CLIMATE AND MIGRATORY FISH

PRIORITY AREA 4 „WATER QUALITY“

Interreg Programme Danube Region

12th Annual Forum of the
EU Strategy for the Danube Region
24-25 October 2023, Brdo pri Kranju

Migratory Fish - Key facts

- The populations of migratory freshwater fish species have plummeted globally by 76% on average since 1970, including a 93% collapse in Europe.
- According to the International Union for Conservation of Nature (IUCN) over 85% of sturgeon species are classified as being at risk of extinction, thereby making them more critically endangered than any other group of species
  - European Red Lists of Threatened Species (IUCN) - 8 European sturgeon species, 7 of which are listed as critically endangered

Migratory Fish - Key topic

- Migratory fish species are extremely exposed to **human activities**; these are mainly:
  - hydropower generation,
  - hydromorphological alterations and barriers construction,
  - pollution (both from urban settlements and industrial activities)
  - overfishing

  plus
  - **Climate change**: decrease in river flow, higher temperature (in summer), less precipitation (in winter)

- ICPDR adopted **sturgeons** as a flagship species (2016): restore fish migration and maintain precious fish species (e.g. sturgeon) for future generations
  - Danube Sturgeon Task Force (DSTF) (2012) - implementation of the 'Sturgeon 2020' programme

Policy and legislative tools

- Water Framework Directive 2000/60/EC - improvement of environmental conditions for all flora and fauna
- Habitats Directive 92/43/EEC - conservation of natural habitats and of wild fauna and flora
  - Natura 2000 - ecological network of protected areas
- Pan-European Action Plan for Sturgeons (2018)
- EU Nature Restoration Law (work in progress) – to restore 25,000 km free flowing rivers

PA4 Action Plan

MIGRATORY FISH: Promote measures to enable fish migration in the Danube River basin

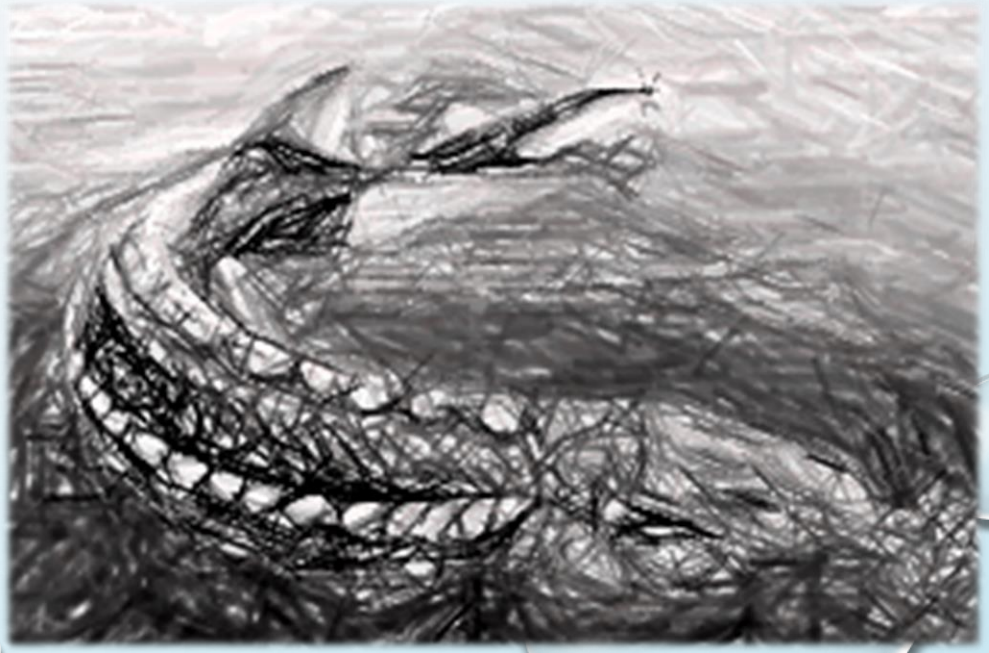
- Raise public awareness and political commitment for the Danube sturgeons as flagship species for the Danube River basin
- Foster sturgeon conservation activities including protection of habitats, restoration of fish migration routes and ex-situ conservation measures
- Close knowledge gaps concerning monitoring of pressures and planning of measures for fish migration in coordination with PA 6

CLIMATE CHANGE: Promote measures to adapt to climate change impacts in relation to water quality and quantity

- Implement water quality measures (ICPDR River Basin Management Plans and ICPDR Strategy on Adaptation to Climate Change)
- Promote concrete measures to control water quantity (abstraction and groundwater overexploitation)
- Promote the establishment and maintenance of green infrastructure and natural water retention measures (NWRMs)
- Raise farmers' awareness about the importance of soil moisture and soil water retention capacity in soil fertility under changing climate conditions

PA4 activities

- Fish Migration Restoration Document, December 2022 https://waterquality.danube-region.eu/fish-migration-restoration-document/
- Ship noise and water wave measurement on the Hungarian section of the Danube, December 2022 https://waterquality.danube-region.eu/ship-noise-and-water-wave-measurement-on-the-hungarian-section-of-the-danube/
- Animated film, December 2022 https://waterquality.danube-region.eu/why-is-it-a-challenge-to-be-a-migratory-fish-species
- Fish Migration Working Meeting, October 2022, Bratislava https://waterquality.danube-region.eu/fish-migration-restoration-working-meeting/
- Promoting measures to enable fish migration in the Danube river basin, December 2021, https://waterquality.danube-region.eu/promoting-measures-to-enable-fish-migration-in-the-danube-river-basin/
- Danube cards, December 2021, https://waterquality.danube-region.eu/danube-cards-are-available-online/



Planned:

- Fish Migration Working Meeting, spring 2024 (Bratislava) co-organised with LIFE-Living Rivers project

Contribution of Danube Strategy (PA4) – vision and plans

- Promote site-specific research at international level to specify the technical parameters and reliability of fish passes capacity for various migratory fish species, including sturgeons
- Facilitate the development of feasibility studies and construction of fish passes in the Danube barriers, e.g. Iron Gate I and II, Čunovo, Gabčíkovo HPP, Dunakiliti
- Promote a study on re-establishment of migration routes for sturgeon species and reconnection of its floodplain habitats

- Support the project ideas on migratory fish species protection, biodiversity restoration, fish passes construction
- Continue activities on raising public awareness on migratory fish species

- Maintain cooperation with EUSDR PA5 (environmental risks) and PA6 (biodiversity) and relevant stakeholders (ICPDR, GWP CEE, WWF, etc.)

...and more...

Thank you for your attention

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