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

Norfish Dataset

Dutch North Sea Cod Fishery

1520–1810

Supporting Documentation

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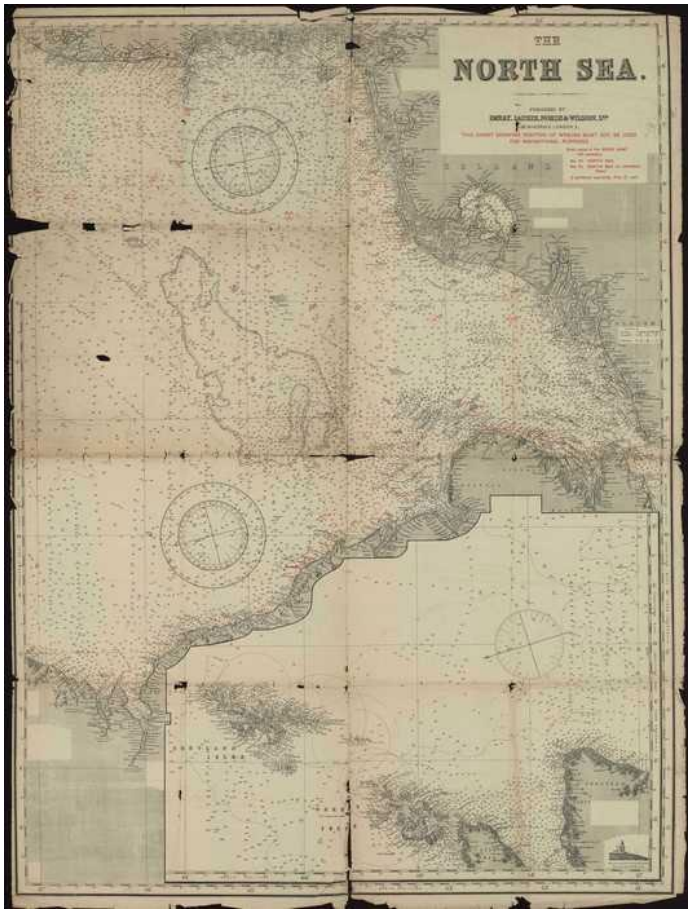

The North Sea: with indications of sand banks, depths and wrecks

(Imray et al n.d.)

Dutch North Sea Cod Fishery 1520–1810

Summary

Dataset Title:	Dutch North Sea Cod Fishery 1520-1810
Norfish Case Study:	Dutch North Sea Cod Fishery 1520-1810
Large Marine Ecosystem:	22: North Sea
Subject:	Catches, Dutch, cod, North Sea, 1520-1810
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Data Provider:	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:	291 records
Keywords:	Atlantic cod catches, Dutch, North Sea, 1520-1810, Norfish

Citations:

a. **The dataset:** please cite as follows Holm, P. and Nicholls, J. 2020. Norfish: Dutch North Sea Cod Fishery 1520-1810. Dublin: TCD

b. **Supporting documentation:** please cite as follows Holm, P. and Nicholls, J. 2020. Norfish Supporting Documentation: Dutch North Sea Cod Fishery 1520-1810. Dublin: TCD

Contents

Sources and Chronology

Dutch sources distinguish between cod fishing in the North Sea and the fishing efforts off the coast of Iceland. The North Sea cod fishing effort for the Dutch was never at the scale of the Dutch herring fishery which at its peak at the beginning of the 17th century totalled nearly 80,000 metric tonnes per annum. In comparison, the Dutch North Sea cod fishery managed just over 21,000 metric tonnes at its peak in 1622.

The explanation for this disparity may lie in the negotiating power of the two fleets during the Dutch Golden Age (final decade of the 16th century until the middle of the 17th century) and beyond. Herring fishers, who provided what was arguably one of the largest contributions to the Dutch coffers during the Golden Age made various pleas for financial assistance from the state which eventually culminated in a "premie" (premium) of 600 guilders per vessel per season for deep sea fishing, coupled with a one guilder bonus for each ton (close to one metric tonne) of herring caught. Shoreline herring fishers received a 200 guilders "premie", while cod fishers operating off the coast of Iceland received 500 guilders "premie". In stark contrast, the North Sea cod fishers do not appear to have received any form of bounty or bonus (Thomas 1935, p.224).

1520 to 1770

No data are available for this period. To provide a series of probable annual landings of cod, the Capacity Trend Method was applied. The trend from the Faroes data series was compared against the first known values from the Dutch fishery in 1771, and a trend was developed.

1771 to 1810

Overgaard (2015) provides figures for this entire period in the form of cod vessel numbers from Maassluis and Vlaardingen operating in the North Sea. The data are available in graphic form and values were extracted manually from the chart (Ibid., p.41). Points are plotted to indicate the Summer fishery, the Winter fishery and the Icelandic fishery (which only sailed for a single season per annum). The original data source is cited as coming from:

> "A French attendant of domestic affairs, M. d'Alphonse [who] collected statistics on cod fishing in 1811, covering the period 1771-1810."
>
> (Ibid.)

Overgaard also provides a chart that encapsulates the number of North Sea cod fishing vessels that operated from the port of Maassluis from 1763 to 1838. These figures are indicative of the decline in the industry from the early 1790s caused by the Napoleonic Wars, and indicate that recovery did not occur during this period.

The vessel numbers supplied were aggregated to obtain the combined Winter and Summer fleet numbers. A catch of 50 metric tonnes per vessel was assumed based on the processing (beheading, gutting and cleaning and initial salting process that took place onboard) where an expected catch of 15 to 20 lasts (roughly 30 to 40 metric tonnes) per vessel may be assumed. Thomas (1935) highlights that a catch of at least 15 lasts per vessel would have been required to break-even, so a minimum weight has been adopted.

Based on the given numbers of vessels and the typical catch per vessel in metric tonnes, the catch per vessel was calculated in metric tonnes.

Gear Deployed

From the 15th century the “dogger” or “dogboot” was a collective term to indicate Dutch cod fishing vessels that operated in the North Sea; the name is derived from the Dogger Bank sand banks and shallows in the North Sea where a large proportion of the fishing effort was carried out (Cees 1998).

The vessels involved included “buizen” (large “busses”), pinken (low keeled vessels able to enter shallow waters and silted harbours) and even crabschuiten (crab barges). They were regarded as highly reliable for their purposes but were not suitable for the higher levels of seaworthiness required for the associated Dutch Icelandic fishery (Ibid.).

These vessels were easily refitted and repurposed as was the case during the first two Anglo-Dutch Wars (1652–1654 and 1665–1667 respectively) when English privateers and the Royal Navy captured several and converted them into capable warships (Ibid.).

Conversion Factors

1 last = 1.9764 metric tonnes

1 vessel = 50 metric tonnes load

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_DutNorHolNicCod_1)
type	Description of data series type. (Dataset)
modified	Most recent date the data was modified; ISO 8601 metric date/time standards apply. (2021-02-20)
license	Data licensing conditions that apply. (http://creativecommons.org/licenses/by/4.0/legalcode)
bibliographicCitation	Author citation for the dataset. (Holm, P., and Nicholls, J. 2021. Norfish: Dutch North Sea Cod Fishery 1520-1810. 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. (Dutch North Sea Cod Fishery 1520-1810)
basisOfRecord	Specifies the nature of the observed or researched specimens or data. (HumanObservation)
dataGeneralizations	Source data that informs the provenance of the data. (Source: Overgaard, Christine. 2015. Een spiering uitwerpen om een kabeljauw te vangen: How and why

	the Dutch fished for cod 1818-1911. Amsterdam: Amsterdam University Press. p.41.)
catalogNumber	Identifier of the data within the institution and project – "Dut" refers to Dutch, "Nor" refers to North Sea, "Hol" refers to Holm, "Nic" refers to Nicholls, "Cod" refers to cod. (DutNorHolNicCod)
occurrenceRemarks	Comments about the occurrence record. (Vessel numbers extracted from chart)
recordedBy	Researchers who recorded the data. (Poul Holm | John Nicholls)
organismQuantity	Quantity of fish represented in the record shown in Kg live weight. (4850963)
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/8542)
locality	Local name for the overall location or region. (North Sea, Dutch coast, Dogger Bank)
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. (57.37568)
decimalLongitude	Latitude shown in decimal notation based on the WGS 84 (EPSG:4326) geodetic datum standard. (2.72626)
coordinateUncertaintyInMeters	The smallest circle (radius) in metres from the ground zero point depicted by the decimalLattitude and decimalLongitude fields. In this instance, “827925” depicts a radius of c. 828 Km.
georeferenceRemarks	Remarks indicating the geographic area identified – Large Marine Ecosystems are used. (22: North 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 Atlantische kabeljauw – the Dutch common name for Atlantic cod
conversion	Conversion factor applied to derive catchMT.

	(1 last = 1.9764 metric tonnes; 1 vessel = 50 metric tonnes load)
northSeaSummerFishery	Number of vessels operating in the Summer Season North Sea cod fishery. (145)
northSeaWinterFishery	Number of vessels operating in the Winter Season North Sea cod fishery. (22)
tonnesPerVessel	Tonnage load per vessel, incorporating any processing such as cleaning, beheading, gutting and salting on board. (50)
numberOfVessels	Number of vessels combined from the Summer and Winter seasons. (167)
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 and given vessel numbers
amber	Calculated values based on given vessel numbers or other criteria
red	Calculated values based on Capacity Trended extrapolation

Appendix 2

Codes

Codes	Explanation
a	Calculated values derived from Capacity Trended values based on the Faroe Islands Cod Fishery
b	Values based on given vessel numbers