



ADMIRING AND IDENTIFYING CETACEANS IN THE MEDITERRANEAN SEA

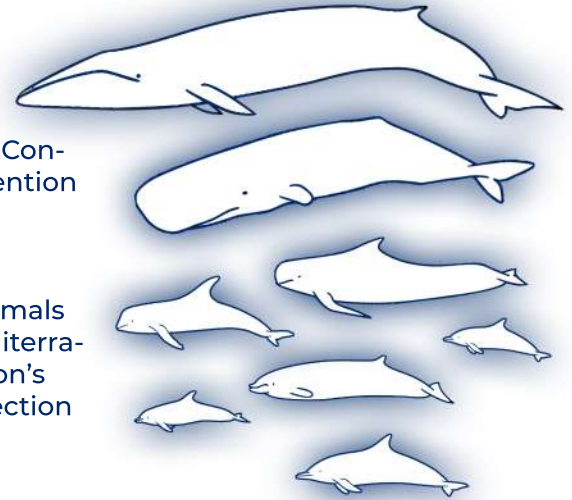
DELPHIS TRAINING



WHALES AND DOLPHINS ARE PROTECTED BY ITALIAN LAWS

Cetaceans are also preserved by numerous international agreements: by the CITES (Washington Convention), which sets strict rules for capture and trade, by the Barcelona, Bonn and Bern Conventions, by the ACCOBAMS agreement and by the UNESCO Convention on the protection of the Mediterranean's underwater cultural heritage.

In 1999, the Pelagos Sanctuary for the Conservation of Marine Mammals was established and added to the Specially Protected Areas of Mediterranean Importance (SPAMI) list according to the Barcelona Convention's Specially Protected Areas protocol. Since 2006, the Ecological Protection Zone (EPZ) has come into effect on Tyrrhenian, Ligurian and Sardinian waters.



Despite the large amount of existing laws, Cetaceans are menaced by all sorts of pollution, industrial fishing, the rising number of fast ships and the intense commercial traffic.

These animals' conservation still highly relies on the good behaviour, on the participation and the responsibility of those crossing the sea. We still rely on scientific knowledge and on sailors' and yachtsmen's behaviour to set the road for sea conservation.

**In the Mediterranean sea
live 21 Cetaceans species,
8 of which are regularly observed.**

STRIPED DOLPHIN

Stenella coeruleoalba



From 2 to 3 meters length
Light streak from the eyes
to the dorsal fin and two dark lines
from the eyes to the pectoral fin



Very active on sea surface
Immersion time 2 to 10 minutes
Approaches boats
Performs stunts



COMMON DOLPHIN

Delphinus delphis



From 2 to 3 meters length

"V" shape on the sides

Can be confused with striped dolphins

Rarely sighted.

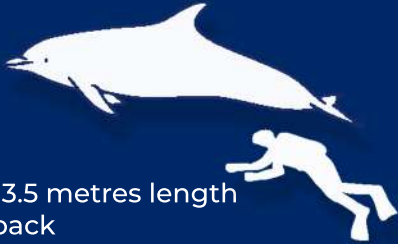


Very active on sea surface.
Immersion time 2 to 5 minutes.
Approaches boats.
Performs stunts.



BOTTLENOSE DOLPHIN

Tursiops truncatus



Up to 3.5 metres length

Grey back

Strong build

Thick rostrum distinct from the head

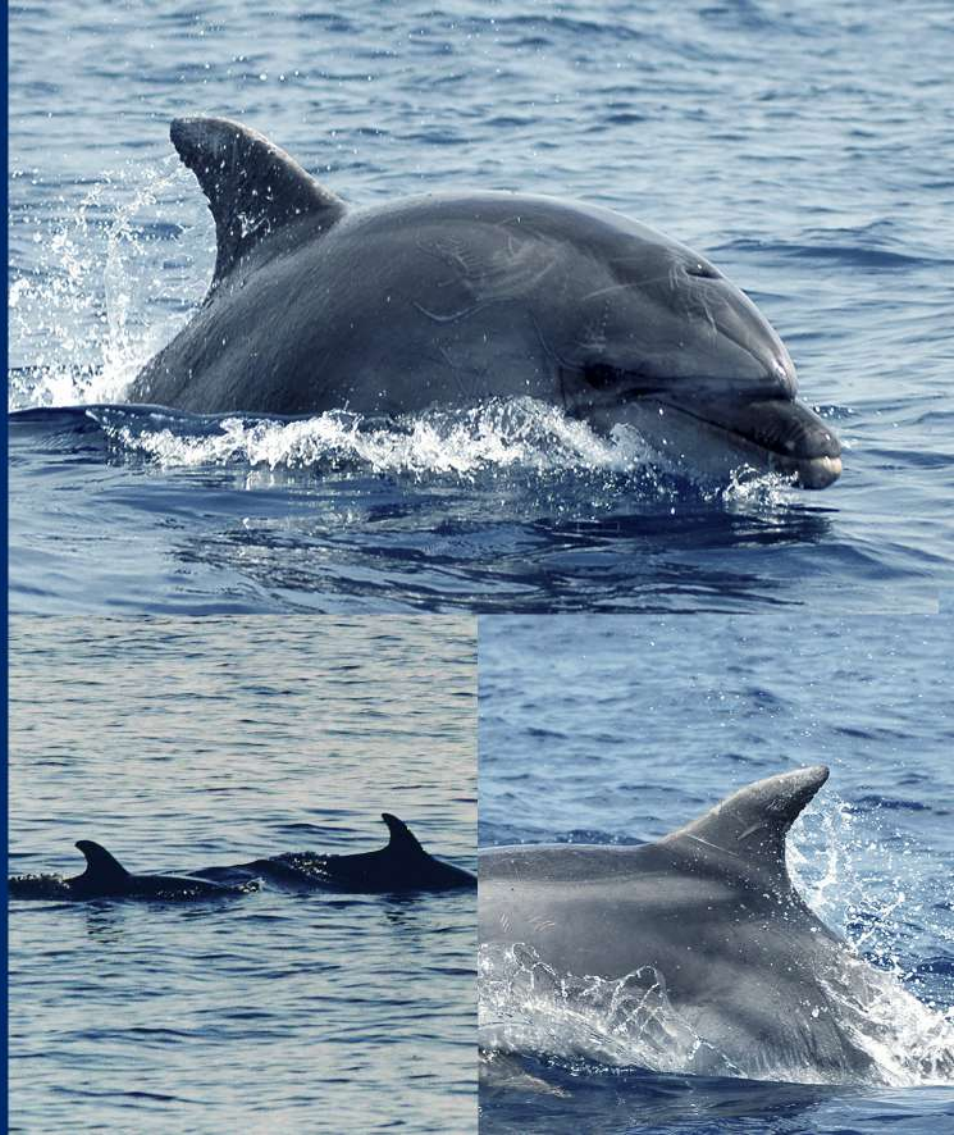


Predominantly coastal

Very active in displacements

Immersion time up to 10 minutes

Approaches boats



RISSO'S DOLPHIN

Grampus griseus



From 3 to 5 meters length
Robust build covered
with whitish scratches
Absence of rostrum



Adult individuals can be white
Immersion time up to 15 minutes
Approaches boats



LONG-FINNED PILOT WHALE

Globicephala melas



Up to 6 meters length.
Rounded head. Black with white
marking on throat and belly region.
Low hooked dorsal fin.



Moves in groups
Sometimes stops on sea surface
Prefers deep waters
Immersion time 15 minutes



CUVIER'S BEAKED WHALE

Ziphius cavirostris



Up to 6 meters length
Reddish brown color
"Goose beak" head shape
Small, light colored head
Long, rounded scratches on the body



Avoids boats
Immersion time up to 60 minutes
Difficult to sight



SPERM WHALE

Physeter macrocephalus



Up to 18 metres length
Low blow, projected forward
and to the left
Huge squared head
Not well defined dorsal fin



Immersion time up to 50 minutes
Shows caudal fin when diving
Avoids boats



FIN WHALE

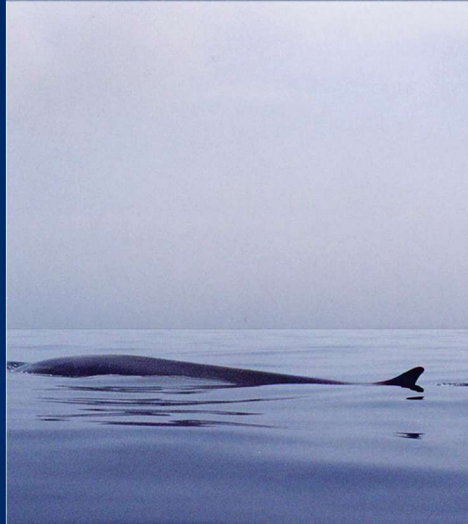
Balaenoptera physalus



Up to 24 meters length
High and vertical blow
Small dorsal fin
Fine and elongated shape



Immersion time 10 minutes
Does not avoid and
does not approach boats



HOW TO SPOT CETACEANS

"Educating the gaze"

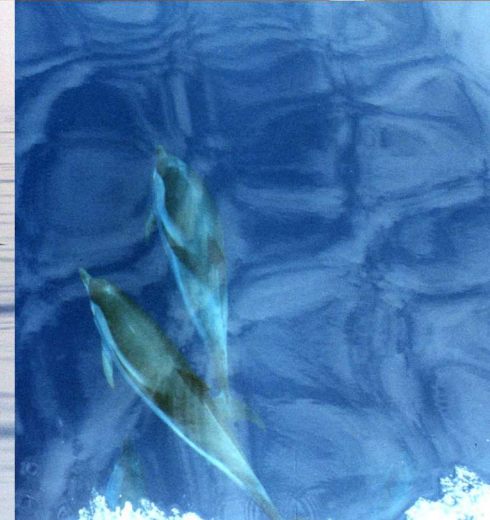
Cetaceans' sighting at sea is a matter of luck, experience and passionate perseverance.

Whales and dolphins spend their lives under water: Cetaceans' presence on sea surface is due to their need to breathe.

Observers have to look at more than one direction: they have to slide their gaze over the sea surface, to cover the area they wish to monitor.

Observers need to watch both near and farther from the boat.

It should be noted that there are some factors which may affect the observed animal's shape and color such as the sun's height above the horizon, the wind, that forms waves over which light reflects the sky's state, each time with a different angle.



CETACEANS' OBSERVATION GOOD CONDUCT GUIDELINES



Whale-watching, if poorly put into practice, may cause disturbance and alter marine mammals' behaviour: we should respect these creatures' quietude and their natural habitat.

When approaching cetaceans, we should avoid abrupt direction changes and limit boat's speed to 3 knots.

We should try to understand the animals' movement's direction, their distance from our vessel, the individuals total number and distribution.

We should observe the sea around us with a 360 degrees range: other animals may be present and a fin whale can reveal another one in proximity.



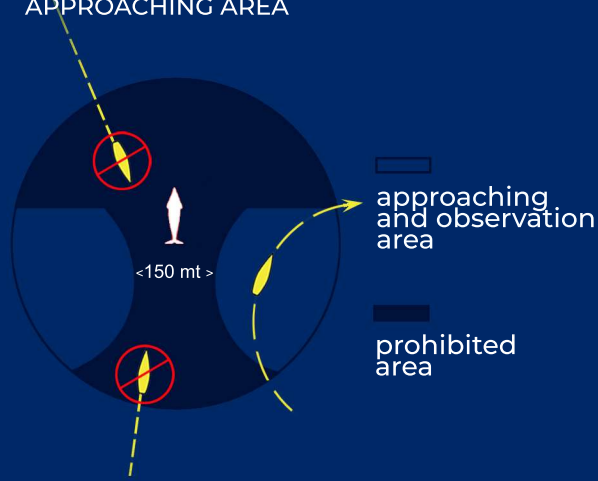
We should interrupt the observation immediately and step away, if we notice calves' presence or if another vessel arrives on the spot.

Head-on approach is to be avoided and we should not obstruct Cetaceans' lateral movement.

We must remember that it's dolphins that choose to approach boats and for how long the interaction is to last.

The vessel has to be kept at a safety distance of at least 150 m from large marine mammals.

FIN WHALE DISTANCE AND APPROACHING AREA



IF YOU ARE LOOKING FOR NEW FRIENDS, LEARN HOW TO BEHAVE



Avoid head-on approach and do not obstruct Cetaceans' movement to their side.

Do not chase a group of Cetaceans that is withdrawing: they will decide if they want to approach the boat.

Do not separate a group of Cetaceans with your vessel.

Do not try to touch the animals approaching the boat, do not throw any kind of object, do not dive, do not use flashes or other lighting equipment to take videos or photos.

If the sighted animal is a large marine mammal, do not stay on the observing spot for more than 15 minutes.

Slowly step away if you notice calves' presence



Do not separate a group of Cetaceans



Do not separate a group of Cetaceans: they will decide if they want to approach

OTHER ANIMAL SPECIES

Besides Cetaceans, it's possible to encounter numerous animal species in the Mediterranean sea: for example fishes, jellyfishes, turtles.

TURTLES

Loggerhead sea turtle

(*Caretta caretta*)

It's the most common species in the Mediterranean sea and it's an endangered one. Red-brown carapace, with dark stripes in the younger individuals. Long deep diving ability.

Leatherback sea turtle

(*Dermochelis coriacea*)

It's the largest sea turtle species. It lives in the open sea and gets closer to coasts to breed and feed. Bony carapace, covered in blackish smooth leathery skin. Extremely rare.

Green turtle

(*Chelonia mydas*)
Lives both in pelagic and coastal waters, it has a high risk of extinction.

Olive color plaqued carapace. May be confused with the loggerhead sea turtle. Extremely rare.



Loggerhead sea turtle (*Caretta caretta*)



Leatherback sea turtle (*Dermochelis coriacea*)



Green turtle (*Chelonia mydas*)

JELLYFISHES

Jellyfishes' body has a typical "umbrella" or "bell" shape. From the underside of the bell protrudes a prolongation called "manubrium". Jellyfishes' body is formed by a very hydrated gelatinous mass (up to 95% of water), in which urticant epithelial cells may be present.

By-the-wind sailor jellyfish (*Velella velella*)

Warm or temperate waters, harmless for man.

Purple-striped jellyfish (*Pelagia noctiluca*)

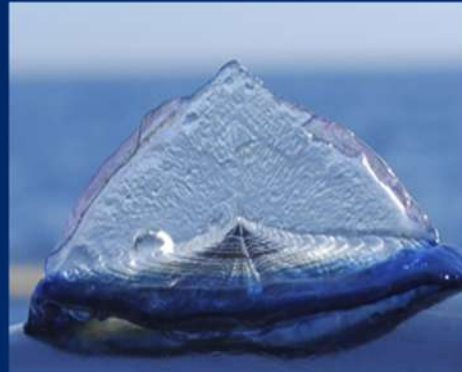
Common in the Mediterranean sea, it gets closer to the coast in the summer season. Very urticant.

Barrel jellyfish (*Rhizostoma pulmo*)
Largest jellyfish in the Mediterranean sea, normally its tentacles are harmless for humans.

Fried egg jellyfish (*Cotylorhiza tuberculata*)

Common in the Mediterranean sea, has no tentacles and it's not urticant.

Velella velella
up to 7 cm width
HARMLESS



Pelagia noctiluca
diameter up to 10 cm
VERY URTICANT



Rhizostoma pulmo
diameter up to 1 m
HARMLESS



Cotylorhiza tuberculata
diameter up to 35 cm
HARMLESS

FISHES

Up to 700 fishes species can be found in the Mediterranean sea, some of these may be observed from boats.

Ocean sunfish (*Mola mola*)

It's the largest bone fish.



Ocean sunfish (*Mola mola*)

Devil fish or Giant devil ray (*Mobula mobular*)

It's a cartilaginous fish, it lives on the continental platform.



Devil fish (*Mobula mobular*)

Blue shark (*Prionace glauca*)

Oceanic shark, in the Mediterranean sea it lives close to the coast.



Blue shark (*Prionace glauca*)

Swordfish (*Xiphias gladius*)

Predominantly lives in superficial waters.



Swordfish (*Xiphias gladius*)

Atlantic bluefin tuna (*Thunnus thynnus*)

In spring it migrates from the Atlantic to the Mediteranean sea.



Atlantic bluefin tuna (*Thunnus thynnus*)

Pilot fish (*Naucrates ductor*)

Lives in temperate waters. Often found congregating around devil fishes, shark and turtles.



Pilot fish (*Naucrates ductor*)

INVASIVE ALIEN SPECIES

As temperature and salinity rise in the Mediterranean sea, you may spot some animal species never seen before. Some of these may be highly dangerous for human beings. As, for example, the

Portoguese Man of War

(*Physalia physalis*)

Length between 9 and 30 cm, height up to 15 cm, it's mostly transparent with blue, mauve and violet shades.

It may be confused with the Velella velella, even though it is not a jellyfish, but a colony of 4 different types of polyps, reciprocally dependent with tentacles up to 30 m long, that contain poisons that, in some cases, may result in paralysis and cardiac arrest.

**IF YOU SPOT IT, IMMEDIATELY
REPORT ITS PRESENCE**



Physalia physalis

HIGHLY DANGEROUS FOR HUMAN BEINGS



Velella velella

HARMLESS



Under the patronage of



This handbook has been realized by Battibaleno association for Delphis Operation's participants but also for all sailors and yachtsmen that wish to know and identify Cetaceans in the Mediterranean sea and find out how to behave in their presence.

Actively take part in the ecological action, so that each encounter with these creatures may be a useful and unforgettable experience, an opportunity to increase our knowledge and our seafaring spirit.

REPORT YOUR SIGHTINGS
delphis@battibaleno.it



© CREDIT PHOTO: Alberto Marco Gattoni (BATTIBALENO). Other contributes: Alexandre Gannier (GREG) for the long-finned pilot whale, Alessandro Verga, Daniela Papi (Whalewatch Liguria - Golfo Paradiso sns) for the blue shark, the devil fish and the spyhopping Cuvier's beaked whale, Fulvio Fossa (Delfini Metropolitani) for the fin whale in front of Portofino, Renzo Briano (Gruppo Sociale Pelagos LNI 2019) for the loggerhead sea turtle and the Cuvier's beaked whale.