



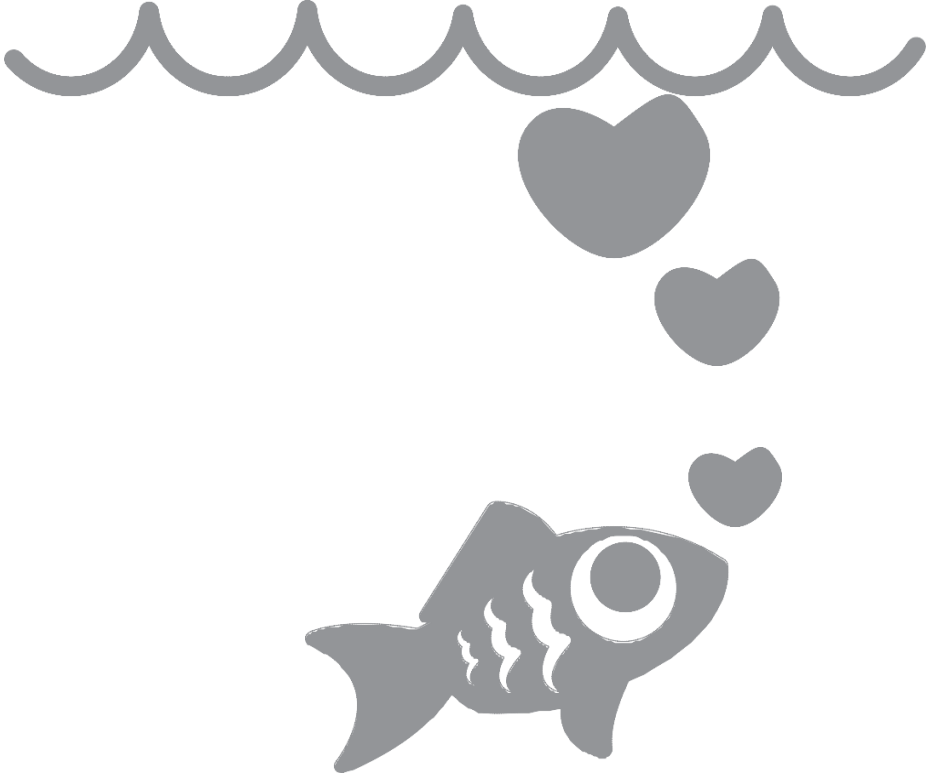
Project funded by the
EUROPEAN UNION



Black Sea
Hotspots

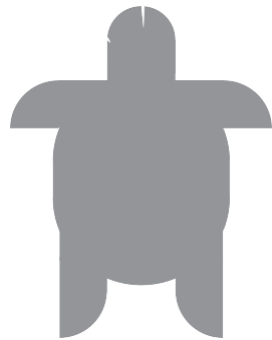
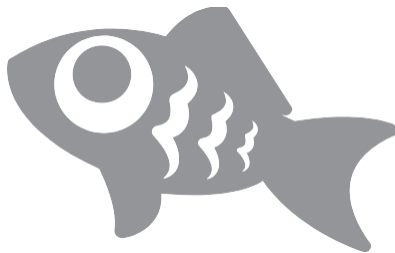
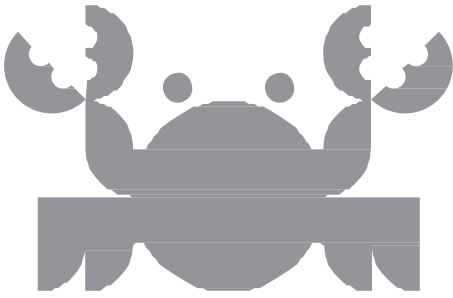
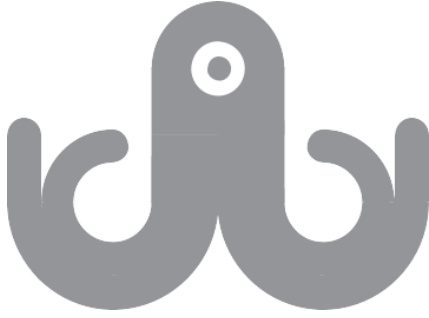


Common borders. Common solutions.



Guide for Living Black Sea Ecosystem





This Guide is delivered to you by

.....

From School

Class

Please share it.



The Black Sea is an inland sea located between the South-east of Europe and Anatolian Peninsula and surrounded by Ukraine on North, Russia on North-east, Georgia on East, Turkey on South and Romania and Bulgaria on West.



Points to remember and respect to
protect the Black Sea:

1.

Let's recycle consumption wastes or at least dispose in dumps instead of throwing into the seas.



2.

Let's recycle used frying oil instead of pouring down the sinks.



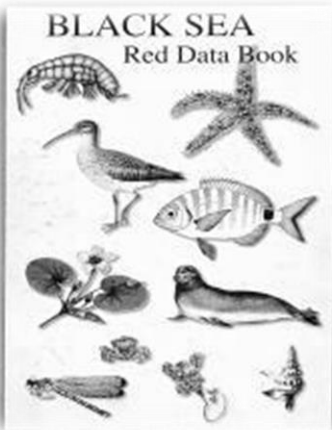
3.

Let's use water soluble cleaning agents which do not pollute the nature.

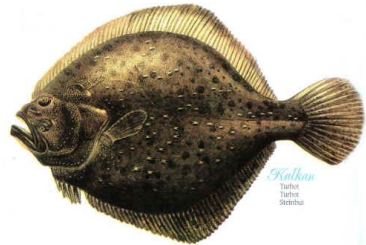


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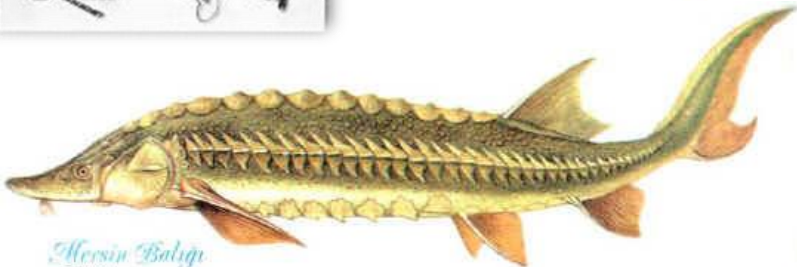
There are many living creatures in the Black Sea – a marvelous variety of species of fishes, mammals, seabirds, sea-bottom and planktonic plants and animals. They all need protection.



Hamsi
Anchovy
Anchois commune
Sardelle



Kalkan
Turbot
Turbot
Stenhu

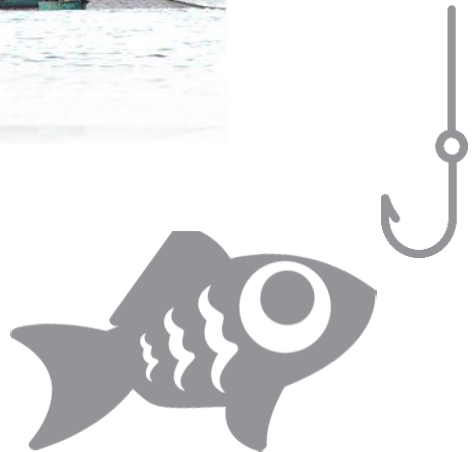


Mersin Balığı
Sturgeon
Esturgeon
Stör

5.

Let us be sensitive to seine fishing and trawling to protect fish species and seabed habitats.

Due to destructive practices and illegal fishing many valuable Black Sea resources are close to extinction.



We need to also know:

6.

Human pressures on the Black Sea from land (industrial, residential, agricultural, tourism sources, etc.) and sea (shipping, fisheries, oil and gas exploration, etc.) are examined, graded, and the most dangerous sources of sea degradation, requiring special care and emergency response, are defined as “hot spots”.

7.

Hot spots at the Black Sea Coasts of our country are:

(for each country they will be here specified in the national language)

8

There is no oxygen below the depth of 150-200 meters. This anoxic area is inhabited by anaerobic bacteria only and is full of hydrogen sulphide (a toxic and flammable gas). Thus, the Black Sea is the World's greatest hydrogen sulphide reservoir, but it is also one of the most vulnerable water bodies on Earth.



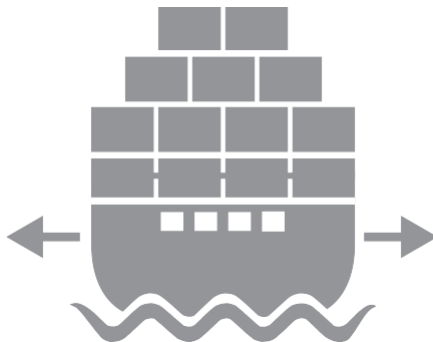
9.

“**Balast Waters**” (BW) are taken from the seas to keep balance and stability of vessels without cargo. With BW, thousands of invasive marine species are ‘transported’ from one area of the world ocean to another.



Invasive species negatively affect marine environment and its biodiversity. Species invasion is one of the most important Black Sea problems.

BW should not be discharged into the sea or should be treated to remove aliens before discharged.



10.

Contrary to what is believed, 75% of the atmospheric oxygen is generated not by land vegetation but by the silent heroes of the underwater world, the **“phytoplanktons”**.

Unnatural increase in the number of phytoplanktons, called algal blooms, occurs under eutrophication. When phasing out, the anomalous blooms reduce oxygen in water below safety limits, which kills fishes and other marine species.



O₂

11

Litter is one of the most important environmental problems in the Black Sea.

- It destroys the aesthetic view of the seas and the coasts, but also increases the mortality of mammals, birds and fishes, which ingest litter or get entangled in it.



Pay attention and please call
(for each country an emergency line will be
given)

When you see:

- ❖ Change in the colour of the sea to: intensive greenish, yellowish, brownish and red.



- ❖ Dead or stranded fish and dolphins
 - ❖ Littering of coast and the sea
- ❖ Oily or other strange patches on the sea-surface, especially when they are large
- ❖ Jelly-fishes, which you have never seen before (stay away from them)

Emergency before it is too late...



Hot Black Sea Project

**Integrated Hotspots Management and
Saving the Living Black Sea Ecosystem Project
Funded by EC – BS Cross Border Cooperation**

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Partners

- ♥ Lead Partner: National Institute for Research and Development in Electrical Engineering ICPE-CA, Romania
- ♥ TUBITAK-Marmara Research Center - TUBITAK MRC, Turkey
- ♥ Foundation Caucasus Environment FCE, Georgia
- ♥ Odessa State Environmental University- OSENU, Ukraine
- ♥ Bourgas Municipality, Bulgaria
- ♥ NGO for Sustainable Regional Development and Environment Protection – SuRDEP, Bulgaria

Website: <http://www.bs-hotspots.eu/>



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