

Sturgeon in the Rhine. **INTERNSHIP**

A historical-ecological study on sturgeon in the Rhine from a reintroduction perspective.

Level:	Master
Start:	May 2020
Project duration:	4-6 months
Location:	This desktop study can be done from home
Project form:	Literature research, database construction and analysis (RStudio)
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Fig. 1. Royal Sturgeon caught in the Hundred Foot River at Oxlode, Pymoor, 1906.

Fig. 2. European sturgeon, bycatch in the Biesbosch salmon fisheries, 1917. Source: Regional Archive Dordrecht

Background

For the project "Reintroduction of the European sturgeon in the Rhine", we are looking for a trainee who will answer the following research question: "What were the biological life-history traits of the river Rhine's sturgeon, over time i.e. population size, species (most probably 2 species), distribution and migration patterns?" Underlying questions are: "What was the historic-geographic distribution in the member states of The Netherlands, Germany, France and Switzerland?", "How is the scarcity reflected in the price-development?", "How were fishing-rights adapted?" The European sturgeon obtained a total length of 3.5 m, weighing up to 300 kg (Fig. 1). Until the 19th century, sturgeon swam upstream, even as far as Basel in Switzerland. Fisheries-villages in the Netherlands located along the Zuiderzee and the Biesbosch were famous for captures of sturgeon (Fig.2). Sturgeons were exported to Brussels, Antwerp and Paris and offered to Counts, Kings, Bishops and even the Pope. In recent times, the species is extirpated from the Rhine due to over exploitation, habitat alteration and degradation. The internship is part of a sturgeon reintroduction project, carried out by WWF, ARK and Sportvisserij Nederland - in close cooperation with the Nijmegen Radboud University and WUR's faculties of Aquaculture & Fisheries and Marine Animal Ecology.

The assignment:

1. Literature research: To collect all literature on the occurrence of the sturgeon in the Rhine and North Sea. This includes a search in www.delpher.nl and in GOOGLE (scholar) in literature and webpages in Dutch, German, English and French (we can assist in Dutch, German and French).
2. Data-analysis in Excel and R-Studio: Qualitative data collection of sturgeon-numbers, size and weight that have been caught and sold in the course of time. Examine the Rhine population's basic biological data (distribution, migration, population size, specimen size), the fisheries and sales efforts, and geographic alterations over time.
3. Inventory of adaptive behavior in fisheries law and regulations. This information relates to results of 1 and 2.

N.B. Previously, an EndNote Library and an Excel spreadsheet have been collected, which need a thorough update and meticulously administered data-analysis in MS-Excel and/or RStudio.