



# Norfish Dataset 07

## German Herring Fishery

### 1520–1790

## *Supporting Documentation*

Poul Holm, John Nicholls, Florian Dirks



*In the port of a Hanseatic town – a typical German fishing port in the 16<sup>th</sup> and 17<sup>th</sup> centuries  
(Kulturgeschichtliche Bilder Nr. 1 c. 1960)*



# German Herring Fishery 1520-1790

---

## Summary

<b>Dataset Title:</b>	German Herring Fishery 1520-1790
<b>Norfish Case Study:</b>	German Herring Fishery 1520-1790
<b>Large Marine Ecosystem:</b>	22: North Sea;
<b>Subject:</b>	Herring catches, North Sea, Baltic Sea, German Herring Fishery 1520-1790
<b>Author:</b>	Poul Holm, John Nicholls, Norfish Project Centre for Environmental Humanities Trinity College Dublin
<b>Data Provider:</b>	John Nicholls Norfish Project Centre for Environmental History Trinity College Dublin
<b>Data Editors:</b>	John Nicholls Norfish Project Centre for Environmental History Trinity College Dublin
<b>Extent:</b>	271 records
<b>Keywords:</b>	Herring catches; Norfish; Germany; North Sea, Baltic Sea, Emden

### Citations:

1. **The dataset:** please cite as follows Holm, P., Nicholls, J. and Dirks, F. 2020. Norfish: German Herring Fishery 1520-1790. Dublin: TCD
2. **Supporting documentation:** please cite as follows Holm, P., Nicholls, J. and Dirks, F. 2020. Norfish Supporting Documentation: German Herring Fishery 1520-1790. Dublin: TCD



# German Herring Fishery

## 1520-1790

---

### Contents

Summary .....	2
Contents .....	3
Sources and Chronology .....	4
Other Processes .....	8
Data Fields .....	9
Bibliography .....	13
Appendix 1 .....	14
Appendix 2 .....	14

### Sources and Chronology

Arguably the greatest impact on the German herring fishery in the period 1520-1790 was the fact that Germany was a conglomeration of small Principalities and Protectorates under the loose leadership of a Holy Roman Emperor which radically changed during the Reformation. Instigated by Martin Luther in 1521 the act of protestation against the Roman Catholic Church's engagement in political and state affairs led to the Peasant's War of 1524-25. The upshot of this process was a printing revolution which saw more than 10,000 pamphlet titles published by 1530, spreading the religious and political message of reform and change to the population (Edwards 1994).

The fisheries, for the large part a loosely connected trade partnership within the Hanseatic League, was buffeted by political events and there is little evidence that any coherent industry was generated. Small and often private concerns were established in places like Hamburg and Bremen which attempted to emulate the success of the behemoth that was the Flemish, and later the Dutch fisheries. These "start-up" companies were clearly impacted from the outset by the political turbulence and warfare that ensued over the period.

The Thirty Years' War from 1618 to 1648, ostensibly a conflict in Germany between Catholic and Protestant factions, fragmented into a complicated series of battles between political and religious rivals from all parts of Europe. Taking place on German soil, the upheaval was tremendous for local industries; the fisheries were no exception. The overall impact was the bankrupting of many of the European powers who engaged in the conflict, and a massive reduction of the population through resultant famine and disease (Augustyn, et al. 2020).

The 18<sup>th</sup> century saw a period of recovery and the rise of the Prussian Kingdom that unified large areas of Germany under a Protestant leadership. By the end of the century, and the commencement of the Napoleonic Wars, the period of growth and rejuvenation ended. In 1806 the Holy Roman Empire was dissolved, and Germany began the process of coalescing into a nation.

This backdrop paves the scene for the apparently random appearance of viable fisheries in Germany that suddenly and inexplicably disappeared following

several years of reasonable success. The minimal data that is available highlights the efforts of a concern at Emden, a coastal port city in the German state of East Frisia. Hahn (1941, p.17) provides several sporadic values available from 1770 until 1805, but also a single value for 1597. These figures are cited by Poulsen (2008, pp.61-63) who indicates that the later Emden effort was formulated around the Dutch model of deploying vessels known as “buizen” (large “buses”) which both caught and processed fish onboard. Following the earlier Flemish model of the “kaakharing” process which saw fish lightly salted, headed and cleaned before being stored in barrels, they ensured a better quality, fresher product for the markets (Degryse 1959). Only in 1769 did a new Emden company form giving rise to landings figures again. In total 8 active data points form the basis of this series, but zero landings periods are also recognised.

There is evidence that, contrary to the perceived impression of high-quality Flemish (and later Dutch) herring, Scanian imports to the Germanic coastal cities (Hanseatic League ports) may have been preferred before 1600. As late as 1545 there is an indication that Flemish herring was of low quality and Hamburg preferred Scanian imports. However, the Scanian trade ended by early 1600 (corresponding to the end of the Flemish trade and the rise of the Dutch trade) and imports by the Schonenfahrer (Scanian traders) were of Flemish and Dutch extraction. Some imports trickled through from the Bergenfahrer (traders from Bergen, Norway) but these were regarded as lower quality herring and included imports of dried cod. Between 500 and 6,500 lasts<sup>1</sup> were recorded at the start of the 18<sup>th</sup> century (Hansische Geschichtsblätter 1906, App.III)

It appears that efforts in Bremen and Hamburg were made as well, but there is little specific reporting. Ventures that started didn't seem to last long due to the dominance/monopoly of the Dutch effort and the turbulent times. An example of an attempted start-up in Hamburg is described by Adolf Jürgens (1914). The plan was to buy 6 vessels to instigate a herring fishery out of Hamburg with fishing to be done off Helgoland. The plan included an initial phase where herring would be purchased

---

<sup>1</sup> 500 and 6,500 lasts equate to 988 and 12847 metric tonnes respectively based on the Dutch conversion factor of 1:1.9764 (Vliet 1994)



from Ireland and Scotland prior to setting up for themselves. The plan was approved by the local Duchy of Hamburg, but it came to nothing because of the war (Jürgens 1914, p.50 fn.4).

Both Bremen and Hamburg imported large amounts of herring in parallel with cod. These commodities mainly came from Bergen, Iceland, the Faroe Islands and Shetland. However, archival records for Bremen commence later than for Hamburg; while we can trace numbers for cod from the Bergenfahrer Society's records, the amount of herring over several years is not easily traceable. The numbers for cod seem to decrease very suddenly at the beginning of the 1560s, which becomes clear from the archival records. For example, Bremen State Archives No. 2-R.11.gg.2.a.1 includes a list of commodities transported to Bergen („geschepen na Bergen“)<sup>2</sup> between 1555-1564 with total values for nearly each year covered:

1556	60 wage runtfisch <sup>3</sup>
1557	21 wage rotsche <sup>4</sup> , 84 wage runtfisch
1558	29 wage runtfisch
1559	84 wage runtfisch
1561	184 wage runtfisch, 63 wage runtfisch, 7 droge lasse <sup>5</sup> , 3 droge lasse, 2 te lass, 70 wage runtfisch
1562	126 wage runtfisch (Lüder Detken?), 84 wage runtfisch (Hermen Meiger?)
1564	42 wage runtfisch, 15 kyp rekeling <sup>6</sup> , 9 te lass unde 63 wage runtfisch

In terms of herring imported to Bremen, we can tell the amounts for one year in detail. For 1595 there is a small book of 54 pages which gives names of the skippers and the amount they brought into the town's port (Bremen State Archives 2-Ss.2.b.H.1.a.; c.f. Kappelhoff/Deggim 2011):

---

<sup>2</sup> “shipped to Bergen”

<sup>3</sup> “round fish” - stockfish (typically dried cod)

<sup>4</sup> Type of stockfish

<sup>5</sup> Dry loads

<sup>6</sup> Strips of halibut

1595 4,235.63 lasts and 393 barrels

This amounts to 40,662,048 individual herring if one assumes the minimum of 800 herring per typical Bremen barrel.

The Bremen excise tax records for 1617 are apparently the last and oldest fully preserved year of this document type from early-modern Bremen. In this year, merchants imported fish as the main commodity of Bremen; merchants and skippers imported the following:

Approximately 1,000 lasts or 12,000 Bremen barrels Stockfish (mainly cod)

14 lasts of Rotscher

103 tons ling

1 last haddock (all white fish)

Approximately 1,750 lasts herring from the Netherlands

(Hofmeister 2014).

The majority of the imported fish was traded in Bremen by the ship owners or merchant companies either to other merchants, who then sold and transported the fish further to the south, or via middleman agents, the so-called Makler, to foreigners who transported the fish south to, for example, Erfurt or Leipzig, or even further into the Southern German lands along the Rhine and Danube (Straube 2015).

Examples of these activities are corroborated in the trading company books which the Bremen archive preserves, as explained above in the description of the Emden start-up fishery (Hahn 1941; Poulsen 2008)

The massive scale of imports and exports into and from Bremen highlight that it was a major market for fish and that attempts to begin to cash in on this lucrative trade must have been tempting. The case of the Emden fishery underscores this attempted inclusion in the market which would reasonably be assumed to have attracted many more German fisheries. However, the overwhelming success of the Dutch fishing industry was at a level that brokered little successful competition, while the relentless and punishing wars of the period curtailed any sustained effort. Ultimately, it seems, the German herring fisheries were destined to be a small and

sporadic affair with the Hanseatic League focusing on existing trade ties and relying on imports and exports to drive the markets.

## Other Processes

The Capacity Trend Method was used to calculate values for years where no data was available. This process entails a trending process where a trend of annual data is applied between available points in order to determine a series that reflects general trends rather than a simple straight line (Nicholls, Allaire, Holm 2020).

The marine species information that informs the dataset is obtained from the World Register of Marine Species (WoRMS 2020) which validates common species names, scientific names and sources.

The Metadata system underpinning the dataset is based on Darwin Core (OBIS 2017; 2020) which provides static formulations of all data fields as outlined in the Data Fields section of this document.



### Data Fields

Darwin Core Field Name	Description
<b>occurrenceID</b>	A globally unique “per record” identifier based upon the concatenated institutionCode, collectionCode, catlogNumber and ID fields (TCD_Norfish_GerHolNicHerring_1)
<b>type</b>	Description of data series type. (Dataset)
<b>modified</b>	Most recent date the data was modified; ISO 8601 metric date/time standards apply. (2020-12-12)
<b>license</b>	Data licensing conditions that apply. ( <a href="http://creativecommons.org/licenses/by/4.0/legalcode">http://creativecommons.org/licenses/by/4.0/legalcode</a> )
<b>bibliographicCitation</b>	Author citation for the dataset: (Holm, P. and Nicholls, J. 2020. Norfish: German Herring Fishery 1520-1790. Dublin: TCD)
<b>references</b>	Denotes the link where more detailed information about the dataset is held. ( <a href="http://www.vliz.be/imis?module=project&amp;proid=5064">http://www.vliz.be/imis?module=project&amp;proid=5064</a> )
<b>institutionCode</b>	Identifies the institution which owns the data - Trinity College Dublin. (TCD)
<b>collectionCode</b>	Code of the project or research group. (Norfish)
<b>datasetName</b>	Name of the dataset. (German Herring Fishery 1520-1790)
<b>basisOfRecord</b>	Specifies the nature of the observed or researched specimens or data. (HumanObservation)
<b>dataGeneralizations</b>	Source data that informs the provenance of the data. (Sources: Hahn, L. 1941. Ostfrieslands Heringsfischereien unter besonderer Berücksichtigung der Geschichte der Emden Heringsfischerei in fünf



# German Herring Fishery

## 1520-1790

	Jahrhunderten 1552-1940. G Stalling: Oldenburg; Poulsen, Bo. 2008. Dutch Herring - An Environmental History, c. 1600-1860. Amsterdam University Press. DOI: 10.2307. pp.61-63.)
<b>catalogNumber</b>	Identifier of the data within the institution and project – “Ger” refers to German, “Hol” refers to Holm, “Nic” refers to Nicholls, “Her” refers to Herring. (GerHolNicHer)
<b>occurrenceRemarks</b>	Comments about the occurrence record (NA)
<b>recordedBy</b>	Researchers who recorded the data. (Poul Holm   John Nicholls)
<b>organismQuantity</b>	Quantity of fish represented in the record shown in Kg live weight. (400264)
<b>organismQuantityType</b>	organismQuantity unit of measurement. (biomass in kilograms (kg))
<b>occurrenceStatus</b>	Stipulates the physical presence or absence of animals relating to the record. (present)
<b>eventDate</b>	Actual date and time at which an occurrence was recorded. ISO 8601 metric date/time standards apply. (1520)
<b>year</b>	Year taken from the eventDate field. (1520)
<b>locationID</b>	Marine Region unique identifier. ( <a href="http://marineregions.org/mrgid/23602">http://marineregions.org/mrgid/23602</a> )
<b>locality</b>	Local name for the overall location or region. (Emden, East Frisia, Germany)
<b>locationAccordingTo</b>	MRGID location identifier based on the <a href="http://marineregions.org/mrgid">marineregions.org/mrgid</a> system. (MRGID)
<b>locationRemarks</b>	Description of location identifier. (NOAA described Large Marine Ecosystem)



# German Herring Fishery

## 1520-1790

---

<b>decimalLatitude</b>	Latitude shown in decimal notation based on the WGS 84 (EPSG:4326) geodetic datum standard. (53.36667)
<b>decimalLongitude</b>	Latitude shown in decimal notation based on the WGS 84 (EPSG:4326) geodetic datum standard. (7.21667)
<b>coordinateUncertaintyInMeters</b>	The smallest circle (radius) in metres from the ground zero point depicted by the decimalLatitude and decimalLongitude fields. In this instance, "500000" depicts a radius of c. 500Km.
<b>georeferenceRemarks</b>	Remarks indicating the geographic area identified – Large Marine Ecosystems are used. (22: North Sea; 23: Baltic Sea)
<b>scientificNameID</b>	The WoRMS LSID associated with the scientificName, based on the Marine Species database. (urn:lsid:marinespecies.org: taxname:126417)
<b>scientificName</b>	Scientific name of the animal based upon the vernacularName. (Clupea harengus)
<b>kingdom</b>	Together with taxonRank assists in determining broader animal characteristics for darwinCore search engines. (Animalia)
<b>taxonRank</b>	Together with kingdom assists in determining broader animal characteristics for darwinCore search engines. (species)
<b>scientificNameAuthorship</b>	Based on the scientificNameID field and discoverable through the WoRMS database. (Linnaeus, 1758)
<b>vernacularName</b>	Literal common name applied to the animal involved. In this case, all values are herring – the German common name for herring
<b>conversion</b>	Conversion factor applied to derive catchMT (1 last = 1.9764 metric tonnes)

---



## German Herring Fishery 1520-1790

---

**catchMT** Derived metric tonnes value based on the calculated fields as shown in the conversion field, or as shown in the codes field.

**trafficLight** Traffic Light coding system denotes level of certainty, and/or level of accuracy that can be described for each record; see Appendix 1 for details.

**codes** Explanation codes that highlight the process for each record; see Appendix 2 for details.

### Bibliography

- Augustyn, A., Zeidan, A., Zelazko, A., et al. (eds.). 2020. Thirty Years' War: European history. Encyclopaedia Britannica. <https://www.britannica.com/event/Thirty-Years-War>. [Accessed 27 November 2020]
- Baasch, Ernst. 1906. Zur Geschichte des hamburgischen Heringshandels. In Hansische Geschichtsblätter 33. pp. 61-100.
- Degryse, Roger. 1959. Schonense en Vlaamse kaakharing in de 14e eeuw. Leiden: Nijhoff.
- Edwards, MU. 1994. Printing, Propaganda, and Martin Luther. Berkley: University of California Press.
- Hahn, L. 1941. Ostfrieslands Heringsfischereien unter besonderer Berücksichtigung der Geschichte der Emden Heringsfischerei in fünf Jahrhunderten 1552-1940. Oldenburg: G Stalling.
- Hofmeister, Adolf E. 2014. Das Bremer Kornakzise-Rechnungsbuch von 1617. In Hanse und Stadt. Festschrift für Rolf Hammel-Kiesow, edd. by Michael Hundt and Jan Lokers, Lübeck 2014, pp. 337–354.
- Jürgens, Adolf. 1914. Zur schleswig-holsteinischen Handelsgeschichte des 16. und 17. Jahrhunderts. Berlin : Curtius
- Kappelhoff, Bernd (ed.)/Deggim, Christina. 2011. Archivalische Quellen zum Seeverkehr und den damit zusammenhängenden Waren- und Kulturströmen an der deutschen Nordseeküste vom 16. bis zum 19. Jahrhundert. Ein sachthematisches Inventar. Teil 1: Archive im Elbe-Weser-Raum und in Bremen (Veröffentlichungen der Niedersächsischen Archivverwaltung, 63), Göttingen.
- Kulturgeschichtliche Bilder Nr. 1. c. 1960 (no date). In the port of a Hanseatic town. Kempen. Verlag Dr. te Neues & Co. Dortmund: Westfälisches Schulmuseum.
- OBIS Ocean Biogeographic Information System of UNESCO. 2017. Manual: DarwinCore. [Online] Available at: <http://www.iobis.org/manual/darwincore/> [Accessed 30 November 2020].
- Poulsen, Bo. 2008. Dutch Herring - An Environmental History, c. 1600-1860. Amsterdam University Press. DOI: 10.2307
- Nicholls, J., Allaire, B. and Holm, P. 2021. The Capacity Trend Method: A new approach for enumerating the Newfoundland cod fisheries (1675-1790). Historical Methods: A Journal of Quantitative and Interdisciplinary History. DOI: 10.1080/01615440.2020.1853643
- Straube, Manfred. 2015. Geleitwesen und Warenverkehr im thüringisch-sächsischen Raum zu Beginn der Frühen Neuzeit. Cologne: Böhlau.
- Vliet, A.P. van. 1994. Vissers en kapers. De zeevisserij in het Maasmondgebied en de Duinkerker kapers (ca. 1580-1648). Dissertatie, Hollandse Historische Reeks. Den Haag.
- WoRMS. World Register of Marine Species – taxa. 2020. <http://www.marinespecies.org/aphia.php?p=taxdetails&id=126417>. Oostende, Belgium [Accessed: 30 November 2020].

## Appendix 1

### Traffic Light System

Traffic Light	Explanation
green	Given values with minimal conversion
amber	Calculated values based on given values
red	Calculated values capacity trended from Dutch herring fishery annual export figures

## Appendix 2

### Codes

Codes	Explanation
a	Calculated values based on Capacity Trended figures from the Dutch herring fishery
b	Given values shown as zero – period of known inactivity
c	Given values for periods of known activity