

Bycatch Mitigation Workshop 2024 Summary Report

Dates: Wednesday the 4th and Thursday the 5th September 2024

Location: INRAE, 50 avenue de Verdun, Cestas

Overview

Bycatch remains one of the major threats to sturgeon populations across the world, due to their late maturation and longevity. The impact of bycatch has the potential to cause devastating effects to threatened and recovering populations if mitigating measures are not implemented. Bycatch also offers the only information we have about distributions in the marine environment for many sturgeon species and is therefore valuable data. However, it often goes unreported, leaving sturgeon experts with little understanding of capture, mortality, and return rates, as well sturgeon distributions.

In response to these challenges, a Bycatch Mitigation Workshop was organised with the following aims:

1. *Share knowledge and experience for mitigating impacts of bycatch (both with sturgeon and other species)*
2. *Facilitate regular exchange of knowledge, data, and resources*
3. *Identify ways to collaborate internationally*
4. *Set regional targets for bycatch reduction*

Sturgeon experts from around the world were invited to attend and present their insights or experiences with bycatch. There were 14 presentations in total covering a range of topics and regions including the Northeast Atlantic, the Baltic Sea, US Pacific coast, Black Sea, Danube, and North Sea. With permission from the authors, the presentations have been uploaded in PDF form to the sturgeon week website (<https://sturgeonbx24.sciencesconf.org/>) and can be accessed there.

Discussion

The final session of the workshop was a discussion session, in which attendees broke up into smaller groups to discuss the following questions, which were then fed back to the wider group. The responses below summarise the points raised for each question.

1. *How can we improve the collection of bycatch data?*
 - Building trust with fishers
 - Transparency about how the data will be used
 - Give timely feedback to fishers
 - Create a group of champions of fishers who can be advocates within their networks
 - Create joint ownership of data collection process between researcher and fishers

- Clarifying the rights to use the data and who has access
- Technical simplicity
 - Developing an app that can be used on the go, and can give immediate feedback such as species ID
 - An app can also give information about what to do
- Other ideas
 - Start crowdfunding to keep the project running
 - Use a spokesperson, like a movie star, to acknowledge the fishers and their knowledge

2. *What partnerships could be formed to improve collaborative efforts?*

- Fishers and researchers should work closely together to collect the data, etc.
 - Together, they should propose management strategies to the government, which creates regulations
- NGO's then work with fishers and researchers to follow regulations
 - Communicate findings to citizens through strong communication
- The following tables shows where partnerships can benefits data collection, communication, management, funding, and regulations

| | Data collection | Communication | Management | Funding | Regulations |
|-------------|-----------------|---------------|------------|---------|-------------|
| Government | X | X | | X | X |
| NGO's | X | X | X | X | X |
| Fishers | X | | X | | X |
| Citizens | X | X | | X | |
| Researchers | X | | X | | X |

3. *Are there options to harmonize protection measures for different species?*

- Connect with others groups and projects, such as ICES groups, and learn what they are already doing
- Ensure mandatory recording of PET species
 - Common fishery policy obligates reporting on large ships, which will include pictures and videos
 - Need to be able to use these pictures and videos in order to link the gear, species, location, time
 - Small vessels must still rely on voluntary reports of bycatch
- Fishery independent data is needed to model rates of bycatch, and accurate mortality rates caused by bycatch.

4. *What kind of recognition or incentive could be used to increase buy-in?*

- Developing trust with the fishing community is the first step

- Understanding what the community needs is essential overall, and when offering incentives for reporting
- Using national and cultural pride can be beneficial to make people interested in protecting sturgeon and reporting catches
- Ensuring there is feedback once a fisher has reported
- Stressing the importance of accurate reporting can be an incentive to report
- Agreeing to help fishers battle against large scale fishing, which will encourage trust and more reporting
- Financial compensation is complex
 - Paying people for reports of sturgeon can lead to targeting sturgeon when fishing
 - Other financial incentives could be tax-related
 - Lottery system could be used (if you report, you get entered into a lottery draw)
- Recognition
 - Recognition in media – social media or local newspaper – can be an opportunity for promotion

Summary conclusions

Biggest contributors to bycatch

- Coastal and estuarine fisheries
- Set gill net, large mesh, targeting benthic fish e.g. monkfish
- Soak time of more than 24 hours

Bycatch data

- No official collection of bycatch data throughout the range countries despite existing obligations (except Finland)
- Data sources depend on voluntary reports and project related contacts
- Voluntary reports provide limited overall picture (no information on zero catches, unreliable reporting)
- The impact of bycatch upon recovery measures is unknown
- Development of model approaches to assess impact are not yet available (lack of fishery independent data)

Fishers attitudes

- Working with fishers requires long term interaction in order to build trust
 - No short results
 - High staff investment
 - Little presents open doors



- Increasing restrictions in fishing regulations create constraints and increased workload for fishers
- Mistrust between fishers and authorities is a key challenge due to fear of negative outcome for their livelihoods

Technical issues

- Fishermen prefer simple reporting procedures
- Multiple contacts for reporting help to increase feedback!
- Cell phones are widely available and provide a great tool (app)
- Mainly younger sturgeon are reported (regionally?)
- Verification by experts needed to identify species, especially hybrids

Fisheries closures

- Openly communicating planned processes with fishers is paramount to include them in the decision-making process
- Developing alternative income activities with local communities can be necessary but has limited effect depending upon the overall regional socioeconomic situation
- Transition to alternative activities is a long process and requires a lot of bureaucratic work and relieving fishers fears
- This process is important, as it builds trust and creates positive spirit
- Effect on reduction of poaching or increase of bycatch-releases remains to be demonstrated
- To address bycatch fishery by fishery, simulating interactions with sturgeon through seasonal patterns and mapping distributions is a useful exercise, and can avoid unnecessary closure

Helpful resources

The below bycatch related resources were referenced or mentioned in the presentations, and have been compiled here for ease of access:

- Bycatch SCUTE report
- Incidental catch of vulnerable species in Mediterranean and Black Sea fisheries - A review (<https://openknowledge.fao.org/items/f0de9527-c8a1-452c-9f53-a4e7b03c0e33>)
- Bycatch in Baltic Sea commercial fisheries: High-risk areas and evaluation of measures to reduce bycatch (<https://helcom.fi/wp-content/uploads/2021/11/Bycatch-in-Baltic-Sea-commercial-fisheries.pdf>)
- Evidence for Trafficking of Critically Endangered Sturgeon in the Lower Danube Region (<https://danube-sturgeons.org/wp-content/uploads/2021/04/Market-survey-web.pdf>)



- Sturgeons in the Black Sea (<https://openknowledge.fao.org/server/api/core/bitstreams/1c52f867-8b49-4b7a-8d2c-88bb944b4e0d/content>)
- Bycatch Mitigation Hub (<https://www.cleancatchuk.com/hub/>)
- Poaching of Sturgeon: still a continuing threat to the survival of wild sturgeon in the lower Danube Region (https://www.wwf.at/wp-content/uploads/2024/08/Poaching-of-sturgeon_EN_low-res_final.pdf)
- Sturgeons and Caviar: The basics of legal caviar trade (https://wwfint.awsassets.panda.org/downloads/caviar_brochure_eng.pdf)
- Fighting Wildlife Crime: Danube sturgeons – European and international legal framework for sturgeons protection (<https://danube-sturgeons.org/wp-content/uploads/2020/10/Brochure-Legal-Framework-for-Sturgeon-Protection-1.pdf>)
- How to Handle and Release Sturgeon Safely (https://danube-sturgeons.org/wp-content/uploads/2020/08/ENG_How-to-Handle-Poached-Sturgeon.pdf)
- Sturgeon Identification Guide (<https://danube-sturgeons.org/wp-content/uploads/2020/04/Brochure-Sturgeon-Identification-Guide.pdf>)
- Sturgeon ID Training Video (<https://www.youtube.com/watch?v=8-As8zISvTQ>)
- Reduction of unwanted bycatch of cod in trawl nets (<https://www.thuenen.de/en/institutes/baltic-sea-fisheries/fields-of-activity/research/fisheries-and-survey-technology/reduction-of-unwanted-bycatch>)



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