

# Halichoerus grypus

English name: Grey seal / Gray seal	Scientific name: <i>Halichoerus grypus</i>	
Taxonomical group:	Species authority:	
Class: Mammalia	(Fabricius, 1791)	
Order: Carnivora		
Family: Phocidae		
Subspecies, Variations, Synonyms:	Generation length:	
-	14	
Past and current threats (Habitats Directive	Future threats (Habitats Directive article 17	
article 17 codes): No major threats	codes): No major threats	
IUCN Criteria:	HELCOM Red List	LC
-	Category:	Least Concern
Global / European IUCN Red List Category	Habitats Directive:	·
LC/LC	Annex II, V	

Protection and Red List status in HELCOM countries:

In EU waters, this species is protected by the Habitats Directive and listed in its Annexes II and V, subject of special conservation measures also in Russia (Red Data Book of the Russian Federation).

Denmark: The species has been protected since 1977, disturbances and hunting of the species is strictly prohibited.

Estonia: The species is protected by Nature Conservation Act, all main haul-out and breeding areas are under national protection. As of 1.6.2013 grey seal has been added to official game species list, but this does not give the right to hunt the species. If suitable hunting practices for seal hunting can be agreed upon and legalized and the seal population size allows, there might be some quotas set for grey seal hunting in upcoming years.

Finland: The grey seal is considered a game animal and its hunting is subject to licence. In 2007 there were 7 seal conservation areas in the Finnish Baltic, 19,000 hectares in total. In these areas hunting is prohibited and fishing is allowed only with methods that aren't harmful to the seals. Also there is one area in Åland.

Germany: All hunting of seals is forbidden in Germany.

Latvia: –

Lithuania: –

Poland: The species is under strict protection in Poland. Disturbing, catching or killing are forbidden. Species is recognized as requiring active protection.

Russia: Since 1970s hunting on seals in the Russian part of the Baltic Sea is fully prohibited;

The grey seal is included into the Red Data Book of the Russian Federation.

Sweden: Hunting is allowed but controlled through various regulations and restrictions.

Red List status in HELCOM countries:

Denmark: VU, Estonia: LC, Finland: LC, Germany: 2 (Endangered), Latvia: –, Lithuania: E (Endangered), Poland: EN, Russia: 1 (under threat of extinction), Sweden: LC

#### Distribution and status in the Baltic Sea region

Grey seals have been increasing in the Baltic since the mid-1980s. In 2012 approximately 28.000 grey seals were counted in the annual survey during moult [1]. However, since not all seals are hauled out at the same time, this represents a minimum size of the Baltic grey seal population. Most grey seals are found between the Northern Baltic proper and the southern Bothnian Sea. Trend data from the annual surveys in Sweden indicate that the population were increasing with around 7–8% a year during most of the 1990s and early 2000s. A model calculation has estimated that in the beginning of the 20<sup>th</sup> century,



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the estimated population size was in the range of tens of thousands up to 100 000 (Kokko et al. 1999, Harding & Härkönen 1999), but only 2 000 in the late 1970s (Boedeker et al. 2002). However given the number of grey seals counted in the annual surveys in the 2000s, the minimum estimate of only 2000 is probably an effect of low survey effort in the 1970s, since the growth rate needed to reach the number of seals counted today is very high, and not realistic for a population that during the 1980s were effected by impaired reproductive capacity.

The Baltic Sea grey seals range widely and no distinct subpopulations occur, however a tendency to a genetic substructuring have been suggested by Graves et al (2007).



Grey Seal. Photo by Carlos Minguell/OCEANA.

Although the population size is steadily increasing since the end of the 1970s, the former distribution area south of latitude 58° N is being recolonised only very slowly. In Germany and Poland that previously hosted breeding colonies for grey seal (Schwarz et al. 2003, von Nordheim 2011) grey seals still only appear as vagrants. Therefore grey seals in Germany are assessed as "endangered" for the Baltic Sea in the national Red List (Meinig et al. 2009).

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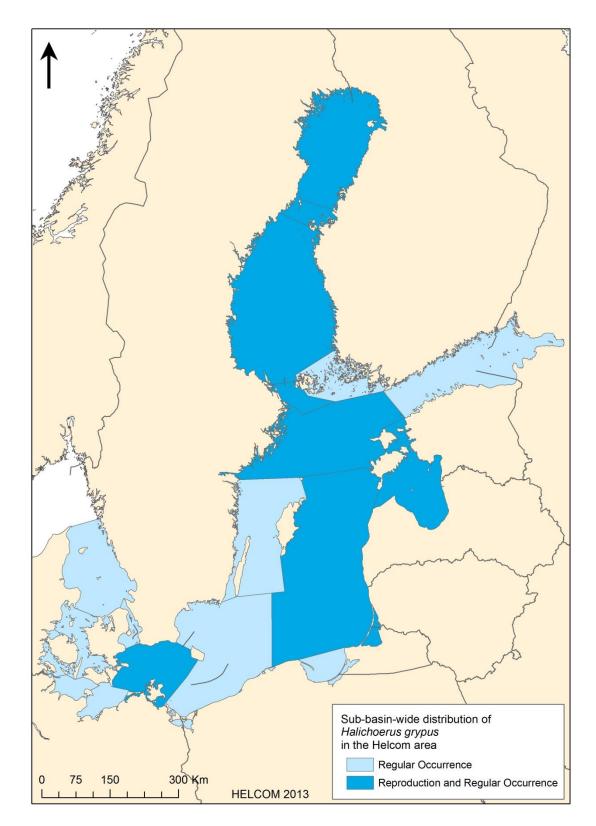
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## **Distribution map**

Grey seals are found on both sides of the North-Atlantic in temperate and sub-Arctic waters. The actual Baltic Sea population is distinct from the eastern North-Atlantic population.

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# Habitat and ecology

Grey seals are gregarious and gather together for breeding, moulting and hauling out at exposed areas. The main breeding season in the Baltic Sea is from February to March. Pupping in the Baltic Sea takes place mostly on drift ice although in some areas seals also give birth on land. The pup is nursed for about 15–18 days. Grey seals moult on ice and haul-out sites from April-June. In the Baltic, they grow to an average length of 1.65–2.1 meters and a mass of 100–180 kg for females and > 300 kg for males. They can reach an age of 25 (males) – 35 (females) years[2]. Females become sexually mature between 3 and 5 years. The pup is born with a creamy-white woolly lanugo coat, which it will moult after 2–4 weeks for a shorter adult-like coat[3]. Grey seals are sexually dimorphic, e.g. distinct larger sized males with a more convex muzzle, although grey seals in the Baltic do not exhibit the degree of sexual dimorphism generally ascribed to this species (Karlsson 2003). They feed on a wide variety of fish. The diet varies with location, season and prey availability (Stenman & Pöyhönen 2005, Lundström et al. 2007). Fasting occurs during the breeding and moulting seasons[4]. Juveniles in particular are known to travel over long distances (Sjöberg et al.).

# **Description of major threats**

By the 1970s, hunting and pollution had reduced the total population drastically. Current threats include habitat loss due to coastal development, overfishing, environmental contaminants and entanglement of young seals in fishing gear.

## **Assessment justification**

Age-structure data from grey seal populations in the late 1970s indicated a generation time of approximately 14 years. Abundance is well known and the Baltic population is monitored annually and has been increasing over the past 30 years. For now there is no reason to suspect a population decline in the future. However climate change might have an impact on pup survival and hence population growth rate, if a larger proportion of the grey seals need to change from ice breeding to land breeding, since pup survival is lower on land than on ice. The extent of occurrence and area of occupancy encompasses almost the entire Baltic. The population is not severely fragmented and the number of locations exceeds the thresholds given in the criteria. In the last 30 years the population has been expanding and no extreme fluctuations have occurred. Number of mature individuals exceeds 10 000. A long term increase in population size suggests a low risk of extinction within 3 generations. All this combined suggest that grey seals should be classified as Least Concern (LC).

## **Recommendations for actions to conserve the species**

National seal conservation and management plans should be developed in order to ensure proper conservation and management of the populations. These should include continuation of long-term monitoring and research programmes, the restoration of suitable habitats where appropriate, as well as the establishment and proper management of seal sanctuaries. Further, the responsible national authorities should coordinate their management and monitoring strategies regarding shared seal populations with neighbouring countries



#### **Common names**

Denmark: gråsæl, Estonia: hallhüljes, Finland: harmaahylje, Germany: Kegelrobbe, Latvia: –, Lithuania: ilgasnukis ruonis, Poland: foka szara, Russia: длинномордый/ или серый тюлень, Sweden: gråsäl

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