

Rhine sturgeon project

Bram Houben - ARK
Niels Brevé – Sportvisserij NL
Bas Roels - WNF
Ernst Schrijver - ARK
Menno de Ridder - LNV



Supported by





Rich nature



Water-safe nature



ARKademy



Invest in rewilding



Wild sea and coast



Nature without borders



Six spearheads of ARK

About me..

Experience with:

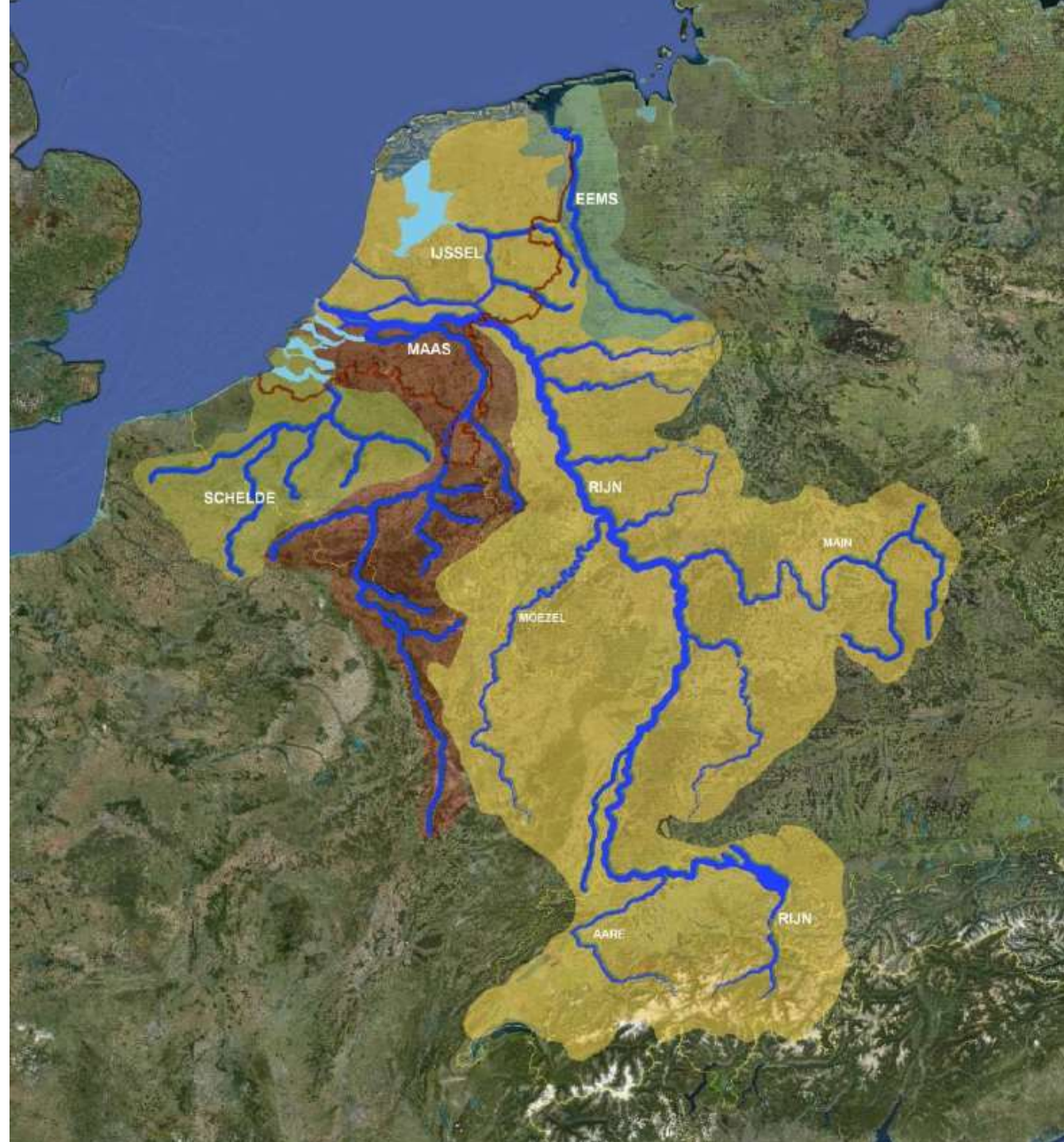
Large carnivores and herbivores

Fish migration

Natural processes

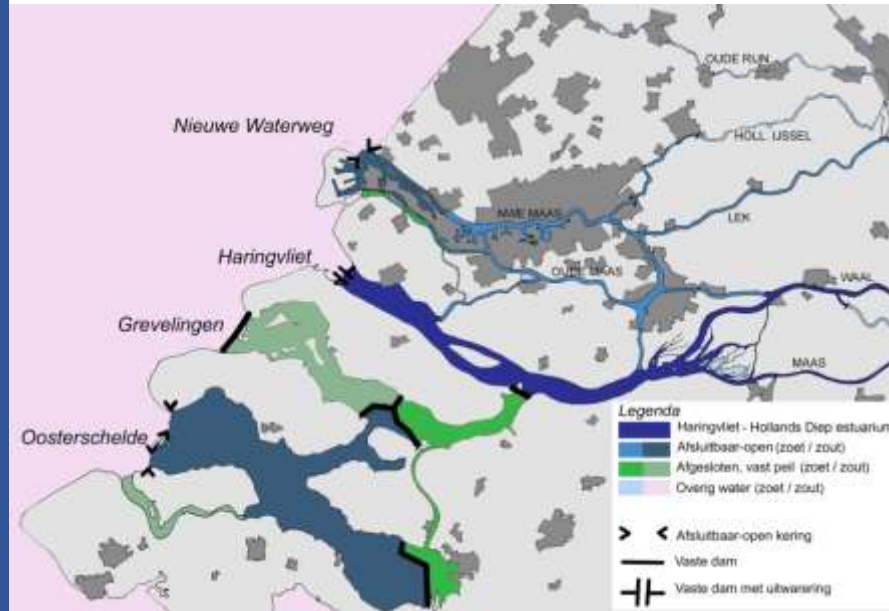


The Dutch Rhine delta



The Dutch Rhine delta





- The estuary of the Rhine, Scheldt and Meuse
- Average combined flow ca. 2500 m³/sec
- Urban area with 15 million people
- Safety issues



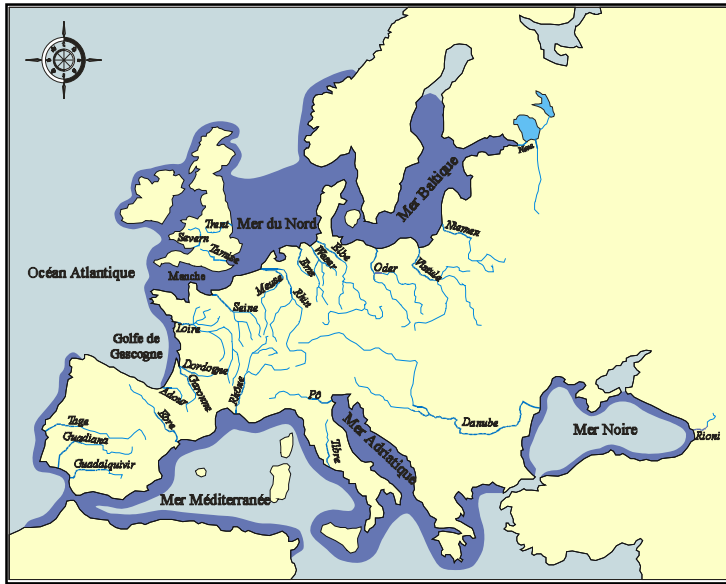
European sturgeon - Rhine

Until the beginning of 20th century
Rhine also an important river for sturgeon

Overfishing, pollution, river correction...
1952: last sturgeon of the Rhine

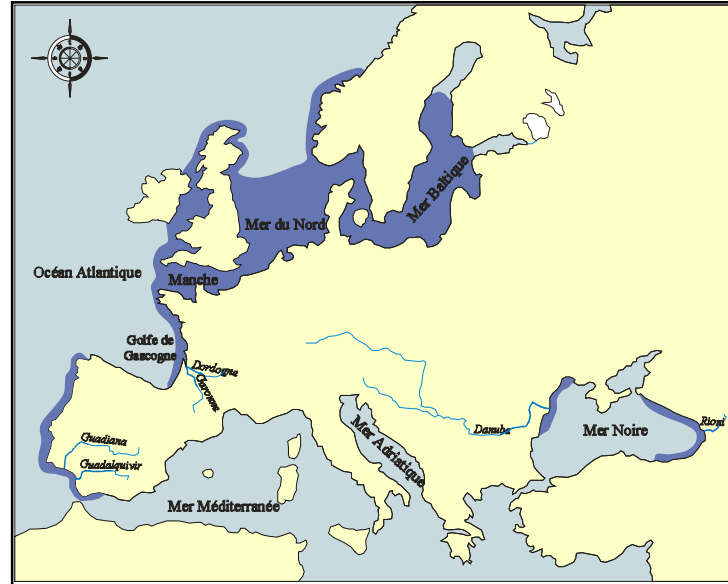






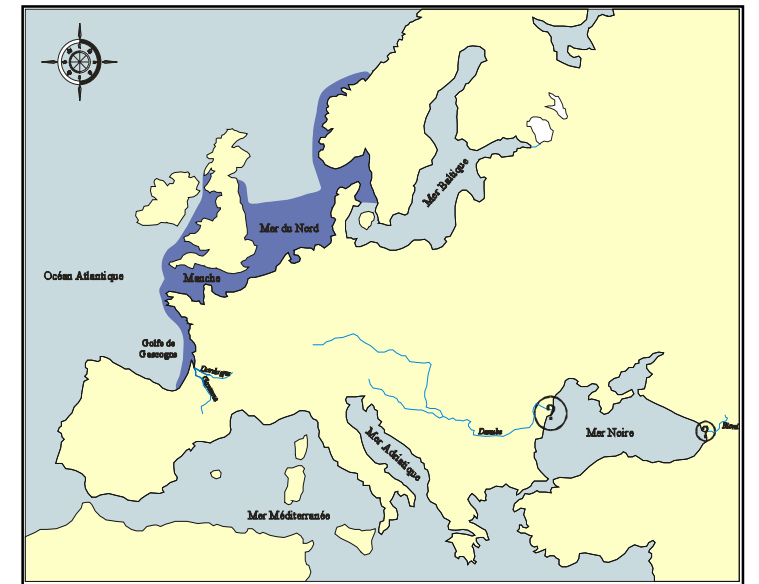
1850

- Several populations in large river bassins (Rioni, Danube, Ebre, Guadalquivir, Guadiana, Garonne, Seine, Rhine, Elbe)
- Distribution area : Black Sea to Baltic Sea



1950

- One population left (Gironde Garonne Dordogne basin)
- Distribution Area : Gascogne Gulf to North Sea



2022

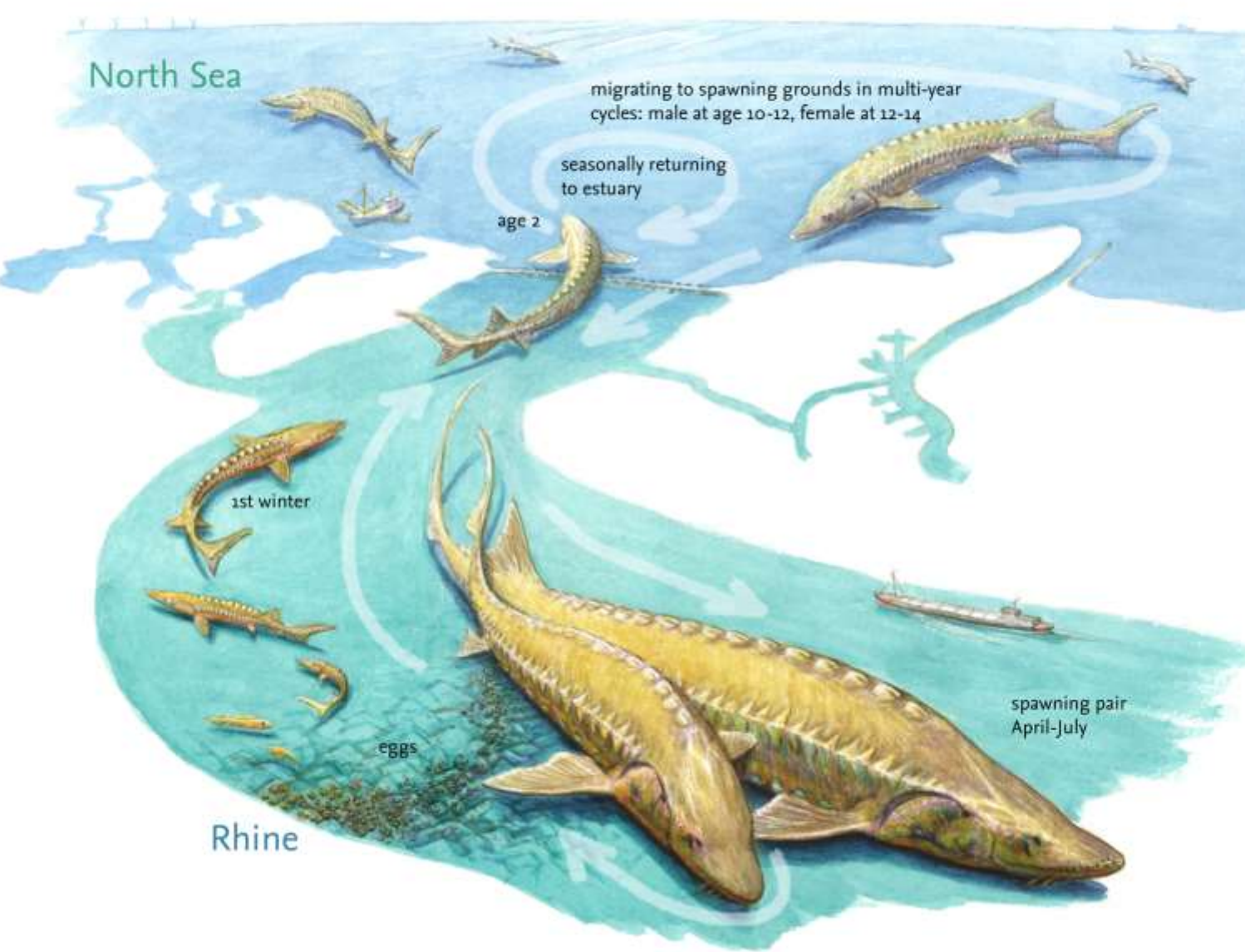
International projects

- Irstea, CNPMEM, Migado, France
- IGB, Berlin



- Reproduction succes 2007 - 2014
- Start of large scale releases in the Gironde
- Start in river Elbe
- **New reproduction in 2022!**
- Hope for the European sturgeon!





15 days old
1,5 cm long

63 days old
5 cm long

3.5 months old
15 cm long

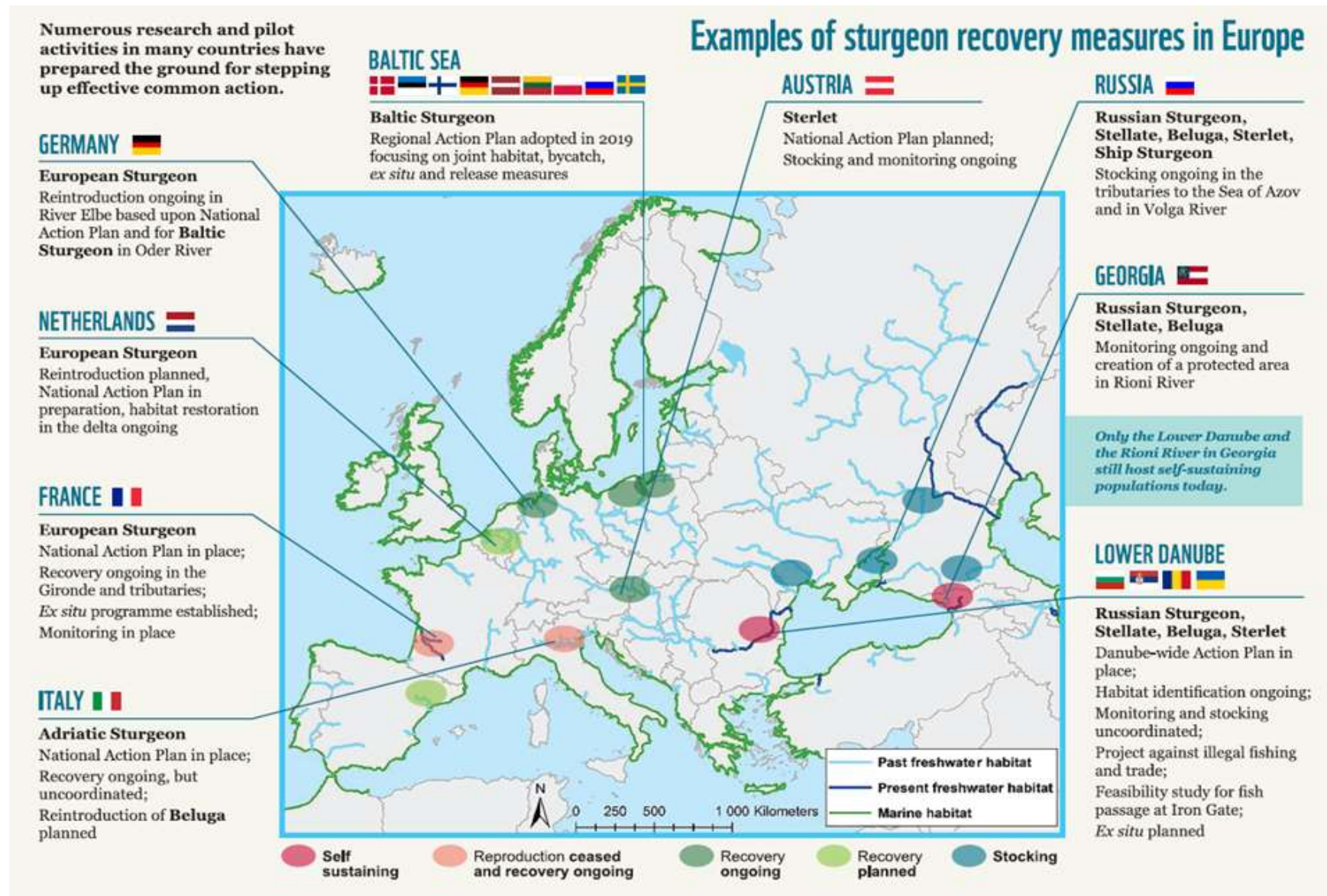
1 year old
30 cm long

1.5 years old
50 cm long

10 years old
100 cm long



Life cycle European sturgeon (*Acipenser sturio*) Rhine river basin



Pan-European Action Plan for Sturgeons, 2018 & Bern Convention)



Examples of sturgeon recovery measures in Europe

ARK
NATURE



Sportvisserij
Nederland

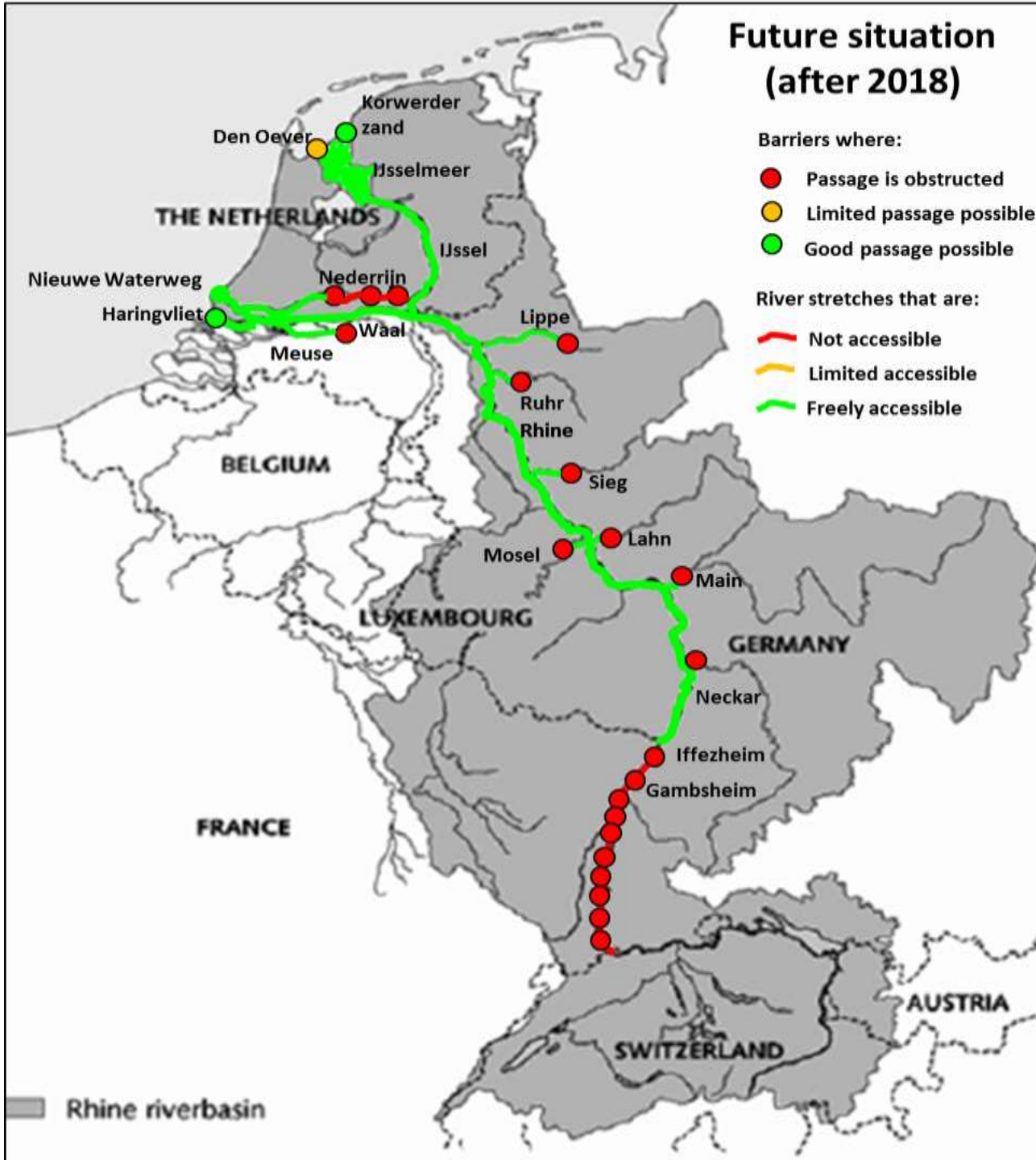


IGB
Leibniz-Institute of
Freshwater Ecology
and Inland Fisheries



Rhine project

European sturgeon - Potentials Rhine

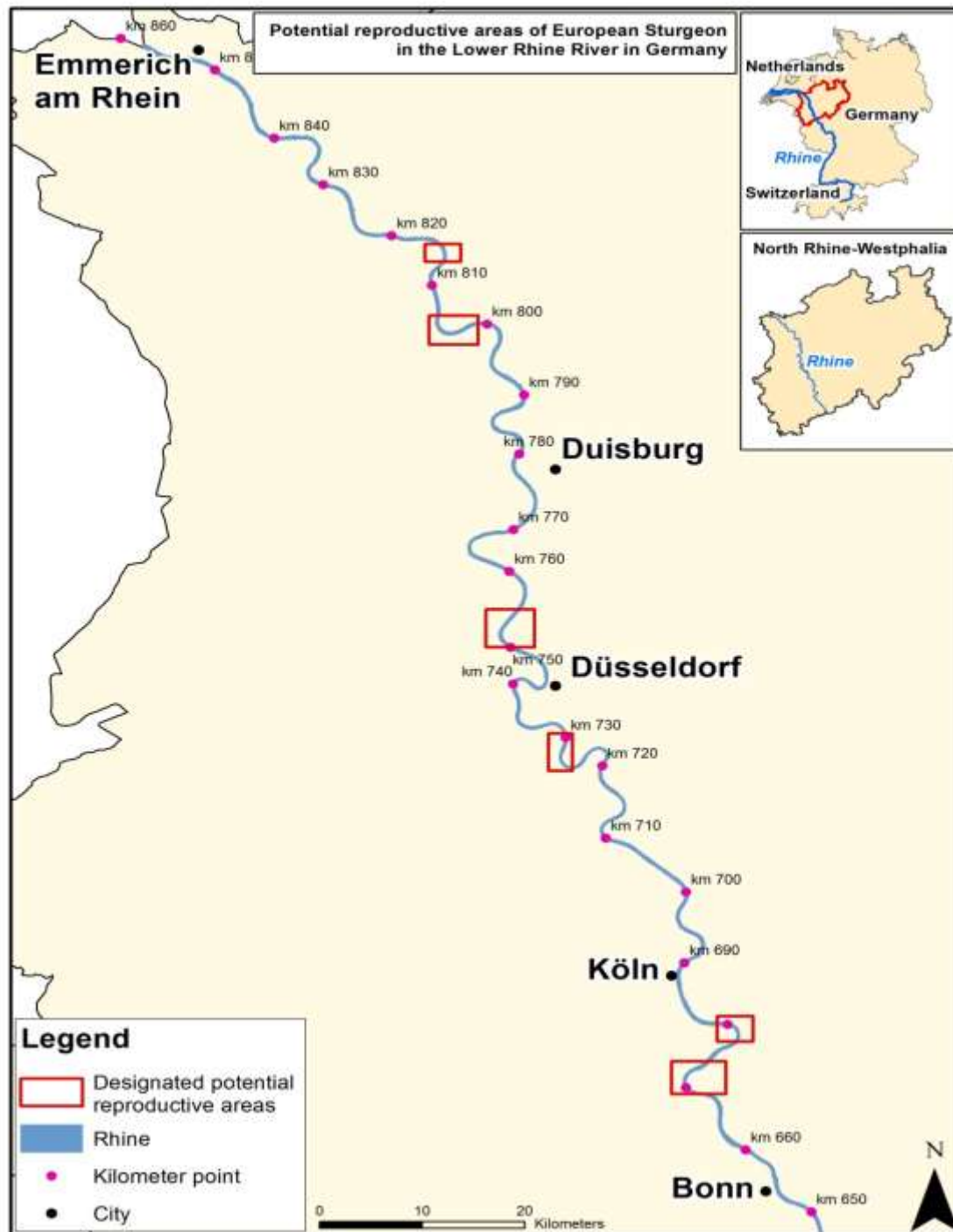


➤ freely accessible

➤ the Rhine up to Iffezheim (>800km) and small sections of the tributaries are accessible

➤ Potential spawning grounds

European sturgeon - Potentials Rhine



- Potential spawning grounds NRW (33%)
- 6 hot spots

European sturgeon – Research

Set up of the research pilot

Migration study (2012-2015)

Release of 47 sturgeon (2 times)
Selected by Irstea

Age: cohort 2007 & 2009

Weight: 1350 – 2450 gr

Length: 50 – 70 cm

Nedap transponders



European sturgeon – Research

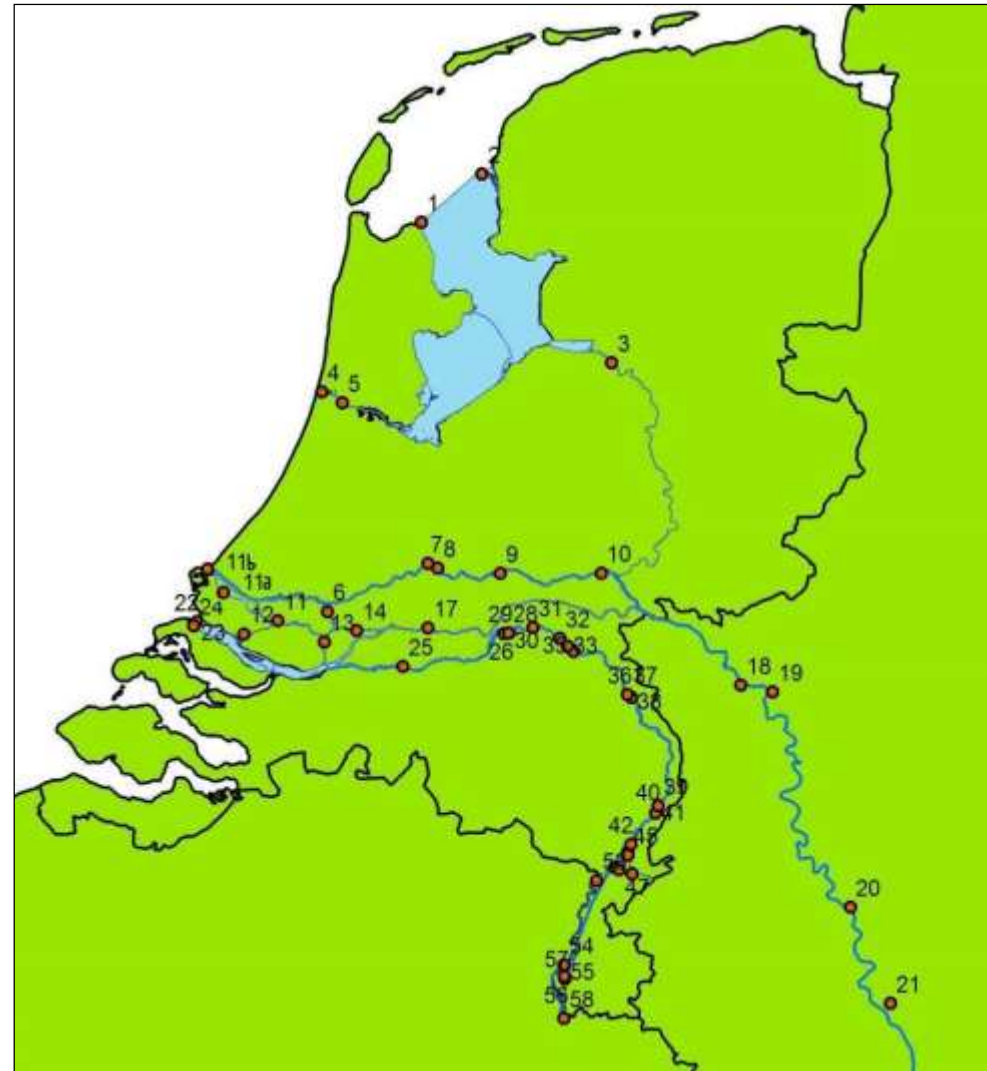
NEDAP system

38 NEDAP TRAIL System detectiestations

+/- 4 year of battery life

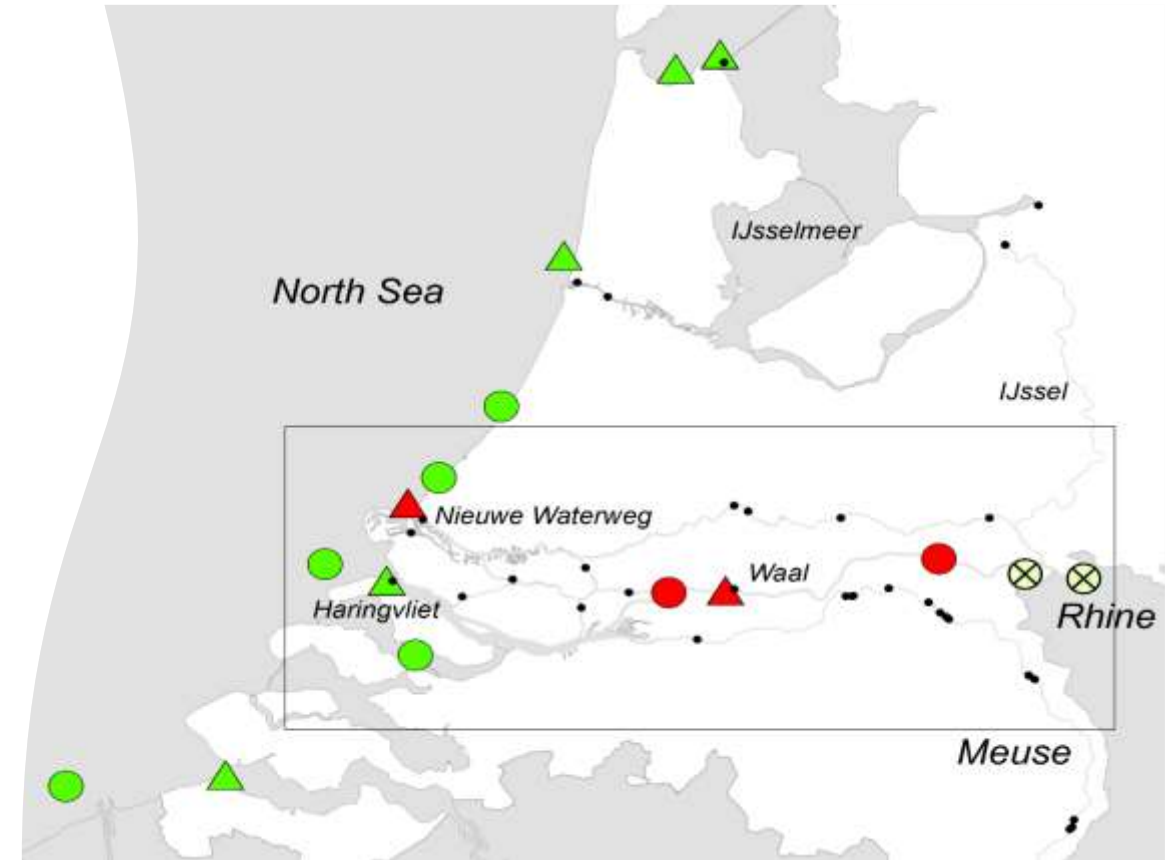
Transponder: 26 gr - 7 cm

External tag



European sturgeon – Research

Migration trajet; main flow of the river
By catch in trawl fishery





Polychaeta



Oligochaeta



Decapoda

Food availability juvenile sturgeons (< 2 year) in the delta (study ATKB)



Isopoda

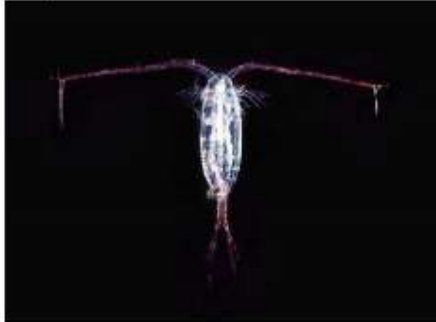


Amphipoda



Mysida

Mainly small soft bodied benthic organisms



Copepoda

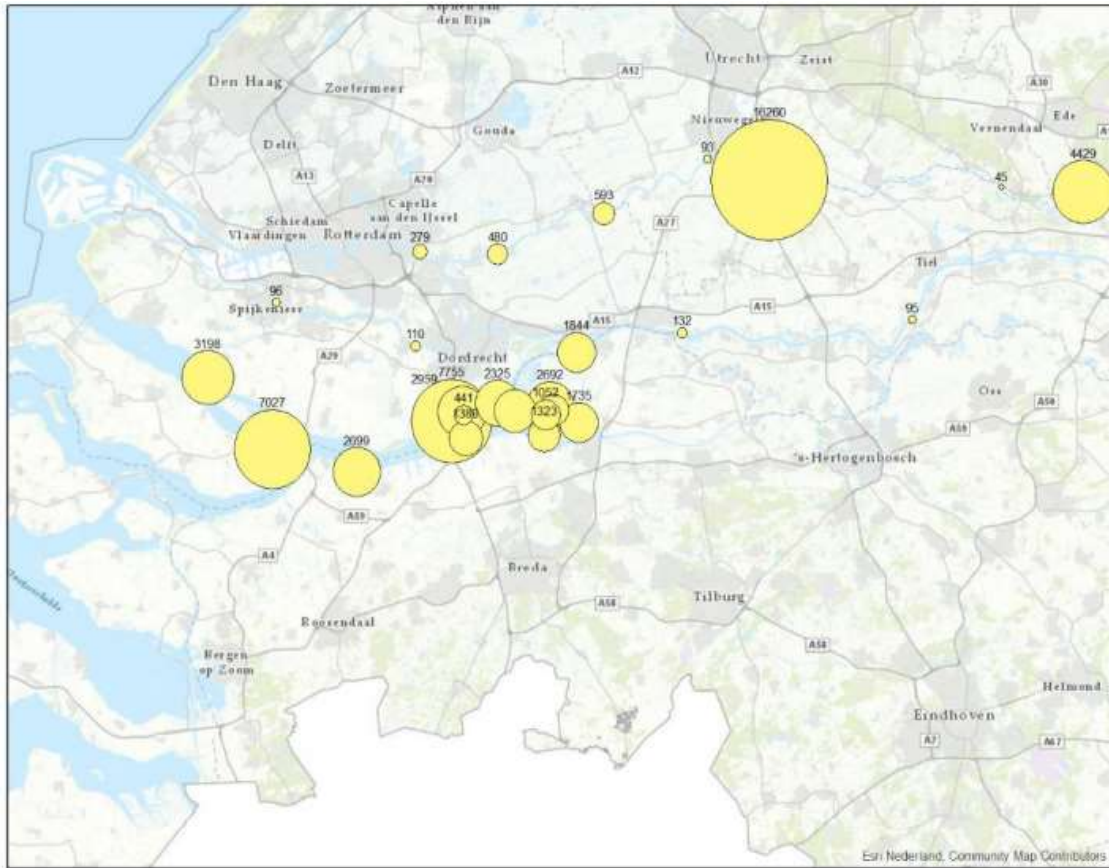


Chironimidae



Artemiidae

Foto 1 De belangrijkste voedselorganismen voor juveniele Europese steur (Foto's: Hans Hillewaert (CC BY-SA 4.0) en Micha Mañas (CC BY 2.5)).

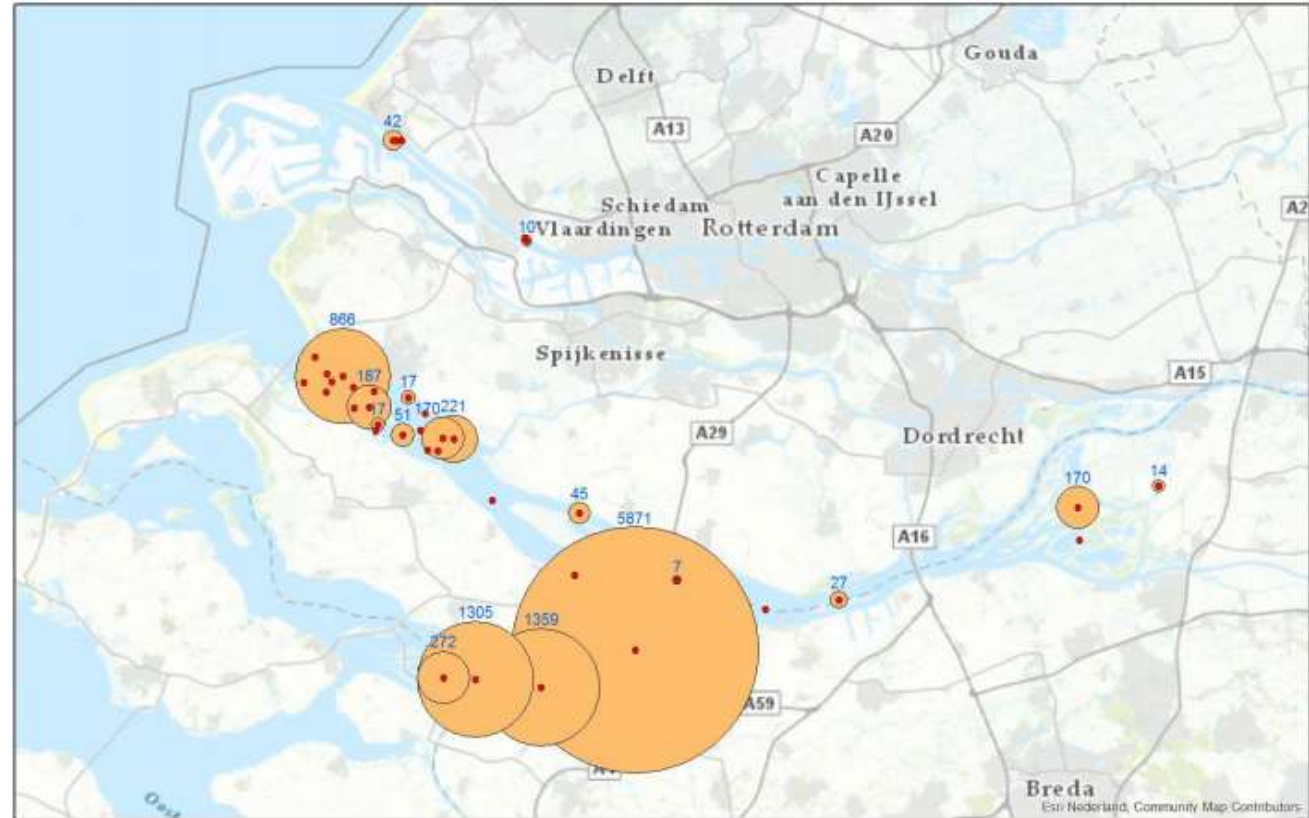


Above: distribution of Oligochaeta

Right: distribution of Isopoda

Hotspots (10 000 / m²)/ clustering of macrofauna in the delta identified

Interesting foraging areas for young sturgeon



Sturgeons adaptable; exotic macrofauna as potential food

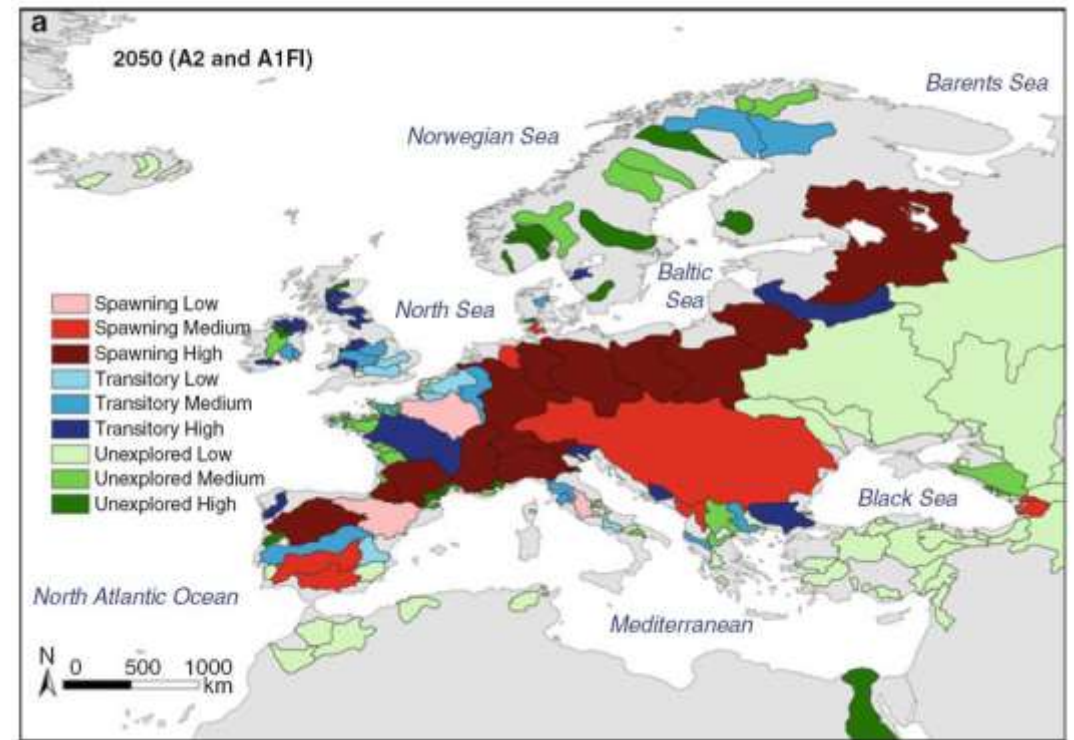
Food availability: **good** for sturgeons and benthic fish species

Experimental releases (2012 and 2015)

- Majority reach the North Sea
- Following the main flow

Literature studies and GIS analyses

- Food availability along the coastal areas of the southern North Sea and in lower section of Rhine Basin > Good
- Juvenile habitat available
- Rhine seen as climate proof river for sturgeons



Suitability for reintroduction

Come back of the sturgeon

- 50th anniversary of WWF the Netherlands
- A lot of positive attention in the press!



STEUR
 Vijftig Franse steuren mogen het in Nederland proberen. Het meesdeel gaat bij Eekeren op de Kalfwaard in.

Tweede kans Atlantische steur
 De Franse steur is een van de laatste overgebleven soorten van de Atlantische steur. Het is een zeldzaam soort dat in Nederland wordt geïntroduceerd. De steur wordt geïntroduceerd op de Kalfwaard bij Eekeren. Dit is een gebied dat geschikt is voor de steur. De steur wordt geïntroduceerd op de Kalfwaard bij Eekeren. Dit is een gebied dat geschikt is voor de steur. De steur wordt geïntroduceerd op de Kalfwaard bij Eekeren. Dit is een gebied dat geschikt is voor de steur.

Maandag 14 mei 2012 | **nrc** **next**

Straks heb je driehonderd kilo aan de haak

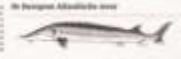
Zeldzamer dan de panda en ouder dan de wal in en diep, weg waren ze, naar de bodem van de rivier.

De vijftig steuren hebben in hun buikholte een transponder van ca. 10 centimeter lengte, aangebracht door Generaal de Laak van Sportvisserij Nederland. Hij heeft alle vijftig steuren in Bordenes gesproken. De zeldzame vissoort wordt geïntroduceerd op de Kalfwaard bij Eekeren. Dit is een gebied dat geschikt is voor de steur.

Rijn is klaar voor de koning der vissen: de steur

De Rijn is schoner geworden. Tijd dat de meest zeldzame vissoort terugkomt. De steur wordt geïntroduceerd op de Kalfwaard bij Eekeren. Dit is een gebied dat geschikt is voor de steur. De steur wordt geïntroduceerd op de Kalfwaard bij Eekeren. Dit is een gebied dat geschikt is voor de steur.

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Paving the way towards a reintroduction and restoration of the European sturgeon 2020 - 2030

Steven Visser & Wilco de Bruine



Action Plan for the European sturgeon for the Lower Rhine

Supported by:



Ministerie van Landbouw,
Natuur en Voedselkwaliteit



Ministerie van Infrastructuur
en Waterstaat

Ministerium für Umwelt, Landwirtschaft,
Natur- und Verbraucherschutz
des Landes Nordrhein-Westfalen



European sturgeon

Pushing the way towards the reconstruction and restoration of the European sturgeon

First Action Plan for the European Sturgeon (Acipenser sturio) for the Lower Elbe 2024 - 2028

Since 2024, WWF - The Netherlands, ARK Nature and the Royal Dutch Angling Association have been cooperating intensively towards a sustainable and viable reproduction of the European sturgeon (Acipenser sturio) in the Lower Elbe. About 10000 fish are produced annually. However, action must be taken now to save this species from extinction and give the very heavily extirpated stock a sustainable reproduction and restoration. A joint action plan will take place in close cooperation with the relevant governmental organisations.

Currently, the European sturgeon stock in the Lower Elbe is very low and the reproduction is not sustainable. The action plan for the Lower Elbe aims to improve the reproduction of the European sturgeon in the Lower Elbe. The action plan will be implemented in close cooperation with the relevant governmental organisations.

This is a collaborative effort between WWF - The Netherlands, ARK Nature and the Royal Dutch Angling Association. The action plan will be implemented in close cooperation with the relevant governmental organisations.

Call for collaboration

Since the Elbe is a river, the reproduction of the European sturgeon in the Lower Elbe is a collaborative effort between WWF - The Netherlands, ARK Nature and the Royal Dutch Angling Association. The action plan will be implemented in close cooperation with the relevant governmental organisations.

WWF **ARK NATURE** **EUROPEAN STURGEON** **Sportbond Nederland** **ONL**

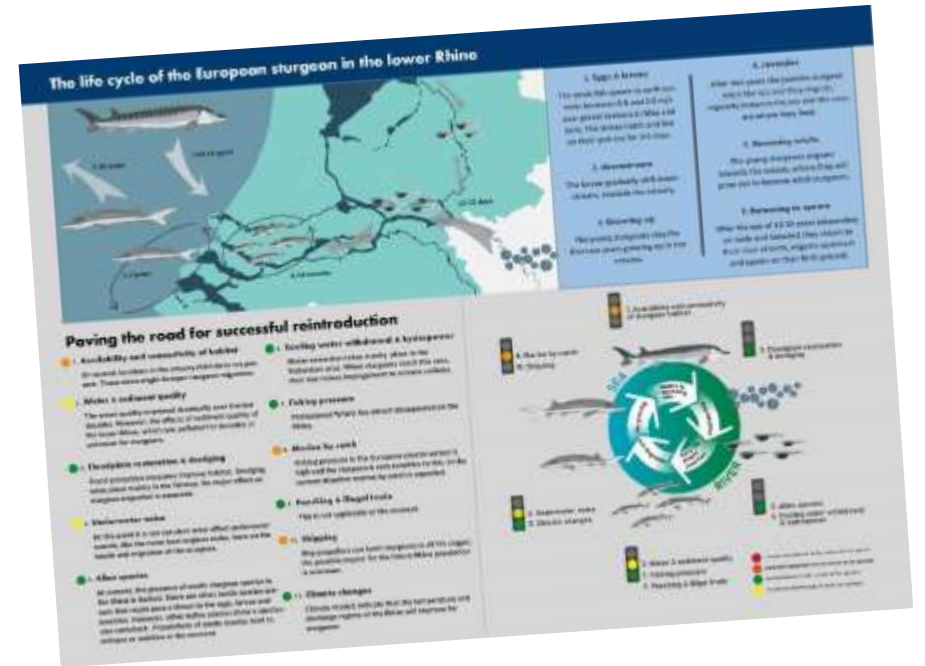
European sturgeon

This action plan could be the last chance for the Elbe's iconic sturgeon - a species that has roamed the Rhine for thousands of years!

The European sturgeon is a species that has roamed the Rhine for thousands of years. The action plan will be implemented in close cooperation with the relevant governmental organisations.

The European sturgeon is a species that has roamed the Rhine for thousands of years. The action plan will be implemented in close cooperation with the relevant governmental organisations.

In cooperation with:



In consultation with our partners:



LIFE IP
} Deltanatuur

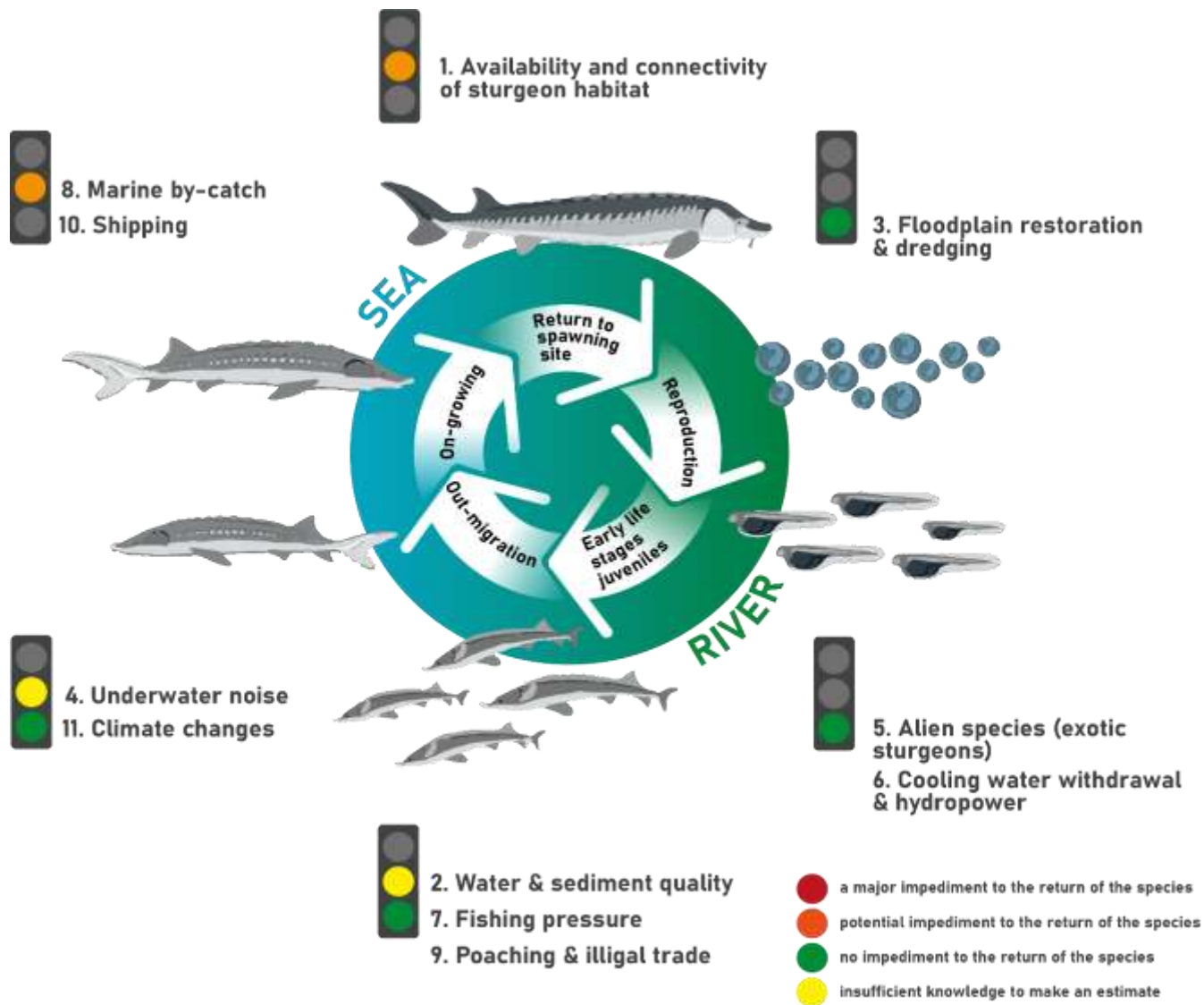


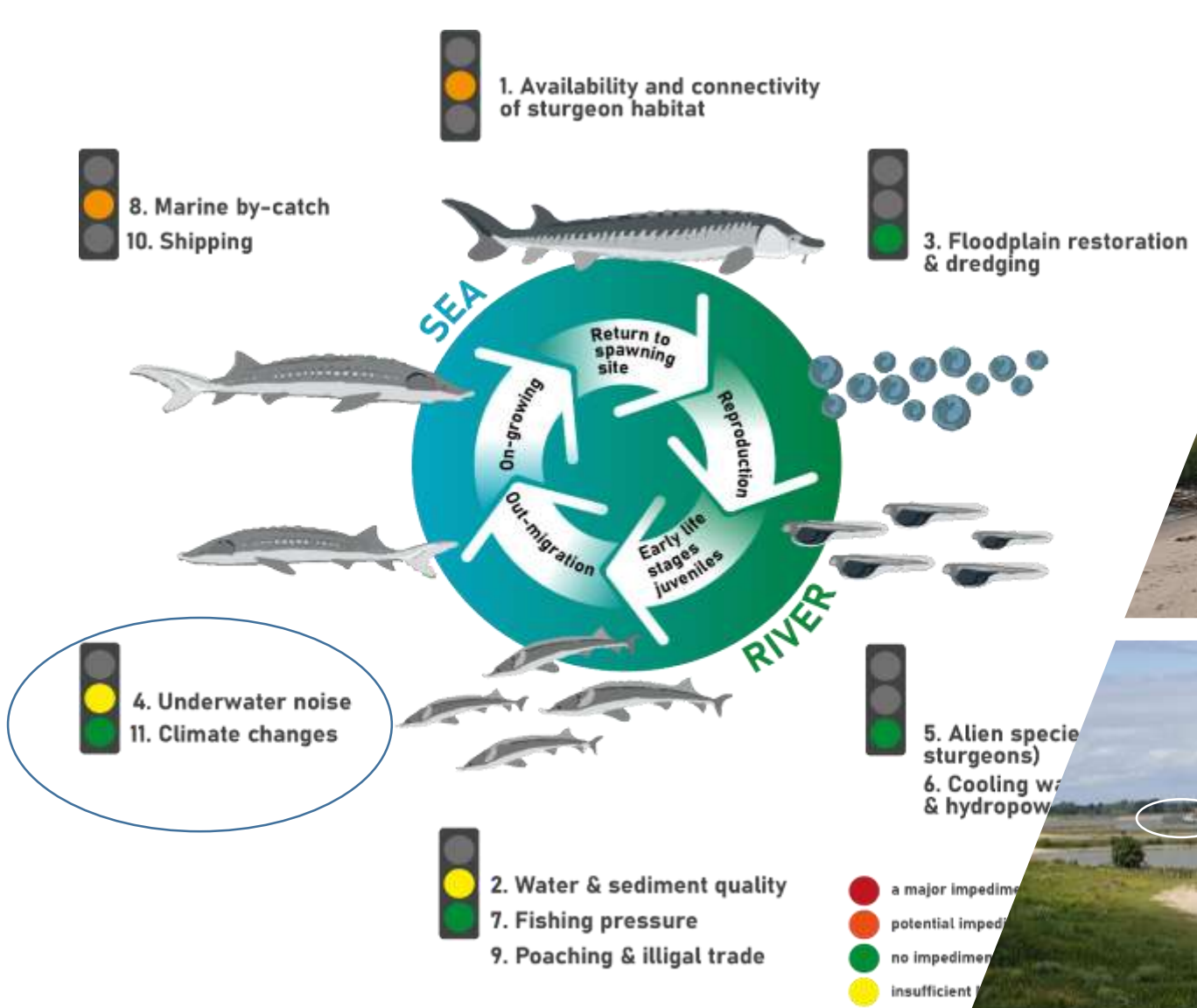
Supporters, partners and stakeholders

Start of Phase 2020 – 2030 – The European sturgeon could come back ...

1. **Adopt the First Sturgeon Action Plan** for the Lower Rhine to finalise the feasibility and risk assessment phase;
2. Establish a **joint project consortium** to facilitate the cooperation and joint fact finding;
3. Continue and scale up of the **experimental releases** of larvae and tagged juveniles from French brood stock, including monitoring;
4. Implement the proposed **actions/measures from the AP** by the responsible partners;
5. Continue with **additional follow up research** (impact of shipping, sediment quality, exotic species, habitat suitability);
6. Set up a **rearing station** near the spawning sites in the Rhine, similar as been done for the Elbe river.
7. **Prepare decision-making process (go / no go)** for an official reintroducing of the European sturgeon population in the Lower Rhine by 2030.







8. Marine by-catch
10. Shipping

1. Availability and connectivity of sturgeon habitat



4. Underwater noise
11. Climate changes

2. Water & sediment quality
7. Fishing pressure
9. Poaching & illegal trade

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



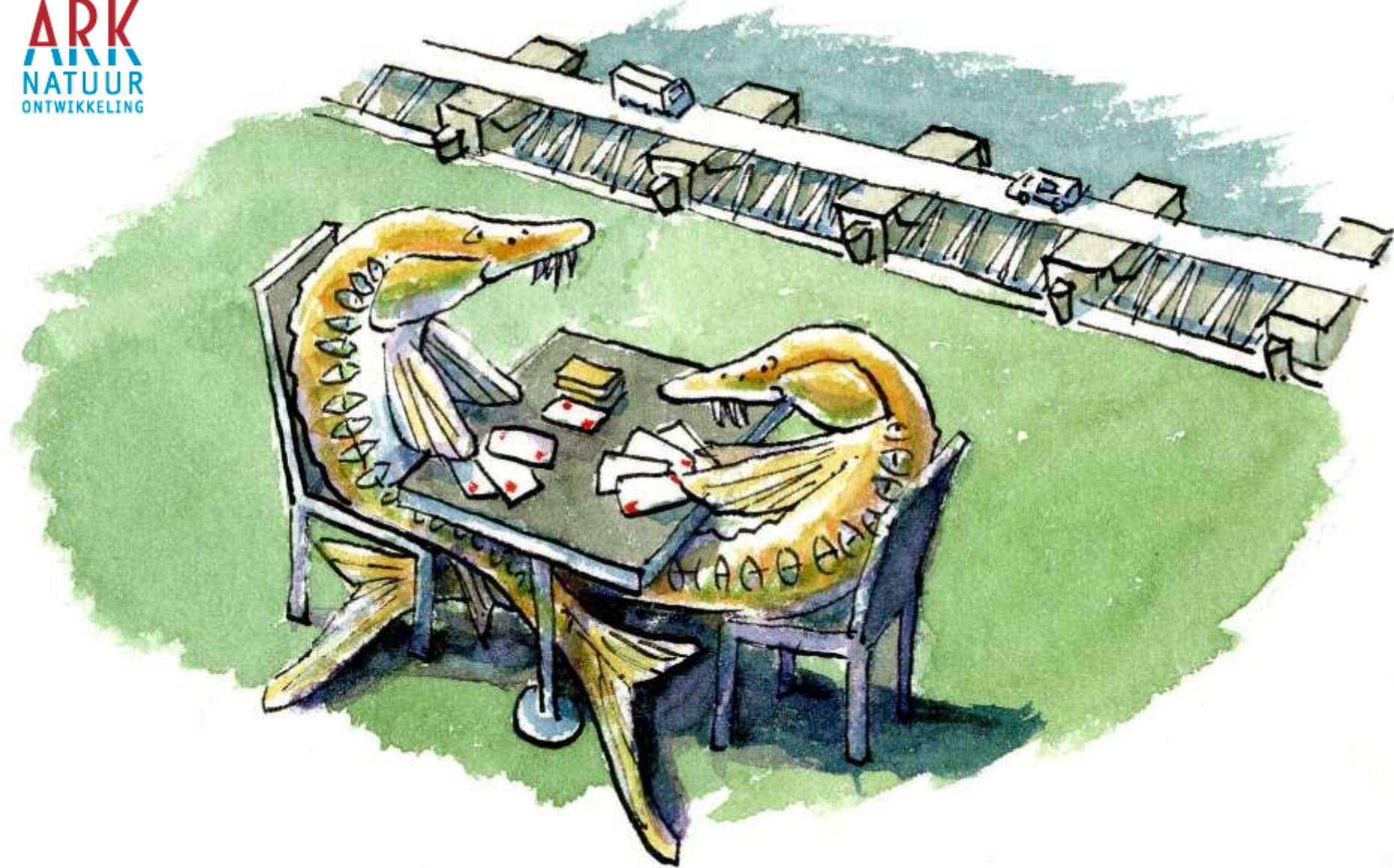
1. Noteer **lengte, gewicht, datum en locatie** van de vangst
2. Als de steur een **merkteken** heeft; laat dit zitten en noteer het merknummer
3. Maak een **foto** van de vis en het eventuele merkteken
4. **ZET DE STEUR TERUG IN HET WATER**
5. **Meld de vangst** via steurwwf@gmail.com, Wageningen Marine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



Dank voor uw oplettendheid en hulp!

- a major impediment to the return of the species
- potential impediment to the return of the species
- no impediment to the return of the species
- insufficient knowledge to make an estimate







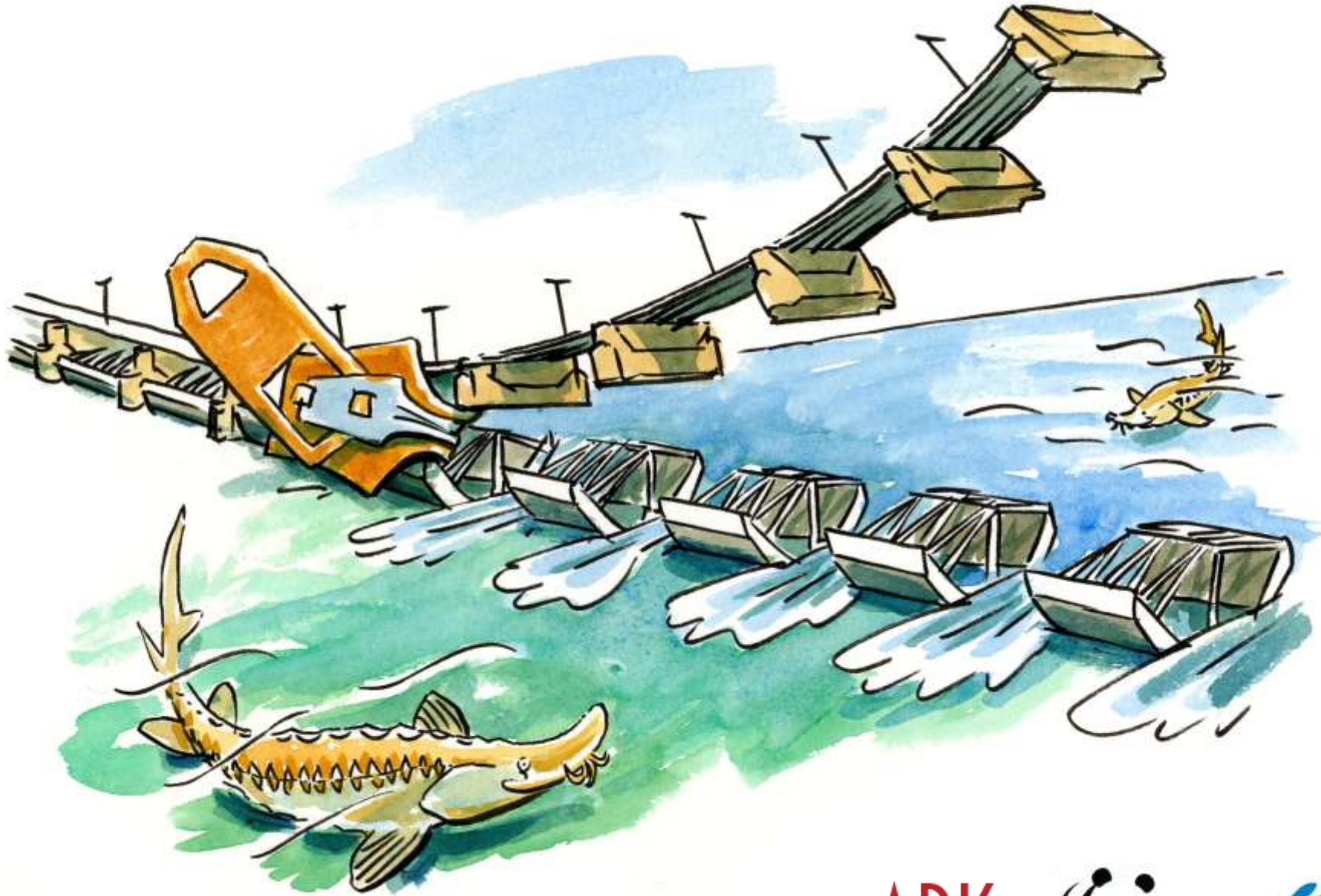
We are looking forward to continue cooperation for a living Rhine

Haringvliet / sturgeon exposition

In Rotterdam Zoo, Blijdorp







Thank you!

