



University of  
Massachusetts  
Amherst

## **Session E2: Cross Border Practical and Applied Experiences with Germany; the Alosa Alosa LIFE(+) Project**

Item Type	event;event
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Download date	2025-04-27 07:19:29
Link to Item	<a href="https://hdl.handle.net/20.500.14394/24970">https://hdl.handle.net/20.500.14394/24970</a>



# **Cross border practical and applied experiences with Germany; the Alosa Alosa LIFE(+ ) project.**

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**A. Scharbert,  
Rheinischer Fischereiverband von 1880 e.V.**



**Germany: Maifisch**  
**English: Allis shad**  
**Dutch: Elft or Meivis**  
**French: Grand alose**



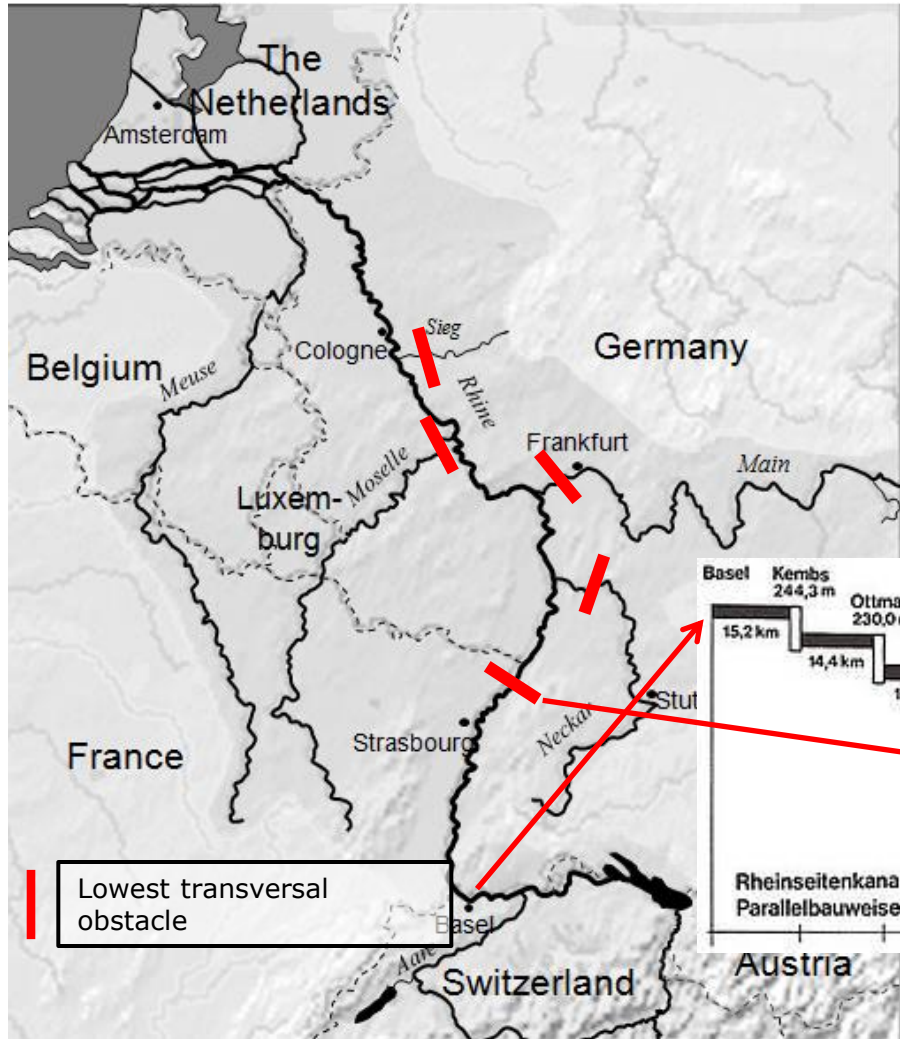
**Latin: *Alosa alosa***

Family Clupeidae

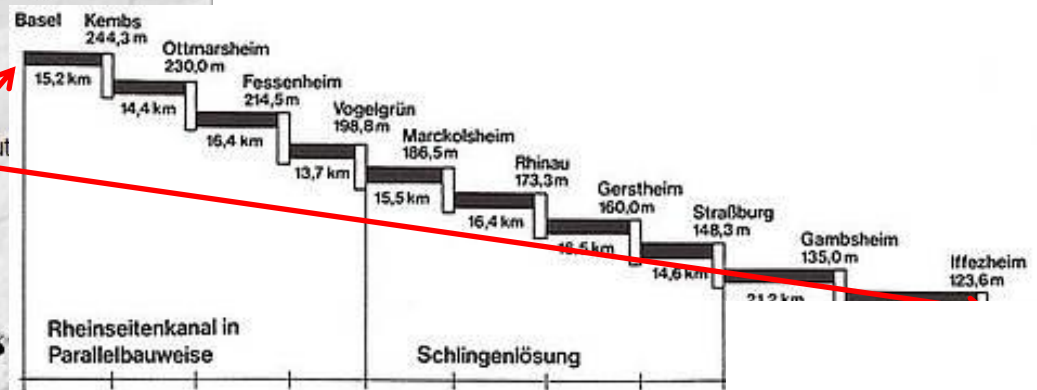
Length: ~60 cm

weight: ~3 kg

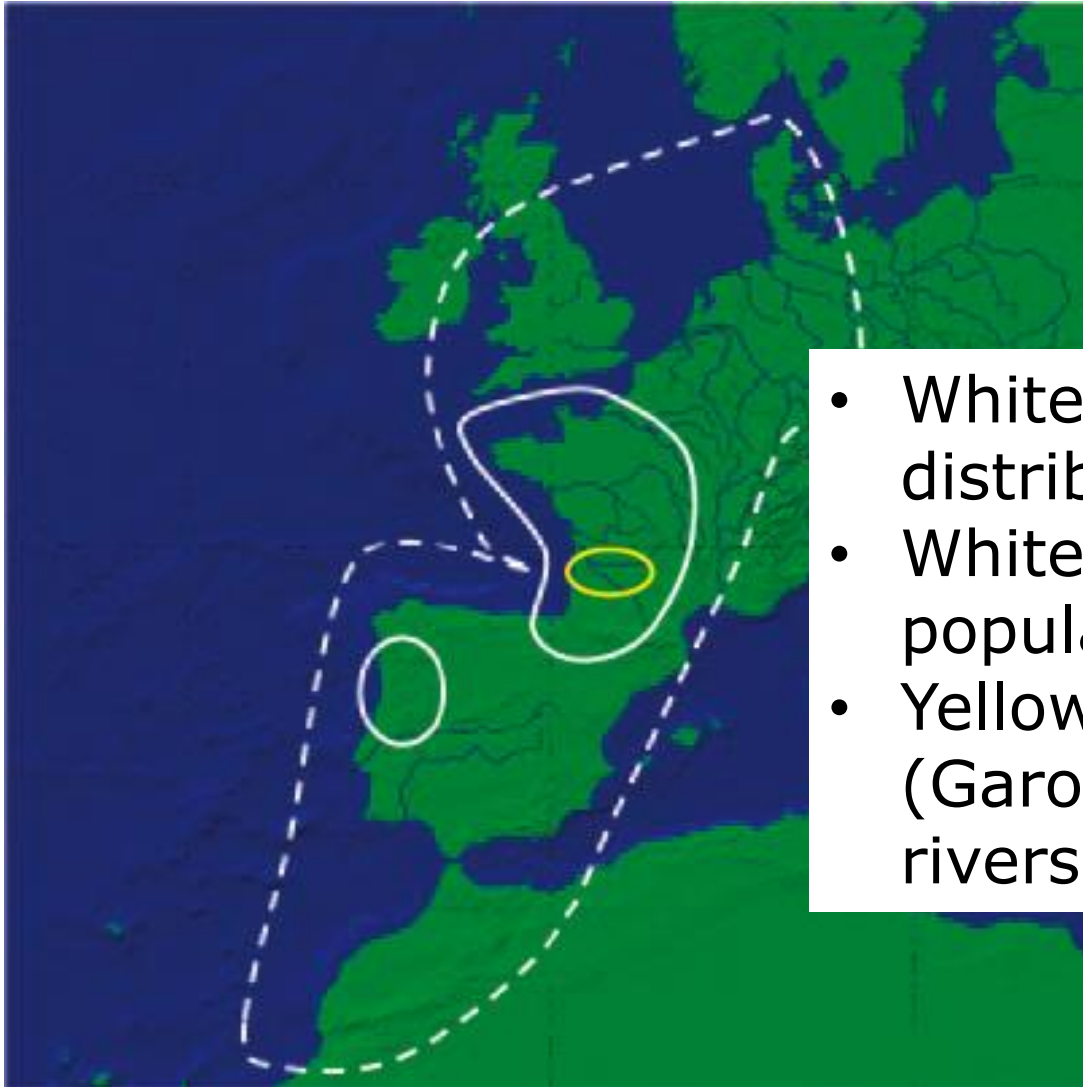
# The Rhine



- Catchment: 218,000 km<sup>2</sup>
- Mean discharge: 2,300 m<sup>3</sup> s<sup>-1</sup>
- Length: 1,240 km
- Free flowing stretch ~700 km (Iffezheim)



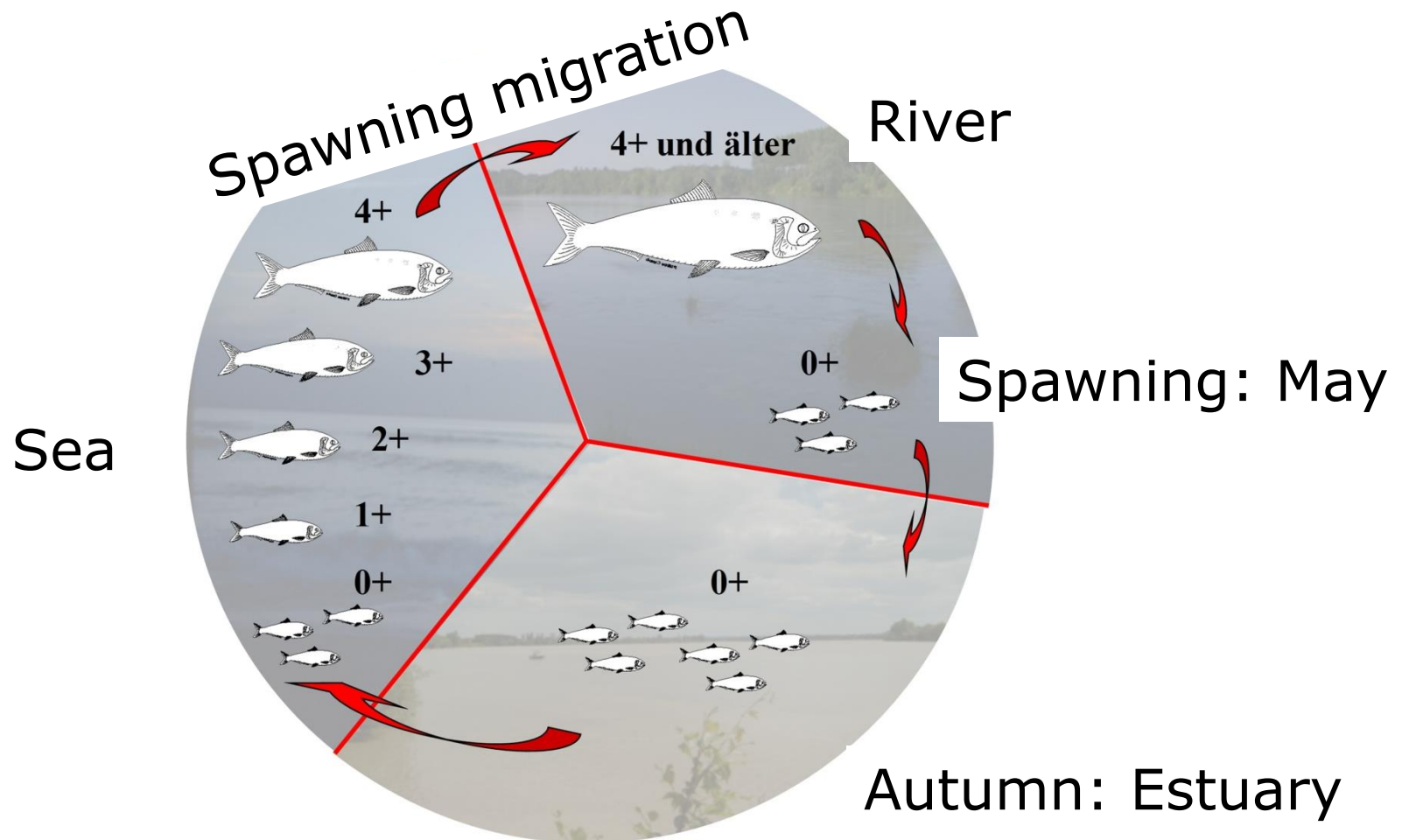
# Status



- White dotted line: Historic distribution area
- White solid line: small relict populations
- Yellow line: Gironde estuary (Garonne and Dordogne rivers) population > 100.000



# Life cycle of Allis shad



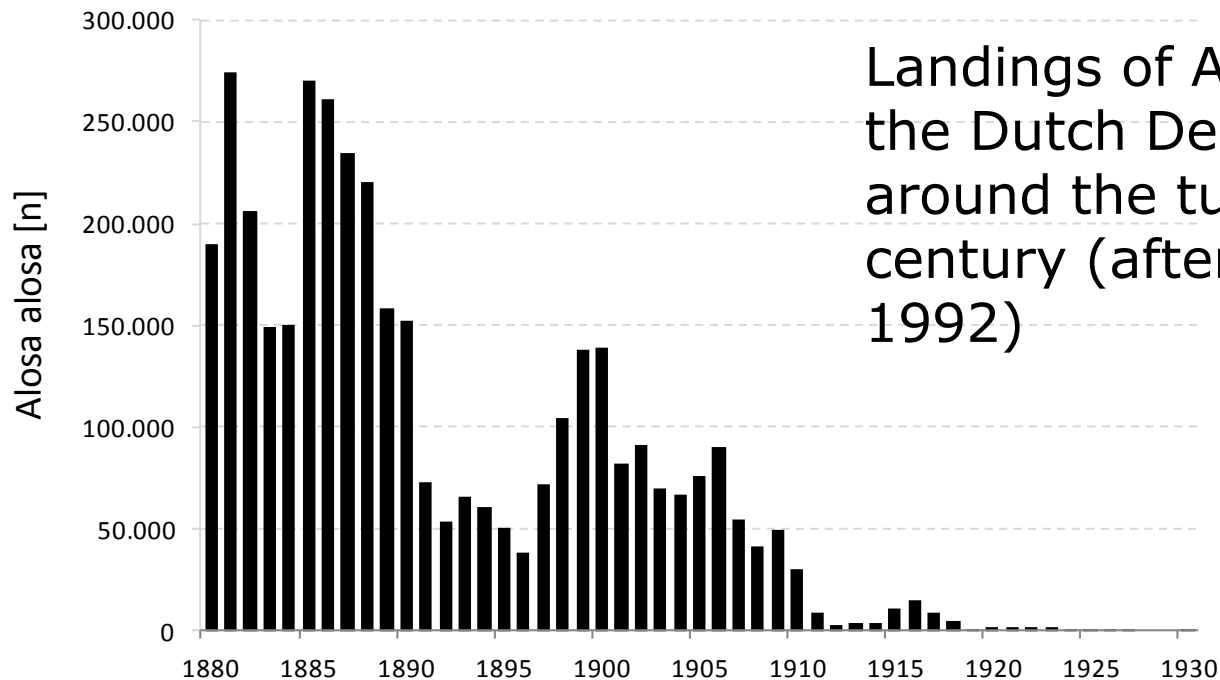
# Allis shad in Germany/ Netherlands



Getuigenissen van de vroegere populatieomvang van de elften en van het grote economische belang van de elftenvangst op de Rijn: Krantenadvertentie uit de Düsseldorfer Generalanzeiger van 1904, die de lezer toen attendeerde op de verkoop van verse elften in de lokale cafés en restaurants en het schilderij "Elftenmarkt in Düsseldorf" van Fr. Schnitzler.



# History of Allis shad in Germany & Netherlands



## Decline:

- River corrections, weirs
- Pollution
- Fisheries





# Initial phase of the project in Germany

Before 2007 several studies have been conducted to see if there is enough spawning area, good circumstances (e.g. flow and waves caused by boats), fish handling, decrease egg mortality



## Initial phase of the project in Germany

Allis shad is extreme vulnerable to handling, so special care is taken when handling is needed.

Storage of fish in round basins

Anaesthetize fish

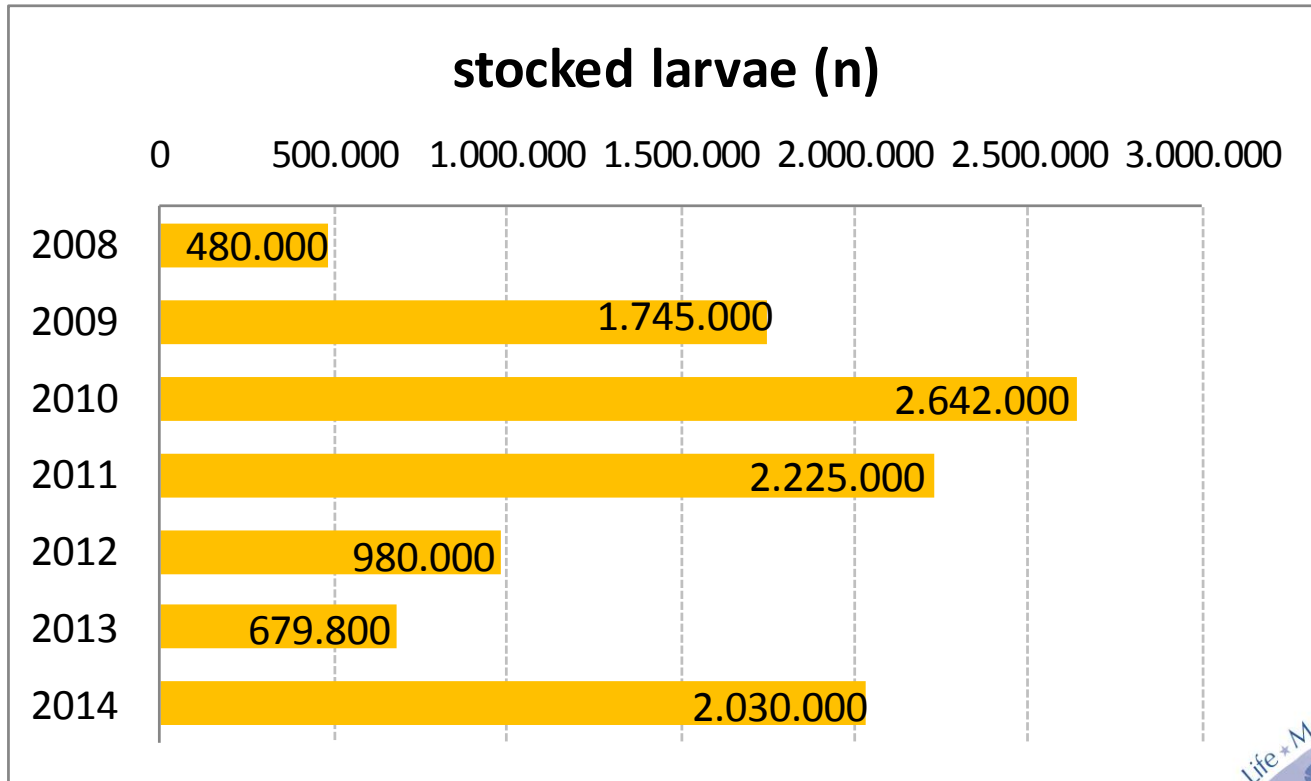
Experience from France (IRSTEA & MIGADO), USA



# Start of the project



# Start of the project



# Continuing

Waiting for returners in 2013-2014?

Best of Best EU LIFE Nature Project 2011

Life+ project could continue until end of 2015

In the meantime a small hatchery was build in Germany: ex situ population.



# Hatchery



# Successstory?



# Successstory?





# Successstory?



# Successory?

Observations at the fish passage Iffezheim

Observations of dead fish

One caught by an angler.

Monitoring is difficult



# Successory?

In 2014, the first year after a 4 to 5 years sea period, hundreds (minimum 341) of allis shad have been recorded returning to the Rhine system for spawning. French fisherman caught 3 adults with gill nets near Dutch-German border.

In order to form the basis for a future allis shad stock in the Rhine, and to develop a natural stock in the long term, monitoring will be continued until at least 2015.

After 2015 it seems that stocking is also needed to maintain a self-sustaining population.

# Successory

- Increased linear connectivity of the river (fish passage at Iffezheim) was an important factor according to American research.
- Increased water quality
- Allis shad from Gironde was a good donor population (genetic not different from Rhine)
- IRSTEA had skills for reproduction and recovering adult fish.
- MIGADO has built a hatchery and developed mass breeding opportunities to enable a stocking programme on the Rhine
- From USA/France experience it was estimated that 200-500 larvae were needed to get 1 returner, mass stocking in the first years was needed.

## Successory

- Global heating (warmer Rhine) is in favour of the Allis shad.
- Substrate (gravel donation downstream of Iffezheim) and habitat conditions in the Rhine's free-flowing stretch seem to promote natural reproduction of shad returnees
- Allis shad was one of the last river migratory fish that disappeared, so most likely that it will return as first species.
- Houting (*Coregonus oxyrinchus*) was also successful after reintroduction in the Rhine (last disappeared), salmon is more problematic

# Project management

## Profile



## Coordinating beneficiary:

Landesamt für Natur,  
Umwelt und Verbraucherschutz  
Nordrhein-Westfalen



Duration: 2011-2015

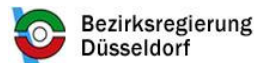
Budget : 1.605.827 €

EU-share: 749.414 € (49,16 %)

## Associated beneficiaries and co-financers:



Hessisches Ministerium für  
Umwelt,  
Energie, Landwirtschaft und  
Verbraucherschutz





Thank you very much for your attention!

