NorFish
An Environmental History of the North Atlantic
- 1400-1700 -

Norfish Dataset

French North East Atlantic Cod Fishery 1520–1829

Supporting Documentation

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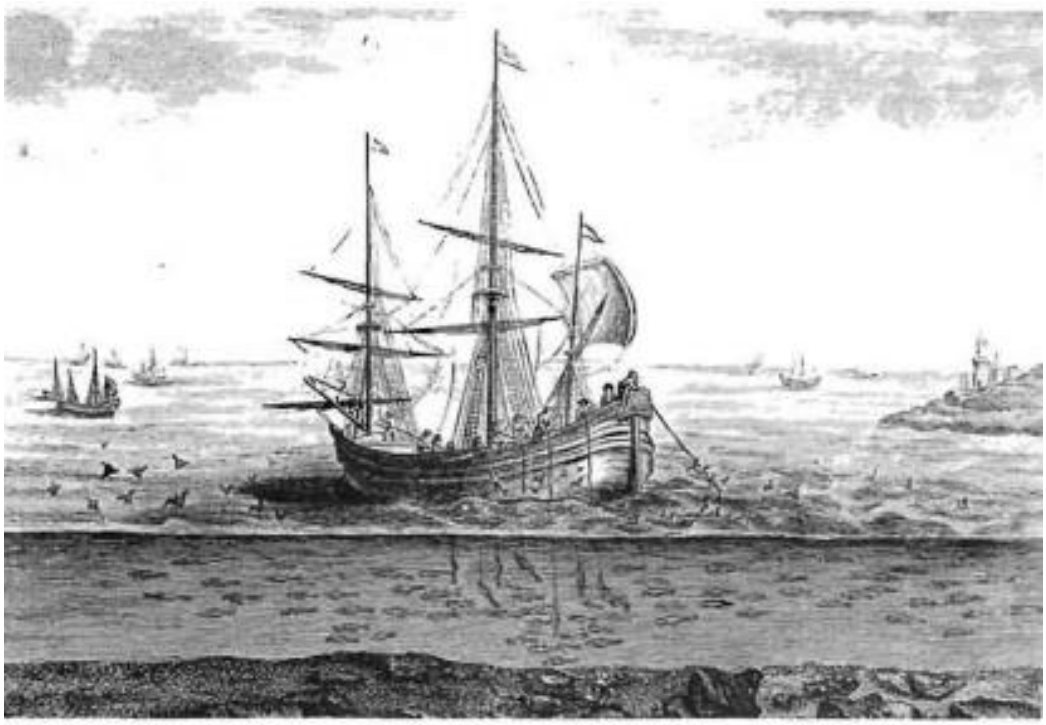

French vessel line fishing for cod in the 18th century –
original drawing by Duhamel du Monceau, 1789.
(Perrin 2020)

Summary

Dataset Title:	French North East Atlantic Cod Fishery 1520-1829
Norfish Case Study:	French North East Atlantic Cod Fishery 1520-1829
Large Marine Ecosystem:	59: Iceland Shelf and Sea; 22: North Sea
Subject:	Catches, French, cod, Iceland, North Sea, 1520-1829
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Data Provider:	Bernard Allaire, Poul Holm, John Nicholls Norfish Project Centre for Environmental History Trinity College Dublin
Data Editors:	John Nicholls Norfish Project Centre for Environmental History Trinity College Dublin
Extent:	310 records
Keywords:	Atlantic cod catches, French, Iceland, North Sea, 1520-1829

Citations:

a. **The dataset:** please cite as follows Allaire, B., Holm, P. and Nicholls, J. 2021. Norfish: French North East Atlantic Cod Fishery 1520-1829. Dublin: TCD

b. **Supporting documentation:** please cite as follows Allaire, B., Holm, P. and Nicholls, J. 2021. Norfish Supporting Documentation: French North East Atlantic Cod Fishery 1520-1829. Dublin: TCD

Contents

Sources and Chronology

The French cod fishery "may" be sourced as early as the 12th century when Basques crossed the Atlantic in search of whales. In the 15th century, following the Basques, Bretons and Normans were active off the Grand Banks of Newfoundland. By about 1550, Dunkerque fishers became active in the North Sea, catching cod that migrated from the English Channel. (Hersart de La Villemarqué 1995, p.9)

This dataset focuses on French catches off the coast of Iceland and in the North Sea but may include catches in the Channel and surrounding waters. Little is known about the 15th and 16th centuries in statistical terms. As per the examples above, some anecdotal evidence is available to verify the activity of a fishery.

Data was assembled in tranches based on availability. Several specific periods arise.

1520 to 1696

The period 1520 to 1696, with the exception of the years 1614 to 1617, provides no statistical data that can be reported. The brief series that is available depicts catches landed at Dunkerque for 1614, 1615 and 1617. These years are provided as an average of 112 metric tonnes (t) per annum with average figures for the numbers of vessels (7) and number of fishers (56) per annum. A typical value of 2 tonnes per fisher is depicted for 1614 to highlight the level of effort that was expended. These vessels and fishers were reportedly active off the coast of Iceland (Palmadöttir 1989; Statistique des Pêches 1887).

From this basis, the first available data in 1614 was used to estimate values prior to 1614 at 112 t per annum. Similarly, values between 1618 and 1696 are assumed at 112 t per annum based on the given values for 1617.

1696 to 1829

For this period, despite several gaps in the series, the data is reasonably contiguous and provides a clear indication of the scale of the fishery. All available data relates to landings at Dunkerque as reported in the Statistique des Pêches (1887, 1888, 1890) with the exception of landings for 1767 and 1787 which are reported in Innes (1978) but also for Dunkerque. The table of values that was adopted is provided by Palmadóttir (1989) and is reflected again in Jónsson (1994, p.13 Table 5). These data are also supplied, but in non-specific graphic form as a chart, by Hersart de La Villemarqué (1994).

Data for many of the available years includes numbers of vessels, numbers of fishers and metric tonnes landed. Crew lists are only available from 1814; typical vessels in the 18th century carried 7-8 men.

The missing years from the series are as follows: 1697-99, 1702, 1704-14, 1718-29, 1742-50, 1758-62, 1793-98, 1808-13. For these missing years, the Capacity Trend Method was again applied to provide a reasonable trend against the Icelandic fishery values (Nicholls et al 2020).

Conversion Factors

Catch weight values are provided in metric tonnes as reported above. However, Jónsson (1994) provides conversions for determining the original weight measure of barrels into metric tonnes:

- Flemish barrels were used until 1784: 1 barrel = 135 kg
- This was revised from 1785-1852: 1 barrel = 125 kilogram

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
occurrenceID	A globally unique “per record” identifier based upon the concatenated institutionCode, collectionCode, catlogNumber and ID fields (TCD_Norfish_FreNeaAllHolNicCod_1)
type	Description of data series type. (Dataset)
modified	Most recent date the data was modified; ISO 8601 metric date/time standards apply. (2021-02-22)
license	Data licensing conditions that apply. (http://creativecommons.org/licenses/by/4.0/legalcode)
bibliographicCitation	Author citation for the dataset. (Allaire, B., Holm, P. and Nicholls, J. 2021. Norfish: French North East Atlantic Cod Fishery 1520-1829. Dublin: TCD)
references	Denotes the link where more detailed information about the dataset is held. (http://www.vliz.be/imis?module=project&proid=5064)
institutionCode	Identifies the institution which owns the data - Trinity College Dublin. (TCD)
collectionCode	Code of the project or research group. (Norfish)
datasetName	Name of the dataset. (French North East Atlantic Cod Fishery 1520-1829)
basisOfRecord	Specifies the nature of the observed or researched specimens or data. (HumanObservation)
dataGeneralizations	Source data that informs the provenance of the data. (Sources: Hersart de La Villemarqué, J. 1994. French cod fisheries from the sixteenth to the middle of the

	twentieth century. ICES mar. Sci. Symp. 198. pp.56-58; Statistique des Pêches Maritimes et de L'Ostréiculture pour L'année 1890. Ministère de la marine. Paris.)
catalogNumber	Identifier of the data within the institution and project – "Fre" refers to French, "NEA" refers to North East AtlanticIceland, "Hol" refers to Holm, "Nic" refers to Nicholls, "All" refers to Allaire, "Cod" refers to cod. (FreNEAHolNicAllCod)
occurrenceRemarks	Comments about the occurrence record. (NA)
recordedBy	Researchers who recorded the data. (Poul Holm | Bernard Allaire | John Nicholls)
organismQuantity	Quantity of fish represented in the record shown in Kg live weight. (122953)
organismQuantityType	organismQuantity unit of measurement. (biomass in kilograms (kg))
occurrenceStatus	Stipulates the physical presence or absence of animals relating to the record. (present)
eventDate	Actual date and time at which an occurrence was recorded. ISO 8601 metric date/time standards apply. (1520)
year	Year taken from the eventDate field. (1520)
locationID	Marine Region unique identifier. (http://marineregions.org/mrgid/36316)
locality	Local name for the overall location or region. (Iceland coast and Sea, North Sea, Channel)
locationAccordingTo	MRGID location identifier based on the marineregions.org/mrgid system. (MRGID)
locationRemarks	Description of location identifier. (NOAA described Large Marine Ecosystem)

decimalLatitude	Latitude shown in decimal notation based on the WGS 84 (EPSG:4326) geodetic datum standard. (66.57046)
decimalLongitude	Latitude shown in decimal notation based on the WGS 84 (EPSG:4326) geodetic datum standard. (-15.5671)
coordinateUncertaintyInMeters	The smallest circle (radius) in metres from the ground zero point depicted by the decimalLattitude and decimalLongitude fields. In this instance, “530259” depicts a radius of c. 530 Km.
georeferenceRemarks	Remarks indicating the geographic area identified – Large Marine Ecosystems are used. (59: Iceland Shelf and Sea)
scientificNameID	The WoRMS LSID associated with the scientficName, based on the Marine Species database. (urn:lsid:marinespecies.org:taxname:126436)
scientificName	Scientific name of the animal based upon the vernacularName. (Gadus morhua)
kingdom	Together with taxonRank assists in determining broader animal characteristics for darwinCore search engines. (Animalia)
taxonRank	Together with kingdom assists in determining broader animal characteristics for darwinCore search engines. (species)
scientificNameAuthorship	Based on the scietificNameID field and discoverable through the WoRMS database. (Linnaeus, 1758)
vernacularName	Literal common name applied to the animal involved. In this case, all values are morue – the French common name for cod
identificationRemarks	Details that assist in identifying the animal.

	(Common name for cod is morue; also known as morus, morue franche, cabillaud de l'Atlantique and cabillaud)
conversion	Conversion factor applied to derive catchMT. (Flemish barrels were used until 1784: 1 barrel = 135 kg; this was revised from 1785-1852: 1 barrel = 125 kilogram)
port	Port of origin of the vessels. (Dunkerque)
portLatitude	Latitude of the port of origin shown in decimal notation based on the WGS 84 (EPSG:4326) geodetic datum standard. (51.041059)
portLongitude	Longitude of the port of origin shown in decimal notation based on the WGS 84 (EPSG:4326) geodetic datum standard. (-2.357503)
numberOfVessels	The given annual number of vessels engaged in the fishing operation. (7)
numberOfFishers	The given number of fishers engaged in the fishing effort on the vessels identified in numberOfVessels. (56)
averageTonnagePerVessel	Given average number of tonnes loaded per fishing vessel. (33)
tonnesPerFisher	Given average tonnes of fish caught per fisher per annum. (8)
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
red	Calculated values based on simple extrapolation between first and last given points

Appendix 2

Codes

Codes	Explanation
a	Assumed minimum value
b	Capacity trended value from first and last given values based on Icelandic trend
c	Given catch value in metric tonnes
d	Given number of vessels
e	Given number of Fishers
f	Given average Tonnage Per Vessel
g	Given tonnes Per Fisher