

Expedition map for non-indigenous species

Non-indigenous species have arrived to the Gulf of Finland from all parts of the World - and still do.

They have spread from their natural area of distribution to the new ones by human activity - either by accident or by intention.

Up to 2015, 38 non-indigenous species have been found in the Gulf.

Even though the non-indigenous species problem is now recognised and preventive measures are employed new species keep on arriving to the Gulf.

Non-indigenous species spread typically by maritime traffic.



HARRIS MUD CRAB
Impacts are largely unknown. Competes for food with other species but is also food for the fish.



MARENZELLERIA - POLYCHAETE WORM
Mixes bottom sediment, thus oxygenating it but also digging up hazardous substances.



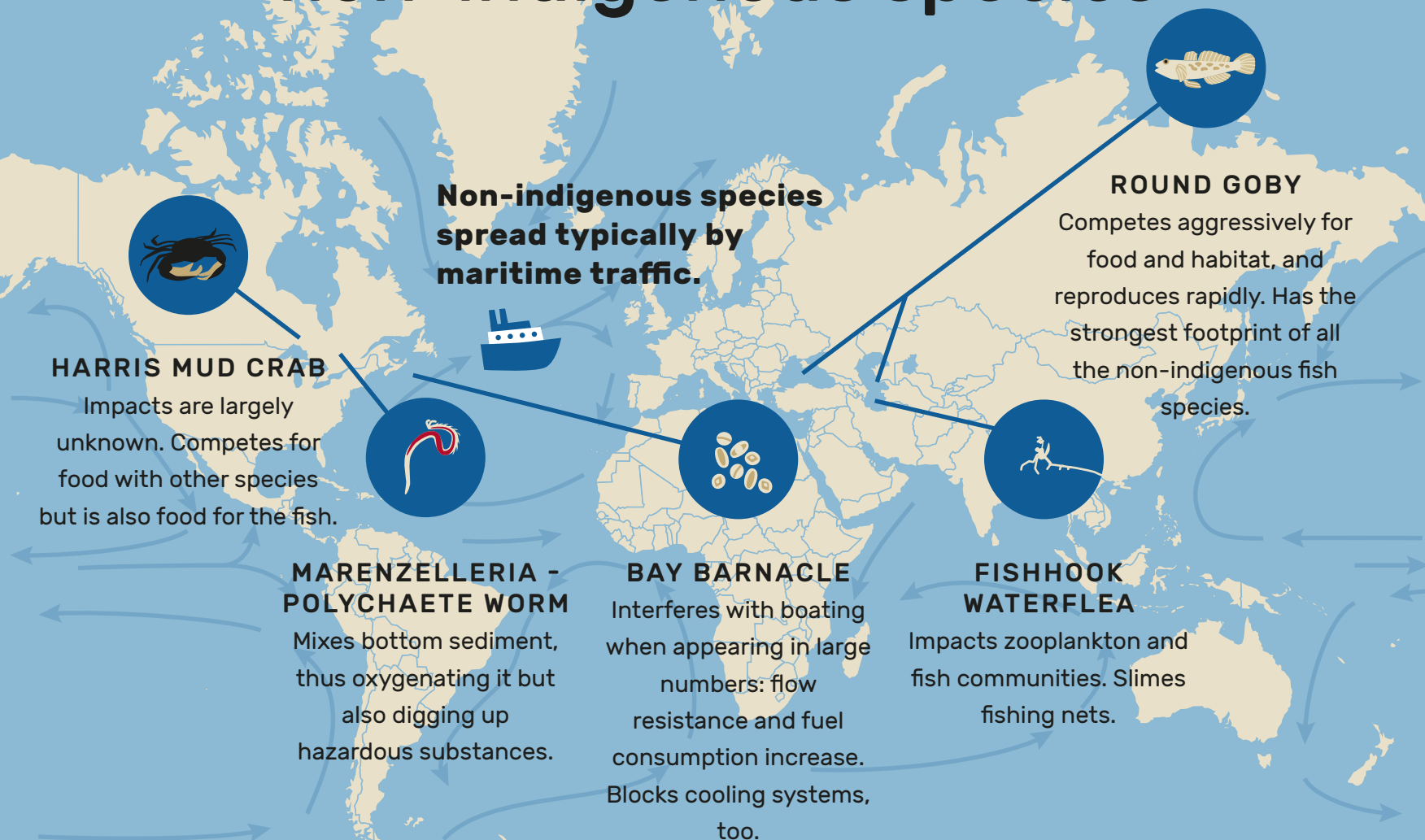
BAY BARNACLE
Interferes with boating when appearing in large numbers: flow resistance and fuel consumption increase. Blocks cooling systems, too.



FISHHOOK WATERFLEA
Impacts zooplankton and fish communities. Slimes fishing nets.

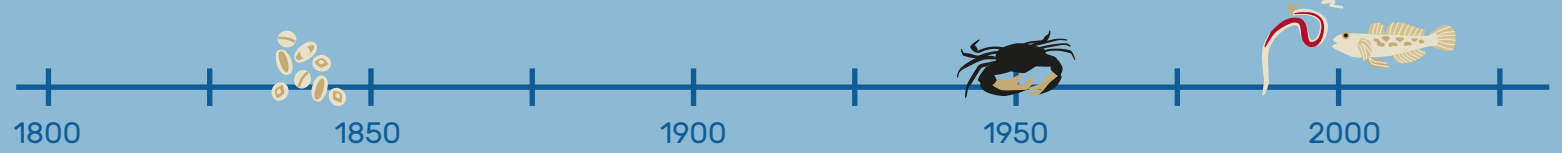


ROUND GOBY
Competes aggressively for food and habitat, and reproduces rapidly. Has the strongest footprint of all the non-indigenous fish species.



S Y K E

Non-indigenous species observed in the Baltic Sea for the first time

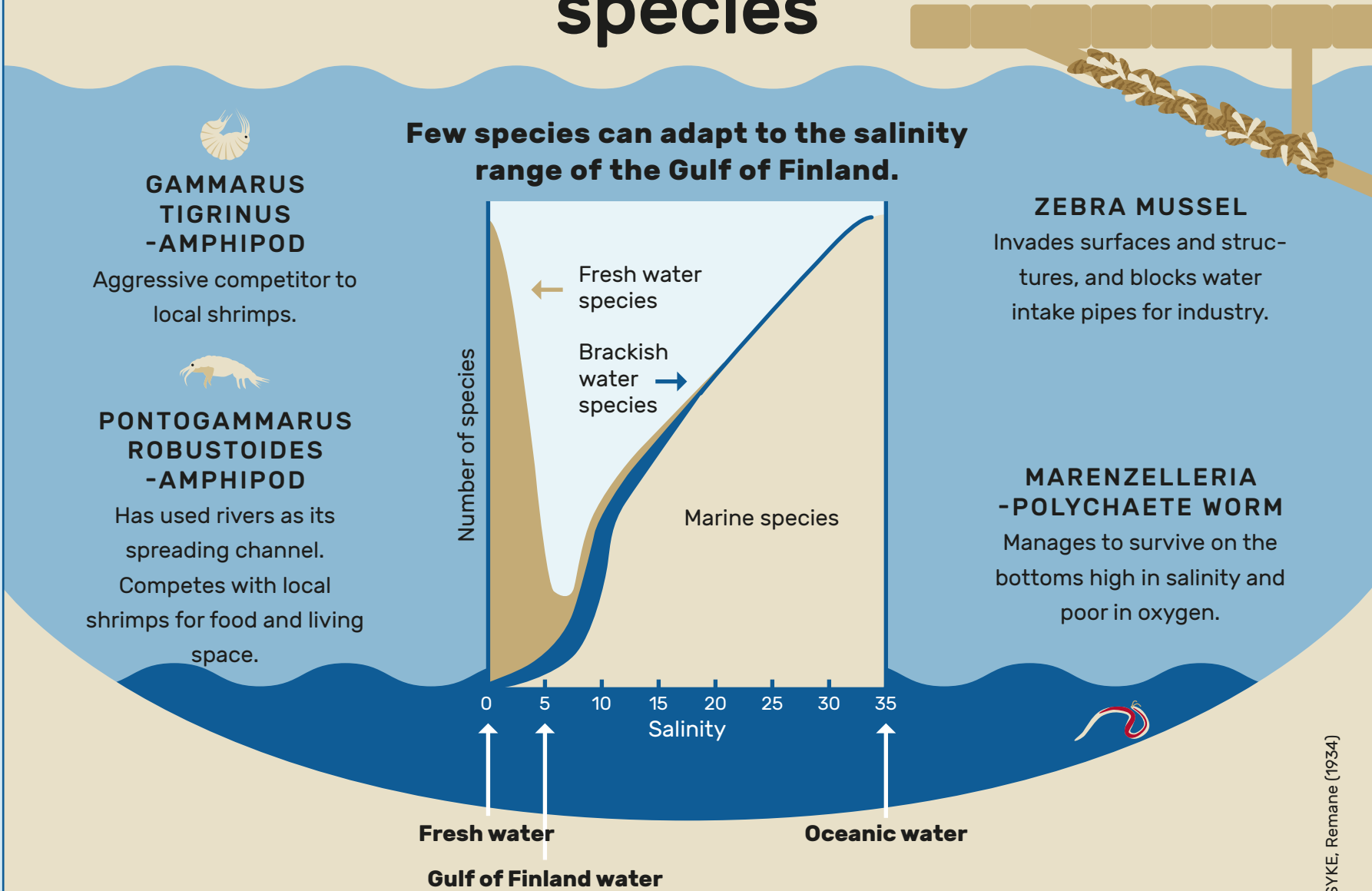


The Gulf of Finland environment is a challenge to non-indigenous species

Only the most adaptive non-indigenous species can manage in the unique environment of the Gulf of Finland.

The Gulf is too cold for most of the arriving species. Salinity is challenging there for both the fresh water species and the marine ones. Still, some species can survive and reproduce there.

Once a species has settled in the Gulf its removal is next to impossible. It has become a part of the Gulf's community.



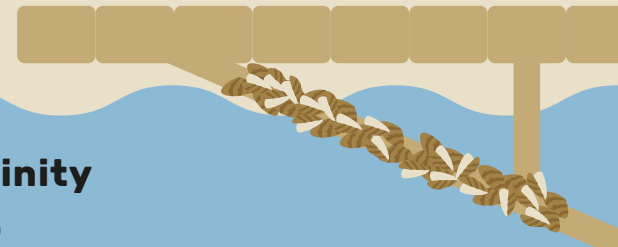
GAMMARUS TIGRINUS -AMPHIPOD

Aggressive competitor to local shrimps.



PONTOGAMMARUS ROBUSTOIDES -AMPHIPOD

Has used rivers as its spreading channel. Competes with local shrimps for food and living space.



ZEBRA MUSSEL

Invades surfaces and structures, and blocks water intake pipes for industry.



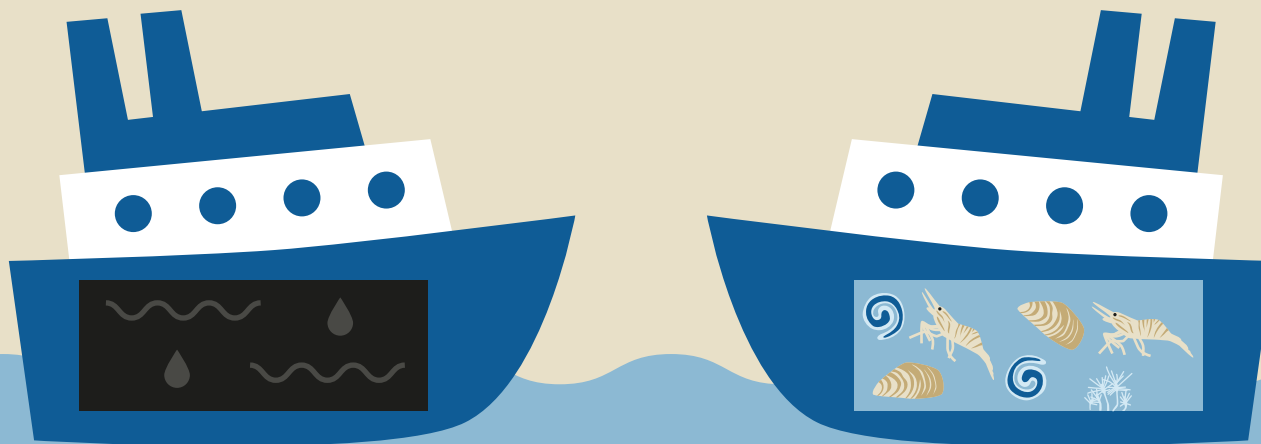
MARENZELLERIA -POLYCHAETE WORM

Manages to survive on the bottoms high in salinity and poor in oxygen.

Non-indigenous species spread with maritime traffic

Non-indigenous species can travel long distances in the ballast water tanks.

It is important to prevent new introductions of non-indigenous species. The best way is to treat ballast waters properly before their discharging into the sea.



ON THE WAY OUT OF THE OIL TERMINAL →

A tanker takes ballast water for stabilisation when not carrying a cargo. Eventually, water and the accompanying animals make room for oil.

← **ON THE WAY TO THE OIL TERMINAL**



FRESHWATER HYDROID

Interferes with the functioning of the power plants; grow in their cooling systems.



CONRAD'S FALSE MUSSEL

Blocks pipings and water intakes. Competes with local species for food and living space.



GRASS SHRIMP

Arrived from the Black Sea and the Caspian Sea via ballast waters. Competes with local shrimps.



PARASITE FOR EEL

Spread from Japan to Germany with imported living eels. Partially a reason for the collapse of the European eel population.



SYKE