

# BALTIC SEA RESIDENTS: SEALS

The Baltic Sea is home for 3 seal species: the grey seal, the ringed seal and the harbour seal (the latter occurring only in the southern part of the Baltic Sea).

Photo: Steve Olson



**Baltic ringed seal** is the smallest seal in the world. It is an Arctic species, whose life depends on the climate - it can give birth to the calf only on ice. This once very numerous species in the Baltic Sea has become endangered by now - the current number of ringed seals in the Baltic Sea is 6500-8000.

Photo: Gail Sauer



**Grey seals** are active travellers inhabiting the entire Baltic Sea. Their numbers that decreased significantly in 1970ies have recovered by now, being currently ca 24 000 animals.

# AND BIRDS

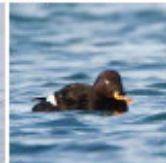
More than 150 species of birds are related to the Baltic Sea - using it for feeding, breeding on its islands and coast, stopping during moulting or migration or wintering.

Photo: Steve Olson



**Long-tailed duck** is a small diving duck that is breeding in Arctic but wintering in the Baltic Sea. Males can be recognised by their tall pointed tail. The sound of this bird is a loud "a-ah" audible over long distances. If large flocks are singing together in chorus.

Photo: Gail Sauer



**Velvet scoter** is one of the darkest of 18 duck species wintering in the Baltic Sea. This broad-spilled duck collects molluscs and crustaceans from the sea bottom as deep as 30 metres.

Photo: Gail Sauer



**Arctic terns** are attacking anyone walking into their nesting colony (left). The hatchlings of the arctic tern (right).

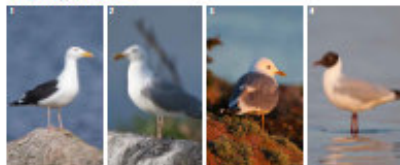
Gulls and terns are nesting on the islands, islets and shores of the Baltic Sea.

Photo: Steve Olson (left), Gail Sauer (right), Steve Olson (right)



**Common eider** is a breeding, migratory and wintering bird species in the Baltic Sea, which numbers are decreasing.

Photo: Steve Olson (1-3) and Gail Sauer (4)



On the photos (in order of decreasing size): Great black-backed gull, Herring gull, Common gull, Black-headed gull.

The poster has been prepared with the contribution of the LIFE financial instrument of the European Community in the frame of the project "Terrestrial approaches for marine biodiversity monitoring and assessment of conservation status of nature values in the Baltic Sea" (BAMMON, LIFE12/NAT/PL/001452220). For more information visit <http://www.marlab.eu/eng/>



# LIFE AT THE SEA BOTTOM

Photo: M. Bost

Short-horn sculpin



Four-horn sculpin



These strange-looking fish live at the seabottom and can emit a low croaking sound when lifted from the water. They do not have a swim bladder, meaning that they sink as soon as they stop swimming. They prefer cold offshore waters and come closer to the coast only for spawning.

Photo: Saku Naurio



**Aquatic sowbag** - a relic from late Ice Age that prefers cold deep waters. It often gets into herring trawls and can that way reach our kitchens together with herring.

Photo: Tu. Mäkelä, Estonian Marine Institute, University of Tartu



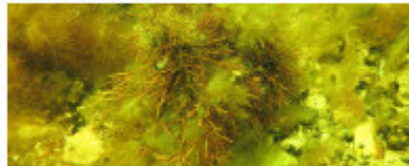
**Blue mussel** is often the dominant species in hard bottom areas. Due to the low salinity it reaches only the size of 3-4 cm in the North-Eastern Baltic Sea, while in optimum salinity conditions in the Danish Straits it can grow up to 8 cm. 1 m<sup>2</sup> of sea bed populated with mussels can purify 50-280 m<sup>3</sup> of water in a day. Mussels are eaten by benthivorous fish and birds.

Photo: Estonian Marine Institute, University of Tartu



**Baltic macoma** is the most wide-spread species of zoobenthos on the soft bottoms of the Baltic Sea. It provides food for various fish species, such as cod.

Photo: Estonian Marine Institute, University of Tartu



**Furcellaria lumbricalls** is a widespread red alga in the Baltic Sea. It has an industrial importance as a raw material for producing carrageenan - a compound that is used in the food industry as a stabilizer and thickener in products like ice cream, pudding, and gelatinized items. Extracts of *Furcellaria lumbricalls* are also utilized in cosmetic products. Many fish species, among them the Baltic herring, use *Furcellaria* as spawning grounds.

Photo: Estonian Marine Institute, University of Tartu



**Bladder wrack** or *fucus* is a typical seaweed of the coastal areas of the Baltic Sea. It is a brown perennial alga that grows in the depth of 1 to 6 metres on hard rocky bottom. It forms most species-rich ecosystems in the Baltic Sea by providing habitat for some ten species of algae and 30 animal species.

Photo: Saku Naurio, Estonian Marine Institute, University of Tartu



**Eelgrass** or *Zostera marina* is a vascular plant forming eelgrass meadows that provide shelter and food for more than 20 animal species.

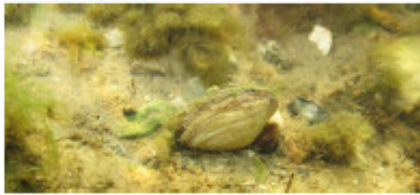
The poster has been prepared with the contribution of the LIFE financial instrument of the European Community in the frame of the project "Transition approaches for marine biodiversity monitoring and assessment of conservation status of nature values in the Baltic Sea" (2019/01/01-2022/12/31). For more information visit <http://www.marinebiological.com>



With the development of the ship traffic the alien species from other seas started to invade the Baltic Sea. By today, ca 120 alien species have travelled into the Baltic Sea mainly with the plige water of ships, and ca 90 of them have adapted to local conditions. Some alien species have become invasive, i.e. their population in the new place is growing rapidly. Such invaders can change the local ecosystem and cause problems for people.

# ALIEN SPECIES IN THE BALTIC SEA

Photo: Thomas Mörner, Institute of Zoology, University of Göttingen



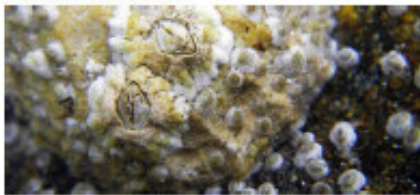
**Soft-shell clam** – the oldest invader in the Baltic Sea who arrived here from North-America already with vikings in the 13th century.

Photo: G. G. G. G.



**Rockpool shrimp** came with ships from North East Atlantic in the 1st half of the 20th century. It can have positive economic impacts through its use as food for commercial fish but also negative ecological impacts by displacing native shrimp species.

Photo: G. G. G. G.



**Bay barnacle** came with ships from North America in the 19th century. It grows on rocks, man made structures, buoys, ships' hulls, the shells of crabs and molluscs, and certain seaweeds. It is an invasive species competing with native organisms and causing problems for humans by colonising different structures, blocking pipes etc.

Photo: G. G. G. G.



**Round goby** arrived with ships from Caspian region in 1990ies and is spreading rapidly in the Baltic Sea. The round goby can displace native fish, eat their eggs and young, spawn multiple times a season, and survive in poor quality water - giving them a competitive advantage.

Photo: G. G. G. G.



**Harris mud crab** is a small (ca 2cm) omnivorous crab native to Atlantic coast of North America. It is one of the most widely distributed crab species globally that is rapidly spreading now in the coastal areas of the Baltic Sea.

Photo: G. G. G. G.



**Red gilled mud worm** or *Marenzelleria* comes also from the Atlantic coast of North America and is now one of the most common benthic species in the Northern Baltic Sea. Scientists have recently discovered that these worms can contribute to the binding of phosphorus in the sediments, reducing the eutrophication of the Baltic Sea and the risk of algal blooms.

The poster has been prepared with the contribution of the LIFE financial instrument of the European Community in the frame of the project "Innovative approaches for marine biodiversity monitoring and assessment of conservation status of nature values in the Baltic Sea" (BMBF/MON, LIFE12N/PL/000002200). For more information visit <http://www.marmon.eu>

