

#### **SPECIES INFORMATION SHEET**

English name: <b>Twaite shad</b>	Scientific name: <i>Alosa fallax</i>	
Taxonomical group:	Species authority:	
Class: Actinopterygii	La Cepède, 1803	
Order: Clupeiformes		
Family: Clupeidae		
Subspecies, Variations, Synonyms:	Generation length:	
-	9.3 years	
Past and current threats (Habitats Directive	Future threats (Habitats Directive article 17	
article 17 codes):	codes):	
-	-	
IUCN Criteria:	HELCOM Red List	LC
-	Category:	Least Concern
Global / European IUCN Red List Category	Habitats Directive:	
LC/LC	Listed as Alosa spp in Anex II and V	
Previous HELCOM Red List Category (2007): EN	J	
Protection and Red List status in HELCOM coun	itries:	
Denmark -/NA Estonia -/- Einland -/- Germ	any Protected by national and	European law 13

Denmark –/NA, Estonia –/–, Finland –/–, Germany Protected by national and European law. / 3 (Vulnerable, Baltic Sea), Latvia Protected by the law, included in CM regulation Nr. 396 / RA, Lithuania –/DD, Poland Prohibited to kill, catch or disturb this species under strict protection all year round / EN, Russia Prohibited to fish for and land this species all year round / EN, Sweden Prohibited to fish for and land this species all year round / NA

## Distribution and status in the Baltic Sea region

This anadromous species is mainly distributed in the southeastern part of the Baltic Sea. Available monitory fishing series from the Baltic International Trawl Survey in the Arkona basin shows no trend. The species occurs sparsely in netseries from the Curonian lagoon and Jurkalne and shows no trend. Twaite shad has irregular occurrence in Estonia. It is considered threatened but with a positive trend over the last decade in Germany. Polish data from commercial fishery in Odra and Vistula lagoons show an increase in landings since the 1970s. In Lithuania the twaite shad has increased in abundance in recent years (Repecka 2003) and the same is true for German and adjacent waters (Thiel et al. 2007). There is no clear evidence which factors cause disappearence and recovery of twaite shad. However, decreased pollution by nutrients, heavy metals and other pollutants in the lagoons of the southern Baltic and less strong winter periods in those areas during the last 15 years may have affected the population increase of twaite shad (Thiel et al. 2007). The species is globally categorized as LC as the current status of the species is good and its population is increasing in the North Sea and Baltic Sea (Freyhof & Kottelat 2008).



Illustration by von Wright (1895)



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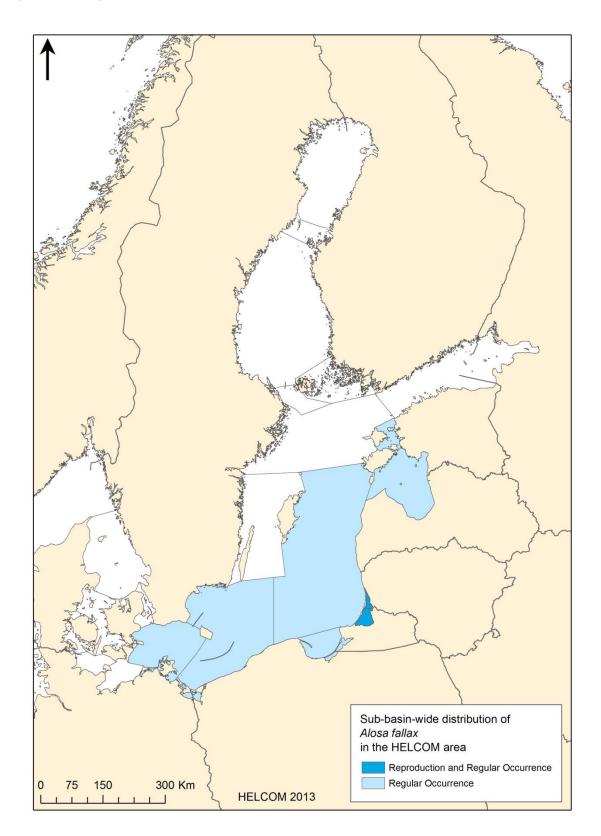


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# **Distribution map**

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





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# Habitat and ecology

The twaite shad *Alosa fallax* is a species that spends much of its life pelagically in the open water of coastal seas, and anadromously migrates into large rivers for spawning. Adult fish enter estuaries annually, and then from April to June they migrate upstream. First year adults just train the migration, but second year or older specimens spawn above sand and mud bottoms. Spawning occurs repeatedly during several nights, from May to June; the adults usually survive spawning and return in autumn to the sea. When hatching, larvae measure 4.25–6 mm, but juveniles have grown to 7–8 cm when they start their downstream migration into the sea in autumn. Twaite shad does not grow any further in winter; growth periods are in summer in their river habitat. They feed on aquatic insects, crustaceans, fish larvae and young fish. Maximum total length is 60 cm but more commonly 40 cm, maximum body weight 1.5 kg, and maximum individual age 25 years. (Quignard & Douchement 2004, Freyhof & Kottelat 2008, Froese & Pauly 2012)

## **Description of major threats**

Although the species is not considered threatened at the moment, several factors have affected negatively its population: blocking of migration routes with dam constructions for hydropower, pollution and destroying spawning habitats. The spawning habitats of twaite shad can be negatively affected by eutrophication and technical constructions like dredging of rivers for shipping lanes. Twaite shades are caught as bycatch in pelagic fisheries especially during their spawning migrations and in the estuaries.

## **Assessment justification**

The number of reproductive individuals, as well as the extent of occurrence, are well above the thresholds for being threatened according to the IUCN criteria. The area of occupancy is restricted (<500km<sup>2</sup>) but since there is no continuing decrease or extreme fluctuations in population size or habitat and the population is not extremely fragmented it does not fulfill the criteria for being threatened. In fact this species shows a positive trend in population size over the last three generations and is hence considered LC.

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

Connectivity of spawning and feeding habitats should be improved; pollution and eutrophication should be reduced. By-catch in fisheries should be reduced by using more selective gear.

## **Common names**

D - Finte; GB – Twaite shad; EST -Vinträim ; DK - Stavsild; FIN – Täpläsilli; LV - Palede, lapreņģe,skalla; LT-Perpelė; PL- Parposz; RUS - Finta; S – Staksill

## References

Andrušaitis G. (ed.) (2003). Red data book of Latvia. Vol.5. Fishes, Amphibians, Reptiles. Riga, 144 pp. Freyhof, J., Kottelat, M. (2008). *Alosa fallax*. In: IUCN 2011. IUCN Red List of Threatened Species. Available at: www.iucnredlist.org (viewed 30 April 2012)

Fries, B. Smitt, F. S. Von Wright, W. (1895). Skandinaviens fiskar. Norstedt, Stockholm.

Froese, R., Pauly, D. (eds.) (2012). FishBase. World Wide Web electronic publication. Available at: www.fishbase.org.

Głowaciński, Z. (ed.) (2001). Polish Red Data Book of Animals, Vertebrates" Z., Państwowe Wydawnictwo Rolnicze i Leśne, Warszawa.



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HELCOM (2007). HELCOM Red list of threatened and declining species of lampreys and fish of the Baltic Sea. Baltic Sea Environmental Proceedings No. 109. Helsinki Commission, Helsinki. 40 pp.

- HELCOM (2012). Checklist of Baltic Sea Macro-species. Baltic Sea Environment Proceedings No. 130. Helsinki Commission, Helsinki. 203 pp.
- Red Book of the Russian Federation (animals). 2001. "Act Astrel". 863 pp. (In Russian) [Красная Книга Российской Федерации (животные). 2001. «Аст Астрель». 863 с.], on-line version (2007) <u>http://www.sevin.ru/redbooksevin/index.html</u>
- Repečka, R. (2003). Changes in biological indices and abundance of salmon, sea trout, smelt, vimba and twaite shad in the coastal zone of the Baltic Sea and the Curonian Lagoon at the beginning of spawning migration. Acta Zoologica Lituanica 13: 195–216
- Quignard, J. P., Douchement, C. (1991). *Alosa alosa* (Linnaeus, 1758). Pp. 89–126. In: Hoestlandt, H.: The freshwater fishes of Europe. Vol. 2. Clupeidae, Anguillidae. Aula-Verlag, Wiesbaden / Germany. 447 pp.
- Thiel, R., Riel, P., Neumann, R., Winkler, H. M. (2007). Twaite shad (*Alosa fallax* (Lacépède, 1803)) in German and adjacent Baltic waters: historical importance, intermediate decline and recent recovery of the population. Fishery and Aquaculture in Lithuania 7: 28–58.
- Thiel, R., Winkler, H., Böttcher, U., Dänhardt, A., Fricke, R., George, M. Kloppmann, M., Schaarschmidt, T., Ubl, C. & Vorberg, R. (2013). Rote Liste und Gesamtartenliste der etablierten Neunaugen und Fische (Petromyzontida, Elasmobranchii & Actinopterygii) der marinen Gewässer Deutschlands. 5. Fassung, Stand August 2013. Naturschutz und Biologische Vielfalt 70(2): 11–76.
- Wind, P. & Pihl, S. (eds.). (2004–2010). The Danish Red List. The National Environmental Research Institute, Aarhus University [2004]-. http://redlist.dmu.dk (updated April 2010). Species information available at <u>http://bios.au.dk/videnudveksling/til-myndigheder-og-saerligt-</u> <u>interesserede/redlistframe/soegart/</u>

