Animals that are affected in the Baltic sea and Baltic Area

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The Baltic Sea

Total sea area: 404,354 km²

Average depth: 53 metres

Climate: prolonged cold and dark winters, mild summers with almost 24 hours of daylight
Some quick facts...

Approximately 100,000 km² of the Baltic's seafloor (a quarter of its total area) is a variable dead zone.

Nine countries surround the Baltic Sea.

The region is home to more than 85 million people (of whom 15 million live on the coast).

The Baltic Sea is one of the most intensively used seas on the planet.
What species can we find here?

Species of marine origin invaded the Baltic Sea from the Atlantic approximately 4–8000 years ago.
Mammals

Harbour porpoise

Otter
Seals

Ringed seal

Common seal

Grey seal
Fish

- Wild salmon
- Cod
- Hornfish
- Herring
- Sprat
- Asp
Non-marine inhabitants

**Birds**
- White-tailed sea eagle, Common eider, Migrating goose, White/Black stork, Caspian tern, Baltic Dunlin, Long-tailed duck, White-tailed sea eagle, Kingfisher, Crane, White-backed woodpecker, Osprey, Great snipe, Ruff, Corncrake, Aquatic warbler, Little tern, Black-tailed godwit, Lesser black-backed gull, Stellers eider

**Invertebrates**
- Apollo butterfly
- Freshwater pearl-mussel
- Blue mussel

**Amphibians**
- Toads: Green toad, Natterjack toad, Fire bellied toad, Spadefoot toad, Common toad
- Frogs: Marsh frog, European tree frog, Agile frog, Edible frog, Pool frog, Moor frog, Common frog
- Crested newt
What causes the extinction of animals?

The Baltic Sea is one of the most threatened marine ecosystems on the planet.
Eutrophication

A widespread and persistent problem

Caused by an excess of nutrients

Leads to a severe disruption of the Baltic Sea ecosystem
High levels of phosphorus & nitrogen

Industrial and municipal waste

Sewage

Agricultural run-off

WHY?
Contaminants

Even though the levels are low, they are still of great concern

PCB poisoning
How can we prevent the extinction of animals?

**ANIMALS ARE**
- Eat fish that are not endangered
- Reduce your consumption of meat
- Minimize the amount of waste

**NOT CLOWNS**
- Stop using artificial fertilizers and pesticides
- Choose environmentally friendly vehicles and fuels
- Don’t release dishwater directly to the water system
END OF PART I

THANK YOU FOR YOUR ATTENTION!
The interdependence of the populations within a food web or a food chain helps to maintain the balance of plant and animal populations. This interdependence is also how toxins can be moved through the food webs and chains.
Deadly toxins are often found in sick or dead organisms discovered on beaches. But where have these toxins come from and aren’t they affecting also people?
Toxins are poisonous substances made within living cells or organisms. Very tiny phytoplankton cells can produce potent toxins.
Although the toxin produced by one phytoplankton cell is trifling, it can accumulate quickly through the food web as each consumer takes in more and more of the toxin.
This process is called bioaccumulation.
Organisms such as krill, mussels and fish are often not affected by the toxins but they pass the toxins on further along the food web or chain.
In many cases, toxins can be transported through the food chain to humans.
There are several types of toxins produced by the harmful algae.

These toxins can affect people in different ways, from mild illness to death.
How toxins affect us?

The following toxins: DDT; PCB and PFOA are known for their extremely strong effect on the human body. After coming in contact with the organism of the individual, they are to cause dire consequences.
- Causing reproductive disorders
- Abnormal nervous / immune system
- Weaker egg shell thickness

DDT

- Nerve system (eyes, nose, throat)
- Hormons (endocrine)
- Lungs

Lungs and respiratory systems:
- cobalt, asbestos, sulphur oxides, ozone, nitrogen oxides, ammonia, carbon monoxide, cadmium, cigarette smoke, pesticides, animal and vegetable dyes.

Skin:
- arsenic, nickel, chromium, beryllium, pesticides

Bones:
- lead, strontium 90, cadmium.

Cancer-causing substances:
- chlorinated hydrocarbons, mercury, polycyclic hydrocarbons, radioactive materials, pesticides

Kidneys:
- mercury, cadmium, lead

Brain and nervous system:
- lead, carbon monoxide, mercury, pesticides

Eyes:
- Ultraviolet light, noxious gases

Oral cavity:
- lead, mercury

Heart and circulatory system:
- carbon monoxide, nitrates (in infants), pesticides, nitrogen dioxide

Liver:
- Chlorinated hydrocarbons, seleniums

Digestive system:
- lead, arsenic, fluoride, pesticides

Fetus:
- mercury, lead, radioactive materials, pesticides
PCB is known to cause:
- developmental effects
- acute toxic effects
- disrupt hormone function
- immune system and thyroid effects
PFOA or TEFLON
Presumably causing cancer in:

- Testicular
- Kidney
- Thyriod
- Prostate
- Bladder

No PFOA
No Lead
No Cadmium
Be careful when buying seafood!

Always check out the origin of the fish!
Thank you for your Attention!

Made by Stela Todorova
and Neven Vutev, 10. grade