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Bo Poulsen

IMITATION IN EUROPEAN HERRING FISHERIES, C. 1550–1860

For no less than 300 years, c. 1550–1860 the Dutch way of fishing was the envy of neighbours in the North Sea area and looked upon as the undisputed best practice. However, it turned out that the perception of the Dutch Golden Age of fishing outlived the reality by at least 150 years. This paper explores the consequences of the image of Dutch dominance, as seen through 41 different attempts to build a fleet and run fishing operations similar to the Dutch. Most of them were short-lived, and some never made it to the fishing grounds before going bankrupt. When reviewed one by one, they all have unique reasons for lacklustre performances. Privateering, warfare, bankruptcy, and bad fishing luck are all valid explanations at the level of politics and short-term events. However, when looked upon in connection to each other, some recurrent features of more-or-less sound policies appear, as well as structural, social, and natural conditions for varying degrees of success and failure. Two waves of imitation emerge from this comparison. In the mid-1600s and then again during the 1760s–1770s there was a particularly strong Europe-wide interest in emulating Dutch fisheries.

Keywords fisheries history, marine environmental history, herring, business organization, early modern, maritime history

Introduction

I had the curiosity to go to Shetland to see the Dutch Fleet, which appear'd like so many busy Bees, sucking the Honey from our Coasts.¹

Such was the inspirational impression of an anonymous commentator writing in 1734 on the potential for Scottish and English fishers to copy the Dutch way of fishing for herring. From c. 1550–1700, the Dutch herring fisheries held an absolute dominant position in the European herring market, one of the most important bulk commodities in the international trade of early modern Europe.² The fisheries thus form a prime example of how the Dutch Republic showcased what has been labelled 'the first modern economy'.³ Indeed, within areas as diverse as labour market formation,

economic transactions, cattle trade, and fine arts, recent research has testified to the existence of a far-ranging Dutch influence across northern Europe in the 17th century.⁴

Following the Dutch decline, Norway, Sweden, and Scotland each had phases during which they were Europe's leading producer of herring, and next to these large producers several other herring fisheries were important at various stages in the period of c. 1600–1850.⁵

However, this paper highlights how the symbolic influence of the Dutch continued long after the fall of Dutch dominance in the fisheries. For at least another 150 years, neighbouring countries around the North Sea continued to emulate the Dutch way of fishing, which was perceived as being superior to the shore-based enterprises otherwise dominating the fishing sector after c. 1700. This testifies to the importance of a shared belief in best practice of fishing, shaped by the image of the dominant producer in the market. This paper explores the consequences of the image of Dutch dominance, as seen through 41 different attempts to build a fleet and run fishing operations similar to the Dutch. In the long run, though, none of the European imitators were competitive. Most of the enterprises were short-lived, and some never made it to the fishing grounds before going bankrupt. Some of these attempts are well-documented, and the archive material has facilitated the writing of entire books, while other efforts, especially in cases in which the states played a small part in the organization, are more or less forgotten. When reviewed one by one, all these copycat operations have unique reasons for not surviving the close encounter with the Dutch fishing practices. Privateering, warfare, bankruptcy, and bad fishing luck are all valid explanations at the level of politics and short-term events. However, when looked upon in connection to each other, some recurrent features of more-or-less sound policies appear, as well as structural, social, and natural conditions that could have been responsible for the varying degrees of success and failure.

These features are explored by applying a series of identical questions to the materials relating to each of the imitators' endeavours. These questions include: Who initiated the activity? How was it financed? How was it organized? Where did the vessels come from? Where did the nets come from? Where did the crew come from? How did the company perform? Did they deliver a quality product? For how long were they in operation? Why and when did the operation cease to exist? Not all questions can be answered in all 41 cases, but a number of recurrent features emerge nonetheless.

The model industry

The Dutch model of producing herring was characterized by: a rigorous set of fishing laws designed to promote a top-quality product and minimize internal competition; independence of geographical restraints due to the use of factory ships, busses, and hookers; a continuous privileged position in Dutch society for 300 years, including off-shore military protection; and a large vertical integration in the herring industry.

Apart from the size of the Dutch fishing industry, the fishery was extremely well-organized for its time, and definitely the most regulated high seas fishery anywhere in the world prior to the 20th century. In the 1560s, a number of Dutch towns formed a body, the *College van de Grote Visserij*, which, during the last decades of the 16th century, was inaugurated by privilege from the Dutch government. The *College* was

thereby given jurisdiction over the entire Dutch herring industry with respect to the catch, processing, distribution, and marketing of salted herring.⁶ The main purpose of the *College van de Grote Visserij* was to uphold the quality of the top brand of salted herring in Europe, while the state of monopoly gave a large degree of protection to the industry.⁷ Right up until 1857 the *College* upheld a monopoly on the landing of salted herring in the Netherlands.⁸

Some time in the latter half of the 14th century, Dutch and Flemish fishermen started to process the herring aboard their fishing vessels. They took along salt and barrels, so the herring could be cured and salted immediately after being caught, thereby preparing a high-quality product and making the fisheries almost independent of geography. This was also around the time when the herring buss was introduced, which was a fishing vessel with large storage capacity. Together, these developments meant that the fishermen had sufficient provisions on board for them to focus on following the fish round the North Sea, rather than waiting for it to approach the shores of the continent; this meant that the Dutch had a longer fishing season compared to the other herring fisheries in northern Europe.⁹ Over the course of the 15th and 16th centuries, this production method developed into a major enterprise, with large investments not only in shipbuilding and fishing but also in developing a widespread distribution network for the finished product throughout Europe. All products except hemp for nets came from the Rhineland area and salt, which had to be of Portuguese or Spanish origin, was manufactured in Holland, giving a strong economic interdependence between shipyards, coopers, seaman, net makers, etc. The whole industry was the envy of foreign nations and privateers, so each year naval vessels were deployed to patrol the fishing waters in the North Sea at the expense of the Dutch government.¹⁰ It was usual for a large number of smaller fishing companies to operate the Dutch fisheries; sometimes the skipper would own his own boat with a few others, more often a number of shareholders invested in one or more ships as way of spreading the financial risk.¹¹

The English and Scottish companies

It was in 1623 that the first attempt was made to copy the Dutch fisheries, when Dutch fishermen were invited to settle in Stornoway on the Outer Hebrides of the British Isles. Soon, however, the local inhabitants drove them away.¹² In 1631, following a series of complaints from the local administration in Scotland of Dutchmen fishing in Scottish coastal waters, King Charles I granted a charter for a herring company to be set up.¹³ The king also offered a bounty and ordered lent to be observed more strictly as a means to encourage native consumption of salted herring; he also prohibited the importation of fish caught by foreigners and agreed that the Royal Navy would buy its provisions of fish from the herring company. In 1633, the company was established with a base in the Hebrides.¹⁴ The ambitious plan included the construction of no less than 200 herring busses of 30–50 tons. The money raised for the company, however, was all spent within the first two years of the company's existence, and a subsequent report concluded in 1639 that 'inefficiency, dishonesty and lack of money' were the main causes for the downfall of this fishery, which was finally dissolved on the outbreak of the civil war in 1641.¹⁵

In 1654, a group of wealthy people in London initiated another attempt at setting up a fishery, but again in vain. Money was raised, and they were granted an exemption from paying duties on salt, but allegedly the priorities of Cromwell in Stornoway were directed solely to military purposes, which meant that the fishery did not succeed.¹⁶ Again in 1661, an act was passed by the Scottish Parliament that permitted a monopoly to fish in the waters around Scotland, but it was not until 1670 that an active effort was taken, when the Royal Fishing Company, which was also granted the rights to import materials free of tolls, began fishing out of Stornoway. The company had a nominal capital of £ 25,000. According to a modern commentator, this was too little to fund a long-term operation, and it also fostered animosity in the local community.¹⁷ The 18th-century commentator Knox admits that the initial funding was low, but he also stresses that the fisheries went well in practice. Dutch families were invited to settle in Stornoway, and the cured herring produced by the company was well-received on the market and sold at high prices. Knox puts the blame of the company's downfall on the king ceasing the payment of bounties.¹⁸

In 1677, the New Royal Fishing Company, based in England, was launched. This was the initiative of the Duke of York, the Earl of Derby, and consorts, and the king backed the company, granting it the licence to acquire land, and an annual bounty per vessel built. The capital funds amounted to £ 12,580, which enabled the company to set sail with Dutch-built vessels and Dutch crew, and the fishing brought good returns. The luck was fleeting, however, as France and the Dutch Republic were at war, and the French fleet, under the pretext of the crew being Dutch, attacked and seized six out of the company's seven vessels with cargo and tackle. The remaining assets of the company were sold and the company liquidated in 1680.¹⁹ King Charles II chose not to back the fishing industry at the expense of risking the friendship with France.²⁰ After the Glorious Revolution, another attempt to revive the English company was undertaken, and plans were drawn up, but King William did not back the initiative and the company never materialized.²¹

In the following decades, the near-shore herring fisheries took off on the Scottish east coast, making Scotland into one of the foremost producers of salted herring in Europe.²² This might have made the establishment of capital-intensive off-shore fisheries based on the Dutch model less attractive. In 1719, a monopoly company was launched in London, but never materialized, and it is likely that the same fate befell another project around that time, The Copartnery of the Freeman burgesses of the Royal Burrows of Scotland for carrying on a Fishing Trade.²³ In the late 1720s, there were no significant herring catches around the east coast, and once again the idea of imitating the Dutch method was discussed. In 1727 the so-called Board of Trustees for the Improvement of Manufactures and Fisheries was established in Scotland. This organization had the remit to promote the idea of another Dutch-style off-shore fishery.²⁴

This was realized when, in 1749, a parliament act was passed in support of The Free British Fishery Society. This mid-century initiative was no more successful than earlier government efforts to set up a large-scale fishery. Subscribers to the society were guaranteed a return of 3% on capital investments, while the government would provide a bounty of 30 shillings per ton of the sea-going vessel. The parent society was based in London, but in both England and Scotland, local fishing chambers were organized under the auspice of the Fishery Society, where a group of individuals could

collectively subscribe a sum of £ 10,000. Part of the government motivation was to encourage the training of able seamen in the fisheries, so that there would be skilled recruits for the navy in times of war. At the same time, there was some optimism that by using this model, the British fisheries could compete with their Dutch counterparts.²⁵ Country-wide there was huge interest in investing in the company, but by 1757 the capital was already sinking, and the bounty was raised to 50 shillings per ton and extended to other fishing vessels as well. Dunlop and Coull both use the term ‘busses’ for all fishing vessels to which bounty was paid from 1750–1799. However, with the staggering numbers of 200–300 herring vessels on tonnage bounty annually, the figures must include smaller boats used in the in-shore fisheries. This corresponds with Harris, who mentioned that after 1757, bounties on tonnage were also granted to open boats used in the in-shore fisheries.²⁶

The main output of salted herring in Scotland continued to come from the in-shore fisheries with small boats, and the change in policy in 1757 can be seen as a sign that the The Free British Fishery Society abandoned the exact imitation of the Dutch way of fishing and gradually changed policy in the face of the local reality of the Scottish and English fisheries. In 1771, when the charter for the society expired, it was not renewed, but the bounty system stayed in place regardless.²⁷

Herring was aplenty around the Scottish shores in the latter half of the 18th century, where the herring towns on the west coast, Stornoway on the Outer Hebrides, and places around the Firth of Clyde had the highest export figures.²⁸ Still, the fishing areas furthest away from the lowland towns lacked capital resources, storehouses, and customs houses, and commercial organization was also a hindrance for the development of fisheries. As Coull puts it, the buss fishery ‘always experienced problems of remote control’.²⁹ A concrete example of this was the introduction of a Dutch-style *buisjesdag*, a fixed day at the start of the season. On this day, all busses were to assemble to have their fishing gear checked, and this official start to the fishing season also meant that no vessels started too early and caught immature low-quality herring. Shifting towards smaller boats for use in-shore, however, made it more difficult to follow the unpredictable shifts in the movement of the herring.³⁰

In 1786, the introduction of bounties on barrels caught as a supplement to the tonnage bounty became an important incentive to increase production. The in-shore open-boat fishery became the most popular, and by the end of the 18th century an estimated 6,000 or more of these smaller boats were fishing in Scotland.³¹ In the early 19th century, the Scottish herring industry grew to an unprecedented size and it could be argued that a prerequisite for the British dominance of the European herring market in the 1820s and 1830s was the high-quality standards implemented during the prior two centuries, when the British fisheries tried to copy the Dutch. Although, the Scottish fisheries developed as an industry built around the on-shore curing and packing of the fish, which were caught using many smaller boats. The transfer of know-how, however, was not successful before the Dutch dominance had long vanished.

The Danish-Norwegian companies

Within the Danish-Norwegian kingdoms the first-known effort of engaging in the Dutch type of fishing is from the 1660s, when the organization of company fishing

along the west coast of Norway was promoted. It is doubtful, however, if this ever had a practical outcome.³²

More is known of the 1673 attempt to engage in the Dutch model of fishing, when Colonel Lieutenant Hans Frederik Levetzau and General Commissioner of Provisions Nicolaus Bennich were granted the freedom to start a new company. They were allowed to hire 'skilful Masters, both Fishers, Packers, Coopers and others, who know of preparing and packing the Herring in the Flemish Fashion'.³³ These craftsmen from foreign places should have also brought with them tools and materials to catch, cure, and pack the herring, and in return they would be given civil rights equal to other inhabitants.

The company was to have its headquarters in Copenhagen, but herring could be landed at any convenient port in the country. In order to get started, the company was allowed to acquire one tax-free herring buss of 20–25 lasts, equipped with barrels, nets, and salt. This was under the condition that the material was not used for other purposes, and there was to be government-funded inspections to ensure the companies met this condition.

A peculiarity is that Levetzau and Bennich were also given the right to fish, salt, and sell herring caught on their own 'grounds and property' without paying tolls. 'Own grounds and property' is unlikely to have referred to part of the North Sea, but rather the extensive fishing grounds in the Limfjord, where Levetzau had been the owner of the Oxholm estate since 1668.³⁴ Besides farming, some 150-pound nets were leased out to the local farmer-fishermen in the Limfjord.³⁵ Indeed, this fishery may have sparked the initial interest from veteran warrior Levetzau to invest in the larger North Sea herring fishery. Since no evidence testifies to the company having actually been set up, a likely reason would be that from 1675 Levetzau was busy on the battlefields of unruly northern Europe.

Not until 1767 did the Danish state successfully support the construction of a herring company. The merchant, plantation owner, and some time Minister of Finance Schimmelmann set up a company in Altona in order to fish in the Dutch manner with busses, curing, and a *ventjager* to head home with the first herring of the season. A *ventjager* is the name used for herring vessels, which were not fishing themselves, but instead were used as freight vessels, hurrying home with the earliest catch from the rest of the fleet. This system served to meet the high prices at the start of each season. By 1769, the company fished with 13 herring busses, while in 1781, 28 busses and three *ventjagers* were active.³⁶ One year later, another herring buss was added to the company's fleet.³⁷ We also know where they went fishing, at least in the summer of 1783, when 29 busses, each with 14 men aboard, were engaged in the herring fishery at Shetland.³⁸ In terms of recruitment of able seamen, the Altona company was well-positioned, with its base close to the Waddensea. The North Frisian area had for centuries been seaborne, and during the 14th–16th centuries the waters around Heligoland hosted a large near-shore herring fishery. In the following centuries, the local seamen played a key role in the development of sealing and whaling on both Dutch and native vessels.³⁹

There are no indications of native shipbuilding activity near Altona with regard to large fishing vessels, and they were most likely built in The Netherlands. When England declared war on the Dutch Republic on 20 December 1780, there were severe consequences for the fishing industry. No merchant vessels or fishing vessels

were allowed to leave port, since the government was not able to offer adequate protection. Herring was still in demand, so, for the first time since 1666, the import of foreign-caught and -cured herring was allowed. The Danish company profited by acquiring the right to take herring into Amsterdam. Also, the Dutch government allowed herring vessels to be sold to foreign countries, but the seller had to promise to try and buy back the vessel when their situation improved.⁴⁰ It is likely that some of the Altona-based busses had been bought in Holland. In spite of this investment and the expanding activity, the Altona company was financially unsustainable. First, the state invested further liquid capital, then the company was incorporated into the Canal Company in 1781, which in turn was liquidated in 1792.⁴¹

The fishery continued, however, most likely for private money, and when the Dutch were caught behind the continental blockade of the Napoleonic Wars, the Danish fishing operations had a short-lived success due to the country's neutrality. This ended with Denmark's intervention on the side of Napoleon, and in 1807 England took the island of Helgoland, along with 18 herring busses from Altona which were anchored there. This was the end of the high seas herring industry in the southern parts of Denmark.⁴²

One of the most successful endeavours into Dutch-style fishing sprung out of the maritime community in Farsund in south-western Norway. In 1718 the merchant house of the Lund family was founded, and from the 1740s they engaged in large-scale cod fisheries in the North Atlantic. From the 1760s they took part in the herring fisheries off the Shetlands. Following the Dutch model, the fish were sorted by size and quality and packed carefully in specially branded barrels. In order to make sure that the fishing took place in the right way, the company's managers themselves would board the fishing vessels from time to time. The company profited from selling the finished product in the markets around the Baltic. By the 1770s, the Lund family operated 12 fishing vessels, five of which were sent to the British Isles to catch herring, while three vessels fished for cod around Iceland and another three for cod at Dogger Bank. The crew was made up of specialized fishermen from Heligoland and Jutland, some with experience on Dutch vessels, and some who had worked for the Danish herring company in Altona. In many ways these fisheries showed foresight in terms of acquiring skills through the recruitment of Norwegian apprentices to work alongside the foreign specialists, and this probably led to lower costs in the long run. The strict policy of delivering a quality product also paid off, and in the last decades of the 1700s the salted herring from Farsund was sold at prices 40–70% higher than the standard Norwegian salted herring for export. In the best years, up to 13,000 barrels of herring and a similar amount of cod were exported.⁴³

The success of the company in Farsund stands in contrast to most other non-Dutch herring companies around the North Sea. The Farsund fishery caught significant amounts of herring, which it was then able to sell. The know-how of the imported crew surely was a prerequisite for this, and this indirectly highlights the maritime community at Farsund, which had for centuries been exposed to Dutch influences in terms of tastes and fishing and trading practices, while the young men of south-west Norway had served in the Dutch merchant fleet since the 1530s. It therefore seems a fair assumption that the Lund family had up-to-date knowledge of Dutch methods of fishing.

In the government circles of Copenhagen, the successful activities at Farsund did not go unnoticed, and in 1804 the government and the Lund family agreed to expand the fishing industry into what became the *Kongelige Farsunds Fiskerie Institut*. The initial capital investment was set at 120,540 *Rigsdaler*, of which the state supplied 50%, or 60,270 *Rigsdaler*. The other half was funded by the Lund merchant house, which supplied eight fishing vessels, a shipyard, windmill, and cooperage. Subsequently, the family's barrel factory and ropewalk were also transferred into the *Institut*. There seems to have been a clear political aspect to the government's interest. In 1805, a report from the institute stated that new grounds for cod fisheries should be investigated, since for as long as the continental blockade prevented the Dutch fishermen from supplying the Baltic market, the Farsund institute could take advantage of the situation. This is also clear from the investment in further improvements of the fishing gear. With the new ropewalk, it was possible to make nets that were similar to the Dutch driftnets, and the largest of the vessels was fitted with a net that was two kilometres long. For the cooperage, a renowned cooper from Altona helped construct barrels identical to the Dutch ones, and as a further quality control, the date of catch and the name of the ship was branded on each barrel, as well as a guaranteed weight, the name of the institute, and the king's crown on top.

The institute's investment apparently paid off as the export prices rose to 80–100% above the average price of Norwegian salted herring, which was a good deal more than in the days of the former company. The high prices gave the institute a good return right from the start in 1804 and 1805.⁴⁴ Disaster, however, was lurking ahead in a Europe tormented by war, and from 1807, when England was at war with Denmark-Norway, the fishing vessels were unable to leave port. Until the end of the war in 1814, no fishing vessels could fish from Farsund. This finally led to the downfall and dissolution of the royal fisheries institute at Farsund. The state sold its share of the institute to the Lund family for 48,293 *Rigsdaler*.⁴⁵ In 1814, the Lund family sought to re-establish its previous success with large-scale fishing, but the family assets were now divided between several different small companies, and none of them had the capital to compete in the aftermath of the war.

In 1817 the members of the Lund family entered negotiations with the English company James Saunders, the head of which was an old business acquaintance, and they agreed to make an equal capital investment in a new company. The project needed government approval as well as funding, and after lengthy negotiations, the Norwegian government decided not to back the new Farsund initiative. In 1830, the Lund family made one final attempt at setting up a fishing company, but again the state decided that such an initiative belonged to the sphere of private enterprise.⁴⁶

The Emden companies

The town of Emden was the first place north of Holland that developed a high-seas herring fishery, with the building of five busses in 1552. It is not known who initiated this fishery, but it is likely to have had the political and financial support of the leading burghers of Emden. This fishery seems to have been successful right from the start and, by 1555, 19 herring busses sailed out of Emden. Both the vessels and fishing gear were inspired by those used by the Dutch neighbours. As a means to control the supply chain,

all herring busses fishing out of Emden were obliged to land their fish in Emden and were heavily penalized in the order of full ships' loads of fish if they did not comply.

Similar to the Dutch, the ships went to the Shetlands in the early summer and, during the Bohuslen herring period of the late 16th century, also to the Bohuslen area. Emden also kept to a strict fishing seasons that ran from 10 June until 31 January.⁴⁷ Again these rules were designed to ensure that a prime product was the legacy of the Dutch towns forming the *College van de Grote Visserij*. Likewise, the fishery at Emden spawned spin-off enterprises such as a herring-packing industry. From the outset, the fishery at Emden was aided by the conflicts between France and The Habsburg Netherlands, which meant that the Dutch herring busses were subject to attack by French ships.⁴⁸ The Emden fishermen, on the contrary, were neutral. After the war had ended, the Emden enterprises remained successful and, in 1597, 25 herring busses operated out of the town. According to archived complaint letters about the quality of the herring, Bremen and Hamburg were two of the markets for the Emden herring, where it competed with similar Dutch products.⁴⁹

At some point during the course of the 17th century, herring fishing stopped being a major industry in Emden. The precise date and cause of the industry's collapse is not known, but there has been speculation that, unlike the fishermen of Holland, the herring busses from Emden did not have any form of military protection, which proved fatal when confronted with the 17th-century privateers from Dunkerque. Another cause that has been suggested for the disappearance of the Emden fishery was competition from the Dutch herring industry.⁵⁰ In 1609, the Dutch Republic concluded a treaty with Hamburg, whereby no herring was to be imported into Hamburg prior to 24 June, when the Holland great fishery season began.⁵¹ Moreover, by agreement, non-Dutch herring was treated as an inferior product on the Hamburg marketplaces.⁵²

Clearly, the Dutch could have played a major part in the downturn in Emden's fisheries; however, this was not the end of the story for Emden and herring fishing. In 1768, Emden once again became a centre for herring fishing. This time it was Frederick the Great, king of Prussia, and since 1744 also ruler of Emden, who provided the stimulus for the fisheries to flourish. He and the Prussian government wished to promote trade and economic growth in the newly acquired territories, and setting up a herring company was one part of a general economic policy.⁵³ After a full year of negotiations and planning, the royal charter of 1769 led to the establishment of the *Emder Heringsfischerei-Kompagnie*. Shares totalling 80,750 Dutch *guilders* were issued to investors in Emden and the neighbouring town of Leer. The new herring fishery was viewed as a potential stimulus for industry in the Emden and Leer areas, as the herring vessels as well as fishing gear were to be produced locally. The quality of the herring was also to be ensured, with proper branding and the manufacture of barrels and curing techniques similar to the Dutch neighbours.

In the summer of 1770, the first six herring busses were ready and sailed off to participate in the fishing season off the coasts of Scotland and the company quickly expanded. In the first years, getting enough supplies was an issue, but within 10 years the company had expanded and owned 22 herring busses and two herring *jagers*; by 1799 there were 55 herring busses fishing from Emden. In the face of Dutch competition, consisting of the Dutch state granting a subsidy of 500 Dutch *guilders* per herring vessel leaving port, the Prussian king put an extra toll of one *Reichstaler* per

Dutch barrel of herring imported into Prussia. When the fourth Anglo-Dutch war broke out in 1780, several Dutch herring fishermen went to Emden, to enlist there and sail under the neutral Prussian flag. In 1793, the Dutch, in return, allowed the Emden herring busses to sail under the protection of the Dutch and with Dutch passports, so a good deal of mutual understanding also existed. Meanwhile, country-wide interest in investing in the Emden company led to a stark increase in shares issued, and by 1799 the share capital was worth 613,900 Dutch *guilders*.⁵⁴ Each year the company paid a dividend of 5% per year.

The company's charter of 16 years was renewed once in 1787 until 1799, but at around the turn of the 19th century the winds of liberalism were blowing in Prussia, and the charter of a monopolized herring company in Emden would not be renewed. The shareholders realized that perhaps it was more profitable to sell all assets and reap a profit, although most shareholders decided to keep fishing, and the company's activities went on, until Prussia lost the war against Napoleon's France in 1806 and Emden came under the government of King Louis Bonaparte of The Netherlands. In Emden, the company applied to be recognized on equal terms with the herring fisheries in Holland, but this was in vain. The king refused to pay a bounty for the Emden busses, and the herring brought into Emden were to be treated as foreign herring, as they had been before the inclusion of Emden into his kingdom.⁵⁵ During the period of Dutch rule, the state of war with England made it impossible to go out fishing, and in 1811 the company was dissolved and all assets, including 57 busses and three herring *ventjagers*, were sold.

With the advent of peace in 1814, 31 busses went fishing, now split into five different private companies, but still abiding to a common set of quality measurements.⁵⁶ Now Emden and Ostfriesland fell under Hanoverian rule, but the herring companies still received a bounty for sailing and extra tolls were put on foreign herring. Over the next 40 years, fishing activities began to decline, and when the warehouse of the last company was lost to fire in 1857, Emden lost its Dutch-style herring fishing industry. With regard to the reasons why the Emden companies disappeared during the first half of the 19th century, perhaps this could be attributed to the fact that the activity had become too large for one individual to manage. There seem to have been several instances of vessels and gear being lost in 1825, 1827, 1829, 1833, 1838, and 1848.⁵⁷ But neither these events nor short-term financial dispositions individually seem to be causes the ultimate fate of the fishery.

One interesting line of enquiry is to look at the 23 years of yearly catch results per buss that are available for both Emden and Holland; these allow comparisons to be made between the two fisheries.⁵⁸ Plotted against each other, the strong correlation (r^2 : 0.72) between the performances of the two fleets suggests that they were fishing in the same waters (Figure 1). This suggests that the Emden vessels were almost identical to the Dutch, and that they fished in the same way with the same type of gear, although, overall, the end results were on average poorer for the Emden fishermen than for the Dutch. Per season, an Emden buss caught about 14.5 metric tonnes less than a Dutch vessel. This implies that, in spite of the complete transfer of technology, a relative newcomer such as Emden still lacked the skill to compete on equal terms with the Dutch.

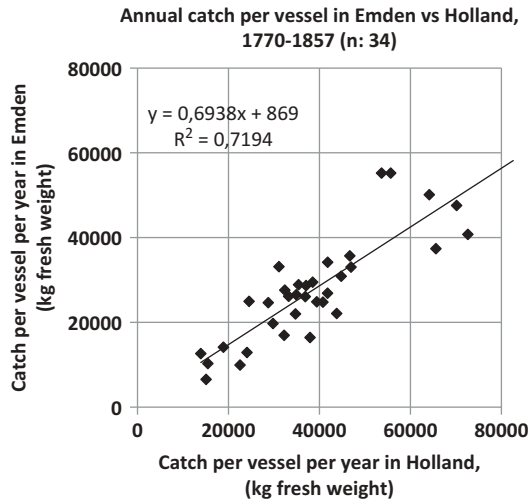


FIGURE 1 The average yearly catch in Holland and Emden are plotted against each other during 23 seasons, 1770–1850.

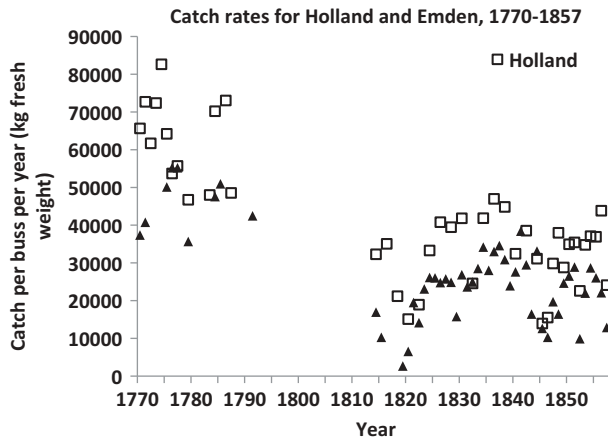


FIGURE 2 Catch rates for Emden and Holland, 1770–1850.

After the restoration of fisheries in 1814, annual catch rates declined by 50% for both the Emden (East Frisian) and the Holland (Dutch) fisheries (Figure 2). Since the catch rate declined for both Dutch-style fisheries, it seems that, despite being more skilled, the Dutch fishermen were unable to prevent this decline.

The Bremen companies

Always a small player in the herring fisheries, Bremen’s attempt to copy the Dutch stems from 1693, when Elderman Cordt Grelle, along with five partners, expressed an

interest in buying and equipping five herring busses, but since no other information is available on the existence of this company, it most likely did not come into existence.⁵⁹

The first herring company, which materialized in Bremen, was set up in 1806. A local investor, Schröder, argued that since Bremen already imported some 10,000 barrels of herring per year, he could make a profit in Bremen by fishing in the same way as the Dutch- and Emden-based competitors, catching the same amount and selling it at the same price as the foreign companies. He thus saw his competitive advantage in lower transaction and transportation costs. Furthermore, as recounted above, at this time the neighbouring company in Emden, then part of Prussia, was in financial trouble and had lost its Prussian privilege in 1799. Schröder's *Die Bremer Heringsfischerei Compagnie* received a start-up capital of 20,000 *Reichstaler* from the sale of 100 shares at 200 *Reichstaler*, which enabled the company to buy two busses from Emden. The first buss brought home 365 barrels of herring and the second a mere nine barrels. Further fishing trips were undertaken in the first year, which brought home 166 barrels, giving a grand total of 540 barrels for the first season. The company earned a gross 11,019 *Reichstaler* and 15 *Grote*, which were not reinvested. All assets were sold and the company stopped trading.

During the following year, however, a more ambitious project was launched, whereby a renewed *Die Bremer Heringsfischerei Compagnie* was set up, which sold 500 *Reichstaler* shares for a total of 80,000 *Reichstaler*. Only the citizens of the city of Bremen were allowed to buy these shares. With the new capital, the busses from the previous company and another two busses plus a *ventjager* were bought. A further two busses were ordered locally, and on 9 March 1807 the *Vulkan* shipyard in Bremen began the construction of these vessels, which were completed in the following spring.

In 1808 the Weser River was closed off from the sea, and no ships could head out. This prompted an increase in the number of shares in order to raise another 20,000 *Reichstaler*, which facilitated the equipping of the busses for the following year. The war years had led to a steep rise in herring prices and for the revenue of the season of 1809 the company was able to pay a dividend of 200 *Reichstaler* per 500 *Reichstaler* shares. In 1811–1813 Bremen came under the rule of Napoleon's France and no fishing took place. When the state of war ended in 1814, Schröder succeeded in persuading the city council of Bremen to issue a resolution that only Bremen herring were to be packed or sold in Bremen barrels, with the appropriate seal. The Bremen company's share of local consumption of herring remained at yearly averages of 5–28% in the 1810s. The local regulation was renewed in 1824.

In 1816 the company was also renewed for a further 10 years and the number of shares issued increased to 125,000 *Reichstaler*. But over the next few years there were a series of poor catches. Moreover, Bremen was hit by Hanoverian attempts to protect their newly acquired territory of Emden, implementing a high import toll on salted herring. This was a huge loss for the Bremen herring industry. Schröder, who was still in charge of the daily management of the Bremen company, sent an application to the Hanoverian government to ask if he could transfer the landing of the Bremen company herring to the nearby Geestehafen, which was a Hanoverian possession, thereby granting the Bremen vessels the right to the same bounty as herring vessels in Emden. Much to the delight of the Emden herring company, this application was turned down.

In 1819, the Bremen company could no longer borrow money, and Schröder supplied the company with capital in advance. In the general assembly of November 1820, it was decided to pay the debt of the company with 160 *Reichstaler* per 500 *Reichstaler* share. However, this was insufficient to cover the whole debt, and in January 1821 it was decided to sell all assets. In 1821 a new company was set up, but the financial trouble continued. After 1823, only a few vessels were active, and in 1828 the Bremen herring busses went out fishing for the last time. The restored company existed for at least another decade, but in the 1830s the busses were only used as cargo vessels, buying up fresh fish from Scottish herring fishers.

The Nieuwpoort company

In 1727 a charter was issued for a private fishing company based in Nieuwpoort, which then was part of the Austrian Netherlands. The *Compagnie van Vischvaert, gheetabliseert binnen de stede ende port van Nieuport* specialized in cod fisheries off Iceland, but they also engaged in the North Sea herring fisheries. The Nieuwpoort company was a private initiative set up by a local businessman, Jan Baptist Stauffenbergh, but judging from a preserved list of who signed up, the company's shares were bought by wealthy merchants and other capitalists all over the Austrian Netherlands, with particularly large sums invested from Brussels. The company wanted to start immediately and set about buying fishing vessels and tackle in the Dutch Republic. This prompted the Dutch state to renew a ban on its fishermen taking jobs on foreign fishing vessels. The seriousness of this ban is underlined by the fact that any family of fishermen convicted for this felony would be evicted from their homes, and no charity institutions were to help them afterwards. Contact took place, however, and in 1727 a Dutch vessel was taken into custody in Holland in order to prevent the Nieuwpoort company from getting supplies of fishing nets. Some Dutch skippers were recruited, however, and they were given a new citizenship in Nieuwpoort.⁶⁰ The Dutch bans did not put off the Nieuwpoort company, which set about building its own vessels following Dutch techniques. By 1728, the first Nieuwpoort hookers and chalups were ready, the tackle was bought in Dunkerque, and in 1728 the company could start fishing. Success at sea, however, was harder to organize, and by 1732 the Nieuwpoort company's capital had been used and the assets of the company were sold.⁶¹ Thus, in 1736, the government of the Austrian Netherlands could easily remove all support for the Nieuwpoort company, as the Dutch-produced herring supplies were sufficient to meet the demands of the Catholic days of lent.⁶²

In 1767 and 1770, the government of the Austrian Netherlands put a bounty on every vessel engaged in the herring fisheries.⁶³ These measures seem to have made a difference, and in a 1784 overview of the origin of herring vessels fishing around the Shetlands, 11 herring vessels were from Nieuwpoort and 13 herring vessels came from Oostende (another town along the Flemish coast); it was usual to have a crew of 13 on the vessels from both.⁶⁴ The exact timing of the eventual downfall of the herring fisheries in Oostende and Nieuwpoort is unknown, but during the Napoleonic Wars they must have been prevented from leaving port.

The Swedish companies

The first-known Swedish attempt at importing the Dutch method of fishing stems from 1650, when a leading Gothenburg civil servant, Israel Noraeus, asked Parliament for

exemption from tolls for 'heringsbuyser' to be used for fishing off the English coast. This wish was granted from 1651 for a period of 16 years, and correspondence reveals that the English parliament also agreed to allow the Swedes to fish. The Dutch dominated the 17th-century merchant class of Gothenburg and one herring buss from The Netherlands was bought. But by the time the buss was delivered to Sweden, the first Anglo-Dutch war had broken out and fishing came to a halt. Instead, the ship owners asked if they could use the buss as a merchant vessel, exempt from tolls, in the same way they could use a Swedish-built vessel.⁶⁵

Once the war was over, there were no signs of the herring enterprise re-opening, but a few years later, in 1656, Sweden signed a treaty of trade and friendship with England, whereby Sweden was allowed to fish in English waters with up to 1,000 herring vessels, and in 1665 this agreement was renewed in the so-called defensive alliance. In spite of the friendly atmosphere, no Swedish vessels ever took part in the North Sea herring fisheries, but ambitious initiatives were undertaken in the years that followed.

In the 1660s, several regulations were implemented with regard to the curing and salting of the herring caught off the Swedish west coast. The strict regulations of the Dutch herring fisheries that had been written to ensure a standardized and uniform high-quality product were imitated in Sweden. A detailed government bill dated 13 October 1666 permitted the catching of herring everywhere, but only the main towns of Bohuslen, Gothenburg, Kalvsund, Marstrand, Mollösund, Gullholmen, and Lysekil could host the salting and packing of herring. A civil servant in each of these towns was to control the curing of herring, and only with his approval could the salted herring be sold. As a means to protect the Swedish production, the toll on exports of salted herring was lowered from eight to four *öre* per barrel, and no foreigners were allowed to buy the fresh herring straight off the boat from the Swedish fishermen.⁶⁶

This last regulation must have been aimed primarily at the Dutch fishermen, the only ones who in practice could profit from buying fresh herring so far from home. The regulations themselves do not reveal much about the actual fishing practices taking place, but several Dutchmen seem to have operated in the area. In a letter from January 1667, the chief of police in Gothenburg, Magnus Gripenklo, wrote about a citizen of Gothenburg who invited a herring buss with 12 fishermen from Holland to dock in the city. The Dutch crew salted the Gothenburg citizen's fish and ensured that the native fishers salted the herring in the correct manner. The nearby town of Marstrand also invited, via Hamburg, specialized Dutch fishermen to oversee the processing of herring. As these were private operations, little written documentation remains, but there is one instance in which the correspondence surrounding a most secretive 1667 attempt to import Dutch know-how illustrates the challenges of setting up an entire fishery from scratch.

An anonymous Dutchman had approached the Swedish representation in the Dutch Republic to suggest that he moved to Gothenburg in order to set up a herring and whaling enterprise.⁶⁷ The secrecy was understandable, since it was illegal to take a job in the service of a foreign country's fishing industry, but in February 1667 the Swedish government granted the licence for the anonymous Dutchmen to set up a herring company in Gothenburg. Hereafter the company was described as belonging to Franz Cornelis Denick.⁶⁸ This is most likely the same man who came from the Maas area and a few years earlier was involved in a controversy between towns in the Dutch provinces of Zeeland and Holland on where to legally land the salted herring.⁶⁹

In Sweden the agreement was that Denick would be the manager of the company. Denick promised to bring with him from Holland two herring busses, and in time the company would oversee the building of new vessels, barrels, and associated tackle in Sweden. Everything was to be built according to the Dutch model, and Dutch craftsmen were invited to Gothenburg in order to fulfil this purpose. In return for this, Denick was given a yearly payment of 800–1000 *Riksdaler*, and received privileges such as exemption from tolls on salt and fish. Denick arrived in Gothenburg in 1667 and several things went wrong from the start. First of all, he brought no herring busses with him, and, secondly, he found it difficult to raise capital in Gothenburg, where several interested parties turned him down, perhaps due to local resistance towards a government-supported newcomer. The local magistrate in Gothenburg complained about Denick's lack of success to the Swedish government and refused to pay the sum of money he had been promised. Negotiations with Denick took place, and he promised to return to The Netherlands to try and buy herring busses and recruit Dutch craftsmen the following year.

In the meantime, Denick wrote lengthy proposals to the Swedish government, in which he proposed to set up an enterprise on an even larger scale. His suggestion involved the main towns on the Swedish west coast financing six herring busses and the importation of Dutch craftsmanship. Denick's letter was not well-received, and instead he was instructed to focus on fulfilling his initial desire to set up a herring business with two busses. He then went to Holland to buy the vessels, but, according to his own explanation, the magistrate of Enkhuizen did not approve the export of herring busses in accordance with the Dutch regulations. Some craftsmen had been engaged, but, according to Denick, they had vanished without trace after he had issued them with an advance payment. Denick then recounted how he returned to Sweden with only one or two craftsmen and a model of a house for tarring.⁷⁰

The Swedish government, however, still had faith in the idea of setting up a fishing company, and in Denick as the right man to head this enterprise. Since it was not possible to buy the busses, Denick was asked to set up a shipyard and build the vessels in Sweden. Foreign workers were to be recruited and they were granted freedom from tolls, and in return they were to train Swedish personnel so they could man the vessels when they were ready. After some time one buss was ready from Denick's shipyard, but Denick noted that it was too small to be competitive, and asked for complete freedom of tolls for his vessels and the permission and money to undertake yet another trip to Holland. The government had now run out of patience, and turned down the request for freedom of tolls. They were more positive about a new expedition to Holland, but wanted to place this in the hands of someone else. The town magistrates of Stockholm and Gothenburg were asked if they knew of any possible investors in their towns, but there were none. Regardless of this, Denick died in March 1670, at which time he had managed to build two herring vessels. Denick's son and widow sold the vessels.⁷¹ One later verdict on the ill-fated initiatives of Denick is that he was first and foremost a theoretician, quick in writing, with endless propositions, but lacking the ability to realize his projects.⁷²

The next Swedish attempt to take up the Dutch challenge came well into the 18th century. In 1731, the Gothenburg merchant Pieter Coopman, a descendent of Dutch immigrants, set up the *Coopmanska bolaget*. For six years from 1731, Coopman's company was granted the exclusive right to fish off the English coast. In return, the crew were obliged to teach the native Swedish fishermen the proper way to cure

herring. The company equipped one fishing vessel, but its first fishery expedition failed, after which Coopman lost interest and the company was dissolved.⁷³

Another effort was made in 1745, when *bröderna Arfwedsons Bolag* received a company charter, granting it 30 years of monopoly of fishing using Dutch methods for herring and cod in the North Sea and for whaling and sealing in the North Atlantic. The company bought two busses from The Netherlands and started fishing with one on Doggerbank and off the Danish west coast, while the other headed for the Shetlands. More vessels were bought, and from 1750 they also fished around the Bohuslen archipelago. The company was not profitable in the long run, losing more than 500,000 *coppar Daler*, and in 1752 the monopoly was lost in return for a lump sum, which was partly due to a change in government policy. The company invested too heavily compared to the available capital, and another reason for the lack of success has been attributed to the company's headquarter being located in Stockholm, far away from the activities on the west coast.⁷⁴

From 1752, the government promoted the setting up of fishing companies around Sweden, and the *Fiskeribolaget i Göteborg* was the result of Gothenburg capitalists investing 100,000 *coppar Daler*. For this money two hookers were bought, one of 50 tons and one of 40 tons. They were to be used for both herring and cod fishing, and it is very likely that the vessels were the hooker-buss type vessels, which had become popular in The Netherlands from at least 1746.⁷⁵ The fishing vessels arrived from Holland in 1753, but they did not manage to get hold of Dutch fishing gear. Instead, nets were ordered in Stockholm in 1752, but did not arrive before August 1753. As soon as the nets arrived, the larger vessel, *Gäddan* (the Pike), set off to the Shetlands with a Dutch captain, Martin Aronson van Osten, in charge of a crew of 19 men with 50 nets and 380 oak barrels aboard. This expedition was unsuccessful, however, since the fishing season in the Shetlands had already finished by the time *Gäddan* arrived on the scene. The following year, both vessels started fishing on time, and *Gäddan* went to the Shetlands, where a mere 26 barrels of herring were caught.⁷⁶ For a vessel this size, this was a very poor harvest, and filled less than one-tenth of the vessel's carrying capacity. For comparison, the average Dutch herring vessel of a similar size with a crew of 14–15 men caught 223 barrels in 1754, or almost 10 times as much.⁷⁷

The company was finally dissolved in 1755, when the investors found it more profitable to invest in the in-shore fisheries, for which they did not need the expensive company organization. Indeed, from the 1760s onwards, large shoals of herring came close to the shores of Bohuslen, initiating the great Bohuslen herring fishery, which lasted until 1809.⁷⁸ During this period, Bohuslen hosted Europe's hitherto largest herring fishery, and the Swedish authorities lost interest in fishing off the Shetlands. Nonetheless, an eyewitness report revealed that Swedish herring vessels were still present in the Shetland herring grounds in the 1770s.⁷⁹

The lacklustre Swedish experience underlines the problems that can arise when trust is put in foreign imports of know-how, or, as one could put it, when all the barrels were put in one buss.

Discussion

This review of the various attempts to copy the Dutch method of fishing for herring has found 41 different attempts. Some represent only the desire to follow the Dutch by organizing a herring fishery, such as government grants for charters for fishing for

herring, which in many cases in England, Scotland, Sweden, and Denmark did not lead to a positive result; most of the companies only survived for a few years. But a few did exist for several years or even decades, although over this time charters would be renewed and names changed. This is the case for Emden (1552–1840s), *Emder Hering Emder Heringsfischerei-Kompagnie* (1770–1811 (1858)), and the Lund family's company at Farsund (1740s–1807). Here it is possible to identify several similarities behind their successes.

First of all, the scale of the industry and within this the vertical economic integration in the different sectors making up a herring industry were important. These companies managed to engage in the fishery with several dozens of vessels, thereby minimizing the risk of losses at sea. In the case of Farsund, the merchant house's engagement with a range of different economic activities, including whaling and cod fishing, meant there was a secure income.

At the opposite end, there were of course the lacklustre activities of Frans Denick in Gothenburg, who tried to start fishing with one vessel. Denick and other entrepreneurs such as Stauffenbergh in Nieuwport also faced political opposition from the Dutch Republic, where the export of herring vessels and tackle was forbidden.

The importance of scale is also evident during prolonged periods of political turmoil such as the Napoleonic Wars. This conflict killed off the herring fisheries in Altona, Oostende, and Nieuwport, and removed the momentum behind the Farsund-based company, while the Emden company was dissolved and turned into five different private companies. Farsund and Emden had the advantage that fishing vessels could be built locally from the start, while the *Vulkan* shipyard in Bremen quickly learned to construct a Dutch hooker. On the contrary, the *Compagnie van Vischvaert* and Denick's activity in Sweden exemplify how capital could quickly dwindle when trying to buy illegal vessels in The Netherlands.

Seamanship among the local population is also a factor that Farsund profited from, and this was also the case with the company activities in Emden, Bremen, and Altona, all situated in the Waddensea area, which, along with southern Norway, had for centuries supplied the Dutch merchant fleet with able seamen and fishermen.

The less successful fisheries often relied upon imported labour from Holland, which was illegal in the Dutch Republic, and most likely very expensive. However, even in an area like Ostfriesland, where Emden profited from locally hired labour, the comparison of annual catch rates in Emden and in Holland proved that, for a fleet of virtually identical ships, the Dutch brought home 25–35% more herring per trip than the Emden fishermen. Meanwhile, a lack of a deep-sea fishing maritime tradition is a likely cause for the extremely poor results of the Swedish companies fishing in the mid-18th century, and similarly for the *Compagnie van Vischvaert* in Nieuwport (1727–1737).

The scale of, and the expertise invested in, the fishing sector meant that the Dutch Republic was prepared to pay for its fishing fleet's protection at sea. None of the competitors had such backing. The first Emden company, which was in operation for almost a century, may also have met its end as a result of 17th-century privateers. Likewise, *The New Royal Fishing Company* (1677–1680), which successfully imported Dutch skippers and vessels, eventually had its cargo and vessels seized by the French, who were at war with the Dutch Republic. The lack of political stability in many areas played a role in the demise of many fisheries. For instance, King Charles II removed

political support for the English and Scottish activities, and the companies went bankrupt. Also, when Emden ceased to have Prussia's strong financial and political backing, the fisheries started to decline. Farsund enjoyed a stable political climate in the 18th century, but the shifts in government after 1814 were instrumental in attempts to re-establish the fishing activities being thwarted.

Conclusion

The much sought-after secret behind a successful emulation of the Dutch herring fisheries was to establish the fishery in a maritime community, with a good shipyard and readily available knowledge of how to find and catch fish, prepare a barrel, and mend a net. Having solid capital from the start, as well as reliable political support, preferably from a state that was prepared to offer military protection, also helped. In other words, only the Dutch were Dutch enough to be successful at their method of fishing. This reality is evident in the hindsight provided above, but not at the time.

Numerous attempts were made to reduce the Dutch dominance of herring fishing through methods as diverse as industrial espionage, smuggling, sophisticated economic transactions, and government subsidies. These show how the contemporary maritime societies were optimistic that they could carve out a share of North Sea herring. The phase of actual Dutch dominance in the European herring industry lasted from the late 1500s until the early 1700s. The eventual decline and fall of the Dutch method of fishing was brought about by the success of shore-based fisheries, not Dutch-style copy cats. There were only a few sustainable imitations of Dutch fishing practices, such as those in Farsund and Emden, which developed at the start of the Dutch Golden Age of fishing, and again after the Dutch had lost their dominant position at the end of the 1700s.

However, for no less than 300 years, c. 1550–1860, the Dutch method of fishing was the envy of its neighbours in the North Sea area. The effect of this was the development of a shared European image of the Dutch way of fishing as undisputed best practice. This belief was a lasting consequence of the Dutch Golden Age of fishing, and outlived the reality of what was best practice when taking on the Dutch at herring fishing.

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- 58 The data for Emden is from: Hahn, *Ostfrieslands Heringsfischereien*, 17, 31–2, 45, 49, 61, 66, 75, 87–9. The Dutch data are derived from: Vermaas and Sigal, *De haringvisserij*; Gemeentearchief Schiedam, Inventory nos. 614–22; National Archives, Inventory nos 387–95, 626–54.
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