## SHARKS AND RAYS

The Adriatic sea is a very important area for the reproduction of some shark species like the **blue shark**, the sandbar shark, the thresher shark, all attracted by shallow waters, rich of food and poor of large predators. About 30 shark species were recorded in the Adriatic and some of these, like the **basking shark** and the great white shark, can reach huge size. Together with sharks, other members of the Elasmobranch group are here present: for instance, several rays among which the bigger is the Mobula mobular, called the devil ray. Millions of specimens are killed every year around the world, intentionally or accidentally captured in commercial fishery nets, and only few species are protected by international laws. Not with standing its reputation of invincible predator, the shark is vulnerable because of several biological characteristics such as very low growing and reproductive rates which make hard for the overfished population to restore themselves.



## **ADRIATIC SEA CONSERVATION**

#### FONDAZIONE CETACEA AND ADRIA CENTRE

**Fondazione Cetacea onlus** is a scientific institution and an education centre operating with the aim to promote ecosystem conservation, acting for the rescue and the rehabilitation of struggling marine animals, mostly Cetaceans and Sea Turtles.

Fondazione Cetacea is located in Riccione since 1988 and starting from summer 2009 - thanks to the Municipality of Riccione which provided suitable spaces - it opened the new **ADRIA Centre** which incorporates the Sea Turtle Hospital, educational exhibitions' areas, a library, video and didactical rooms, a conference room as well as the Fondazione Cetacea offices.

ADRIA is a place open to everybody where is possible to observe sea turtles under medical care, understand the richness of our sea and discover the local traditions (opening hours: all day, in summer; on reservation, in winter). Fondazione Cetacea can support its operations thanks to the help of its associates, private devolutions, public institutions contributions and, above all, volunteers. Fondazione Cetacea also organises educational project for schools, lectures and exhibitions.

You can support **Fondazione Cetacea** by sponsoring our initiatives (exhibitions, meeting, conferences) or donating funds, adopting a turtle through the website **www.adottatartaruga.org** or by joining our team of volunteers.

# And you, what do you want to do to save the sea today?



Fondazione Cetacea Viale Torino 7/A, 47838 Riccione Tel.0541-691557 fax. 0541-475830 e-mail informazione@fondazionecetacea.org www.fondazionecetacea.org onlus



# THE ADRIATIC SEA

The Adriatic sea has always played a crucial role in the history and the economy of the populations overlooking its waters, thanks to its fragile but prosperous ecosystem. From a geographical point of view, the Adriatic is the northern-eastern part of the Mediterranean basin and it is about 80-300 km wide. There are two different kind of coast: rocky and indented on the eastern side with many islands distributed in parallel to the Slavic coast; sandy on the western part. The Adriatic Sea has shallow waters: the northern part never exceeds 50-60 m depth, whereas the central area reaches 100-250 m. Deeper zones are located in the south, just off the Otranto channel (1250 m). This kind of bathymetry makes the Adriatic waters prone to huge seasonal temperature variations. As far as concern salinity, the Adriatic is guite different from the rest of the Mediterranean: the Italian coastal waters are highly affected by the injection of fluvial waters; consequently, their salinity is lower than that of pelagic waters.

## **MAN AND SEA**



The Adriatic provides more than 50% of valuable commercial species located in the Mediterranean area. Among the species fished off the Romagna coast there are: mussel, solen, little crowlers, cuttlefish, squill, anchovy, sardine, mullet, sole, shrimps.

Human nutritional needs must respect the normal ecosystems balance. The sea plays a crucial role for life on the planet but it is a limited source of food. Overfishing creates an irreversible marine depletion. Fishery sustainability is a need and it must be realized through the conservation of the biological richness; this can be achieved by controlling and limiting the fishery business, improving selectivity of fishing tools (as the size of the net matters to avoid the entanglement of immature specimens), establishing and respecting areas of biological and ecological relevance, and preserving artisanal fishery which is crucial from a social point of view.



#### Our contribution to sustainable fishery

As consumers we can address fishery toward more sustainable methods. Here are some suggestions:

- **1.** Before buying, always ask for the origin of the product, preferring national products or local ones, when possible.
- 2. Prefer fish as anchovies, pilchard, mackerel, etc.
- **3.** Species like red tuna, swordfish, grouper are threatened by extinction so choose species under a lighter fishing pressure, such as: albacore tuna, mackerel, bonito, plain bonito horse mackerel, pilot-fish, blue fish, common dolphinfish, Spanish bream, garter fish, spearfish.
- **4.** Prefer fish with short biological cycle, which means that fishes get to adult age in one or two years (mullets, soles, anchovies ...)
- **5.** In order to respect natural balance, buy only the fish of the season, avoiding young specimens by asking which size should have an adult fish.
- 6. Avoid those species that play a key role in keeping the ecosystem balance: for instance, dogfish, blue shark, porbeagle, spiny dogfish are sharks with a vital predatorian role in the marine food chain.

## ADRIATIC LARGE VERTEBRATES CETACEANS

Due to its depths, it's not common to encounter large Cetaceans in the Adriatic Sea, while dolphins can be easily sighted. Unfortunately, **common dolphins** (*Delphinus delphis*) are progressively disappearing because of the habitat degradation and uncontrolled hunting as happened before the



introduction of the ban by Cetacean protection laws. The **bottlenose dolphin** too (*Tursiops truncates*), is suffering a dramatic decline, mainly as a consequence of human impact like prey depletion caused by overfishing, incidental captures in fishnets, pollution and naval traffic acoustic disturbance. Another dolphin species is the **Risso's dolphin** (*Grampus griseus*), living mostly in southern part of the Adriatic, where waters are deeper. Occasionally, there are sightings of **fin whales** (*Balenoptera physalus*), maybe attracted by food abundance, and **sperm whales** (*Physeter macrocephalus*) which, however, need deeper waters for its incredible hunting dives (it can reach more than 2000 m of depth).

# **SEA TURTLES**

The Adriatic Sea is one of the favourite destinations of the **Loggerhead turtle** (*Caretta caretta*), attracted by its waters rich of food, particularly during spring and summer. Caretta is the smallest of the Mediterranean Sea turtles but its carapace (the upper part of the body) can grow up to 110 cm.

Its varied diet comprehends molluscs (o shellfish?), jellyfish, crustaceans, fish. Even if it is adapted for living in the water, the sea turtles, spawns the eggs ashore, on the beach; however, this do not happen on the Adriatic coasts.

Now a days, the status of sea turtles conservation is not good: these animals, even if protected by international laws, are threatened of extinction due to the reduction of places suitable for laying eggs, the increasing of pollution as well as accidental catches in fishing nets and collisions with boats.

