# BALTIC SEA

Baltic Sea Day is celebrated around the Baltic Sea on the last Thursday in August.

#### ALWAYS CHANGING

Following the pressure of the Ice Age, uplift is still occurring along the shores of the Gulf of Bothnia. In the future, the Gulf of Bothnia will close at the Kvarken if there is no significant acceleration in ocean rise.

# A SHARED SEA

The Baltic Sea has nine coastal countries - Finland, Sweden, Denmark, Germany, Poland, Lithuania, Latvia, Estonia and Russia.

BALTIC

SEA

# NICKNAMES

East, West and Baltic, the sea has many names: Östersjö, Läänemere, Ostsee, Baltijos Jūro, Østersøen, Morze Bałtyckie, Baltiyskoye and more.

#### **CATCHMENT BASIN**

The Baltic Sea drains the waters of a population of around 90 million. In addition to the coastal countries, the catchment area includes parts of Belarus, Ukraine, the Czech Republic, Slovakia and Norway.

#### A TREASURE TROVE OF WRECKS

Remnants of human culture are often better preserved at the bottom of the sea than on land. There are thousands of wrecks in the Baltic Sea, for example.

#### PROBLEMS

Climate change is accelerating the biggest problem: eutrophication. Heavy maritime traffic increases the risk of accidents.

# **MARINE AREAS**

Can you place on a map

Baltic Sea Archipelago Sea Bothnian Sea Gulf of Finland Kvarken?



#### GARBAGE

Littering has also increased in the Baltic Sea. Plastic debris, which breaks down into microplastics, is transported to the sea by many routes.

#### THE BALTIC SEAS BIGGEST PROBLEM

Eutrophication is caused by excessive nutrient loads and leads to excessive growth of algae and plants.

EUTRO

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# INTERNAL LOAD

Nutrients that have been spilled into the Baltic Sea circulate in the marine ecosystem and eutrophicate the sea for a long time.

# RUNOFF NUTRIENTS

Human activity puts pressure on the ocean. The largest sources of nutrients are run-off from fields and commercial forests.

#### WASTE WATER TREATMENT

Wastewater from cities and other settlements is now reasonably well treated for nutrients. It used to be different!

# SLIME AND STENCH

Eutrophication causes rocks and cliffs to become slimy and rotting algae to cause odours.

# ALGAE

Duringn summer, eutrophication is visible as blue-green algal blooms. Light and warmth and abundant nutrients feed the bluegreen algae.





The Baltic Sea is still young. Formed after the Ice Age, the sea is still changing, both due to land uplift and human activities.

# NATURAL HABITAT

... is an area with similar environmental conditions, such as soil quality, nutrient content and species. There are many different types of habitats.

# INVASIVE SPECIES

... can endanger the local ecosystem. Invasive species have entered the Baltic Sea from other seas, including from ballast water from ocean-going vessels.



# DEPTH

The average depth of the shallow Baltic Sea is only 54 metres. The deepest point is 459 m in the Gotland Basin. The average depth of the Atlantic Ocean is 3 332 m.

WATER

ICE

SALT

# SALINITY

... averages 7 per mil: around 20 per mil in the Danish Straits, around 3 per mil in the Gulf of Finland and less than 1 in the Gulf of Bothnia. The Atlantic salinity is 35 per mil.

#### WATER EVAPORATION

... lasts 30-50 years. Fresh water runs off rivers. Large saltwater flows from the North Sea, "salt pulses", are rare.

#### WATER CIRCULATION

In the northern hemisphere, water rotates counter-clockwise due to the rotation of the Earth. Water currents are also affected by weather conditions, temperature, water stratification, islands and sub-surface features.

# HALOCLINE

... means a salinity step, where the salinity of the water changes. In the Baltic Sea, the halocline is at a depth of about 70 metres. At the surface, the water is sweeter, and the saline water sinks more densely near the bottom of the sea.

#### FREEZING OVER

The Baltic Sea differs from many other seas in that it freezes at least partially every year. In winter, the surface layer of water can be as low as freezing.



# 1 BALTIC ICE LAKE

The whole of Finland was covered by more than a kilometre of continental ice and meltwater about 11 000-18 000 years ago.

# 2 YOLDIAN SEA

Around 11 000 years ago, the continental ice sheet retreated and the Ice Age ended. The Baltic Ice Lake joined the North Sea at the Great Lakes of Sweden.

GEO UNITARIA

# **4 LITTORAL SEA**

Salt water started to flow into the region again as the ocean level rose - this time from the Danish Straits. The littoral sea was born 8 500 years ago.

#### **3 ANCYLUS LAKE**

About 10 000 years ago, the ice mass retreated from the Baltic Sea and land uplift closed the connection to the North Sea.



#### DIET

Go for vegetarian meals and eat sustainably caught fish (roach, herring, vendace or perch) twice a week instead of meat meals. Reduce dairy and other animal products.

# DETERGENTS

**DIVE IN** 

Avoid unnecessary chemicals and plastics in everyday life. Choose ecolabelled products and ACTIONS detergents.

#### CONSUMPTION

Buy less, recycle and repair. Avoid singleuse products.

TRAVELLING

**Travel near and** across the country. Get around on foot. by bike, public transport and carpooling.

#### WASTE

BALTIC

SEA

Sort your waste correctly and collect rubbish, nicotine pouches and cigarette butts in the bin. Remember to take any unused medicines to the pharmacy.

THE SEA IS NOT A RUBBISH BIN OR A SEWER

So don't: Jump into the water soapy. Dump anything in the water that doesn't belong there.

