other large whales, Bryde's whales are unlikely to be endangered, but no reliable population estimates exist for this species. They are currently hunted in the North Pacific.

Classified as Data Deficient by the IUCN Red List.



The characteristic three ridges on the rostrum are visible.



Bryde's whales have a small recurved dorsal fin, similar to a minke whale.



An unusual view of a Bryde's whale spyhopping, showing the pointed rostrum shape.

SEI WHALE

Balaenoptera borealis (Lesson, 1828)

F: Rorqual boreal/ rorqual sei

P: Baleia-sardineira

Diagnostic features & surface behaviour

Diagnostic features & surface behaviour: Dark grey dorsal surface and white or light-coloured underside. Falcate dorsal fin two thirds of the way along the back. A single longitudinal ridge on top of the rostrum. Tall, columnar blow. Dorsal fin and blowholes appear simultaneously on surfacing. Usually seen alone or in small groups. Breaching is occasionally observed.

L: 19.5 m

Range and habitat

Found worldwide from high latitudes to the tropics, and in both shelf and deep oceanic waters. Not often sighted near the coast. Seasonal movements are thought to occur but are poorly understood. No data exists on distribution in West African waters.

Feeding & reproduction

Diet comprised of a broad range of prey, including fish, krill and copepods. Calves are born in winter after an 11-12 month gestation period. Calves are weaned around eight months.





Threats & Conservation status

The status of sei whales is uncertain. They were hunted extensively during the 20th century, but are now thought to be abundant in the North Atlantic and North Pacific.

Classified as Endangered by the IUCN Red List.



The falcate dorsal fin and blowholes of sei whales appear simultaneously on surfacing.



The paired blowholes and single rostral ridge are visible.

SPERM WHALE

Physeter macrocephalus (Linnaeus, 1758)

F: Cachalot

P: Cachalote

Diagnostic features & surface behaviour

Dark grey or brown coloured body. Skin on the body behind the head is often wrinkled. Low, rounded dorsal fin two-thirds of the way along the back. Very large, square-shaped head; white upper lips; teeth found only in the narrow lower jaw. Tail flukes are triangular, with a straight trailing edge; flukes are lifted high at the start of a dive. A single s-shaped blowhole is set to the front of the head and to the left. Bushy blow, angled forward and to the left. Usually seen alone (adult males) or in groups. Often spend long periods inactive at the surface between dives. Dives can last for 40 minutes or more.

L: 18.3 m



Range and habitat

Found worldwide in ice-free waters, occurring in highest densities in deep canyon waters, along the edge of banks and continental shelves. Most commonly encountered in offshore waters. In West African waters, sperm whales are commonly sighted around the Cape Verde Islands. They are also sighted during summer months in the Strait of Gibraltar.

Feeding & reproduction

Feeding occurs year-round, likely on or near the sea floor. Main food items include medium-size and large squid, as well as octopus, rays, sharks and some bony fish. Calving interval is at least four to six years, and may be longer for older females. Gestation lasts well over 12 months. Calves are nursed for at least two years.



Threats & Conservation status

Sperm whale population size increases slowly, due to long periods of parental investment in offspring and slow maturation. Populations are therefore vulnerable to overexploitation, and whaling seriously reduced many populations. The main threats to sperm whales today are entanglement in fishing gear and ship strikes.

Classified as Vulnerable by the IUCN Red List.



A breaching sperm whale, showing the square head shape and small, paddle-like pectoral fins.



This view from behind the dorsal fin of a sperm whale, towards its head, shows the single blowhole set to the left side



Sperm whales' flukes are usually marked with unique scratches and scars, enabling the identification of individual whales.

PYGMY SPERM WHALE

Kogia breviceps (Blainville, 1838)

F: Cachalot pigmée/ petit cachalot

P: Cachalote-pigmeu

DWARF SPERM WHALE

Kogia sima (Owen, 1866)

F: Cachalot nain

P: Cachalote-añao

Diagnostic features & surface behaviour

Grey dorsal surface, fading to white or pink on the belly. Small, robust body and square head shape. In *K. breviceps*, the dorsal fin is short, small and towards the tail; in *K. sima* it is slightly larger and midway along the back. Light bracket marking between eye and flipper. nd light grey or white belly. Usually seen alone or in small groups of six to 10 individuals. A slow 'roll' at the surface, showing the back and dorsal fin. Often observed lying still at the surface. Will dive or move away from vessels.

Kogia breviceps L : 3.5 M *Kogia sima* L: 2.7 m

Range and habitat

Found in tropical and temperate seas worldwide, in deep waters. Common over and near the continental shelf. In West Africa, these species have been recorded in Mauritania, Senegal and Guinea Bissau. They are rarely observed at sea and are known mostly from strandings.



Kogia breviceps



Feeding & reproduction

These species feed on cephalopods, crustaceans and fish. Little is known about reproduction in these species, but the gestation period is thought to be about 12 months long. Off southern Africa, dwarf sperm whales appear to give birth mainly between December and March.



Dwarf sperm whales logging at the surface.

Threats & Conservation status

Little is known about both dwarf and pygmy sperm whales, and neither species is considered to be abundant. They sometimes become entangled in fishing gear such as gillnets, which could present a threat to certain nearshore populations.

Listed as Lower Risk Least Concern by the IUCN Red List.



When dwarf and pygmy sperm whales surface, usually only the back and small dorsal fin are visible.

CUVIER'S BEAKED WHALE

Ziphius cavirostris G. Cuvier, 1823

F: Baleine de Cuvier/ baleine à bec d'oie

P: Balaeia-bicuda-de-Cuvier

Diagnostic features & surface behaviour

Dark grey to red-brown body, with lighter or white head and throat areas, and dark coloration around the eyes. Conical head shape with a smooth, short beak. U-shaped mouth profile. Small falcate dorsal fin, two-thirds of the way along the back. Scratches and scars common all over the body. In mature males, a single pair of forward-pointing teeth at the tip of the lower jaw are exposed outside the closed mouth. Usually observed alone or in small groups of up to

seven individuals. Difficult to observe at sea. May dive for 30 minutes or more. Most easily identifiable of the four beaked whales listed in this guide

L: 7 m

Range and habitat

Most widely distributed of all the beaked whales. Found in deep slope waters with steep depth gradients, in tropical to polar regions worldwide. In West Africa, this species has been recorded from Morocco to Senegal. Abundance and distribution poorly understood.





Feeding & reproduction

Cuvier's beaked whales feed primarily on squid, but may also take fish and crustaceans. Feeding occurs in deep waters. Life history of this species is poorly understood.

Threats & Conservation status

Cuvier's beaked whales are entangled regularly in drift nets in some regions. They also appear to be vulnerable

to acoustic disturbance; mass strandings coincident with military exercises using low-frequency sonar have caused recent concern for this species.

Listed as Data Deficient by the IUCN Red List.



The brownish, speckled colouration on the body is characteristic of Cuvier's beaked whales.



The head is conical and lighter coloured, with a smooth, short beak.

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GERVAIS' BEAKED WHALE

Mesoplodon europaeus (Gervais, 1855)

F: Baleine à bec de Gervais

P: Balaeia-bicuda-de-Gervais

Diagnostic features & surface behaviour

Dark grey dorsal body surface and lighter grey ventral surface. Females may have white or light areas on the throat and on the sides of the head. Small, tapered head; narrow beak with one tooth on each side of the lower jaw in adult males. Small pointed dorsal fin two thirds of the way along the back. Small group size. Difficult to distinguish from other *Mesoplodon* species.

L: at least 5.2 m

Range and habitat

Found only in the tropical and warm temperate Atlantic Ocean. Almost never positively identified at sea, but strandings of this species are commonly recorded. In the West Africa region, this species is known from Mauritania and Guinea Bissau.

Feeding & reproduction

Gervais' beaked whales are presumed to feed on squid. Nothing is known about reproduction in this species.





Threats & Conservation status

This species is probably naturally rare, and does not appear to be caught regularly in fishing gear.

Listed as Data Deficient by the IUCN Red List.

No photograph available.



BLAINVILLE'S BEAKED WHALE

Mesoplodon densirostris (Blainville, 1817)

F: Baleine à bec de Blainville

P: Balaeia-bicuda-de-Blainville

Diagnostic features & surface behaviour

Dark grey dorsal body surface and light grey ventral surface. Long beak with a distinctive mouthline – the lower jaw is arched; adult males have a large flattened tooth at the top of the arch on each side. Barnacles may be attached to the teeth. Small, triangular dorsal fin two thirds of the way along the back. Long white scratches and scars may be present on the body. Occurs in small groups of up to seven individuals. Surfaces slowly with little splashing. Can dive for up to 45 minutes.

L: at least 4.6 m

Range and habitat

Widespread throughout warm temperate and tropical waters, worldwide. Usually found in very deep waters of 500-1000 m. In West African waters, this species has been reported from Mauritania and Senegal. Most widespread of all the *Mesoplodon* species.

Feeding & reproduction

Squid and small fish are the main prey species of Blainville's beaked whales. Little is known about reproduction in this species.





Threats & Conservation status

Probably vulnerable to acoustic disturbance caused by low-frequency sonar.

Listed as Data Deficient by the IUCN Red List.



Blainville's beaked whale head showing long beak and distinctive arched mouthline



Surfacing sequence of a Blainville's beaked whale.

ROUGH-TOOTHED DOLPHIN

Steno bredanensis (G. Cuvier in Lesson, 1828)

F: Steno/ dauphin à bec étroit

P: Golfinho-de-dentes-rugosos/caldeirão

Diagnostic features & surface behaviour

Dark grey dorsal surface, lighter sides, white belly and throat, often with a mottled appearance. Scarring common on the body. Pinkish or white lips. Tall, dark grey, falcate dorsal fin. Distinctive head shape – forehead slopes smoothly from the blowhole onto the long beak, giving a ‘reptilian’ appearance. Usually found in groups of 10 to 20 individuals, but can form aggregations of several hundred. Can be found in mixed groups with other odontocetes such as bottlenose dolphins and pilot whales. Can dive for long periods; difficult to follow at sea.

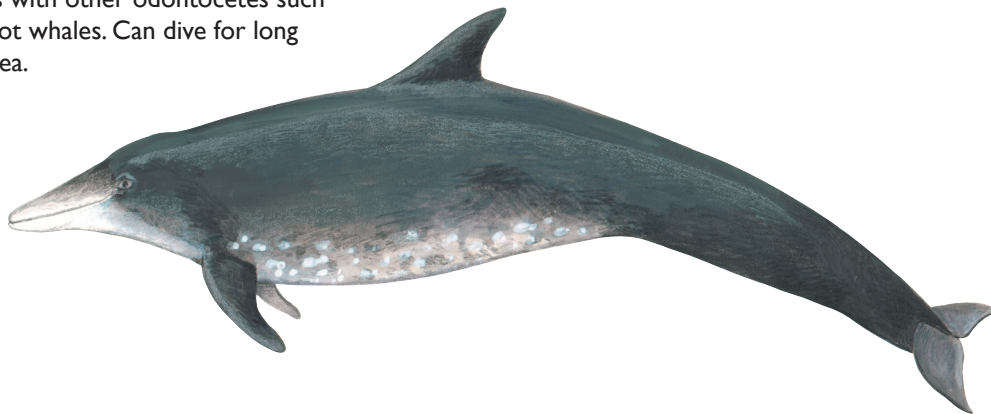
L: 2.6 m

Range and habitat

Deep tropical and warm temperate waters worldwide. In West Africa, sightings of this species have been documented in Mauritania and Senegal.

Feeding & reproduction

Fish and cephalopods form the diet of rough-toothed dolphins. Nothing is known about reproduction in this species.





Threats & Conservation status

A widespread species, but not as numerous as other tropical dolphin species. Interactions with fishing gear do not seem to be a major threat.

Categorised as Data Deficient by the IUCN Red List.



The distinctive 'reptilian' head shape of rough-toothed dolphins is apparent, as is the pink colouration around the mouth.



Rough-toothed dolphins are usually seen in groups of 10-20.



ATLANTIC HUMPBAC DOLPHIN

Sousa teuszii (Kükenthal, 1892)

F: Dauphin bossu de l'Atlantique

P: Golfinho-corcunda-do-Atlântico

Diagnostic features & surface behaviour

Grey dorsally and light grey ventrally. Distinctive hump in the middle of the back, at the base of a small, recurved dorsal fin. Long, slender beak. Usually seen in small groups of less than 10 individuals. Generally slower-moving and less active at the surface than bottlenose dolphins, they are shy of boats and will not bow ride.

L: 2.8 m

Range and habitat

Endemic to the west coast of Africa, ranging from Dakhla Bay (Western Sahara, 24°N) south at least as far as Gabon, including the Bijagós Archipelago. They live close to shore and usually in or near to the mouths of large rivers.

Feeding & reproduction

Reef and brackish water species, including squid, octopus and small fish, are the main prey. Feeding activity may be linked to tidal state in some areas. Little is known about reproduction in humpback dolphins.





Threats & Conservation status

There is much concern about the conservation status of the Atlantic humpback dolphin, which is listed as Data Deficient in the IUCN Red Book. Although no abundance estimates are available, it has become rare in at least two areas where it used to be common - the coastal waters of Senegal and the Gambia and the shallow waters of upper Dakhla Bay. In both areas, high intensity of fishing is viewed as a threat to

humpback dolphins, causing both entanglement in fishing gear and reduced prey availability. Because of the restricted range and highly coastal distribution of this species, it is also vulnerable to impacts such as coastal development and pollution.

Listed as data deficient by the IUCN.



Humpback dolphins are often observed in the surf zone, close to shore.

BOTTLENOSE DOLPHIN

Tursiops truncatus (Montagu, 1821)

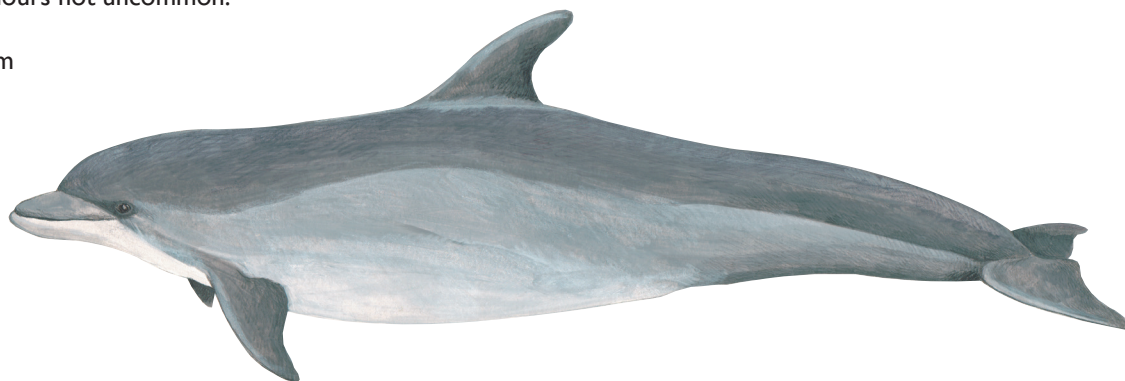
F: Grand dauphin

P: Roaz

Diagnostic features & surface behaviour

Dark grey body with light grey or white belly. Large falcate dorsal fin, often with nicks or scratches on it. Wide, robust head and body compared to other dolphins, and a short, stubby beak. Noticeable crease between the melon and the beak. Can be found in groups ranging from 2 to 15, especially in coastal waters, to hundreds of individuals in offshore areas. Often approach boats to bow ride, and can be very active with displays of leaps, backflips and other aerial behaviours not uncommon.

L: 2.5 – 3.8 m



Range and habitat

Found worldwide at tropical and temperate latitudes, in a wide variety of habitats. Resident populations are found in some estuaries and rivers. Sightings, strandings and bycatch of this species have been documented throughout West African waters. Inshore and offshore populations exist in many parts of the world, and have been found to differ consistently in morphology, with offshore animals tending to be larger in size and darker than the inshore animals.

Feeding & reproduction

Diet is broad and depends on the habitat area. May include bottom-dwelling invertebrates, fish and squid. Gestation in bottlenose dolphins lasts about 12 months and calves can be



born at any time of the year. Lactation lasts about a year, but calves often accompany their mothers for several years after weaning.

Threats & Conservation status

The species as a whole is widespread and abundant, but some local populations may face threats such as bycatch

in fisheries, habitat degradation and pollution. Resident populations with a limited habitat range are especially at risk.

Classified as Data Deficient by the IUCN Red List.



Bottlenose dolphins often engage in acrobatic behaviour, such as breaching.



The falcate dorsal fins and short, stubby beak are visible.



PANTROPICAL SPOTTED DOLPHIN

Stenella attenuata (Gray, 1846)

F: Dauphin tacheté pantropical

P: Golfinho pintado pantropica

Diagnostic features & surface behaviour

Dark grey dorsal 'cape' extends from the beak to behind the dorsal fin; below this cape the body is light grey. Spotting is absent in calves, and develops with age, but may be more obvious in some individuals than others. Body is slender compared to *S. frontalis*. Dorsal fin is falcate and dark grey. Long, slender beak with white tip. Large groups of hundreds or thousands may be encountered. Often associates with schools of spinner dolphins. Acrobatic, often approaches boats and bow rides.

L: 2.5 m

Range and habitat

Found in offshore waters, in all tropical and warm temperate regions. In West Africa, known from Cape Verde, Senegal and Guinea-Conakry.

Feeding & reproduction

Diet consists of small pelagic fish, cephalods and crustaceans. Calves are born throughout the year; gestation lasts just over 11 months. Calving interval varies between populations, but is between 2 ½ and 4 years.





Threats & Conservation status

This species is extremely abundant, despite the drastic reduction of several populations caused by bycatch in tuna fisheries.

Classified as Lower Risk Conservation Dependent by the IUCN Red List.



Spotting is less obvious in some individuals than in others.



The dark grey dorsal cape and lighter grey face is visible when pantropical spotted dolphins surface.

ATLANTIC SPOTTED DOLPHIN

Stenella frontalis (G. Cuvier, 1829)

F: Dauphin tacheté de l'Atlantique

P: Golfinho pintado

Diagnostic features & surface behaviour

Dark grey back, lighter sides and a white belly. Light grey blaze points upwards and back, on the sides, beneath the front of the dorsal fin (not visible in all individuals). More robust body shape than *S. attenuata*. Spotting is absent in calves, and develops with age, but is more obvious on some individuals than others. Dorsal fin is falcate and dark grey. Beak may be white-tipped. Small groups of around 10 individuals are common, but sometimes groups of up to 50 occur. Acrobatic, often approaches boats and bow rides.

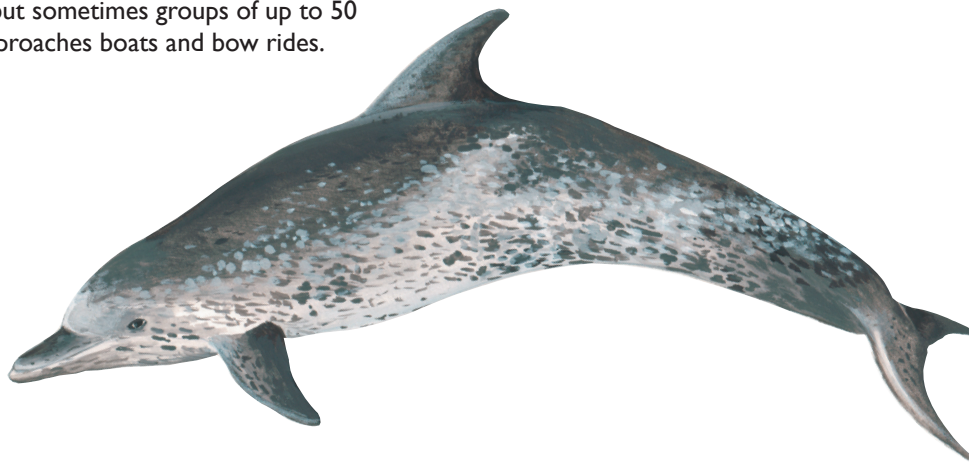
L: 2.3 m

Range and habitat

Found throughout the tropical and warm temperate Atlantic. Commonly found in shallow, coastal waters but may occur offshore. This species occurs throughout West African waters, ranging between the Canary Islands and Gabon.

Feeding & reproduction

The diet of Atlantic spotted dolphins consists of small fish, cephalopods and benthic invertebrates. Little is known about reproduction in this species. Calves are nursed for at least 3 years and the average calving interval is 3 to 4 years.





Threats & Conservation status

This species is likely bycaught, but little data exist in this respect. Abundance and mortality rates are poorly documented.

Classified as Data Deficient by the IUCN Red List.



An adult and juvenile Atlantic spotted dolphin. Calves are born without spotting, which develops with age.



The white-tipped beaks and spotted dorsal surface are evident on these individuals.

SPINNER DOLPHIN

Stenella longirostris (Gray, 1828)

F: Dauphin longirostre

P: Golfinho rotator

Diagnostic features & surface behaviour

Colour varies greatly with region, but is dark or medium grey on the dorsal surface, and lighter grey on the sides. Dorsal fin is falcate or triangular. Head tapers to a long, pointed beak with a dark tip. Can occur in groups of several thousand in the open ocean, whilst smaller groups of tens to hundreds of individuals are found in coastal areas. Spinning whilst leaping repetitively is characteristic behaviour for this species.

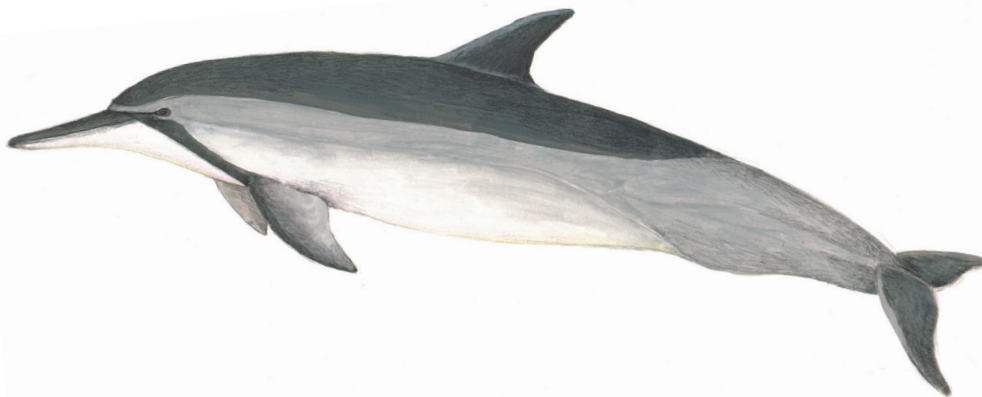
L: 2.3 m

Range and habitat

Occurs throughout the tropics in geographically discrete populations. This species may be found resting and socialising in shallow, coastal waters, or feeding offshore. Distribution in West African waters is poorly documented.

Feeding & reproduction

Spinner dolphins feed on small mesopelagic fish, shrimp and cephalopods. They can give birth at any time of the year but populations may exhibit seasonal peaks which vary between geographical populations. Gestation lasts about 10.5 months and calves are weaned after one to two years.





Threats & Conservation status

Bycatch in gillnets is a major cause of mortality for spinner dolphins. The meat may be used for human consumption, or for bait, in some areas. Local populations are vulnerable to high levels of bycatch, especially in areas where trawl or gillnet fisheries may be concentrated. There is no good abundance estimate for this species in the tropical Atlantic.



Spinner dolphins have a slender body shape and a long, pointed beak.

Classified as Lower Risk Conservation Dependent by the IUCN Red List.



A spinner dolphin engages in characteristic 'spinning' behaviour.

CLYMENE DOLPHIN

Stenella clymene (Gray, 1850)

F: Dauphin de Clyméné

P: Golfinho clímene

Diagnostic features & surface behaviour

Three-part colouration when viewed from the side: dark grey dorsal surface, light grey sides and white belly. Viewed from the side, the line between the dark dorsal surface and the grey sides dips beneath the dorsal fin. Robust body shape and falcate dorsal fin. Dark grey line runs down the length of the top of the beak; a black 'moustache' marking at the top of the beak is characteristic of this species. Group size may range from a few individuals to about 50, although groups of several hundred have been observed. Active at the surface, and often leap clear of the water, similar to common dolphins.

L: 2.0 m

Range and habitat

Found only in the tropical and sub-tropical waters of the Atlantic. Clymene dolphins have been sighted in West African waters, and are known from beachcast remains in The Gambia.

Feeding & reproduction

The diet consists of small mesopelagic fish and squid. Nothing is known about reproduction in this species.



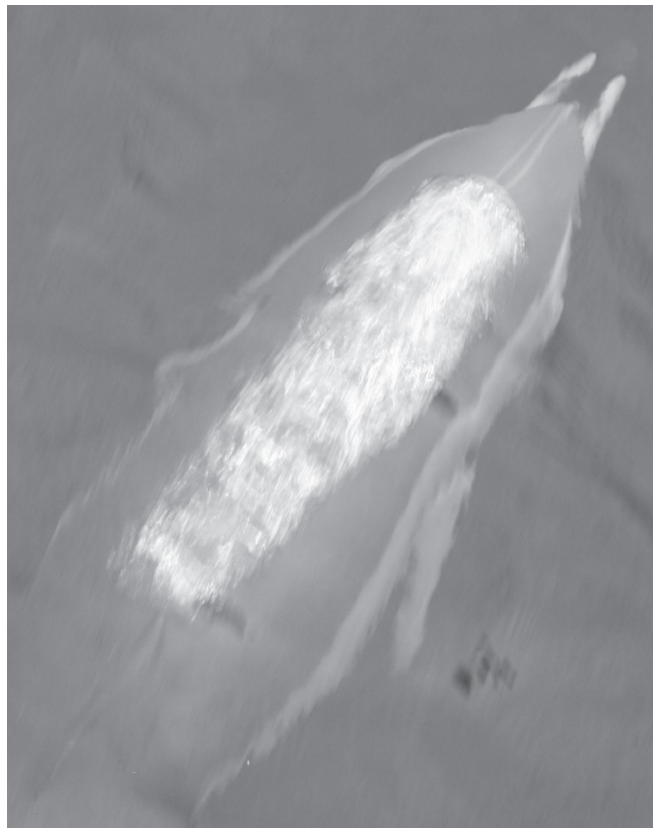


Threats & Conservation status

Little data exists on abundance and distribution of this species. It is classified as Data Deficient by the IUCN Red List. IUCN Red List.



A leaping *Clymene* dolphin shows the 3-part colouration on its flanks.



Dark mesio-dorsal line and 'moustache' markings on beak are diagnostic for this species.

STRIPED DOLPHIN

Stenella coeruleoalba (Meyen, 1833)

F: Dauphin rayé/ dauphin bleu et blanc

P: Golfinho riscado

Diagnostic features & surface behaviour

Dark grey dorsal surface with light grey blaze from the eye towards the dorsal fin. Distinctive black stripes from eye to anus and eye to pectoral fin. Dark grey falcate dorsal fin. Average group size is 100 but can be up to 500. Active at the surface, often approaching powerboats to bow ride.

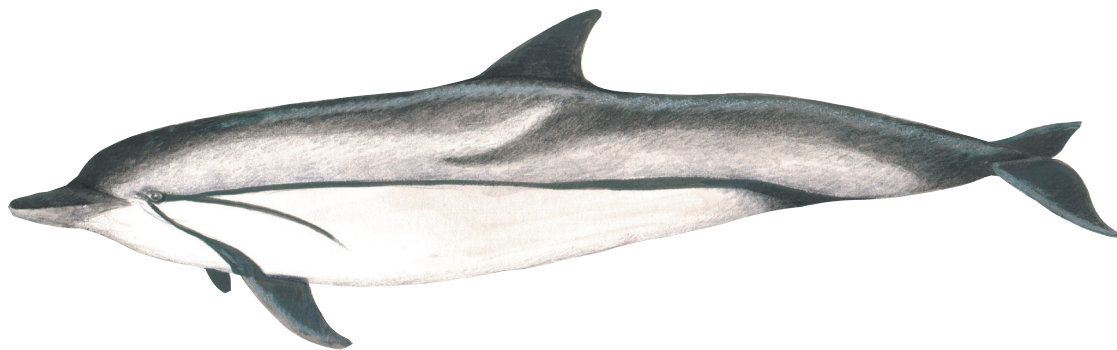
L: 2.6 m

Range and habitat

Tropical and warm temperate waters worldwide. An off-shore species, usually found in productive oceanic waters seaward of continental shelves. Distribution unknown in West Africa.

Feeding & reproduction

Striped dolphins feed on a variety of shoaling fish and cephalopods. Feeding occurs at night. Gestation period is around 12 months and calves are born in late summer and autumn. Calving and nursing generally takes place within groups of





about 30 individuals. Calving interval is roughly 4 years.

Threats & Conservation status

Whilst abundant on a global scale, the various geographic populations of striped dolphins are isolated from one another and must thus be considered separately in terms of conservation. Bycatch in trawl and drift net fisheries, overfishing and habitat degradation causing prey depletion and contaminant burdens are the key threats to this species

in certain areas.

Classified as Lower Risk Conservation Dependent by the IUCN Red List.



The stripes from eye to anus and eye to pectoral fin are visible.



School of striped dolphins leaping.

FRASER'S DOLPHIN

Lagenodelphis hosei (Fraser, 1956)

F: Dauphin de Fraser

P: Golfinho-de-Fraser

Diagnostic features & surface behaviour

Dark grey dorsal surface, broad dark stripe from the beak to the anus (not present on all individuals), light grey sides and a cream belly. Small, triangular or slightly falcate dorsal fin halfway along the back. Short, stubby beak and robust body. Small groups sometimes seen but usually group size is between 100 and 1000. May travel in mixed schools with species such as melon-headed whales, pilot whales and smaller dolphin species. In some areas it is considered shy and evasive, whilst in other areas it bow rides and is more approachable.

L: 2.7 m

Range and habitat

Found worldwide, throughout the tropics, in deep waters. Distribution unknown in West African waters, apart from a report from Senegal.

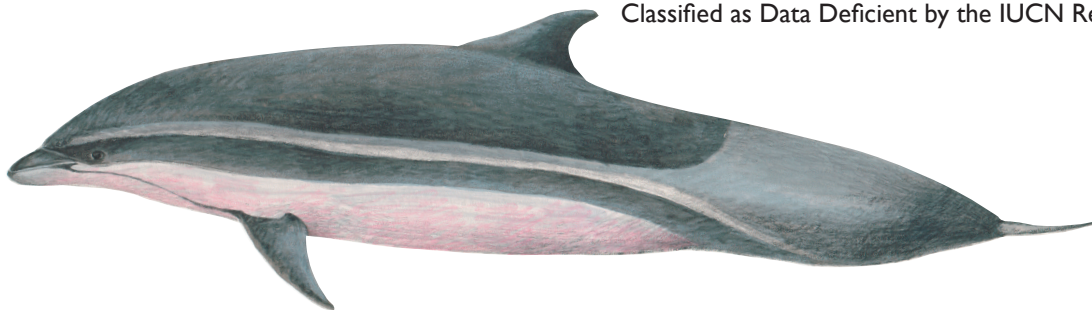
Feeding & reproduction

Fraser's dolphins feed on mesopelagic fish, shrimp and cephalopods. Foraging occurs at depth. Gestation lasts about 12 months, and calving interval is two years. Seasonal peaks in calving have been documented in spring, summer and autumn in different regions.

Threats & Conservation status

This species is bycaught in many types of fishery including drift and purse seine nets, but is not caught in great numbers in any region.

Classified as Data Deficient by the IUCN Red List.





School of Fraser's dolphins, showing robust body shape and small, triangular dorsal fins



SHORT BEAKED COMMON DOLPHIN

Delphinus delphis (Linnaeus, 1758)

F: Dauphin commun à bec court

P: Golfinho-comum-de-bico-curto



LONG BEAKED COMMON DOLPHIN

Delphinus capensis (Gray, 1828)

F: Dauphin commun à bec large

P: Golfinho-comum-de-bico-longo



Diagnostic features & surface behaviour

These two species can be difficult to tell apart and have overlapping ranges, thus they have been described together here. Dark grey dorsal surface, hourglass colour pattern on flanks consisting of a yellow patch to the front and a light grey patch to the rear. A dark eye patch extends to the black beak. The falcate dorsal fin is dark grey but may have a grey or white patch in the centre. Common dolphins have a slender body and a pointed head and beak. Although small groups are sometimes observed, this species commonly gathers in schools of hundreds or thousands of animals. Common dolphins are very active at the water surface, often bow ride fast-moving vessels and frequently leap clear of the water.

L: 2.7 m

Range and habitat

The short-beaked common dolphin is found in the continental shelf and pelagic waters of the Atlantic and Pacific Oceans. Along the West African coast, it is known to occur from Morocco as far south as Senegal and The Gambia. The long-beaked common dolphin is less widespread, and its distribution in West Africa is not well known. Beachcast remains of this species have been documented in The Gambia and Senegal.



Feeding & reproduction

Small schooling fish and squid are the main prey of common dolphins. Gestation lasts 10 to 11 months, and lactation lasts at least 10 months. Reproduction is probably non-seasonal in tropical areas.

Threats & Conservation status

The main threat to common dolphins is interaction with fisheries. Accidental capture in trawls, gill nets and many other types of fishery have depleted local populations of

common dolphins in many parts of their range. Overfishing, leading to prey depletion, is another threat to some populations.

Both species are classified as Low Risk by the IUCN Red List.



Long-beaked common dolphin, showing elongated beak.



School of common dolphins, showing distinctive hourglass pattern on flanks as they leap.

RISSO'S DOLPHIN

Grampus griseus (G. Cuvier, 1812)

F: Dauphin de Risso

P: Grampo/moleiro

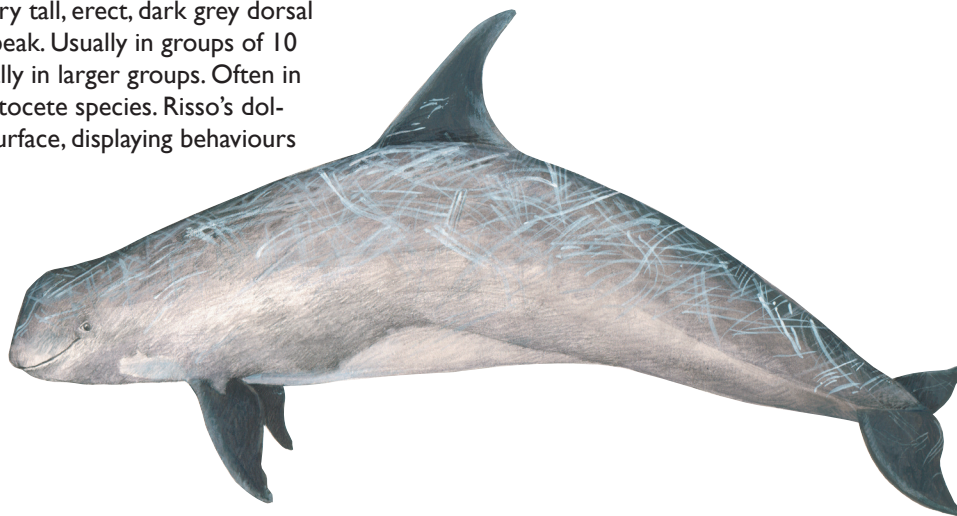
Diagnostic features & surface behaviour

Young are grey to brown dorsally and pale ventrally; as animals become older they become more extensively scarred and can appear white in patches or completely, except for the dorsal fin and flippers which remain darker. The scars are assumed to be made by the teeth of other Risso's dolphins, or by their squid prey. Very tall, erect, dark grey dorsal fin. Broad, blunt head with no beak. Usually in groups of 10 to 40 individuals, but occasionally in larger groups. Often in mixed groups with other odontocete species. Risso's dolphins can be acrobatic at the surface, displaying behaviours such as tail slapping.

L: 3.8 m

Range and habitat

Extensive distribution throughout tropical and warm temperate waters worldwide. In some areas they occupy the steep upper continental slope, in water depths exceeding 300m. Seasonal shifts in distribution occur but no clear migratory patterns have been documented. Likely occurs in West African waters, but the range and habitat of Risso's dolphins in this region is unknown.





Feeding & reproduction

Risso's dolphins are squid specialists, occasionally also eating other cephalopods. Little is known about reproduction in this species.

Threats & Conservation status

Appears to be abundant in areas where abundance estimates are available. Bycatch in gear such as trawls, drift nets and longlines is the main threat to this species.



Pale, scarred body, darker, falcate dorsal fin and blunt head shape are visible.

Listed as Data Deficient by the IUCN Red List.



Colouration and amount of scarring may vary between individuals.

MELON-HEADED WHALE

Peponocephala electra (Gray, 1846)

F: Péponocéphale

P: Golfinho-cabeça-de-melão

Diagnostic features & surface behaviour

Dark grey or black body, sometimes with lighter ventral markings. Conical shaped head with no beak; lips are often white. Tall, falcate, black dorsal fin. White or light grey areas around the throat are common. Occurs in schools of several hundred or more individuals, consisting of many smaller groups whose activities are coordinated. This species occasionally bow rides vessels.

L: 2.8 m

Range and habitat

Occurs in tropical waters worldwide, mainly in offshore waters. In November 2007, a mass stranding of 265 melon-headed whales occurred on Cape Verde.

Feeding & reproduction

Feeds on pelagic fish, cephalopods and occasionally crustaceans. Little is known about reproduction in this species.





Threats & Conservation status

No specific conservation issues have been highlighted for melon-headed whales.

They are classified as Lower Risk Least Concern by the IUCN Red List.



Conical head and white lips are visible.



Mass stranding in Cape Verde, 2007.

FALSE KILLER WHALE

Pseudorca crassidens (Owen, 1846)

F: Faux orque/ pseudorque/ faux épaulard

P: Orca falsa

Diagnostic features & surface behaviour

Body entirely black except for lighter ventral areas. Tall, black, falcate dorsal fin. Small conical head with no beak. Groups of 10 to 20 are common, as part of larger schools comprising hundreds of individuals. Active at the surface, this species frequently bow rides. May be observed with bottle-nose dolphins.

L: 6 m

Range and habitat

Tropical and warm temperate waters worldwide, in deep offshore waters.

Feeding & reproduction

A wide variety of fish and cephalopod species is consumed by this species. Reproductive rate is low, with an estimated calving interval of 6 to 7 years. Gestation is 14 to 16 months long and calves may be nursed for up to 2 years.





Threats & Conservation status

Low reproductive rates make this species vulnerable to population depletion if threatened, however they are currently classified as Lower Risk Least Concern by the IUCN Red List.



Conical head with no beak and small, recurved dorsal fin are visible.



False killer whales often approach and bowride vessels.

KILLER WHALE/ ORCA

Orcinus orca (Linnaeus, 1758)

F: Orque/ épaulard

P: Orca

Diagnostic features & surface behaviour

Distinctive colouration consisting of black body with white eye patch, white ventral area from chin to anus, and grey or white saddle patch on the back, behind the dorsal fin. Tall, black dorsal fin; extremely tall and triangular in males (and may bend to one side), falcate in females and juveniles. Beak not well-defined. Groups of 2 to 9 individuals are often seen. A wide range of behaviours may be observed, including spyhopping, breaching, flipper-slapping and tail-slapping. Responses to boats vary.

L: 9m

Range and habitat

Worldwide, but numerous in high latitudes and especially in areas where prey species are abundant. In West African waters, this species is regularly sighted in Moroccan waters (Strait of Gibraltar).





Feeding & reproduction

Diet depends on habitat area and whether the pod is largely resident in an area or more mobile. Some pods specialise on marine mammal species such as sea otters or seals, whilst other pods specialise on fish such as herring or salmon. Calving occurs year-round. Calving interval is around 5 years. Gestation lasts between 15 and 18 months.



Distinctive white eye patch is characteristic of orcas. Females and young animals have smaller, recurved dorsal fins.

Threats & Conservation status

As a species, killer whales are not endangered, but noise pollution, disturbance, habitat degradation and prey depletion may affect some regional populations.

Classified as Lower Risk Conservation Dependent by the IUCN Red List.



The difference between the tall, triangular male dorsal fin (above) and smaller, falcate female dorsal fin (left) is obvious. The white saddle patch behind the dorsal fin is just visible on the male.

SHORT-FINNED PILOT WHALE

Globicephala macrorhynchus (Gray, 1846)

F: Baleine pilote/ globicéphale tropical

P: Balaeia piloto tropical

Diagnostic features & surface behaviour

Black body, with grey saddle behind the dorsal fin. Broad-based, low, falcate dorsal fin, positioned far forward on the back (towards the head). Rounded, bulbous head with no beak. Robust body. Schools usually consist of 15 to 20 individuals, although groups of a hundred or more individuals can be observed. Often observed in association with other cetaceans, especially bottlenose dolphins.

L: 7.2 m



Range and habitat

Widespread throughout the tropical and warm temperate oceans of the world. Confirmed sightings and strandings of this species have been reported on the West African coast. A mass stranding of over 80 short-finned pilot whales occurred in Senegal in May 2008.

Feeding & reproduction

The diet of short-finned pilot whales is primarily squid, but occasionally fish and octopus also. Gestation lasts 15 months, and calves are nursed for at least 2 years. Calving occurs every 5 to 8 years.



Threats & Conservation status

Pilot whales are hunted in Japanese and Caribbean waters, and in parts of Asia. Elsewhere, the species remains relatively abundant.

Classified as Lower Risk Conservation Dependent by the IUCN Red List.



Mother and calf. Broad-based dorsal fin with rounded tip is apparent.



Pilot whales often travel in large schools and sometimes can be observed almost stationary at the surface.



HARBOUR PORPOISE

Phocoena phocoena (Linnaeus, 1758)

F : Marsouin commun

P: Boto

Diagnostic features & surface behaviour

Dark grey to black back, lighter sides and light grey or white belly. Small body size. Triangular dorsal fin. Blunt head with no beak. Usually seen in small groups or as single individuals. Shy of boats, most porpoises will move away from vessels. Rapid 'roll' on surfacing, showing the small dark back and dorsal fin, with little splash. Porpoises rarely jump clear of the water and are difficult to observe in even slightly choppy seas.

L: 1.6 m

Range and habitat

Primarily in coastal areas, although also found in deeper offshore waters. Limited to northern temperate and sub-arctic waters, in the eastern Atlantic they are most common north of Spain. In West African waters, harbour porpoises are known bycatch in artisanal fisheries in Morocco and Mauritania, and beach-cast carcasses have been reported in Senegal.

Feeding & reproduction

Small schooling fish, cephalopods and bottom dwelling fish form the diet of harbour porpoises. Female porpoises become sexually mature at three to four years old and may





become pregnant for several years in a row. Gestation is 10 to 11 months long and calves are nursed for 8 to 12 months. Reproduction is highly seasonal with calves being born in the spring and summer.

Threats & Conservation status

Worldwide, distinct, geographically isolated populations of harbour porpoises exist, some of which have substantially

decreased in size from historical levels. Bycatch in fishing gear is the main threat to the harbour porpoise throughout its range. Habitat degradation, through pollution and coastal development, also likely impacts this species.

Listed as Vulnerable by the IUCN.

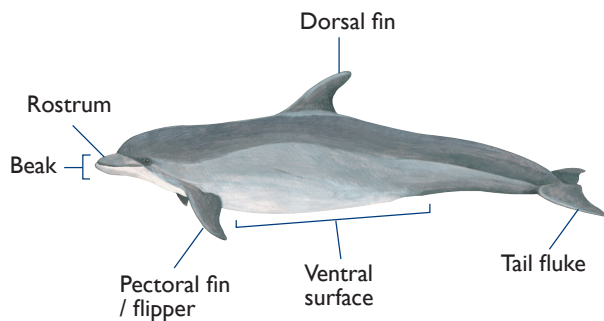


Unusual view of a porpoise underwater, showing the blunt head with no beak and robust body shape.



Harbour porpoise mother and calf. Small, triangular dorsal fin is visible on surfacing.

CETACEAN MORPHOLOGY



GLOSSARY

Blow – the visible cloud of moist air which is exhaled through the blowholes when a whale surfaces.

Bow riding – some small cetaceans place themselves just in front of a vessel or a large whale, in order to take advantage of the pressure wave produced by the movement of the boat or whale.

Breaching – when a cetacean leaps or jumps clear of the water.

Calf (pl. calves) – an infant cetacean.

Dorsal fin – fin along the midline of a cetacean's back. In dolphins it is usually halfway along the back; in large whales it is closer to the tail.



The falcate dorsal fin of a bottlenose dolphin.



The low 'bushy' blow of a Humpback whale.



Humpback whale tail fluke.

Dorsal surface – upper surface of a body part, or the back, if referring to the whole body.

Falcate – sickle-shaped or recurved (see photo).

Fluke – the tail of a cetacean, comprised of two horizontally-flattened fin-like structures

Juvenile – a sub-adult cetacean

Mesopelagic – living in the middle of the water column

Pelagic – relating to open, offshore waters



Pilot whale spyhopping.

Rostrum – the upper jaw of a cetacean

Spyhopping – when a cetacean raises its head vertically out of the water so that its eyes are clear of the surface.

Stranding – when a marine animal comes ashore

Ventral surface – the lower surface of a body part, or the belly, if referring to the whole body.

PHOTO CREDITS

Tim Collins – humpback whale (L & R), long-beaked common dolphin; humpback dolphin; humpback whale fluke (glossary)

Ross Culloch/ University of Aberdeen Lighthouse Field Station – minke whale (L); bottlenose dolphin (L)

Renaud de Stephanis/ CIRCE - short-beaked common dolphin

Simon Elwen/ University of Aberdeen Lighthouse Field Station – harbour porpoise (R)

Peter Evans – minke whale (R top & bottom); harbour porpoise (L)

Leonardo Flach – Atlantic spotted dolphin (L & R)

Jürgen Freund/ WWF - Canon – spinner dolphin (L)

Ronny Frimann/ WWF – orca (L)

Hawaiian Islands Humpback Whale National Marine Sanctuary/Provincetown Center for Coastal Studies (NOAA permit no 774-1714) – spinner dolphin (R); rough-toothed dolphin (L & R); false killer whale (L & R)

Nathalie Jaquet – sperm whale (L, R top & bottom)

Morten Jørgensen – Risso's dolphin (L); orca (R)

Ruth Leeney – bottlenose dolphin (R); bottlenose dolphin (glossary); humpback whale blow (glossary)

Colin MacLeod – dwarf sperm whale (L); Cuvier's beaked whale (L & R); Blainville's beaked whale (L & R); pantropical spotted dolphin (L & R); melon-headed whale (L)

Luc Meuwissen – Kogia sp. (R)

Micheal Newcomber/ Marine Mammal Images – Fraser's dolphin

Programme Régional de Conservation de la zone Marine et côtière – melon-headed whale (R)

Provincetown Center for Coastal Studies - (NOAA permit no 633-1483) sei whale (L & R)

Judith Scott - Risso's dolphin (R)

Philippe Verboirgh/ CIRCE – short-finned pilot whale (L & R); pilot whale (glossary)

Caroline Weir – Bryde's whale (L, R top & bottom); Clymene dolphin (L & R); striped dolphin (L & R)



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The **FIELD GUIDE TO THE CETACEANS OF WEST AFRICA** aims to improve the level of knowledge and information on cetaceans in West Africa, gives an overview of existing species, their habitats, behaviours and conservation status.

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WWF WAMER
9639, Sacre-Coeur III
BP 22928
Dakar
Senegal