

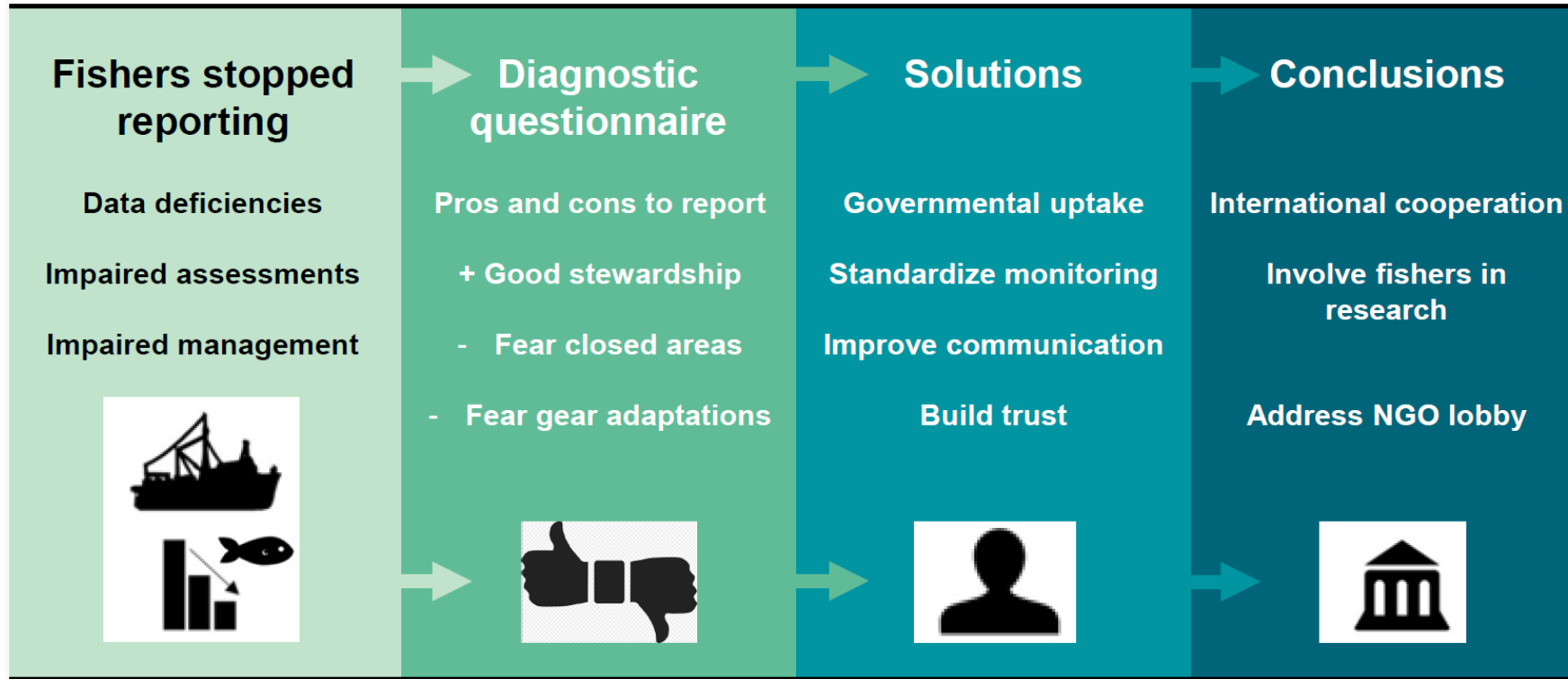
Fishers' willingness to report incidental bycatches of endangered, threatened and protected fish species: The case of European sturgeon in the Northeast Atlantic Ocean

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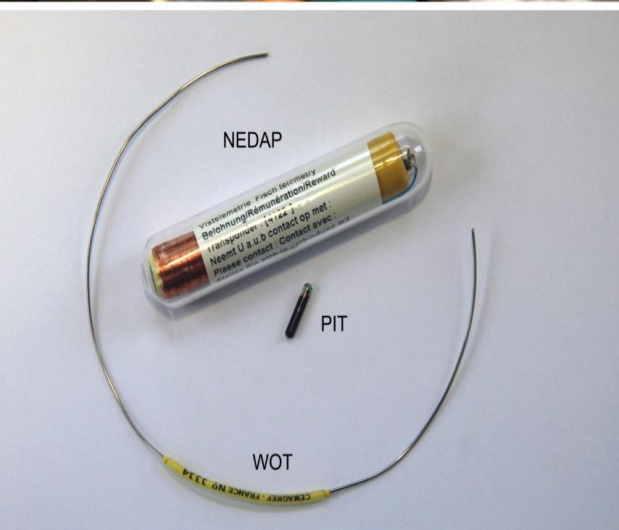


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Background. Why this study?

We released a total of 161 sturgeons between 2012 and 2022 in the **river Rhine and 250 this year**. All fish moved into the sea within one month. To learn what happened to them in the **North Sea** we need bycatch reports.



Geef trekvissen de ruimte!





Bycatch

Since ca. 1950s → Fisheries providing bycatch data for decades

In 2020 → Sudden stop in reporting in FR and NL

Research questions

What has caused fishers to stop reporting sturgeon bycatch and what is needed to restore their willingness to report again?

Als u een **beschermde Europese steur** vangt:



1. Noteer **lengte, gewicht, datum** en **locatie** van de vangst
2. Als de steur een **merkteken** heeft: laat dit zitten en noteer het merknummer
3. Maak een **foto** van de vis en het eventuele merkteken
4. **ZET DE STEUR TERUG IN HET WATER**
5. **Meld de vangst** via steurwvf@gmail.com, Wageningen Marine Research of bel 06 22257387



Dank voor uw oplettendheid en hulp!

Materials and Methods

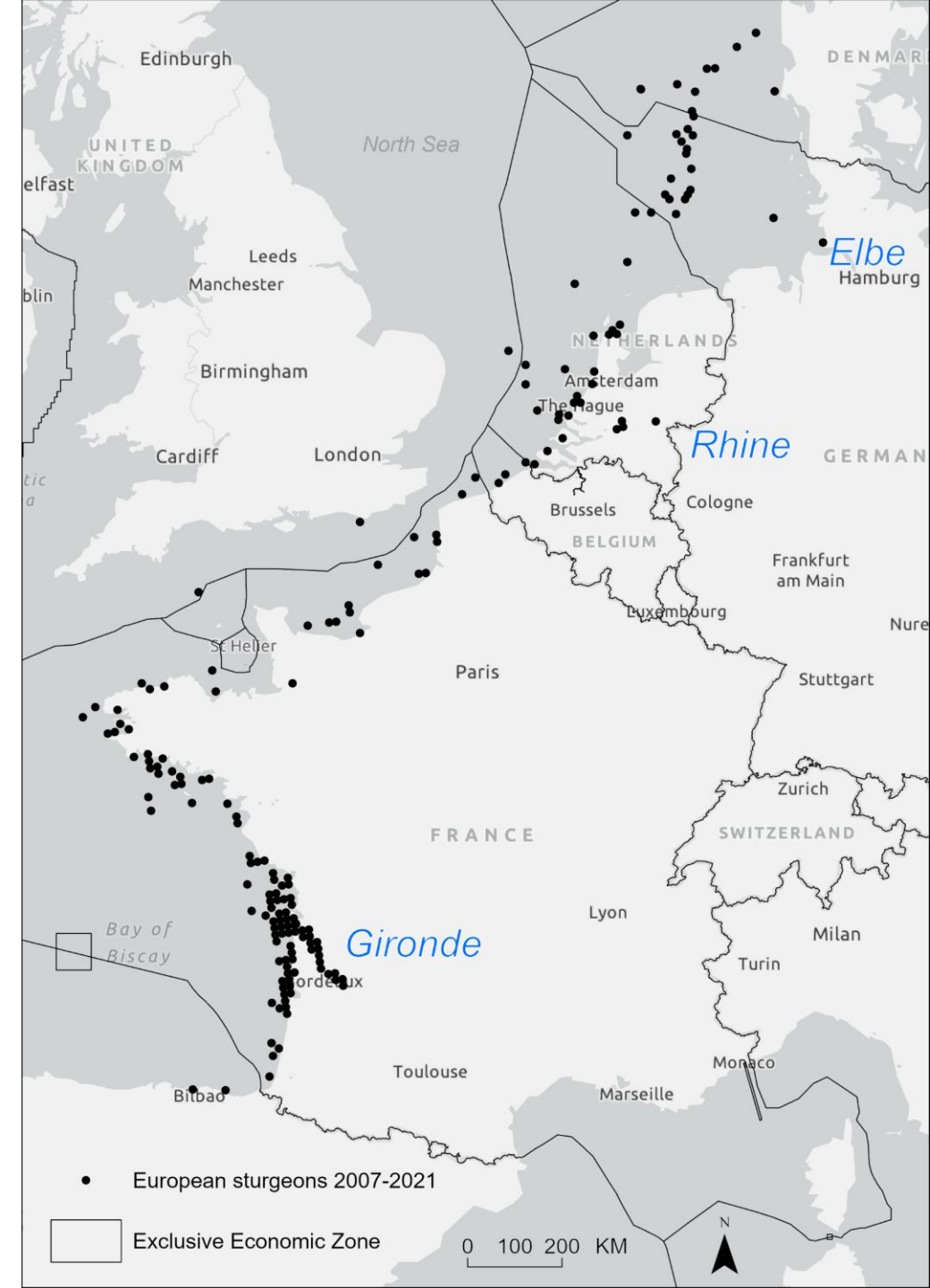
Study area and group of interviewees selected from: **FR**, **NL**, DE, UK – based on capture reports in STURWILD, IGB, ARK, and WMR, until 2021.

Semi structured interviews with 5 stakeholder groups.

N.B. It was difficult to find interviewees. In France we found fishers willing to talk via CAPENA. In the Netherlands via snowballing.

Table 4.1 Number of interviewees per stakeholder group per country.

Country	Fishers (fis)	Fisher representatives (fre)	Researchers (res)	NGO representatives (ngo)	Governmental representatives (gov)
France (FR)	5	2	2	1	1
The Netherlands (NL)	12	3	2	3	1
United Kingdom (UK)	1	0	1	1	
Germany (DE)	0	0	1	0	
	18	5	6	5	2



Pros/benefits of reporting rare bycatch. Reactions per stakeholder group: Why do/should fishers report?

Fishers

Reporting expresses 'good stewardship' of the marine environment.

Fishers' organisation

Indication of bond between fishers and other stakeholders.

NGOs

Shows fishers take responsibility for a healthy ecosystem.

Research institutes

Essential data for population assessment & monitoring distribution.

National governments

Useful for making management decisions.

“That’s our job, not only catching the fish, it’s also caring for nature” (fisher).

“Since you catch something special, you just report it. If no one brings these fish up, the scientists will be unable to find them.” (fisher).

“They show that fishers take responsibility for the population’s well-being” (governmental representative).

“A very good indicator of the relationship, the bond, you create with the fisher” (fisher representative).

Cons/drawbacks of reporting rare bycatch. Reactions per stakeholder group. Why do/should fishers report?

Fishers & Fishers' organisations

- No inherent economic profit.
- Takes time (costs money).
- May create severe problems for fishers, such as closed areas and forced gear adaptations and restrictions.

NGOs

Lacking declarations of dead sturgeons are misleading.

Research institutes

No cons.

National governments

No cons.

“Researchers and NGOs are working too little with fishermen even if it’s fishermen who know a lot about the sea... I’m often treated like a criminal” (fisher).

“I know you can report it, but (fishers) are pretty careful about it. Everything you say is used against you” (fisher).

“.. Dead sturgeons are never reported... Catch declarations are as useful, as they are misleading” (NGO).

Communication... *“For me that was the indication that the North Sea is doing better. I didn’t know it was because of a programme” (fisher).*

Basically, fishers (most of them) feel a responsibility for the sea and its natural resources and are inclined to report rare bycatch.

However, they have stopped reporting because of several reasons:

- Fishers **experience difficult economic circumstances** and feel that the sea is taken from them through **closure of fishing grounds** (e.g. wind farms, natura 2000 areas).
- Fishers feel **misunderstood** as their knowledge and expertise is not recognized, and they are not involved in planning.
- Fishers feel **threatened** by NGOs who use iconic species in their communication strategies to reduce fishing possibilities.

Another issue → Different roles of stakeholder groups differ, also per country...

Stakeholder groups' relevance to bycatch reporting and their (current) role in European sturgeon conservation.

Stakeholder group	Reports on sturgeon bycatches	Current role in sturgeon conservation
Fishers	Fishers bycatch reports are highly useful to researchers and policy makers. Good handling of the fish on deck (and careful release) will save individuals of a rare species.	Eyes and ears (and hands) at sea. Potentially impacted by restrictions determined by the sturgeon conservation. Not directly involved in sturgeon Action Plans / conservation.
Fisher organisations	Main communication channel to and from fishers. Represent the interests of fishers. May inform fisheries-management on bycatch mitigation of ETP species.	Manage eventual restrictions determined by the sturgeon conservation. Voice to evaluate the fisheries management measures from a fishers' perspective. Not directly involved in sturgeon Action Plans / conservation.
Research institutes	Collect, collate and analyse bycatch data. May use data to assess ETP species' populations, spatiotemporal distributions, and advice on sustainable fisheries management measures.	Main drivers of sturgeon conservation in France (since 1980) and Germany (since 1990).
NGOs	Use bycatch data and research outcomes in their respectful (to other actors involved) communication strategies to lobby for adaptations in fisheries management measures.	Main drivers of sturgeon conservation in the Netherlands (since 2010) and the United Kingdom (since 2015).
National governments	Use bycatch data and research outcomes and translates advice into fisheries management measures in collaboration with other countries to rehabilitate these ETP fish species in European waters.	Responsible for the restoration of ETP species and therefore of the (sturgeon) conservation programme. Government is only in France actively involved in European sturgeon conservation. European collaboration and coordination would be extremely helpful for the national governments involved.

All four **core aspects** for fisher's cooperation in ETP (PET) species conservation are hampered.

Shared vision

Clear role separation

Communication

Trust



Ways forward

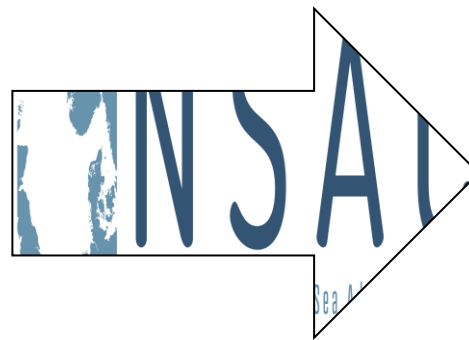
Three **pragmatic solutions** may improve fishers' cooperation potential:

1. Involve fishers in sturgeon conservation activities and research, make clear what is in it for fishers, and thus build trust between fishers and researchers
2. Improve completeness, accuracy and speed in fishers reporting incidental bycatch through technological means and social media
3. Solve trust issue, especially between fishers and NGOs.



Ways forward

Put the topic on the agendas of the **North Sea Advisory Council & Scheveningen Group North Sea**



HIGHLIGHTS / SUMMARY

- Fishers' reporting of bycatches are crucial for management of ETP (i.e. PET) species.
- Fishers fear that bycatch reports of ETP fish species will be used against them.
- All core aspects for fishers' cooperation for bycatch reporting are hampered.
- European sturgeon conservation activities are driven by NGOs and scientists.
→ Not by fishers / fishers' organisations, or governments.
- More involvement of governmental bodies would strengthen the action plans.



Sturgeon conservation requires a collaborative approach.

