



Norfish Dataset

**French Northeast Atlantic  
Herring Fishery 1520–1790**

*Supporting Documentation*

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*Atlantic Herring: Clupea harengus Linnaeus, 1758 (Decleer 2006)*



# French Northeast Atlantic Herring Fishery 1520-1790

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## Summary

<b>Dataset Title:</b>	French Northeast Atlantic Herring Fishery 1520-1790
<b>Norfish Case Study:</b>	French Northeast Atlantic Herring Fishery 1520-1790
<b>Large Marine Ecosystem:</b>	24: Celtic-Biscay Shelf; 22: North Sea
<b>Subject:</b>	Herring catches, Northeast Atlantic, France 1520-1790
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<b>Extent:</b>	271 records
<b>Keywords:</b>	Herring catches; Norfish; France; North Sea; Celtic-Biscay Shelf; Northeast Atlantic

### Citations:

- **The dataset:** please cite as follows Allaire, B., Nicholls, J and Holm, P. 2020. Norfish: French Northeast Atlantic Herring Fishery 1520-1790. Dublin: TCD
- **Supporting documentation:** please cite as follows Allaire, B., Nicholls, J and Holm, P. 2020. Norfish Supporting Documentation: French Northeast Atlantic Herring Fishery 1520-1790. Dublin: TCD



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## Sources and Chronology

Identifying sources for the French Herring Fishery, which prevailed in the North Sea, the Irish Sea, off the Western coast of Scotland and through the English Channel during the 1520-1790 period, is difficult. Whatever archived records may exist are sparse, unresearched and scattered.

The clearest indications of the scale and geographic location of the French herring fishery may be found in **old prints** that indicate descriptions of fish, fishing grounds, countries involved and techniques; these prints dating from as early as the 16<sup>th</sup> century chart the places where the French sailed to catch herring: the coasts of Brittany, Normandy and Picardy, the English coasts, the Irish sea, Iceland and other places (Savary des Bruslons 1726; Duhamel du Monceau Henri-Louis 1772; Noel de la Morinière 1815).

A common theme for most of these prints is that the Dutch provided the best quality of herring, followed by the Irish and Scottish fisheries. The herring caught by the English were regarded as being of a lower quality because of the lack of the use of salt to transform the fish and keep it relatively fresh. The French caught herring, but on a small scale. Only specific ports in Normandy, Picardy and Brittany were involved in the herring fisheries. Unfortunately, the old prints do not provide any catch amount statistics for these fisheries.

It is in more recent prints that we find more precise information. A case study by Eric Dardel (1941) on the French herring fisheries provides some statistics on the metric tonne catches that were taken from the archives de la Marine. Another historian, Joachim Darsel (1962, 1969, 1970a, 1970b, 1970c, 1972, 1973a, 1973b, 1977, 1978, 1979, 1980) provides some data extracted from the French Admiralty records about the number of vessels involved in the herring fisheries, but exclusively in ports of the province of Normandy. Further research in these two series of archives in France could provide a larger panorama of the fishing activities. Preliminary indications highlight that there was a decline in the 17th century, but the fishery expanded again in the 18th century.

Other recent prints such as Collins (1984), Delumeau (1959) and the various works by Darsel (1962, 1969, 1970a, 1970b, 1970c, 1972, 1973a, 1973b, 1977, 1978, 1979, 1980) use the Nicolas Langlois census for Normandy of 1627, and the Colbert census of 1664.

The partial census of 1627 indicates the presence of only 81 vessels of between 30 and 60 tonnes; Dieppe 35, Saint-Valéry 23, Fécamp 14 and Bayeux 9. The authors generally talk about a decline in herring fisheries which continue supplying the national market. There is mention of competition between cod and herring for the salt fish market (Collins, 1984:

375). Jean Delumeau (1959, p.277) states that from 1560 the French no longer bring herring to the Mediterranean market due to the wars of religion, but that this is also due to the arrival of cod as a major competitor.

Most of the French herring fishing boats were also employed in the mackerel fisheries and other small coastal fisheries. In periods of warfare and conflicts the herring and other coastal fisheries compensated the lack of activity by outfitting for the Newfoundland cod fishery. This switch from herring to cod fishing was exacerbated by arguments used to promote the Newfoundland cod fishery; it was good for economy, it would feed the population, it employed thousands of sailors, it was a good school for mariners to use in time of war, there was a low level of danger from this maritime activity in comparison to other far-distance expeditions.

## Statistical Data

Available Statistics from the sources provide some ability to specify vessel capacities to between 25 and 50 tonnes. An average catch weight of 35 metric tonnes is assumed based on these criteria.

From the first half to the second half of the 17th century Dardel, Darsel and Collins underline a fluctuation in the **number of vessels** involved in the herring fisheries, for instance:

- 1627: Dieppe 35 vessels (Dardel 1941, p.160)
- 1627: Eu-Tréport 12 vessels (Darsel 1969, p. 297)
- 1640: Eu-Tréport 50 vessels (Darsel 1969, p. 297)
- 1734: Eu-Tréport 7 vessels (Darsel 1969, p. 297)
- pre-1650: Saint Valery 20 vessels (Darsel 1970, p.5)
- 1664: Saint Valery 3 vessels (Darsel 1970, p.5)
- 1770: Saint Valery 35 vessels (Darsel 1970, p.5)
- 1781: Saint Valery 17 vessels (Darsel 1970, p.5)
- 1782: Saint Valery 26 vessels (Darsel 1970, p.5)
- pre-1650: Fécamp 25 vessels (Darsel 1970. P.92)
- 1664: Fécamp 5 vessels (Darsel 1970. P.92)
- 1734: Fécamp 12 vessels (Darsel 1970. P.92)
- post-1700: Honfleur became a secondary industry (Darsel 1977, p.161)

- 1600: Bayeux 50 vessels (Dardel 1941, p.160)
- 1687: Bayeux 10 vessels (Dardel 1941, p.160)

In terms of statistics provided in metric tonne catch rates, Dardel (1941, p.97) provides some details are provided for the port of Dieppe:

### **Salted herring**

- 1715-1718: Dieppe 2850 MT
- 1721-1722: Dieppe 2850 MT
- 1752-1758: Dieppe 4800 MT

### **Fresh herring**

- 1715-1718: Dieppe 8400 MT
- 1721-1722: Dieppe 8400 MT
- 1752-1758: Dieppe 2200 MT

Poulsen (2008, p.68) provides details from the 1788 census which indicates that a total of 330 vessels were engaged in the French herring fishery in that year. With an assumed catch weight of 35 MT per vessel, 11550 tonnes of herring were caught.

## **Other Processes**

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_FreAllNicHolHer_1)
<b>type</b>	Description of data series type. e.g. Dataset
<b>modified</b>	Most recent date the data was modified; ISO 8601 metric date/time standards apply. (2020-10-27)
<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: (Allaire, B., Holm, P. and Nicholls, J. 2020. Norfish: French East Atlantic Herring Fishery. 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. (French Northeast Atlantic 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. (Source: Nicholls, John., Allaire, Bernard and Holm, Poul. 2021. The Capacity Trend Method: A new approach for enumerating the Newfoundland cod fisheries (1675–1790). Historical Methods: A Journal of



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	Quantitative and Interdisciplinary History. DOI: 10.1080/01615440.2020.1853643)
<b>catalogNumber</b>	Identifier of the data within the institution and project – “Fre” refers to French, “All” refers to Allaire, “Nic” refers to Nicholls, “Hol” refers to Holm, “Her” refers to Herring. (FreAllNicHolHer)
<b>occurrenceRemarks</b>	Comments about the occurrence record. (Weight of 35 MT per vessel average applied based on typical weights between 25 and 50 MT)
<b>recordedBy</b>	Researchers who recorded the data. (Bernard Allaire   John Nicholls   Poul Holm)
<b>organismQuantity</b>	Quantity of fish represented in the record shown in Kg live weight. (8285162)
<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/5664">http://marineregions.org/mrgid/5664</a> )
<b>locality</b>	Local name for the overall location or region. (Northeast Atlantic)
<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)





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<b>decimalLatitude</b>	Latitude shown in decimal notation based on the WGS 84 (EPSG:4326) geodetic datum standard. (46)
<b>decimalLongitude</b>	Latitude shown in decimal notation based on the WGS 84 (EPSG:4326) geodetic datum standard. (-20)
<b>coordinateUncertaintyInMeters</b>	The smallest circle (radius) in metres from the ground zero point depicted by the decimalLatitude and decimalLongitude fields. In this instance, "2000000" depicts a radius of c. 2000Km.
<b>georeferenceRemarks</b>	Remarks indicating the geographic area identified – Large Marine Ecosystems are used. (24: Celtic-Biscay Shelf; 22: North 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 hareng – the French common name for herring
<b>conversion</b>	Conversion factor applied to derive catchMT (1 vessel = 35MT)

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**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.

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## Appendix 1

### Traffic Light System

Traffic Light	Explanation
green	Given values with minimal conversion
amber	Calculated values based on given vessel numbers for specific ports
red	Calculated values capacity trended from Scottish herring fishery annual export figures

## Appendix 2

### Codes

Codes	Explanation
a	Given number of vessels at 330 based on census of 1788; average tonnage per vessel is 35 MT
b	Calculated values based on trend from the Scottish herring fishery 1520-1790
c	Calculated values based on available statistics from sources for specific ports; average tonnage per vessel is 35 MT