

SPECIES INFORMATION SHEET

Aspius aspius

English name: Asp	Scientific name: <i>Aspius aspius</i>	
Taxonomical group: Class: Actinopterygii Order: Cypriniformes Family: Cyprinidae	Species authority: Linnaeus, 1758	
Subspecies, Variations, Synonyms: <i>Leuciscus aspius</i>	Generation length: 11 years	
Past and current threats (Habitats Directive article 17 codes): Construction (J02.05.02; J02.01), Fishing (F02.01.01, F02.01.02),	Future threats (Habitats Directive article 17 codes): Construction (J02.05.02, J02.01), Fishing (F02.01.01, F02.01.02)	
IUCN Criteria: A3d	HELCOM Red List Category:	NT Near Threatened
Global / European IUCN Red List Category LC/LC	Habitats Directive: Annex II and V	
Previous HELCOM Red List Category (2007): VU		
Protection and Red List status in HELCOM countries: Denmark –/LC Estonia: <i>protected by the law (second category)</i> / DD Finland: <i>stockings, introduction and transfer of individuals</i> / NT Germany – /* (Not threatened, Baltic Sea) Latvia: <i>protected species (regulation nr. 45 and 396), catch regulated by angling rules</i> / – Lithuania: <i>minimum landing size (52 cm)</i> / – Poland: <i>Not protected by the law, protection measure in freshwater bodies only</i> / – Russia: – / EN Sweden: <i>fishing is prohibited during spawning time in some large rivers, construction of fish passes</i> / NT		

Distribution and status in the Baltic Sea region

This freshwater species is occasionally encountered in several coastal areas in the Baltic Sea. It is however regularly occurring only in some rivers and near them in the eastern part of the Gulf of Finland, the eastern part of the Bothnian Sea and the Curonian and Vistula lagoons. Asp is more abundant in the southern part of the Baltic Sea area. Population is increasing but not profuse in Finland, Sweden, Latvia and Germany. Commercial landings in Lithuanian part of the Curonian Lagoon decreased during the last decade while the catches in the Russian part increased. The species is rare in the Russian part of the Gulf of Finland but reported abundant from the Neva River.



Asp. Photo by Karel Jakubec.

SPECIES INFORMATION SHEET

Aspius aspius

Distribution map

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



SPECIES INFORMATION SHEET

Aspius aspius

Habitat and ecology

The asp lives in open water of large and medium-sized lowland rivers and large lakes. Asp inhabits also lower reaches of rivers and estuaries. It prefers to stay near bridge pillars, near tributaries, under weirs, in deep currents and overgrown parts of river and in quiet bays of river bends. Asp is one of the cyprinids which is piscivore and it may also prey on small aquatic birds. Juveniles are gregarious predators while adults hunt in small groups or are solitary (Froese & Pauly 2011). Juveniles and adults feed mainly on fish, especially on *Alburnus alburnus* or *Osmerus eperlanus*. They migrate upstream in tributaries for spawning in April–June and spawn in fast-flowing water on gravel or submerged vegetation. Lake populations migrate to tributaries; anadromous populations forage mainly in estuaries and freshened parts of the sea, migrating to rivers only for spawning. Asps begin spawning migration in second half of October and overwinter in the lower reaches of river. The species hybridizes with *Leuciscus idus*.

Description of major threats

The species is threatened due to alteration of river morphology for example by constructions in the water destroying spawning areas or drying out projects resulting in loss of nursery areas. Commercial fishing is also a threat.

Assessment justification

This species is generally not caught in the regular environmental monitoring fishing series in the HELCOM area using multimesh gillnets or fykenets (HELCOM 2012b). The Institute of Freshwater Research in Sweden reports decreasing population in the great lakes, including Lake Mälaren in the 1960s but stabilising in the 1980s and even increase in catches in the 2000s. Increasing population is also reported in Germany. There is a declining trend in commercial catches in Lithuania (c. 10 tonnes in 2003 and c. 2 tonnes in 2012). However, juveniles are regularly found in beach seine surveys and it seems there is not any decline of at least in regard to juveniles. According to the Lithuanian River monitoring data, populations in the inland waters are considered stable. In Sweden and Finland the species is considered NT and it is also included in the Red Books of Leningrad and St. Petersburg districts.

This species is care dependent. Stocking and restoration of migration routes have led to populations that in the HELCOM area are stable or increasing. No threats for decline in future are detected but if the conservation effort would stop the species is at risk of reaching the status of VU (>30% decline in population size) and hence it classifies as Near Threatened (NT).

Recommendations for actions to conserve the species

Fishing during spawning and migration should be restricted and fishpasses should be constructed to repair blocked migration routes. In areas, where the species has disappeared conditions should be improved by habitat restoration and afterwards reintroductions might be considered. Further information on the population size should be collected.

Common names

DE: Rapfen; DK: Asp; ES: Tõugjas ; FI: Toutain; GB: Asp; LA: Salate; LI: Salatis; PL: Boleń; RU: Zherekh; SE: Asp

References

- Aleksejevs, E., Birzaks, J. (2011). Long-term Changes in the Ichthyofauna of Latvia's Inland Waters. Scientific Journal of Riga Technical University 7: 9–18.
- Berglund, J. (2004). Leklokaler för asp i Göta älv, Hjälmarens och Vänerens avrinningsområde. Fiskeriverket informerar 2004:10. Intellecta Docusys, Västra Frölunda. 129 pp. [in Swedish] Available at:
https://www.havochvatten.se/download/18.64f5b3211343cffddb2800019057/1327998208127/finfo2004_10.pdf
- Estonian eBiodiversity. Red List 2008 results and species information available at
<http://elurikkus.ut.ee/prmt.php?lang=eng>
- Freyhof, J. (2008). *Aspius aspius*. IUCN Red List of Threatened Species. Version 2012.2. Available at: www.iucnredlist.org
- Froese, R., Pauly, D. (eds.) (2011). FishBase. World Wide Web electronic publication. Available at: www.fishbase.org
- Gaigalas, K. (2001). Fishes in the Curonian Bay basin, their resources and fishery. Klaipėda, Eglė. 372 pp.
- 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 (2012a). Checklist of Baltic Sea Macro-species. Baltic Sea Environment Proceedings No. 130. Helsinki Commission, Helsinki. 203 pp.
- HELCOM (2012b). Indicator based assessment of coastal fish community status in the Baltic Sea 2005–2009. Baltic Sea Environment Proceedings No. 131. Helsinki Commission, Helsinki. 88 pp.
- Ojaveer, E., Pihu, E., Saat, T. (eds.) (2003). Fishes of Estonia. Estonian Academy Publishers, Tallinn. 416 pp.
- Plikšs, M., Aleksejevs, E. (1998). Fishes of Latvia. Gandrs, Riga. 304 pp.
- Psuty, I., Wilkońska, H. (2009). The stability of fish assemblages under unstable conditions: A ten-year series from the Polish part of the Vistula Lagoon. Archives of Polish Fisheries 17: 65–76.
- Red Book of the Russian Federation (animals). 2001. "Act Astrel". 863 pp. (In Russian) [Красная Книга Российской Федерации (животные). 2001. «Акт Астрель». 863 с.], on-line version (2007)
<http://www.sevin.ru/redbooksevin/index.html>
- Shibaev, S. V., Khlopnikov, M. M., Skolov, A. V. (eds.) (2008). Fishery cadastre of transboundary reservoirs of Russia (the Kaliningrad region) and Lithuania. Mishutkina Co, Kaliningrad. 200 pp.
- Svensson, M., Degerman, E., Florin, A.-B., Hagberg, J., Kullander, S. O., Nathanson, J. E. & Stenberg, C. 2010. Fiskar – Fish. Pisces. In Gärdenfors, U. (ed.) Rödlistade arter i Sverige 2010 – The 2010 Red List of Swedish Species. ArtDatabanken, SLU, Uppsala. P. 323–332. Red List categories available also at
<http://www.artfakta.se/GetSpecies.aspx?SearchType=Advanced>
- 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.
- Urho, L., Lehtonen, H. (2008). Fish species in Finland. Finnish Game and Fisheries Research Institute, Helsinki. 34 pp.
- Urho, L., Pennanen, J. T. & Koljonen, M.-L. 2010. Kalat Fish, Pisces. In Rassi, P., Hyvärinen, E., Juslén, A. & Mannerkoski, I. (eds.). Suomen lajien uhanalaisuus – Punainen kirja 2010. Ministry of the Environment & Finnish Environment Institute, Helsinki. P. 336–343.
- Virbickas, J. (2000). Fishes of Lithuania. Trys žvaigždutės, Vilnius. 192 pp.
- 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 <http://bios.au.dk/videnudveksling/til-myndigheder-og-saerligt-interesserede/redlistframe/soegart/>