HELCOM Recommendation 42-43/9

Adopted 28 March 2025,
having regard to Article 20, Paragraph 1 b)
of the Helsinki Convention

MANAGING LARGE AND MEDIUM RIVERS TO ENSURE RIVER CONNECTIVITY FOR FISH MIGRATION TO PROTECT STURGEON AND REDUCE STURGEON BYCATCH

THE COMMISSION,

RECALLING the updated Baltic Sea Action Plan adopted in Lübeck, Germany on 20 of October 2021, and in particular the actions: B16 to strengthen native strains and to reinstate migratory fish species, and B18 to restore functional populations of Baltic sturgeon by implementing the HELCOM Baltic Sea Sturgeon Action Plan;

RECALLING FURTHER the EU biodiversity strategy for 2030 and the need to restore freshwater ecosystems and the natural functions of rivers including the achievement of the Water Framework Directive objectives, and that at least 25,000 km of rivers should be restored into free-flowing rivers by 2030;

BEING CONCERNED that rivers in Europe are heavily fragmented and regulated to a large extend and thus cannot serve their function as a natural corridors and natural freshwater habitats while at the same time failing to reach Good Environmental Status according to the Water Framework Directive;

BEARING IN MIND that many migratory fish species migrate and reproduce in medium and large rivers and that medium and large rivers serve also as important corridors to small streams in their catchments where several migratory fish species such as salmonids reproduce;

BEING CONCERNED FURTHERMORE about the current poor population and conservation status of many fish species that depend on migration and reproduction in rivers, while the recovery of Baltic sturgeon populations will not be possible without ensuring free access to medium and large rivers in the Baltic Sea catchment, and thus conservation actions directed to sturgeons would also contribute to conservation of many other migratory fish species;

ACKNOWLEDGING that Baltic sturgeons have been a significant element of the fish fauna of many HELCOM Contracting Parties and that by 1900 most of the previously abundant populations were diminished and by 1970 the species was considered functionally extinct;

ACKNOWLEDGING FURTHER that since 1996 HELCOM and its Contracting Parties have been jointly working towards the target of reestablishing the Baltic sturgeon in its historic range;

BEING AWARE that the HELCOM Baltic Sea Sturgeon Action Plan focused on restitution of Baltic Sea sturgeon into the Baltic Sea catchment:

- identified the historical distribution of Baltic sturgeon;
- identified major obstacles for sturgeon rehabilitation, including river damming and regulation;

- proposed restoration measures for ensuring migration in key rivers also with existing dams including minimum requirement for the bypass (in case the dam cannot be removed) to serve also for sturgeons.

RECOMMENDS to the Governments of the Contracting Parties of the Helsinki Convention to:

A) Undertake Migration facilitation and habitat improvement actions

Undertake the following restoration measures in key rivers of medium and large size:

1. Identify the key medium and large rivers that require urgent actions, including most important migration routes for Baltic Sturgeon, and for these rivers:
    - define targets for recovery of Baltic sturgeon;
    - define and assess the habitat criteria for Baltic sturgeon;
    - identify habitat types for nursery and reproduction of Baltic sturgeon;
    - determine habitat utilization by sturgeon and, through recapture reports (through directed monitoring, by-catch info from fishers and anglers) and telemetry;
    - assess habitat deficits and impacting factors including major obstacles that have to be removed or mitigated.
2. Develop and implement habitat restoration plans for spawning, and nursery areas for Baltic sturgeon, in the relevant rivers. These plans could include discharge dynamics for habitat revitalization such as increased inundation lateral erosion and dynamic channel development as well as floodplain reconnection, reconnection of backwaters and side channels to increase habitat diversity, restoration of gravel banks, reduction of sediment transport to avoid siltation, reduction of mobile sediments to increase macrozoobenthos abundance and stable soil structures. Measures to be taken in order to reach the targets for habitat restoration are to be defined and scheduled in the relevant plans.
3. Review and prioritize effective mitigation measures for migration obstacles for Baltic sturgeon, covering also river modifications for navigational purposes, in the identified key rivers, including removal of dams, other migration barriers and riverbed modifications, where relevant and possible:
    - assess manmade obstacles and their function including concession duration, profitability, etc.;
    - assess and propose dams including hydropower facilities with potential for removal or reconstruction with the aims to reach the discharge in bypass structures as agreed upon/given in the Baltic Sea Sturgeon Action Plan due to inefficient, outdated technology and significant negative impact on river fragmentation and the ecological status of the waterbodies;
    - assess existing mitigation measures for obstacles in key rivers and their suitability for large fish such as sturgeon (the assessment could include elements such as: cost-efficiency of the options, options for improving accessibility, mortality during up- and downstream migration and migration behavior);
    - perform SWOT analysis of dam removal, or construction of bypass or other technical solutions with the aim to ensure free migration of fish species;
    - propose and implement effective mitigation measures or modify existing ones where dams cannot be removed, in parameters that are suitable also for large fish such as Baltic sturgeon, though facilitation of passage without creating delay in migration and without inhibiting migration of a fraction of the individuals, as they are essential to allow the population to be restored. Furthermore, no mechanical damage should occur both during up- and downstream migrations.

4. Prohibit planning and construction of new migration obstacles. In cases where such planning and construction cannot be prevented, constructions should provide sufficient bypasses under all flow conditions. Such constructions should include effective protection, guidance and facilitation of migration in order to maximize the successful migration and survival of all species and of all sizes during upstream and downstream movements, in accordance with the targets set in the Pan EU Action Plan for sturgeons and the Baltic Sea Sturgeon Action Plan.

B) Mitigate fisheries impact

Reducing sturgeon bycatch as an impact from commercial and recreational fisheries

Further, urgent conservation measures in fisheries for Baltic sturgeon in all Baltic Sea rivers and river mouth areas and sea basins with documented historic presence of Baltic sturgeons are necessary. These comprise the following actions:

1. Prohibit targeted fisheries for Baltic sturgeon, including recreational activities such as angling. Incidentally bycaught sturgeon must be released immediately to the water and bycatch incidents documented. Baltic sturgeon bycatch should be reported to the relevant scientific institutes involved in Baltic sturgeon restoration (see list);
2. Implement Bycatch mitigation methods in aggregation areas and during peak migration season in order to minimize incidental bycatch of out-migrating sturgeons or fish returning to spawn, by reducing the number of static nets set in the rivers and river mouth areas[1] (by application of alternative, less harmful fishing techniques or by fisheries closures), especially in rivers below the juvenile sturgeon release sites.

RECOMMENDS that actions taken by the Contracting Parties to implement this recommendation shall be reported to the Commission every three years via the HELCOM Expert Group on Sturgeon Remediation (EG Stur), starting in 2026.

[1] Definition of ”river mouth” for the purpose of this recommendation: transitional areas used by fish for acclimatization to be defined on an individual river basis.

Annex 1. Initial list of medium and large rivers that are of importance for migratory fish species including Baltic sturgeon:

River	**Sea basin***
Göta Älv	Kattegat
Odra/Oder with Warta river	Bornholm Basin
Vistula with Drwęca river	Gdansk Basin
Pregolya, Angrapa	Vistula Lagoon/Gdansk Basin
Nemunas with Neris and Šventoji rivers	Eastern Gotland Basin
Venta	Eastern Gotland Basin
Lielupe	Gulf of Riga
Daugava	Gulf of Riga
Pärnu	Gulf of Riga
Narva	Gulf of Finland
Luga	Gulf of Finland
Newa	Gulf of Finland
Volchov	Gulf of Finland

*from HELCOM HOLAS II

Annex 2. List of scientific institutions to be informed about bycatch of sturgeon (and other rare migratory fish species)

Country	**Institution**	**Contact**	**e-mail/Tel No**
Denmark	SNM	Henrik Carl	hcarl@bio.ku.dk
Estonia	Eestii Loodushoiu Keskus	Meelis Tambets	meelis.tambets@gmail.com
Finland	LUKE	Teppo Vahanen	Teppo.Vehanen@luke.fi
Germany	LFA MV	Gerd Michael Arndt Christin Höhne	info@sturgeon.de c.hoehne@lfa.mvnet.de
Latvia	BIOR	Ruta Medne Santa Purvina	Ruta.Medne@bior.lv Santa.Purvina@bior.lv
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Sweden	GU SLU	Johan Höjesjö Mikael Svensson	johan.hojesjo@bioenv.gu.se Mikael.Svensson@slu.se