

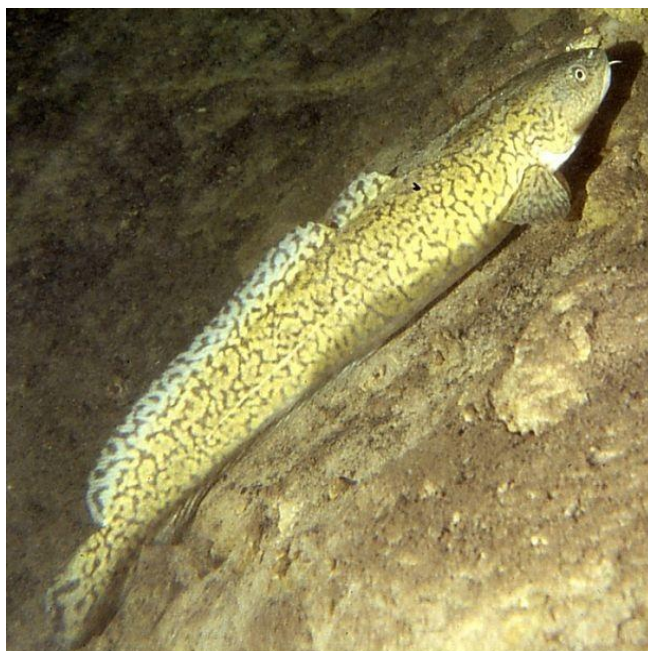
SPECIES INFORMATION SHEET

Lota lota

English name: Burbot	Scientific name: <i>Lota lota</i>	
Taxonomical group: Class: Actinopterygii Order: Gadiformes Family: Lotidae	Species authority: Linnaeus, 1758	
Subspecies, Variations, Synonyms: –	Generation length: 8.3 years	
Past and current threats (Habitats Directive article 17 codes): Eutrophication (H01.05), Climate change (M01.01, M01.04)	Future threats (Habitats Directive article 17 codes): Eutrophication (H01.05), Climate change (M01.01, M01.04)	
IUCN Criteria: A2b	HELCOM Red List Category:	NT Near Threatened
Global / European IUCN Red List Category LC/LC	Habitats Directive: –	
Previous HELCOM Red List Category (2007): LC		
Protection and Red List status in HELCOM countries: Denmark –/LC, Estonia <i>Fisheries regulations</i> /LC, Finland –/LC, Germany –/* (Not threatened, Baltic Sea), Latvia <i>national angling rules</i> / –, Lithuania <i>minimum landing size (49 cm)</i> / –, Poland –/–, Russia –/–, Sweden –/NT		

Distribution and status in the Baltic Sea region

The main distribution of burbot is in the northern Baltic Sea; the Gulf of Bothnia and the Gulf of Finland. Swedish coastal landings have decreased from 4 tonnes in 1999 to 1 ton in recent years. The landings in Finland have also decreased (with up to 80% in the best fishing area in the Archipelago Sea) but this is to some extent due to lowered effort. According to Stapanian et al. (2010) there also seem to be a circumpolar decline in burbot. The species is declining in Estonia, Finland and Sweden while in Latvia, Lithuania and Russia it is secured, in Poland vulnerable, and in Germany imperilled. No information exists from Denmark.



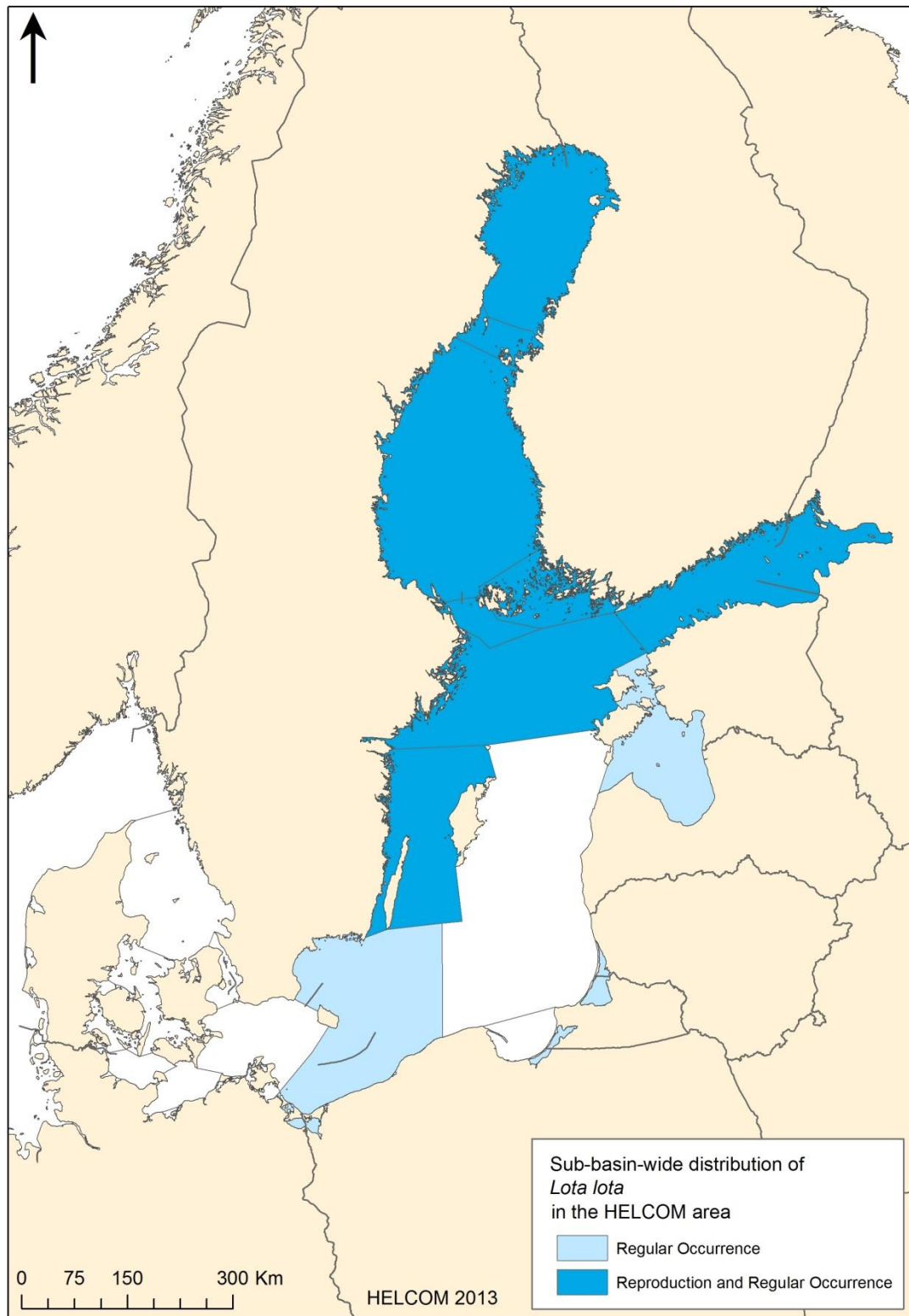
Burbot. Photo by Achim R. Schloeffel.

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Distribution map

The map shows the sub-basins in the HELCOM area where the species is known to occur regularly and to reproduce (HELCOM 2012).



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Habitat and ecology

The burbot is distributed in well oxygenated flowing waters and large lakes, estuaries and in brackish waters in the Baltic Sea. It is generally a nocturnal species. It spawns in November–March, at temperatures below 4°C. The burbot is known to undertake spawning migrations into estuaries and up to rivers. It spawns at night, in groups of up to 20 interlaced individuals forming a ball. In contrast to most freshwater fish burbot is very active during winter, even below ice cover. Juveniles and adults feed on large invertebrates and small fish.

Description of major threats

Eutrophication and global warming are potential treats, also sedimentation of habitats. However, little is known on which potential threats affect this species.

Assessment justification

The number of mature individuals exceeds the limit for red listing. The extent of occurrence (EOO) and the area of occupancy (AOO) also exceed the limits for red listing but the population is currently declining or is expected to do so in the future.

Swedish coastal landings have decreased from 4 tonnes in 1999 to 1 ton in recent years. During the same time catch per unit effort in gillnets in Swedish commercial fishery in the Bothnian Bay show a significant decline with at least 70%. The landings in Finland have also decreased (with up to 80% in the best fishing area in the Archipelago Sea) but this is to some extent due to lowered effort. According to Stapanian et al. 2010 the species is declining in Estonia, Finland and Sweden while in Latvia, Lithuania and Russia it is secured, in Poland vulnerable, and in Germany imperilled. There is no information from Denmark. Overall the estimated possible decline of burbot in the HELCOM area, based on the above information, is between 0–35%. Depending on which of the estimated values is used the assessment varies from Least Concern (LC) to Vulnerable (VU). Based on the most probable values, the species falls in the category Near Threatened (NT) according to the A2b criteria. This is not downgraded by immigration from outside the HELCOM area since also the freshwater populations have declined.

Recommendations for actions to conserve the species

The reasons for the observed decrease are not well known. It is necessary to increase knowledge on life-history and ecology to suggest meaningful action plans.

Common names

DE: Quappe; DK: Knude; ES: Luts; FI: Made; GB: Burbot; LA: Vēdzele; LI: Végèlè; PL: Miętus; RU: Nalim
SE: Lake

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