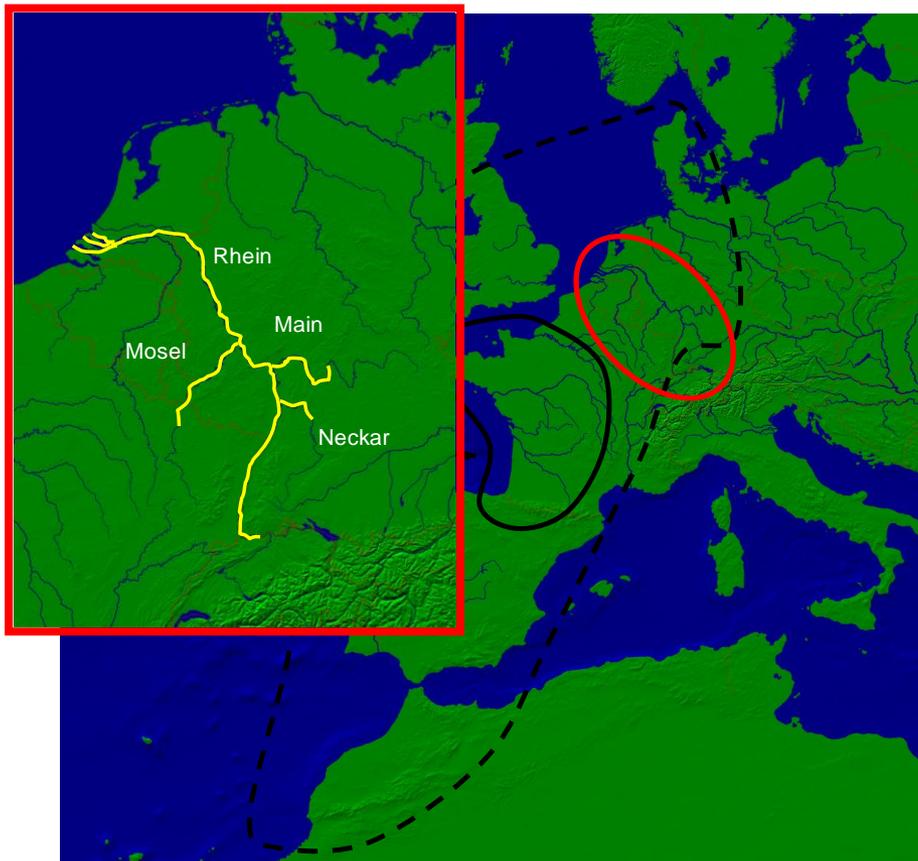


Vissennetwerk „Soortenherstel“, WMR Ijmuiden 20.09.2024

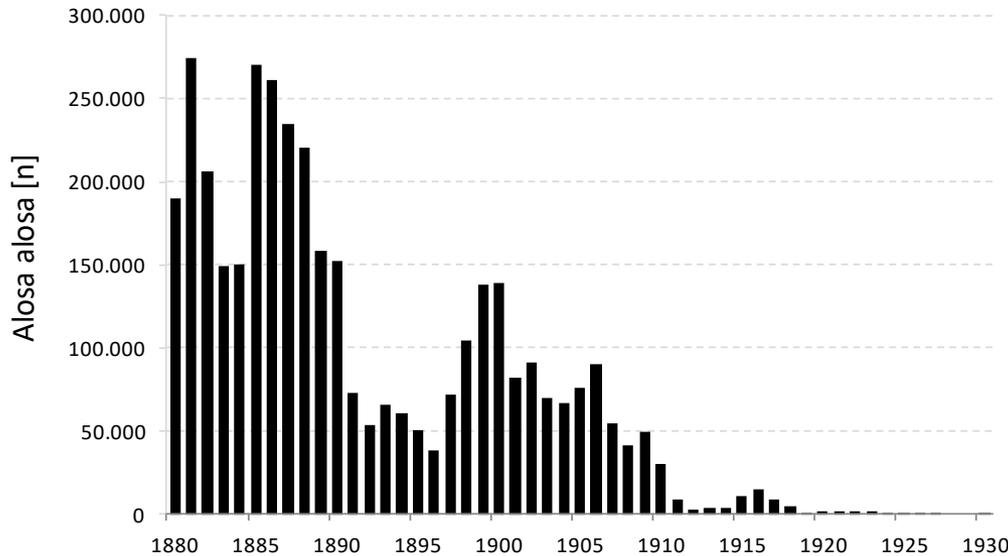
# Reintroduction of the allis shad in the Rhine system



# Original and recent area of distribution



# Collapse of the allis shad population in the Rhine in the early 20<sup>th</sup> century



Landings of allis shad in the Delta Rhine in the Netherlands at the turn of the century (after de Groot, 1992)

- Last noteworthy catch in 1949 in Xanten, thereafter repeatedly individual records
- Regular detection of up to 10 allis shad per year since the Iffezheim fish pass went into operation,
- However: no evidence of natural reproduction, no development trend, recent evidence of dispersers from Gironde population



# Funding and partners



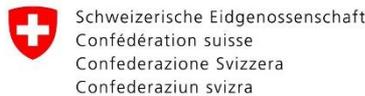
## Transnational allis shad project (2017- today)



H O C H  
S C H U L E  
T R I E R



Bezirksregierung  
Köln



Bundesamt für Umwelt BAFU  
Office fédéral de l'environnement OFEV  
Ufficio federale dell'ambiente UFAM  
Uffizi federal d'ambient UFAM



Hessisches Ministerium für  
Umwelt, Energie, Landwirtschaft  
und Verbraucherschutz

## Additional support (2023-2024)

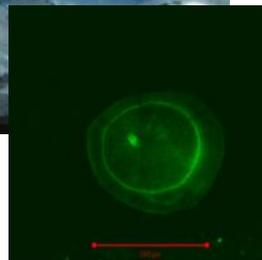


Deutschland – Nederland

De Rijn Verbindt  
Der Rhein Verbindet

# Main achievements in the LIFE project phase (2007-2010)

## 1. Development of mass breeding and marking techniques (as a prerequisite for a reintroduction project, IUCN criteria)

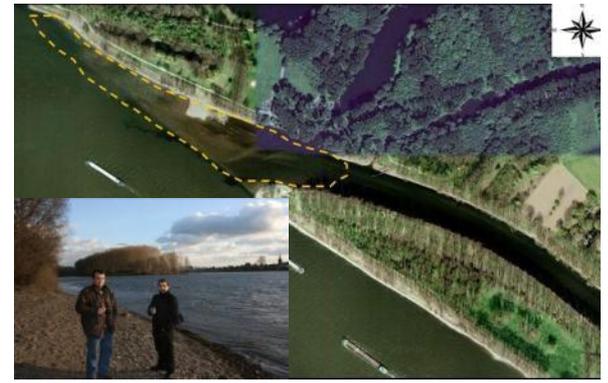


# Main achievements of the LIFE project phase (2007-2010)

## 2. Development of suitable releasing and monitoring routines



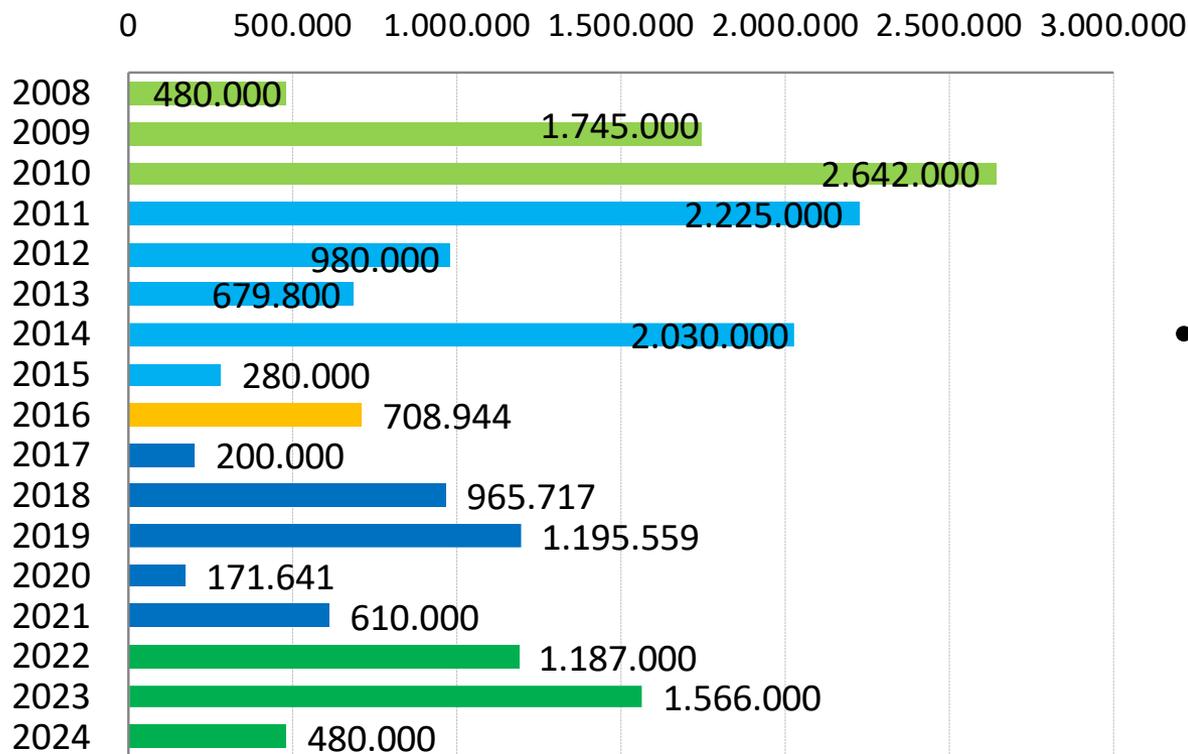
# Mapping of suitable releasing and potential spawning sites



# Study on the potential Influences of shipping (wave impact, suction and surge) on the larvae in the Rhine



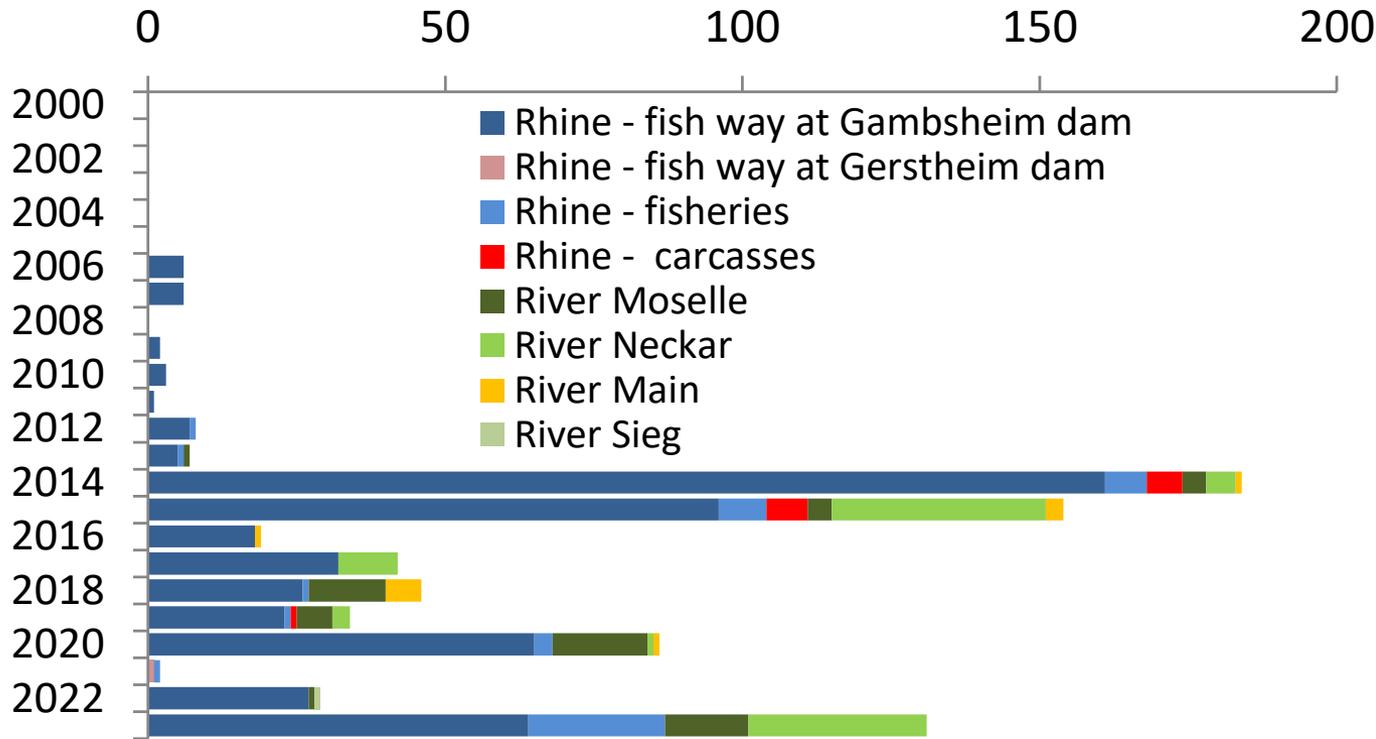
# Stocking efforts (2008-2023)



- $\Sigma$ 18.1 Mill allis shad larvae in 17 years



# Detections of adult allis shad in the Rhine system (without Iffezheim data)



## Main achievements of the post LIFE project phases (2017-today)

- Monitoring of spawning activities (Bull monitoring)
- Acoustic monitoring at known spawning sites (established method for the assessment of the allis and twaite shad spawner populations in SW France)



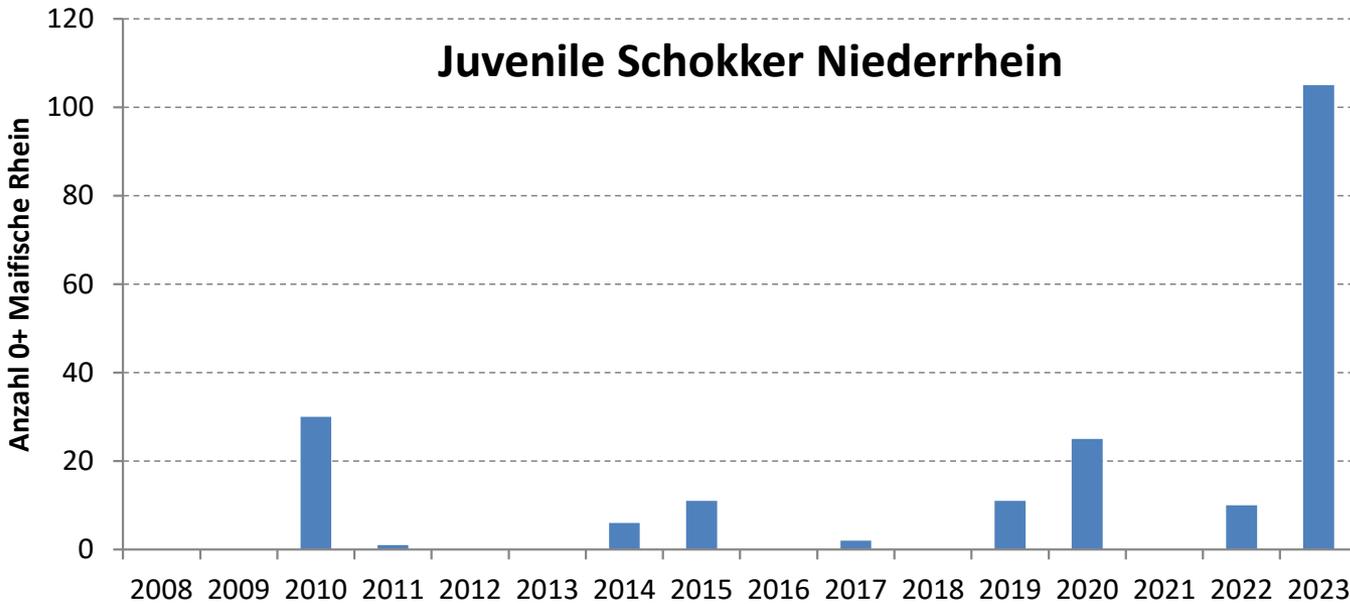
## Main achievements of the post LIFE project phases (2017-today)

- Monitoring of spawning activities (Bull monitoring)
- Detection of numerous Bulls in the middle Rhine section and the Lower river Main

Due to the noisy environment and the variety of potential spawning sites, not expedient!



# Stow-net (ankerkuil) monitoring for juveniles



## Conclusions so far

1. Releasing of larvae leads to emigrating juveniles and returning adults (5 years later)
2. Returnees reproduce naturally in the Rhine system (Bull observations -> carcasses of spawned adults -> YOY from natural reproduction-> returnees from natural reproduction), -> all in all positive signs!
3. The monitoring schemes are not expedient with regard to an assessment of the actual population (detections of shads in fish ways , Bull monitoring, YOY monitoring)
4. Possibilities of quantitative monitoring measures are restricted (budget)
5. Tasks: Increase interpretability based on the sample material from individual fish
6. Parallel promoting population development (releasing of larvae, identifying hotspots and removing bottlenecks for the natural population development)



- Bedankt voor uw aandacht