SPECIES INFORMATION SHEET — *Gavia arctica* (wintering)

English name: **Black-throated diver**	Scientific name: ***Gavia arctica* (wintering population)**	
Taxonomical group: Class: Aves Order: Gaviiformes Family: Gaviidae	Species authority: Linnaeus, 1758	
Subspecies, Variations, Synonyms: *Gavia arctica arctica;* black-throated loon	Generation length: 10 years	
Past and current threats (Habitats Directive article 17 code): Breeding: Contaminant pollution (H04.01, H04.02), Eutrophication (H01.05), Other threat factors (Loss of specific habitat features, J03.01), Human disturbance (G01), Alien species (I01) Wintering: Oil spills (H03.01), Bycatch (F03.02.05), Construction (C03.03, D03.03), Water traffic (D03.02)	Future threats (Habitats Directive article 17 codes): Breeding: Contaminant pollution (H04.01, H04.02), Eutrophication (H01.05), Other threat factors (Loss of specific habitat features, J03.01), Human disturbance (G01), Alien species (I01) Wintering: Oil spills (H03.01), Bycatch (F03.02.05), Construction (C03.03, D03.03), Water traffic (D03.02	
IUCN Criteria: **A2b**	**HELCOM Red List Category:**	**CR Critically Endangered**
Global / European IUCN Red List Category (BirdLife International 2004): LC / VU	Annex I EU Birds Directive yes	
Protection and Red List status in HELCOM countries: *Subject of special conservation measures in the EU Member states (Birds Directive, Annex I) and in Russia (Red Data Book of the Russian Federation)* Denmark: –, Estonia: CR, Finland: LC (listed as "Threatened Species" in the Nature Conservation Decree Annex 4), Germany: "particularly protected" under Federal Species Protection Decree (Bundesartenschutzverordnung)/–, Latvia: –, Lithuania: E (Endangered), Poland: EX, Russia: 2 (declining population), Sweden: LC		

Range description and general trends

The black-throated diver has a northern Holarctic breeding distribution and occurs mainly in the boreal and arctic zones from NW Europe through NE Siberia to NW Alaska. The species breeds in tundra and on arctic islands as well as in the Asian steppe zone. The subspecies *Gavia arctica arctica* occurs from NW Europe to W Siberia and winters along the coasts of NW Europe, the Mediterranean, the Black Sea and the Caspian Sea. Besides, the black-throated diver also winters on large lakes in Europe and Asia (Hagemeijer & Blair 1997, Mendel et al. 2008). The N Europe/W Siberia winter population was estimated at 250 000 to 500 000 birds (Wetlands International 2012).

Distribution and status in the Baltic Sea region

Since the identification of the two diver species at sea is rather difficult, Red-throated and black-throated divers were treated together in the two comprehensive surveys 1988–1993 and 2007–2009. Thus, the distribution and phenology of the two species in the Baltic Sea is only partly known. Both species begin to arrive in the Baltic Sea in September and gradually increase in numbers during the following month. Some divers rest in the Baltic for only a few weeks before moving on to other wintering areas and returning to the Baltic from January onwards. Between mid-April and mid-May divers leave the Baltic Sea (Skov et al. 2011). At the beginning of the 1990s, the Irbe Strait and the Gulf of Riga were the most important wintering areas of divers. Other important areas were the shallow waters off the coast of Lithuania, the Pomeranian Bay, NW Kattegat, Smålandsfarvandet and off the

central Polish coast. The majority of birds wintering north of the Kursiu Lagoon as well as in Smålandsfarvandet were red-throated divers, while black-throated divers dominated in the central parts of the Baltic Sea, in the area from the coast of Poland to north of Öland and west of Rügen. In Danish waters (except Smålandsfarvandet) the divers seemed to winter in equal numbers (Durinck et al. 1994). The more recent Baltic survey revealed that the number of divers wintering in the Baltic Sea decreased by 86 %. Numbers dramatically declined in the Irbe Strait and Gulf of Riga, while the largest concentrations of divers were found from the Irbe Strait southwards along the coasts of Lithuania, Latvia and southern Estonia as well as in the Pomeranian Bay (Skov et al. 2001; Fig. 1). Despite significantly smaller numbers, the overall distribution patterns in the Baltic Sea have not changed. The highest densities were still found in a narrow band along the mainland coast north of Rügen up to the Gulf of Riga. In this concentration area the vast majority of identified divers were red-throated divers, while south of this areas the proportion of black-throated divers appeared to be higher (Skov et al. 2011). Based on the provided information of the distribution of both species, the total number of 56 665 divers given by Durinck et al. (1994) could be assigned to 43 713 (77%) Red-throated and 12 952 (23%) black-throated divers wintering in the Baltic Sea in the early 1990s, while the total number of 8.575 observed in the period 2007–2009 could be assigned to 6297 (73%) Red-throated and 2278 (27%) black-throated divers, indicating similar proportions of both species compared to the early 1990s. Based on these figures, the total number of black-throated divers wintering in the Baltic Sea has declined from c. 13 000 birds in 1988–1993 to 2 300 birds in 2007–2009, equivalent to 82% over 16 years.

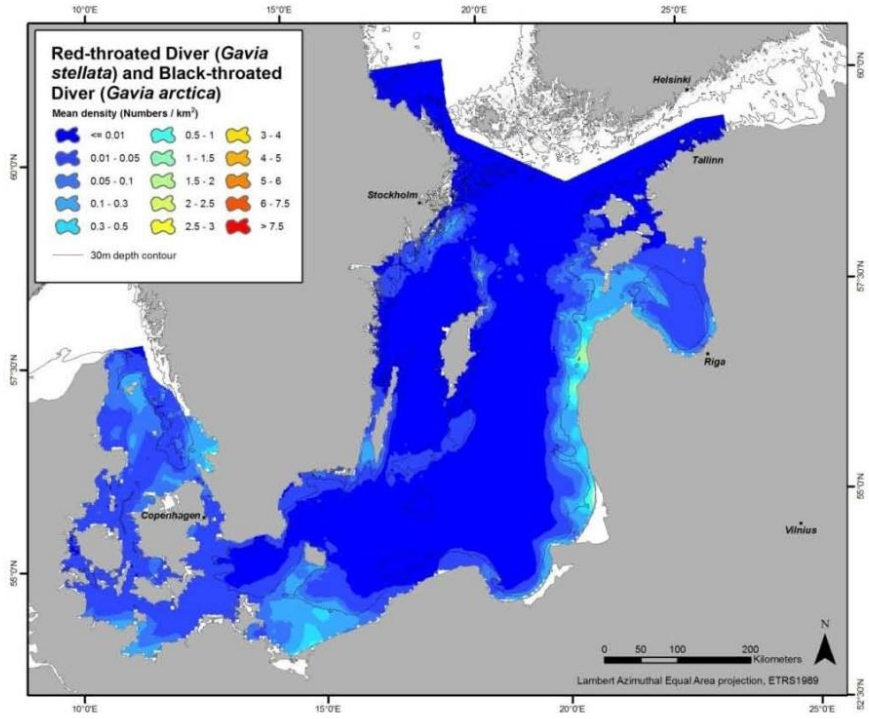

Fig. 1. Distribution and density of wintering divers (red-throated diver *Gavia stellata* and black-throated diver *Gavia arctica*) in the Baltic Sea, 2007–2009. From Skov et al. (2011).

Habitat and ecology

During the non-breeding season, black-throated divers are predominantly found at sea, but may also occur on inland lakes (Mendel et al. 2008). In the German Bight in the North Sea, the species apparently favours sea areas with turbid, moderately saline water, with greatest bird densities occurring along frontal systems (Skov & Prins 2001). In the Baltic Sea, most divers winter offshore in areas of 5 to 30 m

water depths, often far at sea. Some birds are even found in waters up to 100 m depth (Durinck et al. 1994, Skov et al. 2011). In winter, black-throated divers feed preferably on fish up to 25 cm and are assumed to be opportunistic feeders. In the Baltic Sea, small (swarming) fishes such as gobies, vimba, European smelt, percids and sticklebacks are important prey species (Žydelis 2002, Mendel et al. 2008).

Description of major threats

Beside threat factors in the breeding areas, like **acidification**, **eutrophication** and **degradation** of **breeding habitats, heavy metal pollution** and **disturbances** near the nesting sites (Bauer et al. 2005, del Hoyo et al. 1992), various pressures in the wintering areas were identified that have possibly contributed to the observed declines in the Baltic Sea winter population:

Intense **gillnet fisheries** in the Baltic Sea impose a high risk of **entanglement** and **drowning** for diving bird species. The fisheries often overlap with resting and feeding areas of black-throated divers (FTZ unpubl. data). According to Žydelis et al. (2009), hundreds of divers are annually caught in gillnets in the Baltic Sea, especially in Sweden, Latvia, Lithuania, Poland and Germany. Black-throated divers usually spend large portions of time swimming on the water and sometimes occur locally in dense concentrations. Thus, they are highly vulnerable to **oil pollution**. Oiling has been identified as one of the most important threats to seabirds and waterbirds in several Baltic Sea countries (e.g. Žydelis & Dagys 1997). According to Bauer et al. (2005), black-throated divers suffer from high losses due to oiling in wintering areas. Black-throated divers have a very large disturbance distance with regard to vessels and usually take flight when a ship is approaching (Garthe et al. 2004). Thus they are very sensitive to **disturbance by ship traffic.** This pronounced sensitivity to shipping movements may entail the birds to avoid busy shipping lanes and thus influence the distribution of black-throated divers, as has been documented for red-throated divers in the North Sea (Hüppop et al. 1994, Schwemmer et al. 2011). Even in less sailed areas, ship traffic may cause fragmentation and loss of suitable feeding and resting habitats for black-throated divers. Black-throated divers migrate in low flight altitudes, have only poor flight manoeuvrability and are supposed to frequently move between different feeding and resting sites. Hence, they are particularly at risk of colliding with **offshore wind turbines and other obstacles.** The species is ranked highest in the wind farm sensitivity index and is thus recognized as highly vulnerable (Garthe & Hüppop 2004). The disturbance or displacement effect of offshore wind farms can lead to large-scale losses of suitable habitats, as has been documented for the red-throated diver in the North Sea (Dierschke et al. 2006). Migrating black-throated divers were found to deviate around the wind turbines of a wind farm in the Swedish Baltic Sea (see Dierschke & Garthe 2006).

Assessment justification

Based on the information of the distribution of both diver species provided by Durinck et al. (1994) and Skov et al. (2011), the number of black-throated divers wintering in the Baltic Sea dramatically decreased from c. 13 000 birds in 1988–1993 to 2,300 birds in 2007–2009, equivalent to a decline of 95 % over three generations (1993–2023; 30 years, GL = 10 according to the Swedish Red List, Tjernberg & Svensson 2007). Hence, the species is classified as *Critically Endangered* (CR) according to criterion A2b, as the causes of the reduction are not yet understood and the reduction may not have ceased. Although there might be some inaccuracy in the number of each diver species, the assessment is rather distinct and it would require an extra several thousand black-throated divers to fall below the threshold of CR.

Recommendations for actions to conserve the species

As probably only the cumulative effects of the various threat factors eventually drive the dramatic decline, various management measures need to be considered. In the wintering areas, reducing bycatch in fishing gear, the prevention of accidental and chronic oil pollution, preservation of feeding grounds and ship traffic regulations are some options that are likely to support the recovery of this species.

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Common names

Denmark: sortstrubet lom, Estonia: järvekaur, Finland: kuikka, Germany: Prachttaucher, Latvia: melnkakla gārgale, Lithuania: juodakaklis naras, Poland: nur czarnoszyi, Russia: Чернозобая гагара, Sweden: storlom

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