Whaling in the Arctic

Walfang in der Arktis

Dr Frigga Kruse

https://orcid.org/0000-0003-1778-1010

Bilingual teaching module, Bachelor level
Part of „Einführung in die Polarbiologie“
Kiel University, 21.01.2022

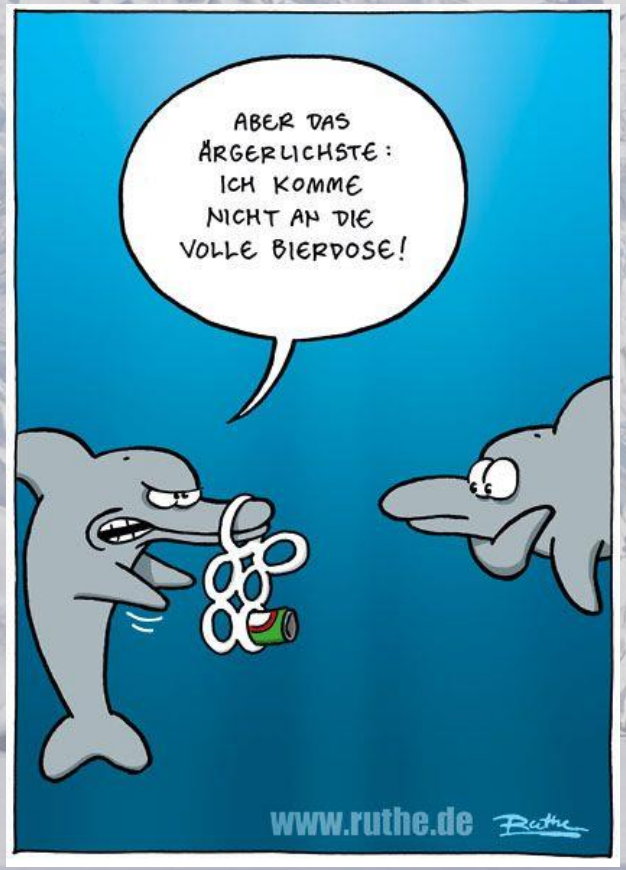
- Whale
  - Cambridge Dictionary:
  - *“a whale of a [...]*
  - *US informal*
  - *Used to refer to a **very great** amount of something or a **very good** thing:*
  - *That’s a whale of a story.”*

- Wal
  - Duden:
  - *Typische Verbindungen (computergeneriert):*

- Have you talked about whales today?
- Hast Du heute schon über Wale geredet?

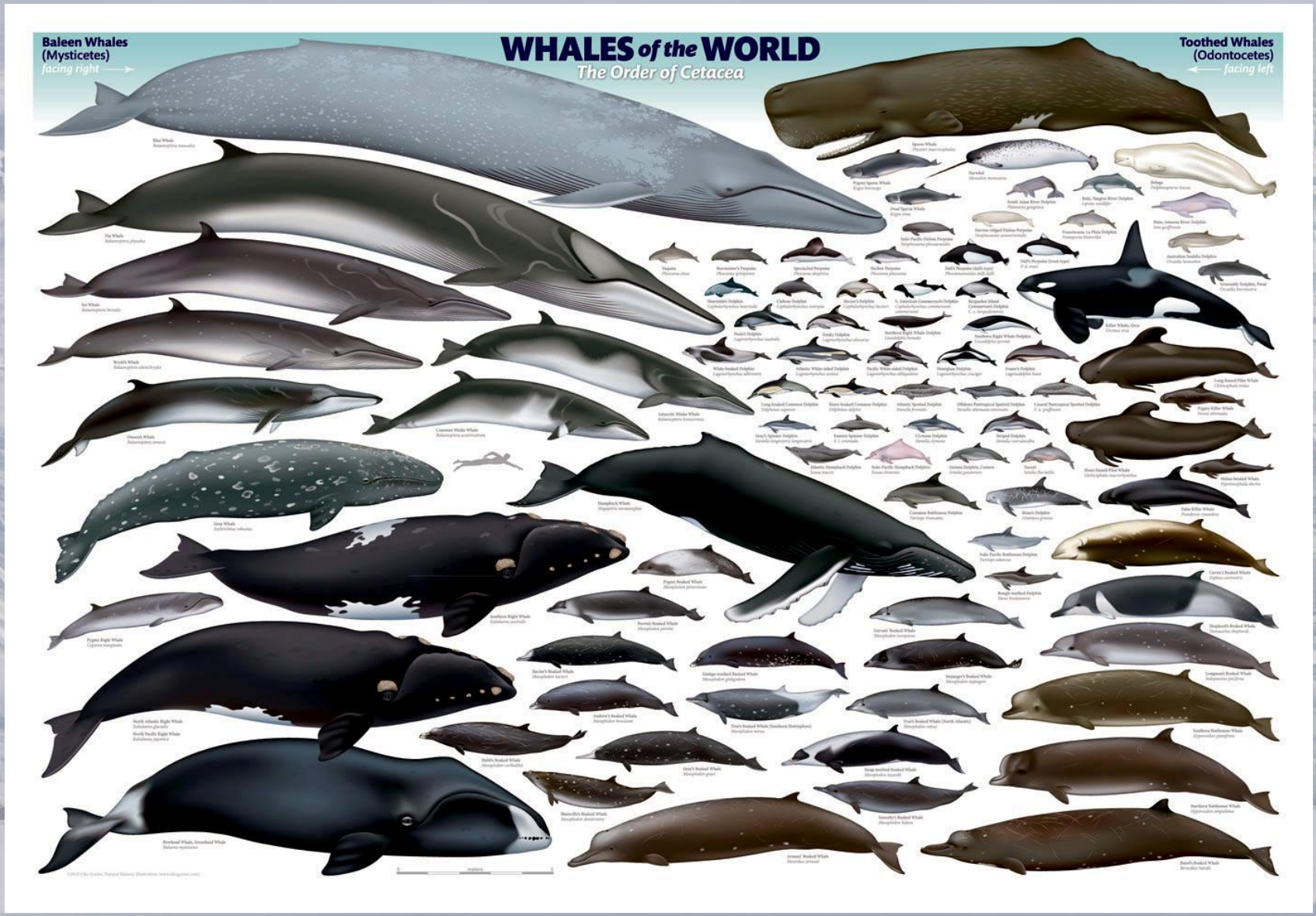
“There's a grain of truth in every joke.”
Farlex Dictionary of Idioms. (2015).

pinterest.com



The Cetacea (whales, dolphins and porpoises) currently include **86 species**.

Die Cetacea (Wale, Delfine und Tümmler) umfassen derzeit **86 Arten**.

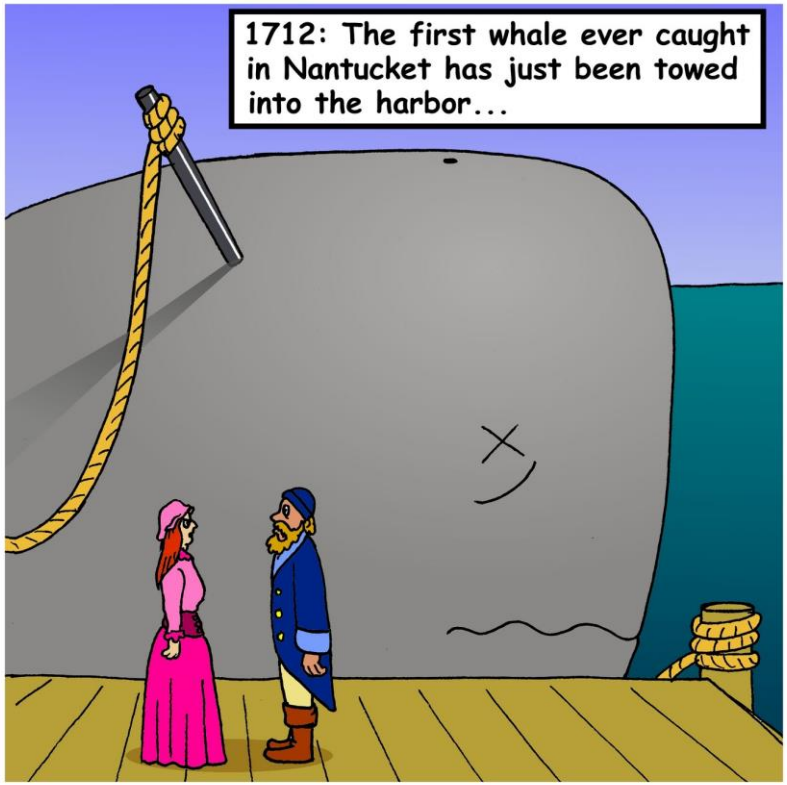


http://www.ukogorter.com/merchandise/whales-of-world-poster.html

Clarify, which “whale” you are talking about. It matters!

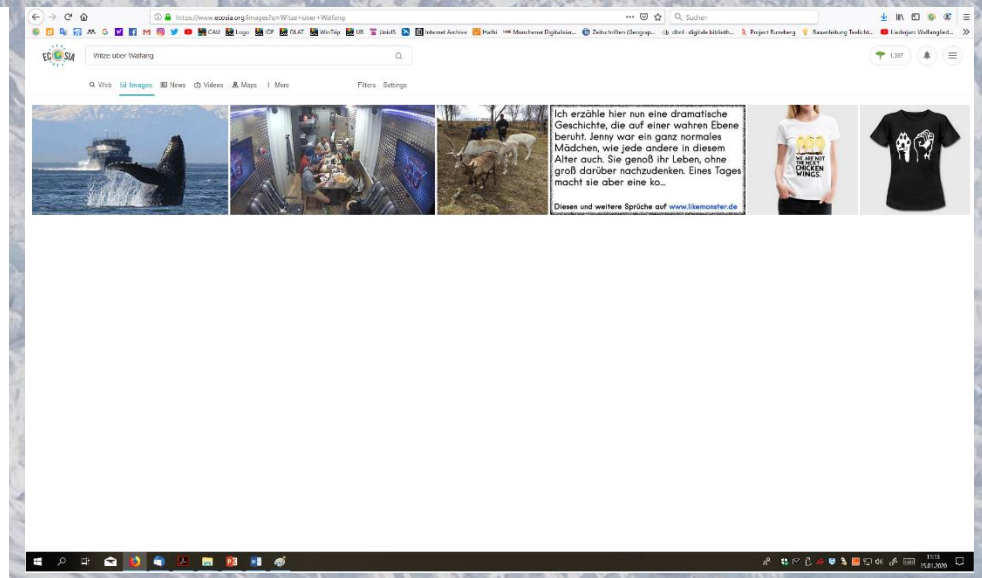
Stell klar, von welchem „Wal“ Du redest. Das ist wichtig!

- Have you talked about whaling today?



twistedcartoonist.blogspot.com

- Hast Du heute schon über Walfang geredet?



Bei einer *Ecosia*-Suche nach „Witze über Walfang“ erschienen nur fünf Abbildungen! Liegt das an *Ecosia* oder daran, was die Deutschen (nicht) witzig finden?!

There are different kinds of **whaling**.

Es gibt verschiedene Arten des **Walfangs**.

todayifoundout.com

iwc.int

maritime-executive.com

Clarify, which kind of whaling you are basing your opinions on. It matters!

Stell klar, auf welche Art von Walfang Du Deine Meinung stützt. Das ist wichtig!

“Whaling” in the news in 2020…

„Walfang“ in den Nachrichten in 2020…

HullLive

NEWS ▾ IN YOUR AREA SPORT ▾ WHAT'S ON ▾ HULL CITY HULL FC HULL KR CITY OF CULTURE SPECIAL FEATURES CHRISTMAS

News › Hull & East Yorkshire News › Nostalgia

The true story behind The North Water: Hull's violent and brutal whaling industry revealed in Arctic voyage

It provided jobs, products and wealth for over a century

SHARE 45 SHARES

By Angus Young
05:00, 5 JAN 2020

NEWS

Enter your **postcode** for **local news** and **info**

Enter your postcode Go In YourArea

A scene from the new BBC TV whaling drama The Dark Water (Image: BBC)

Not many items, but this series had come out.

Nicht viele Artikel, aber diese Serie war herausgekommen.

“Whaling” in the news in 2022…

The Guardian

Seeing 1,000 glorious fin whales back from near extinction is a rare glimmer of hope

This vast assembly was spread over a five-mile-wide area between the South Orkney islands and the Antarctic Peninsula. A...

1 day ago

Edinburgh Live

Edinburgh's abandoned whale hunting station that lies deserted and access prohibited

By 1909 Leith whalers Christian Salvesen had established the largest global whaling fleet in South Georgia, Leith Harbour....

2 days ago

The Guardian

Japan’s whaling town struggles to keep 400 years of tradition alive

But here and in other whaling towns in Japan, the resumption of killing whales for profit for the first time in more than three decades has...

3 weeks ago

PNAS

Opinion: To save whales, look to the sky

Whale populations face indirect impacts such as ocean noise and pollution, as well as direct impacts from whaling, fishing ge...

2 weeks ago

„Walfang“ in den Nachrichten in 2022…

Die Rückkehr von 1000 prächtigen Finnwalen vor dem Aussterben ist ein seltener Hoffnungsschimmer

Edinburghs verlassene Walfangstation, die verlassen und nicht zugänglich ist

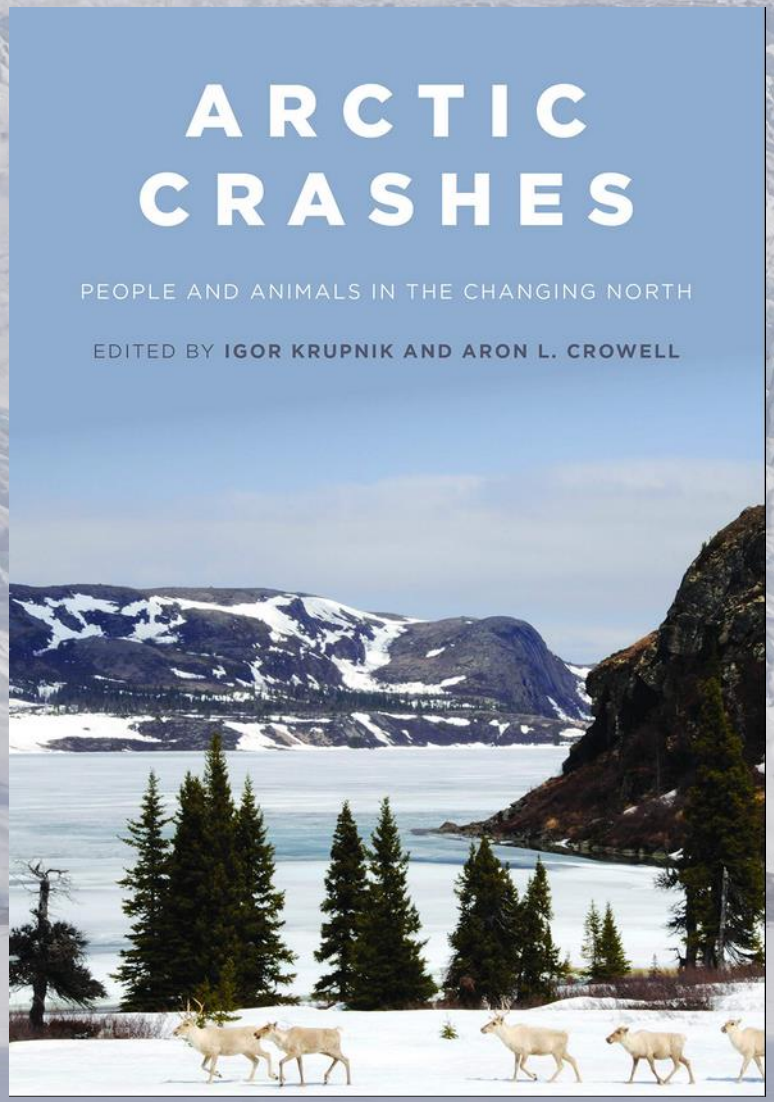
Japans Walfangstadt kämpft um die Aufrechterhaltung einer 400-jährigen Tradition

Stellungnahme: Um die Wale zu retten, muss man in den Himmel schauen

A selection, nothing pressing...

Eine Auswahl, nichts Dringendes...

- The main source for this lecture:



- Die Hauptquelle dieser Vorlesung:

Kruse, F. (2020) 'Arctic crashes and early commercial hunting: the case of the bowhead whale in Spitsbergen (Svalbard)', in Krupnik, I. and Crowell, A. L. (eds) *Arctic crashes. People and animals in the changing Arctic*. Washington, D. C.: Smithsonian Scholarly Press, pp. 417–432.

[Arktische Crashs und frühe kommerzielle Jagd: der Fall des Grönlandwals in Spitzbergen (Svalbard)]

- In this lecture:

1. Why whaling?
2. Why the Arctic?
3. Why whaling in the Arctic?

➢ "Arctic convergence"

4. Spitsbergen case study
5. Intensification and impact
6. William Scoresby, Jr.
7. Lessons?







- In dieser Vorlesung:

1. Warum Walfang?
2. Warum die Arktis?
3. Warum Walfang in der Arktis?

➢ "Arktische Konvergenz"

4. Spitzbergen-Fallstudie
5. Intensivierung und Auswirkung
6. William Scoresby, Jr.
7. Lektionen?

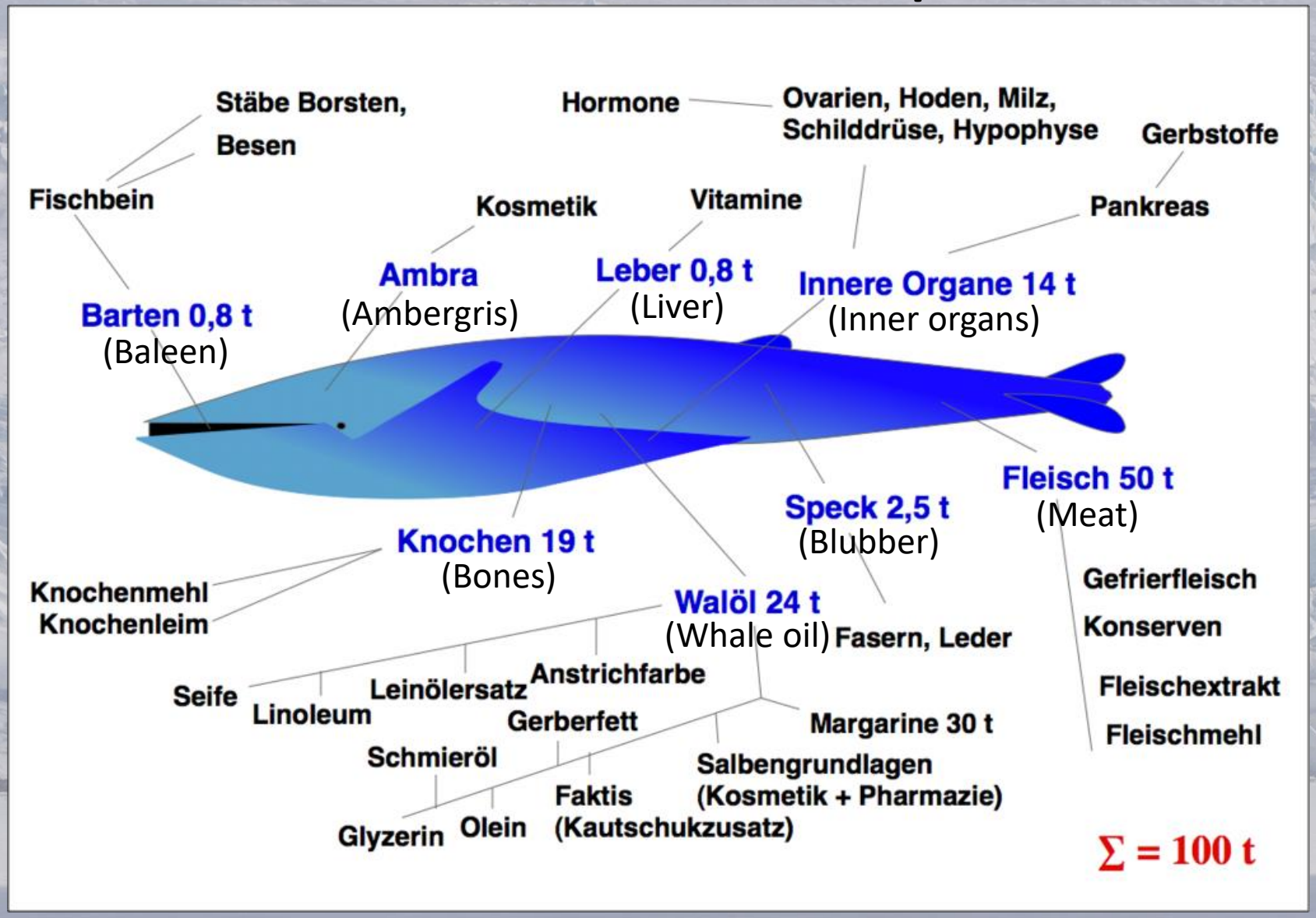
1. Why whaling?

- Whales as a resource for **many** products
- "Whaling" centuries older than thought
  - Scandinavian Iron Age board-game pieces made of whale bone, ca. mid-6th c.
- 1059 AD: active whale hunt in the Bay of Biscay (e.g. Biarritz coat of arms)
- 16th c.: whaling grounds in Labrador

1. Warum Walfang?

- Wale als Rohstoffquelle für **viele** Produkte
- "Walfang" um Jh. älter als gedacht
  - Skandinavische Spielsteine aus Walknochen aus der Eisenzeit, ca. Mitte 6. Jh.
- 1059 AD: aktive Waljagd im Golf von Biskaya (z. B. Biarritz Wappen)
- 16. Jh.: Fanggründe in Labrador

•Whale products •Walprodukte



commons.wikipedia.org

- Game pieces
- Spielsteine

https://www.smithsonianmag.com/science-nature/viking-chess-pieces-may-reveal-early-whale-hunts-northern-europe-180970466/

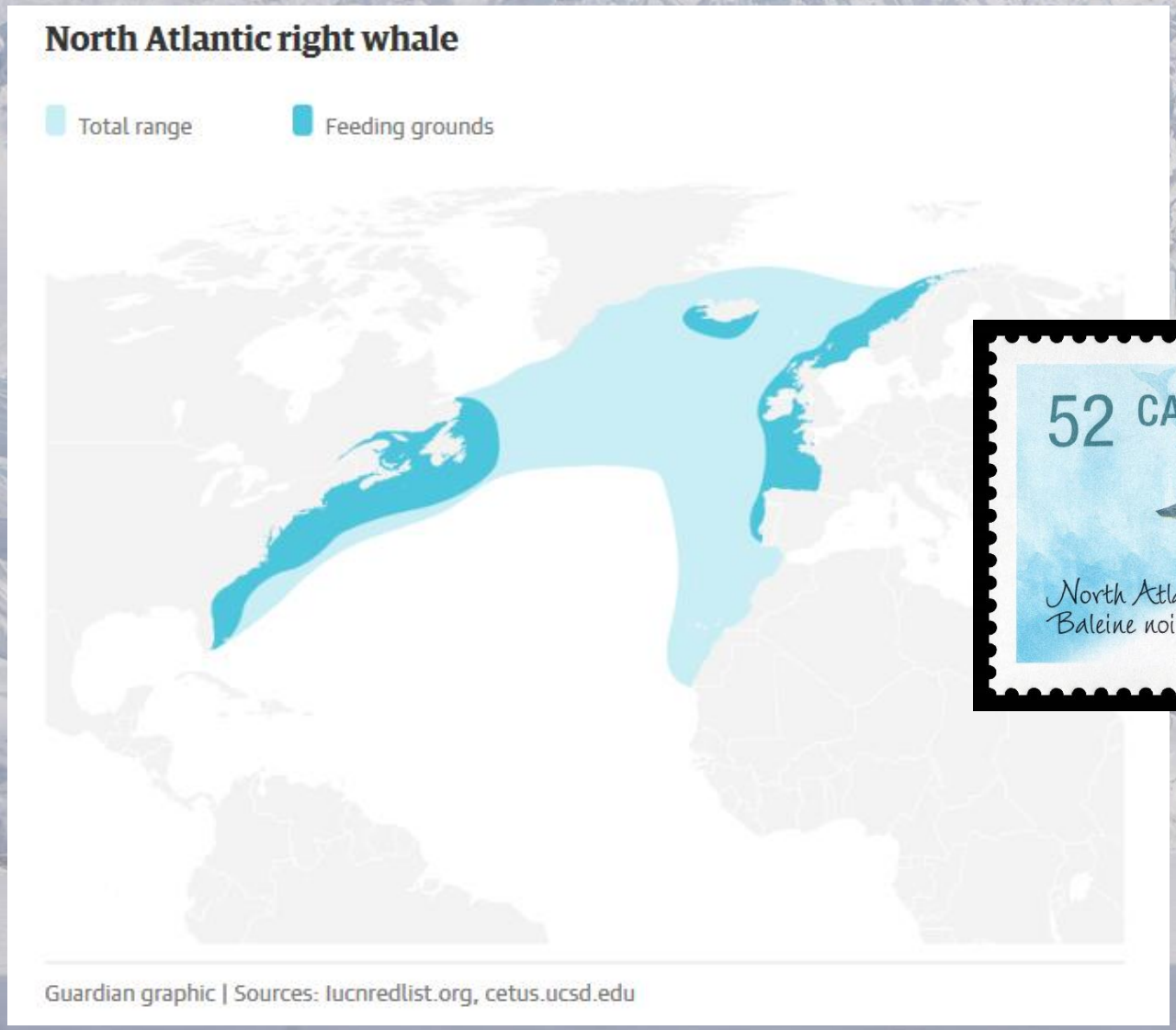
- Icelandic whalers processing a whale

- Isländische Walfänger bei der Verarbeitung

Dividing a whale, from a manuscript from the 16th century, AM345fol,commons.wikipedia.org

- Early whaling grounds and species

- Frühe Fanggründe und Art



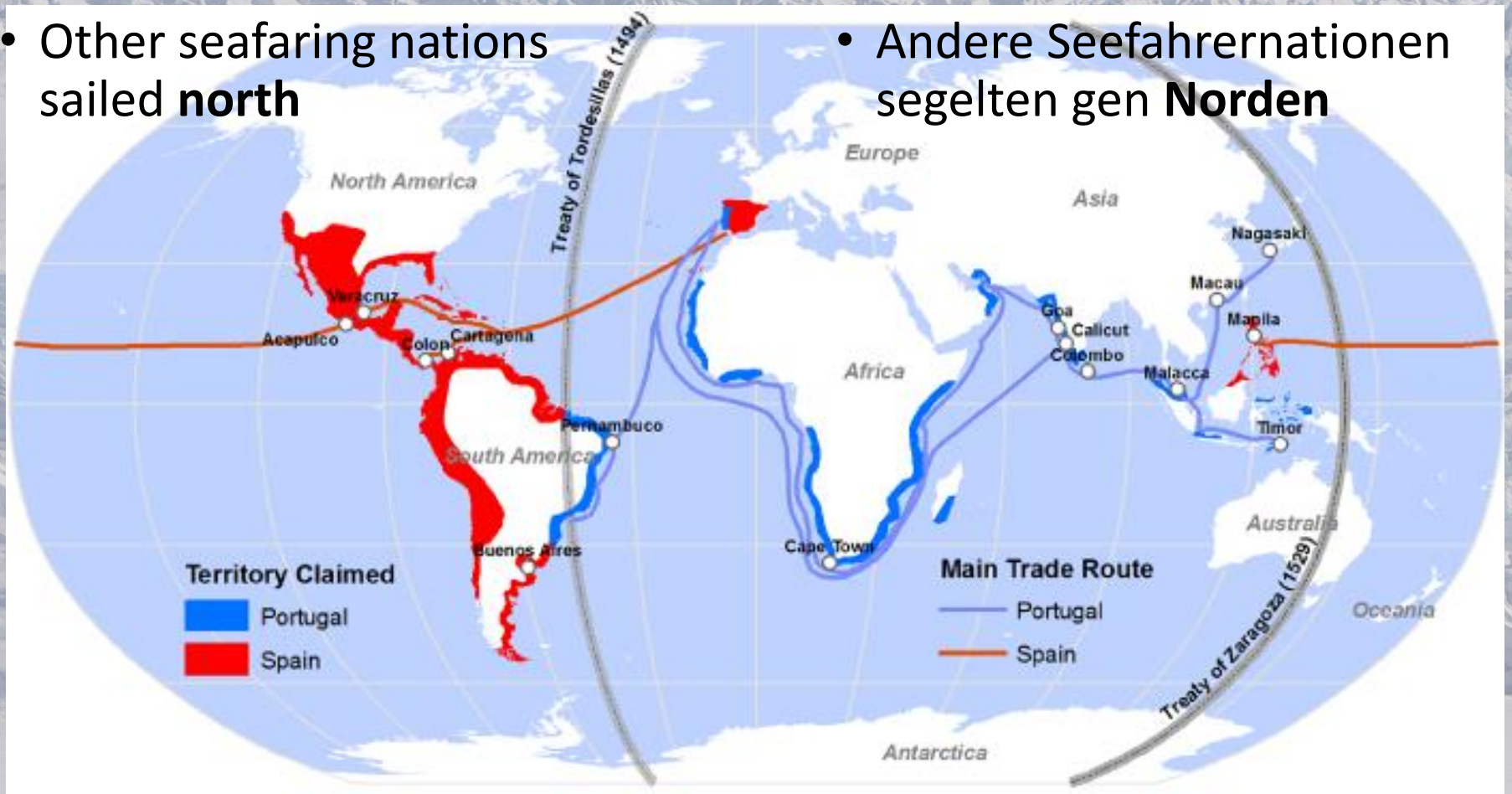
Atlantischer Nordkaper,
Glattwal im Nordatlantik

2. Why the Arctic?

2. Warum die Arktis?

- Effect of colonial demarcation
- Other seafaring nations sailed **north**

- Auswirkung der kolonialen Abgrenzung
- Andere Seefahrernationen segelten gen **Norden**



http://www.lasalle.edu/~mcinneshin/325/mapimages/spainportugalempires.png

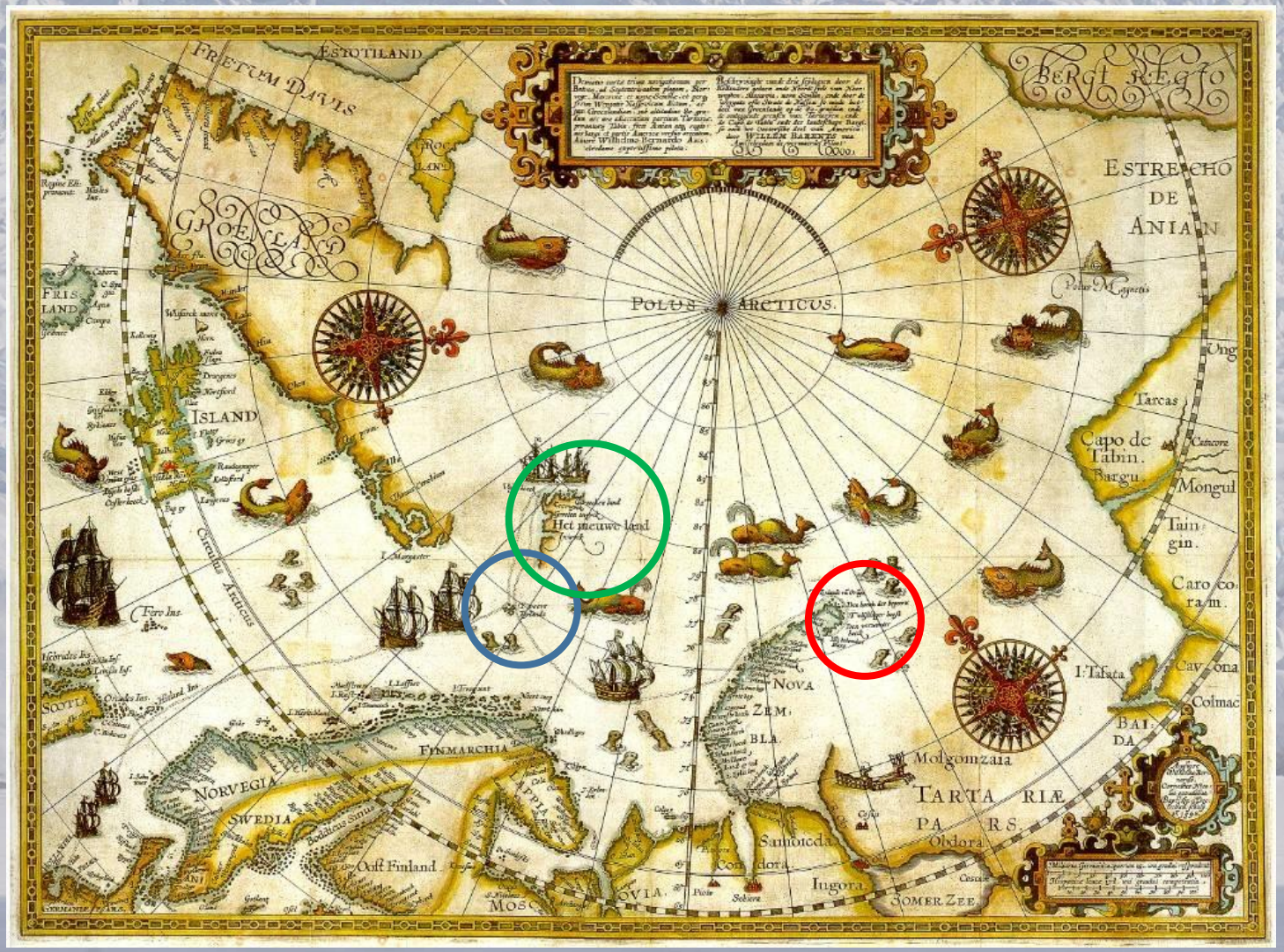
For details, see: Kruse, Frigga. (2022, January 18). Bilingual teaching module: History of Discovery of the Polar Regions / Entdeckungsgeschichte der Polarregionen. Zenodo. https://doi.org/10.5281/zenodo.5873851

- Who was Willem Barentsz?
- ~1550-1597
- Cartographer, navigator, explorer
- Three attempts to find a north-eastern passage to Cathy (China)
- Spitsbergen (1596) not claimed for the Netherlands

- Wer war Willem Barentsz?
- ~1550-1597
- Kartograph, Navigator, Entdecker
- 3 Reisen zur Erkundung einer Durchfahrt nach China
- Spitzbergen (1596) nicht für die Niederlande beansprucht

- Barentsz third voyage, 1596/7

- Barentsz dritte Reise, 1596/7



By Willem Barentsz (Wilhelmus Bernardus). Immediate source unknown. Uploaded 2007. Public Domain. https://commons.wikimedia.org/w/index.php?curid=3188892

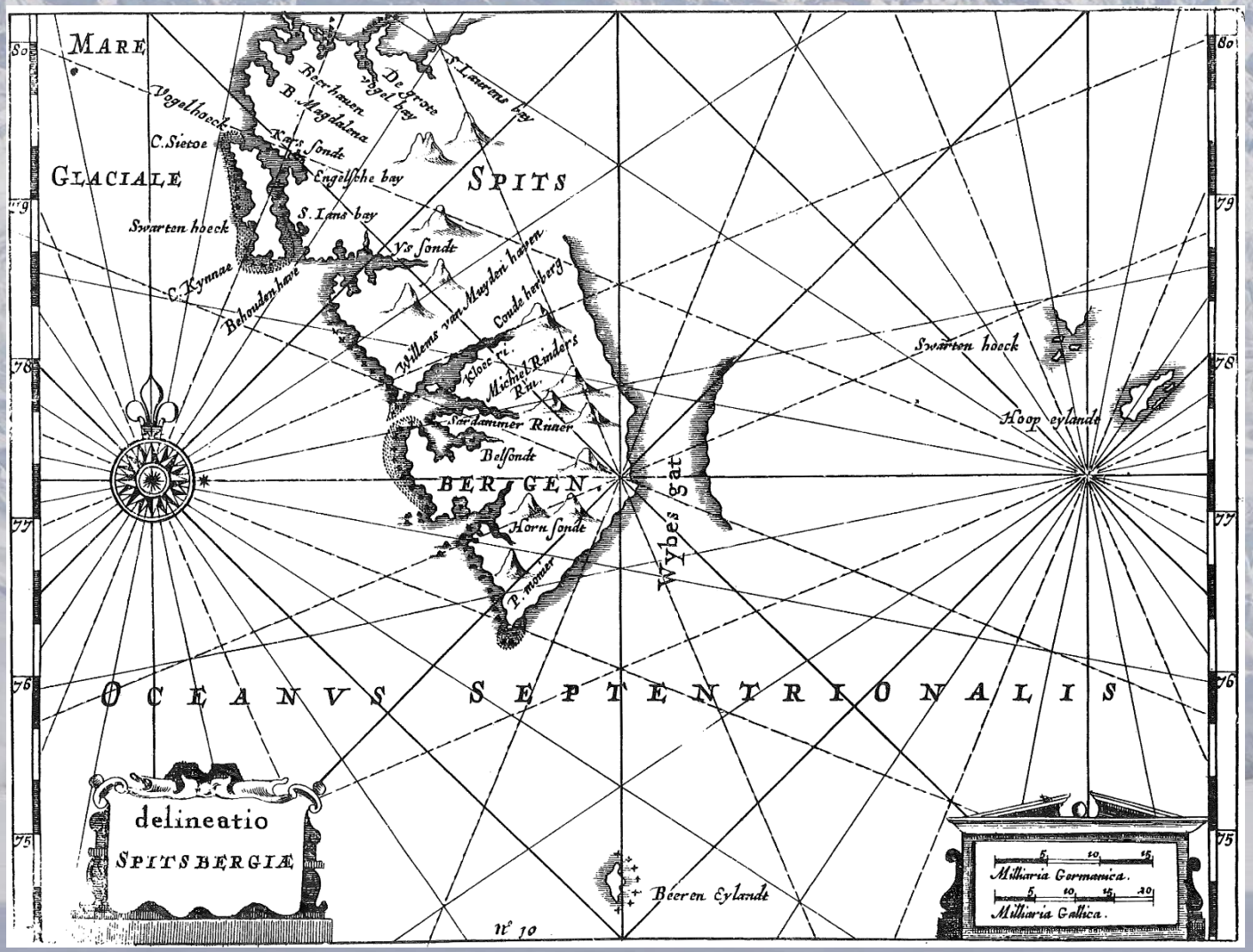
- Sighting of Bear Island

- Sichtung der Bäreninsel

De Veer. 1646.

- Sighting of Spits-bergen

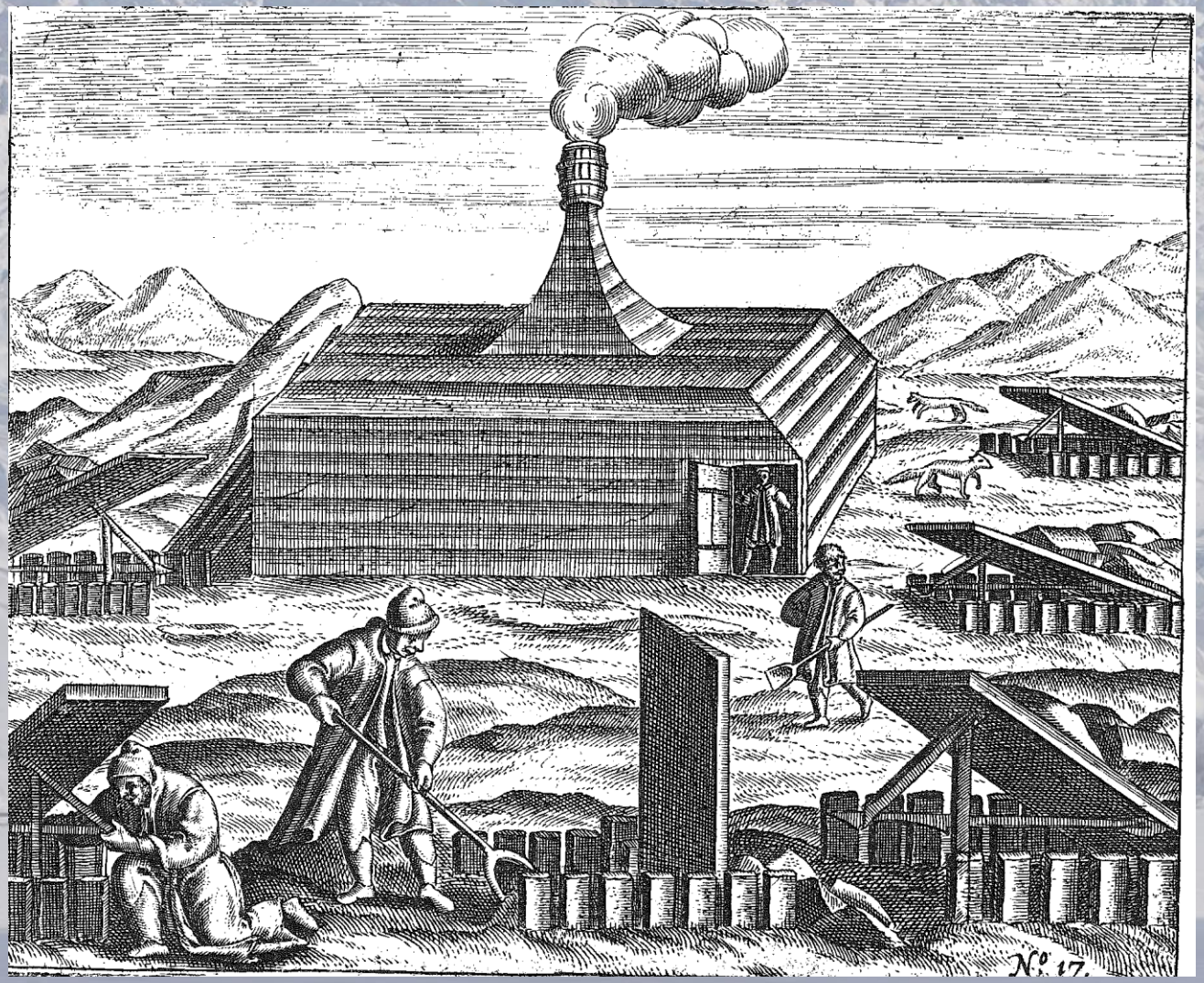
- Sichtung von Spitzbergen



De Veer. 1646.

- Overwintering on Novaya Zemlya

- Überwintern auf Nowaja Semlja



De Veer. 1646.

3. Why whaling in the Arctic?

- "First there was Barentsz, and then there was whaling..." is **too simple**!
- De Veer (1598) mentions only two whales!
- Something else had to happen for whaling to begin.

3. Warum Walfang in der Arktis?

- "Durch Barentsz kam es zum arktischen Walfang..." ist **zu simpel**!
- De Veer (1598) erwähnt nur zwei Wale!
- Etwas anderes musste passieren, damit der Walfang begann.

- Why whaling in the Arctic?

1) **Decline of Basque whaling** in Labrador turn of the 16th c.

→*Shortage of whaling products on the European market (England, Netherlands)*

→***Basque whalers*** *looking for a job*

- Warum Walfang in der Arktis?

1) **Rückgang baskischen Walfangs** in Labrador Ende 16. Jh.

→*Mangel an Walprodukten auf dem europäischen Markt (England, Niederlande)*

→***Baskische Walfänger*** *suchen nach Arbeit*

- Why whaling in the Arctic?

2) London-based **Muscovy Co.** (est. 1555) squeezed out of the Russian market after Dutch arrival in 1578

→ *Muscovy Co. looking for new <u>opportunities</u> in the North*

- Warum Walfang in der Arktis?

2) Londoner **Muscovy Co.** (1555) durch Niederländer ab 1578 aus dem russischen Markt verdrängt

→ *Muscovy Co. sucht nach neuen <u>Möglich-keiten</u> im Norden*

- Why whaling in the Arctic?

3) **Hull trade** (fish and whale oil) with Vardö, N. Norway (est. 1570) in difficulties after 1599

→ *Hull merchants and mariners looking for new opportunities in the North*

- Warum Walfang in der Arktis?

3) **Hull Handel** (Fisch- und Waltran) mit Vardö, Nordnorwegen (ca. 1570) nach 1599 in Schwierigkeiten

→ *Hull Händler und Seefahrer suchen nach neuen Möglichkeiten im Norden*

- "Arctic Convergence"

1) ***Basque whalers*** *were out of a job*
2) ***London merchants*** *were squeezed out of Russia*
3) ***Hull traders*** *were expelled from northern Norway*

- In 1603, the Muscovy Co. confirmed the Dutch sighting of **Bear Island**!

- *"Arktische Konvergenz"*

1) ***Baskische Walfänger*** *waren arbeitslos*
2) ***Londoner Kaufleute*** *wurden aus Russland vertrieben*
3) ***Händler aus Hull*** *wurden aus Nordnorwegen vertrieben.*

- *1603 bestätigte die Muscovy Co. die holländische Sichtung der* ***Bäreninsel****!*

➢“Arctic Convergence”

- 1603: English sighting of Bear Island
- 1604: first walruses †
- 1607: Hudson in **Spitsbergen**
- 1611: first bowhead † (**English whalers**)
- 1612: **Dutch whalers** arrive in Spitsbergen

➢“Arktische Konvergenz”

- 1603: Engl. Sichtung der Bäreninsel
- 1604: erste Walrosse †
- 1607: Hudson in **Spitzbergen**
- 1611: erster Grönlandwal † (**Engl. Walfänger**)
- 1612: **niederländische Walfänger** kommen in Spitzbergen an

➢ "Arctic Convergence"

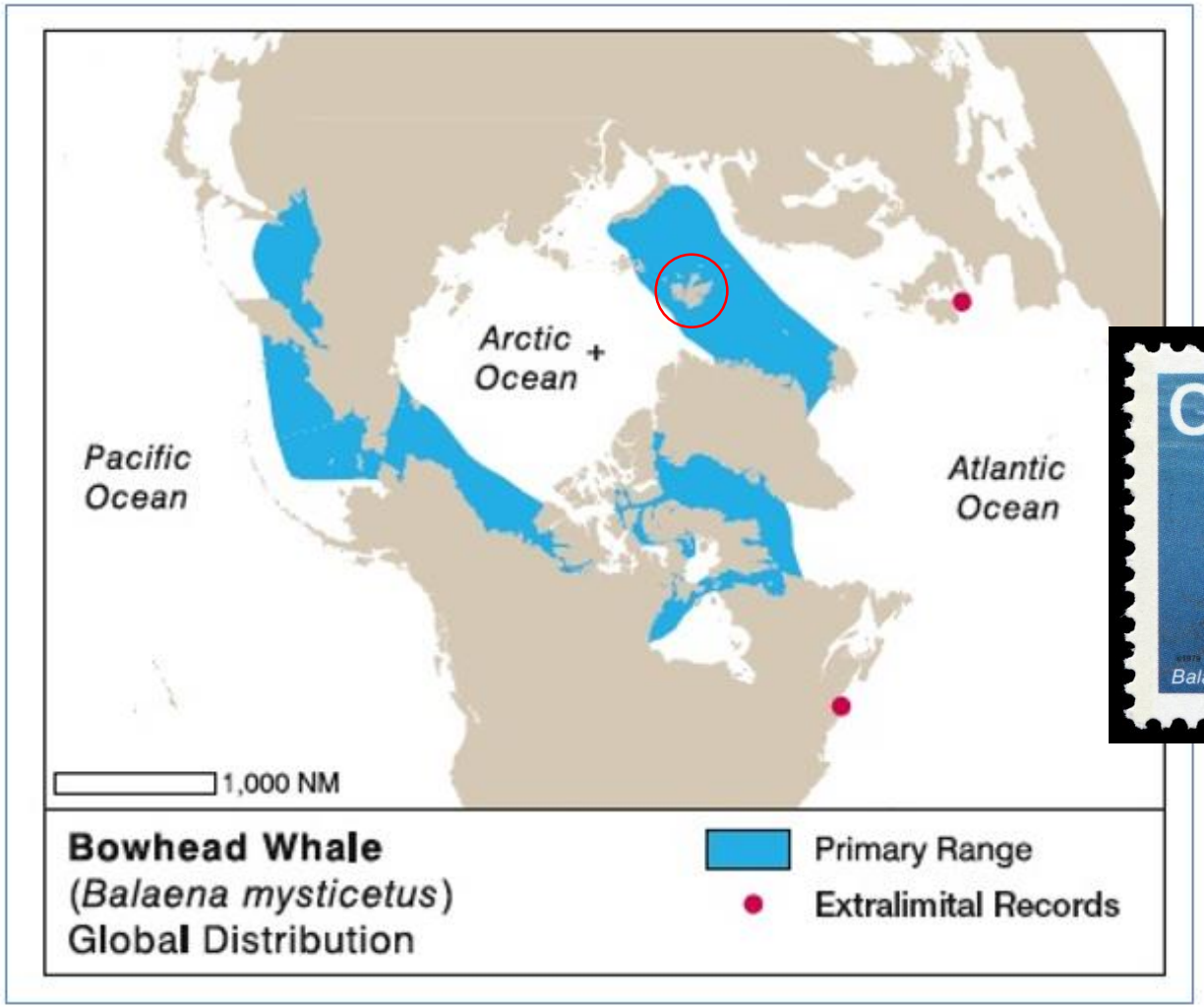
- In **1611**, the Muscovy Co., assisted by six **Basque** whalers, killed the first bowhead whale in Spitsbergen waters.
- When the **London** ship was wrecked, the men were rescued by a **Hull** mariner.
- In 1612, the enterprising **Dutch** arrived on the scene, too.
- **The first phase of Arctic commercial whaling began.**
- Land-based whaling stations.

➢ "Arktische Konvergenz"

- **1611** tötete die Muscovy Co. mit Hilfe von sechs **baskischen** Walfängern den ersten Grönlandwal in den Gewässern Spitzbergens.
- Als das **Londoner** Schiff zerstört wurde, wurden die Männer von einem **Hull**-Schiff gerettet.
- Im Jahr 1612 kamen auch die unternehmungslustigen **Niederländer** auf die Bühne.
- **Die erste Phase des kommerziellen Walfangs in der Arktis begann.**
- Landbasierte Stationen

- Early whaling grounds and species

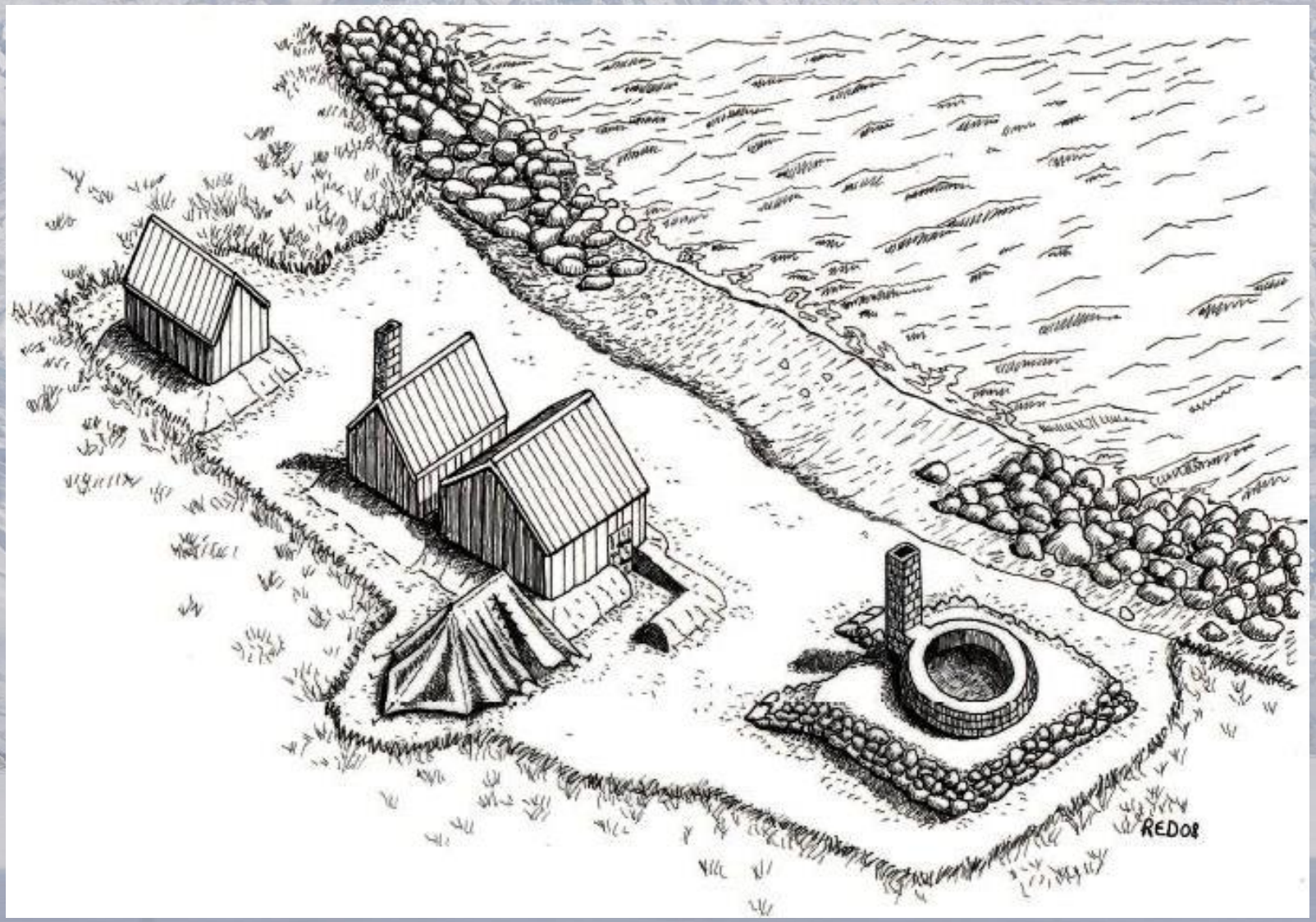
- Frühe Fanggründe und Art



From: Jefferson et al. (2015) – Marine Mammals of the World.

Grönlandwal

- Example of a land-based whaling station
- Beispiel einer landbasierten Station



http://icelandmag.visir.is/article/tour-archaeological-digs-basque-whaling-stations-westfjords

4. Spitsbergen Case Study

- Well-defined island group
- Straightforward human history
- *Rich **written** sources (e.g. Fotherby)*
- *Rich **archaeological** sources (e.g. Arkeologvika)*
- Over four centuries
- Commonly complementary
- A *luxury* for the Arctic!

4. Spitzbergen-Fallstudie

- Gut definierte Inselgruppe
- Einfache menschliche Geschichte
- *Reiche **schriftliche** Quellen (z.B. Fotherby)*
- *Reiche **archäologische** Quellen (z.B. Arkeolog-vika)*
- Über vier Jahrhunderte
- Ergänzen sich
- Ein *Luxus* für die Arktis!

Fotherby, 1613

Fotherby, 1613

Harpooning the whale

Harpunieren des Wals

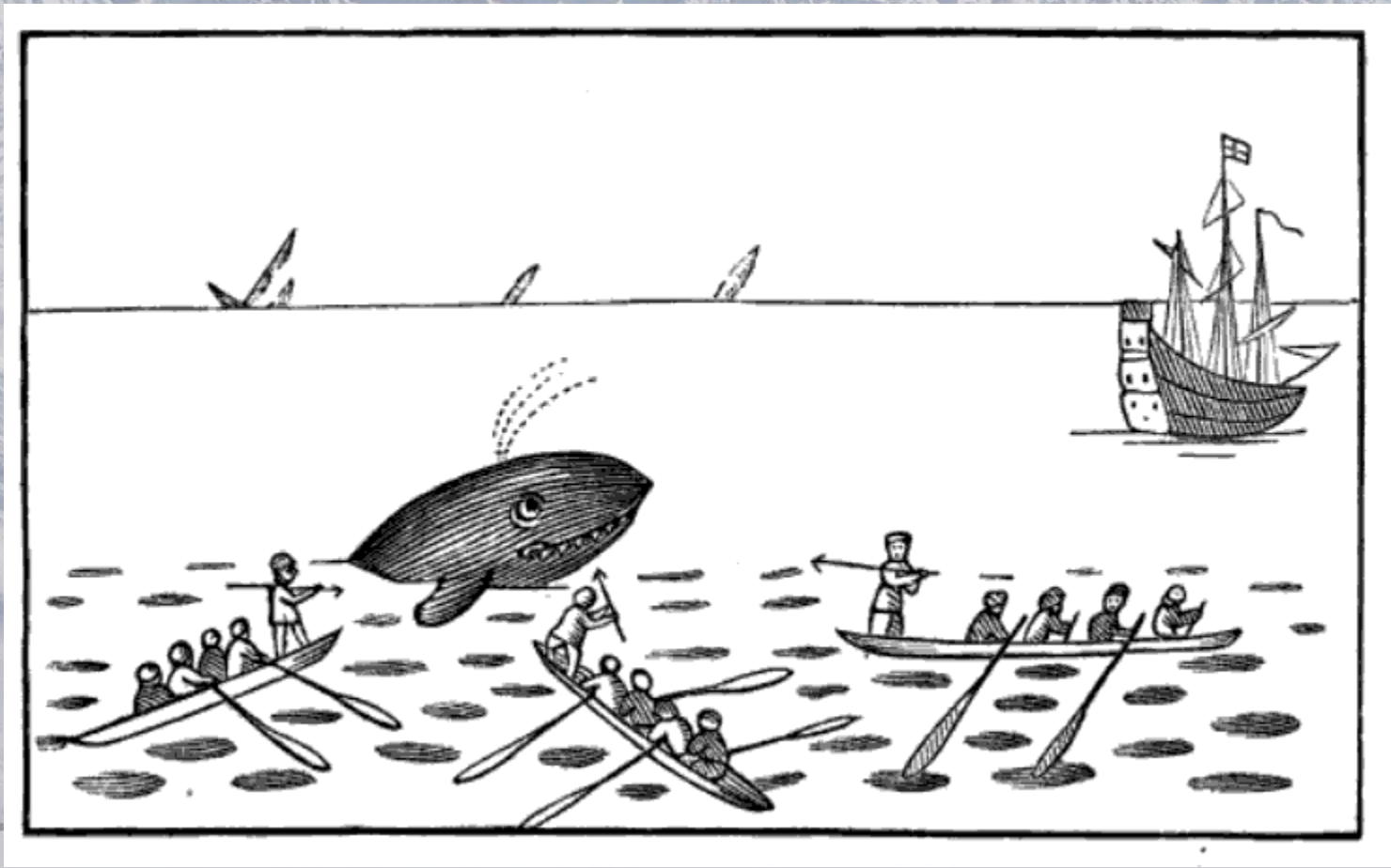
Source: Robert Fotherby journal, **1613**, Mss folio volume F, American Antiquarian Society, Worcester, USA.

Fotherby, 1613

Fotherby, 1613

Harpooning the whale

Harpunieren des Wals



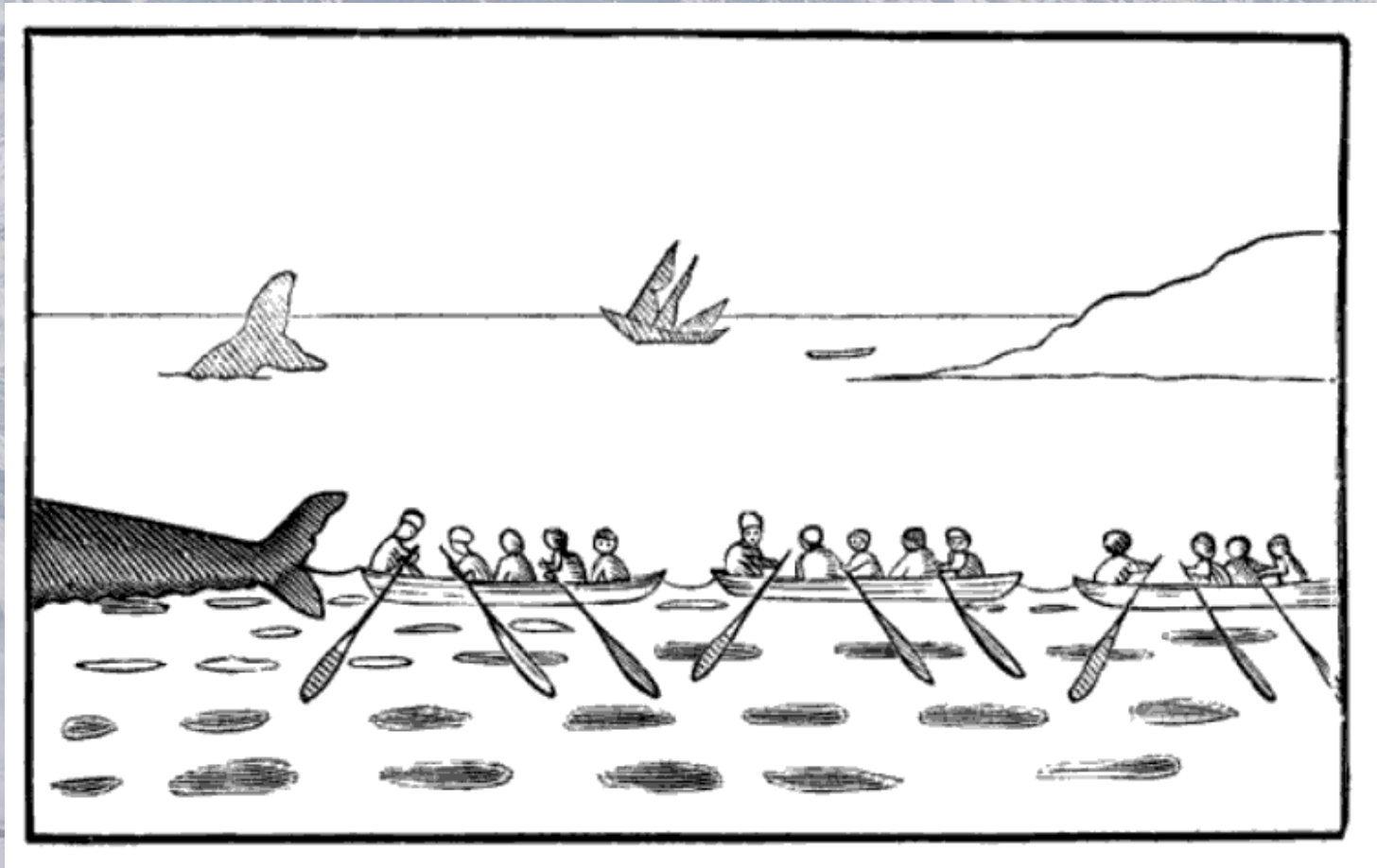
Source: Anon. (**1860**). Voyage to Spitzbergen in the year 1613. (S. F. Haven, Ed.). Boston: American Antiquarian Society.

Fotherby, 1613

Fotherby, 1613

Towing the whale

Schleppen des Wals



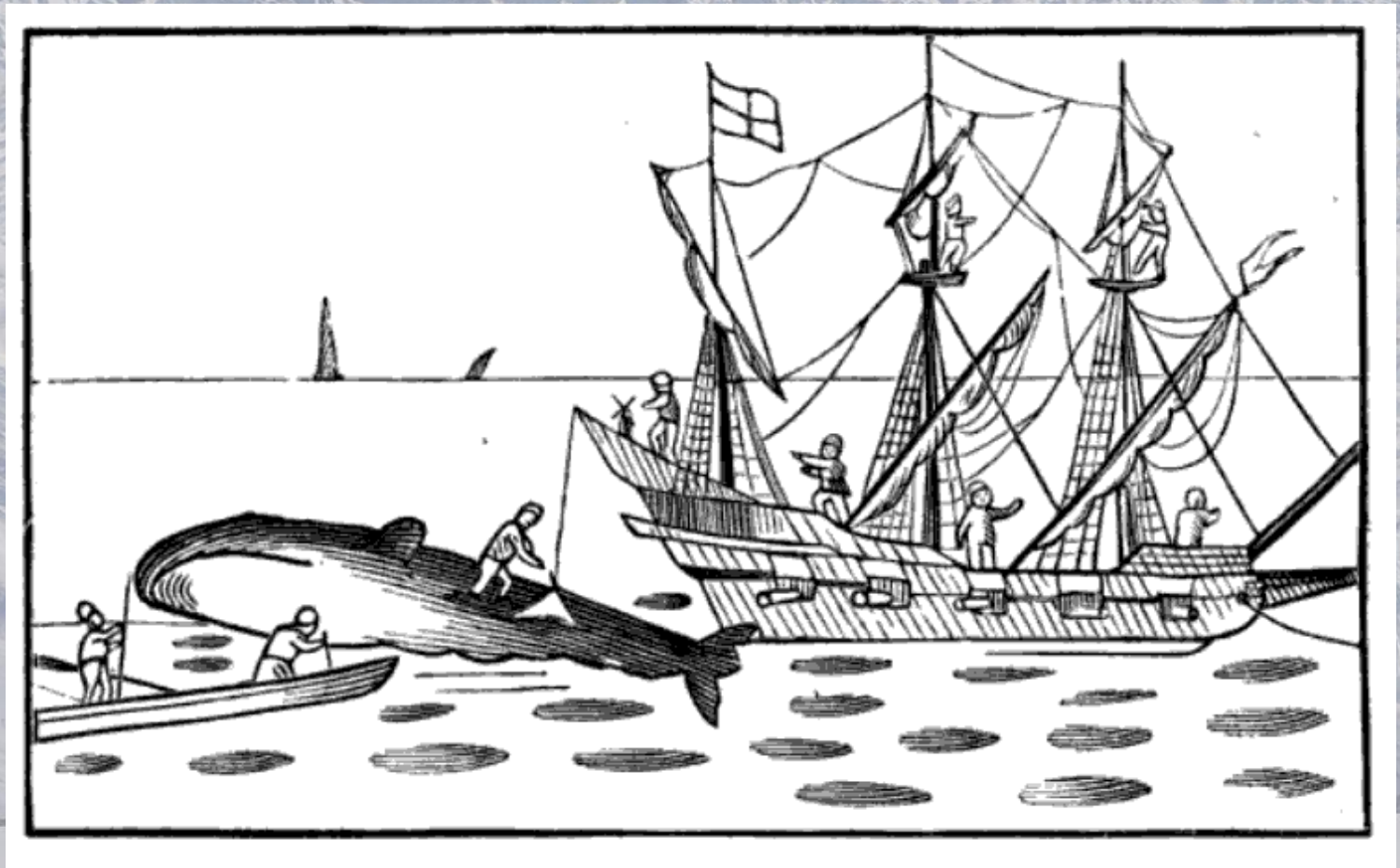
Source: Anon. (1860). Voyage to Spitzbergen in the year 1613. (S. F. Haven, Ed.). Boston: American Antiquarian Society.

Fotherby, 1613

Fotherby, 1613

They fasten him to the stern

Sie befestigen ihn am Heck



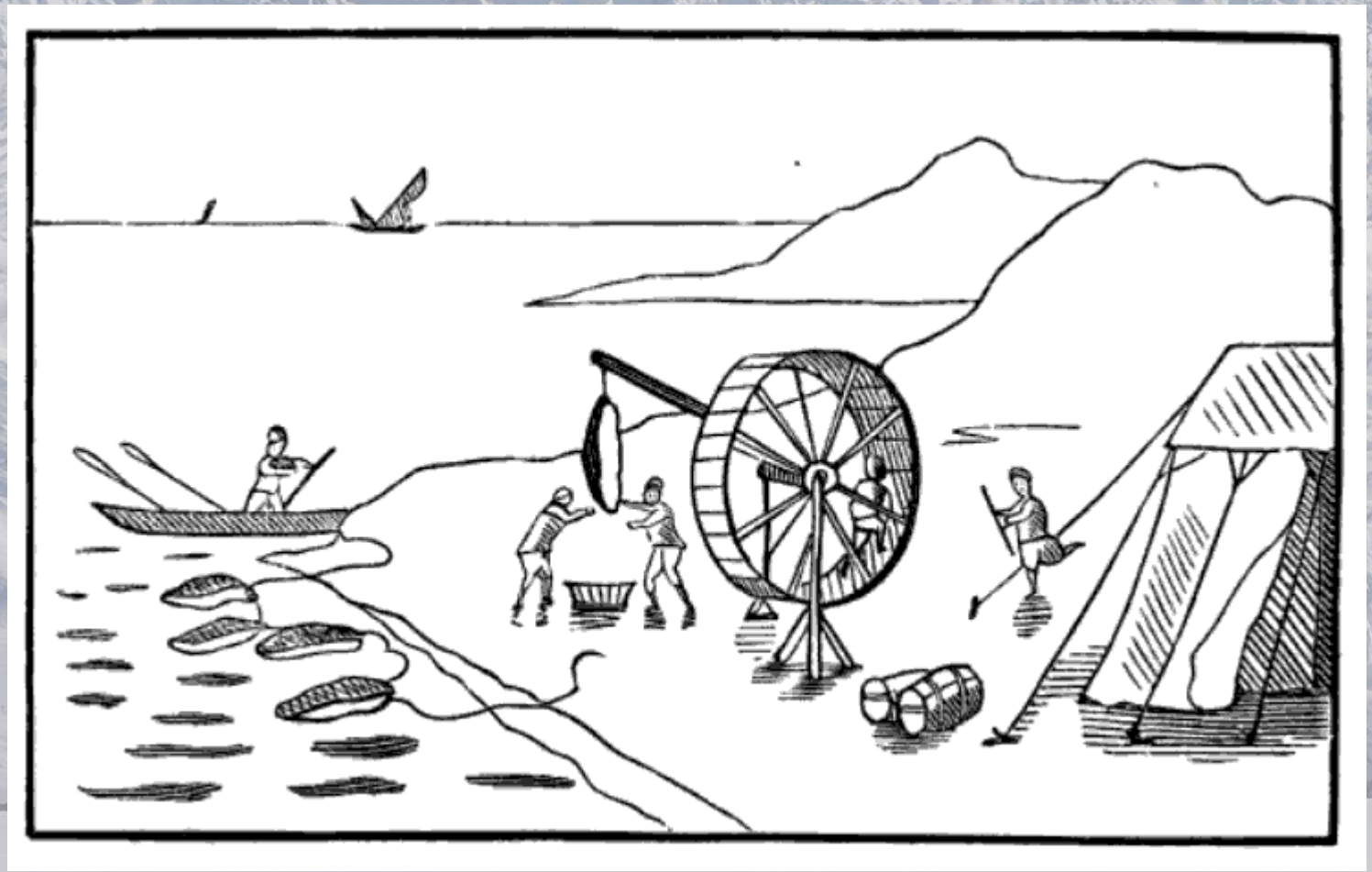
Source: Anon. (1860). Voyage to Spitzbergen in the year 1613. (S. F. Haven, Ed.). Boston: American Antiquarian Society.

Fotherby, 1613

Fotherby, 1613

The crane

Der Kran



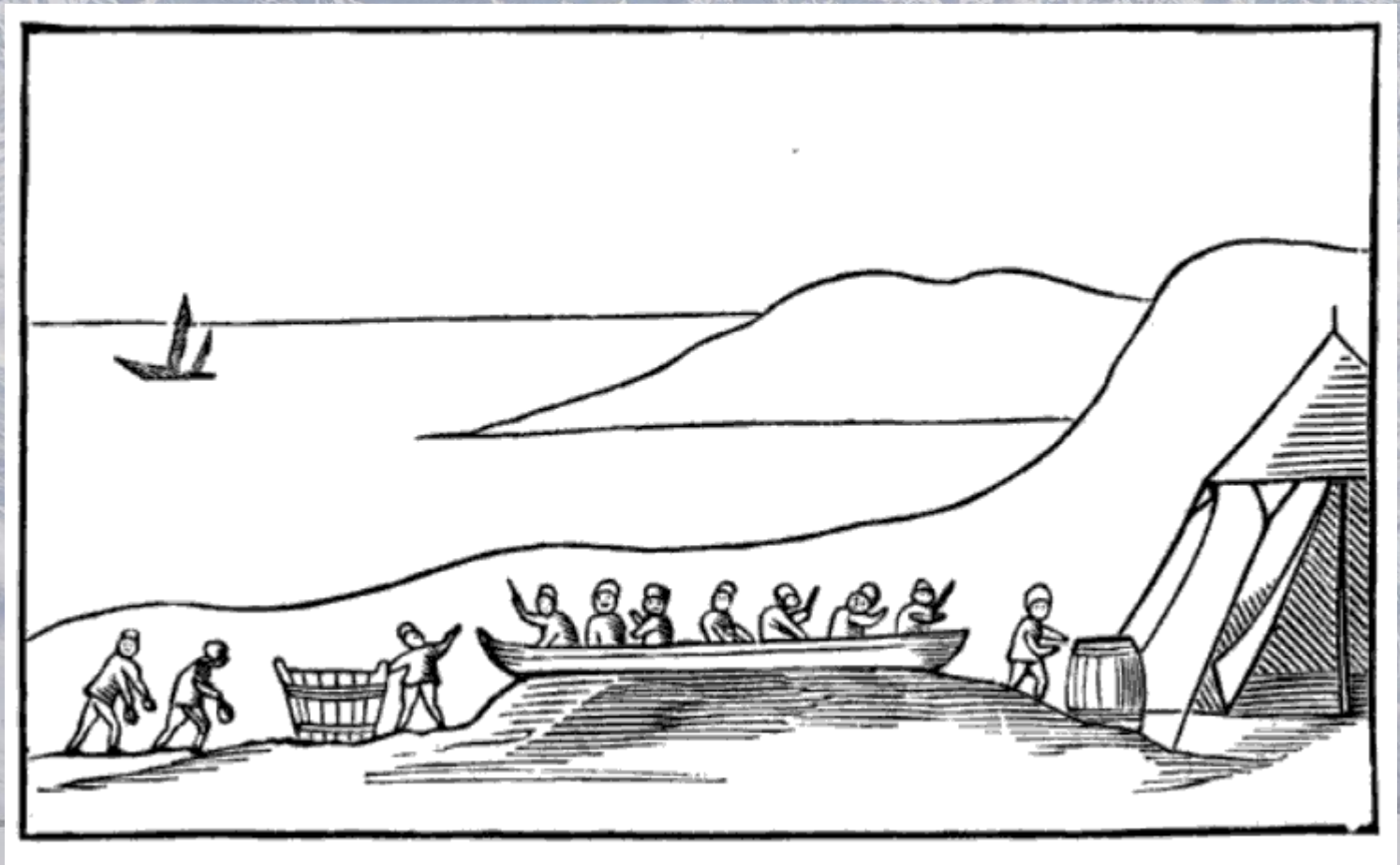
Source: Anon. (1860). Voyage to Spitzbergen in the year 1613. (S. F. Haven, Ed.). Boston: American Antiquarian Society.

Fotherby, 1613

Fotherby, 1613

The choppers

Die Speckschneider



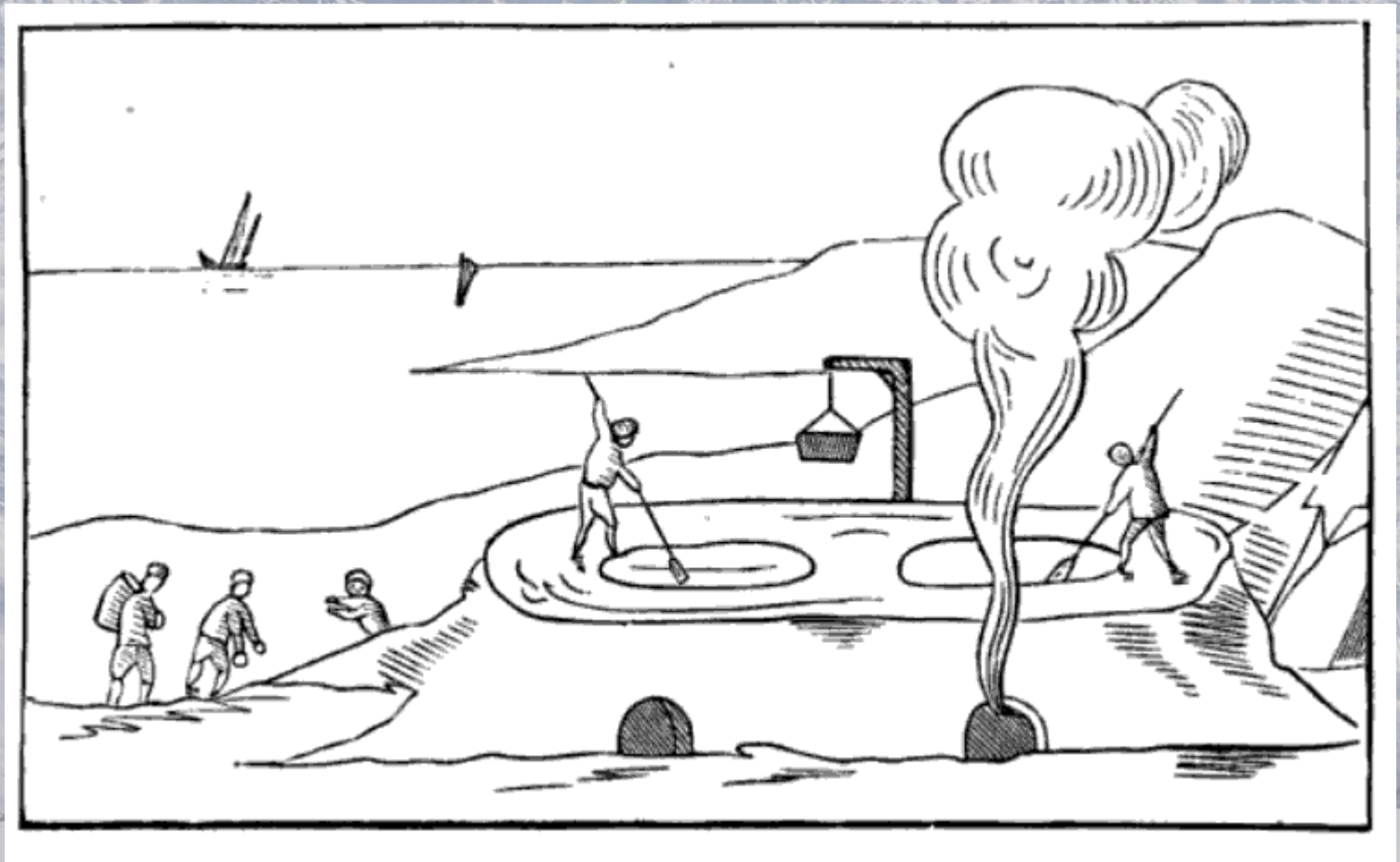
Source: Anon. (1860). Voyage to Spitzbergen in the year 1613. (S. F. Haven, Ed.). Boston: American Antiquarian Society.

Fotherby, 1613

Fotherby, 1613

The double blubber oven

Der doppelte Tranoven



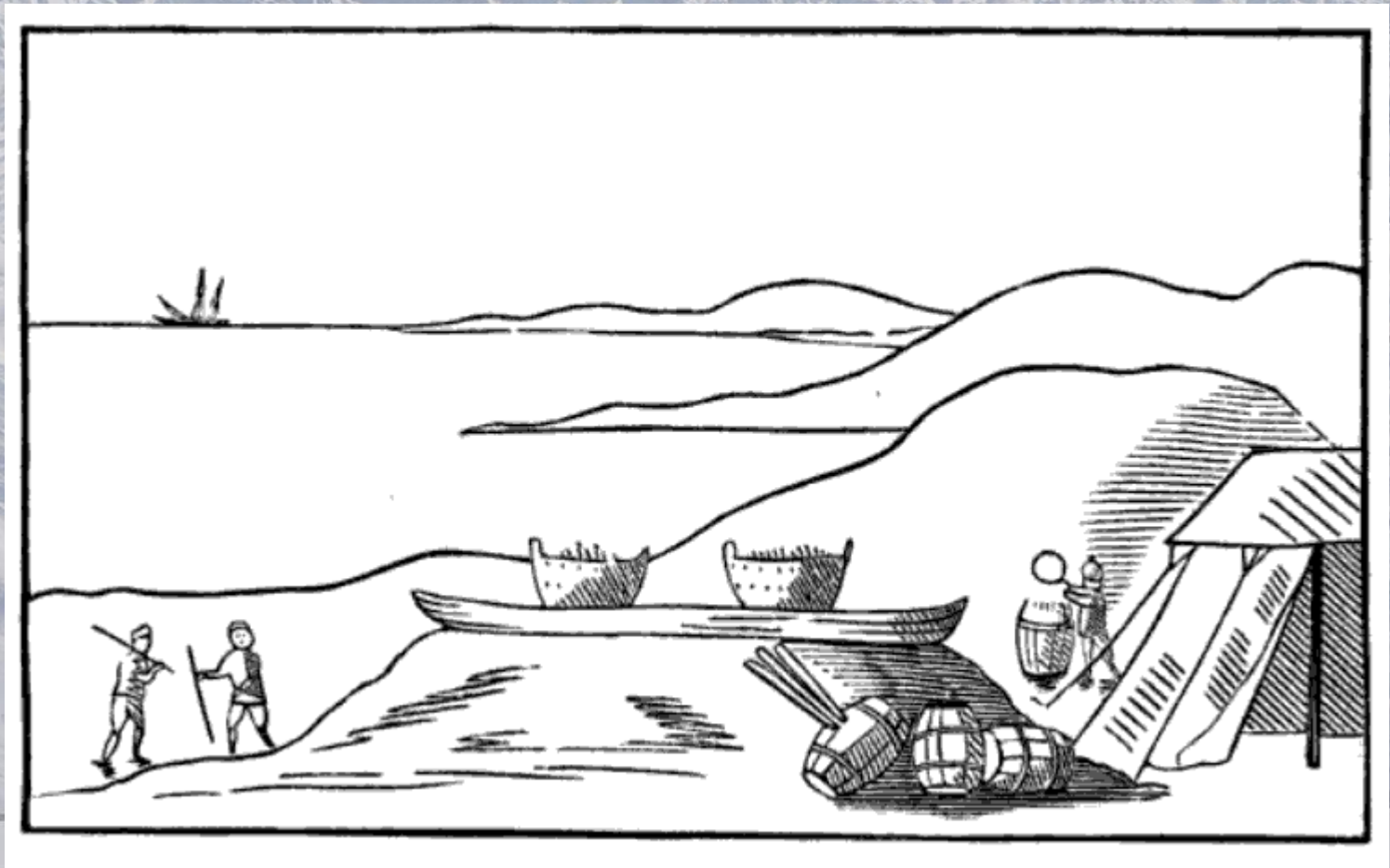
Source: Anon. (1860). Voyage to Spitzbergen in the year 1613. (S. F. Haven, Ed.). Boston: American Antiquarian Society.

Fotherby, 1613

Fotherby, 1613

Cooling and filling the barrels

Kühlung und Füllen der Fässer



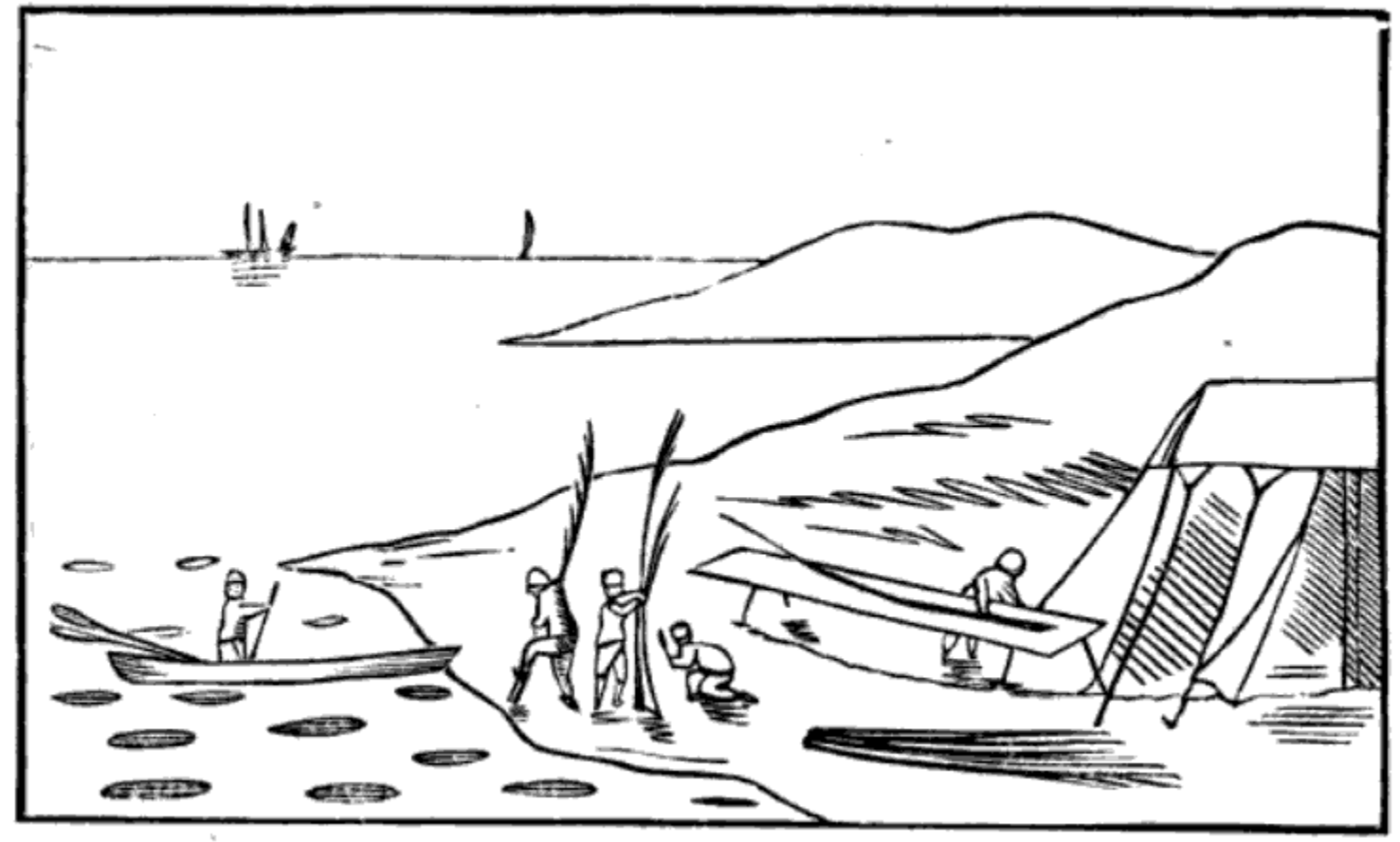
Source: Anon. (1860). Voyage to Spitzbergen in the year 1613. (S. F. Haven, Ed.). Boston: American Antiquarian Society.

Fotherby, 1613

Fotherby, 1613

Cleaning the baleen

Reinigen der Barten



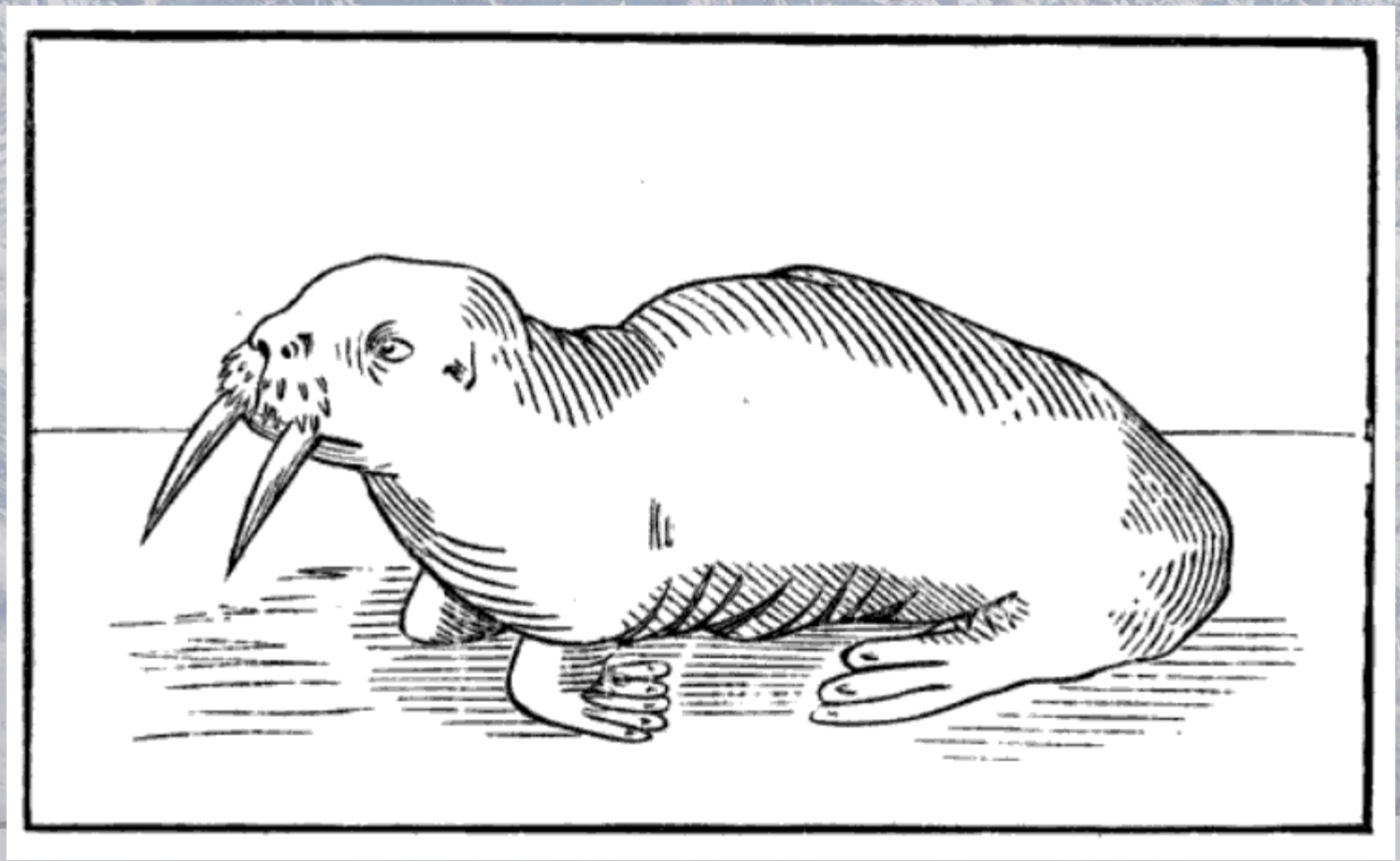
Source: Anon. (1860). Voyage to Spitzbergen in the year 1613. (S. F. Haven, Ed.). Boston: American Antiquarian Society.

Fotherby, 1613

Fotherby, 1613

A walrus

Ein Walross



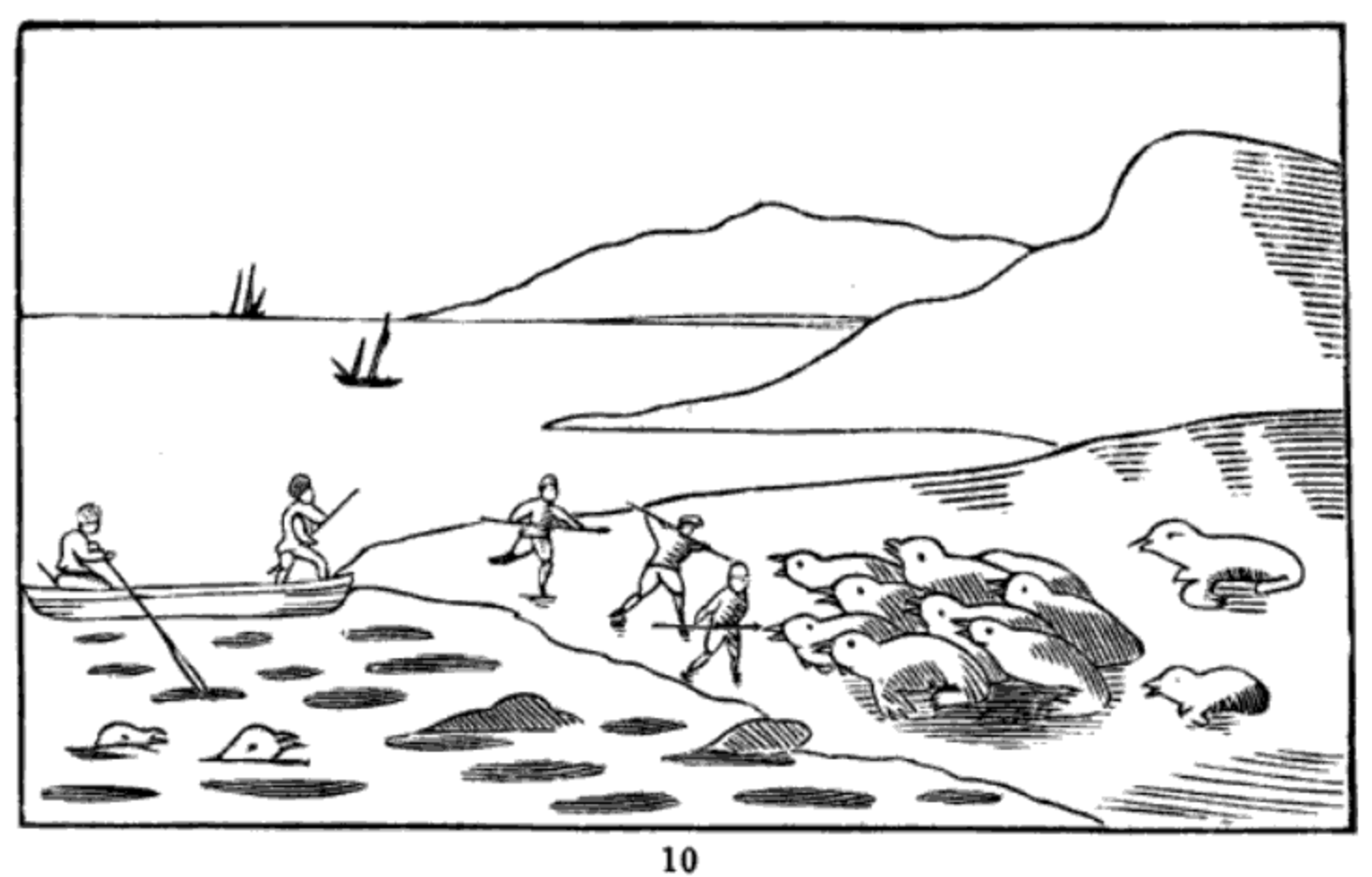
Source: Anon. (1860). Voyage to Spitzbergen in the year 1613. (S. F. Haven, Ed.). Boston: American Antiquarian Society.

Fotherby, 1613

Fotherby, 1613

The walrus hunt

Die Walrossjagd



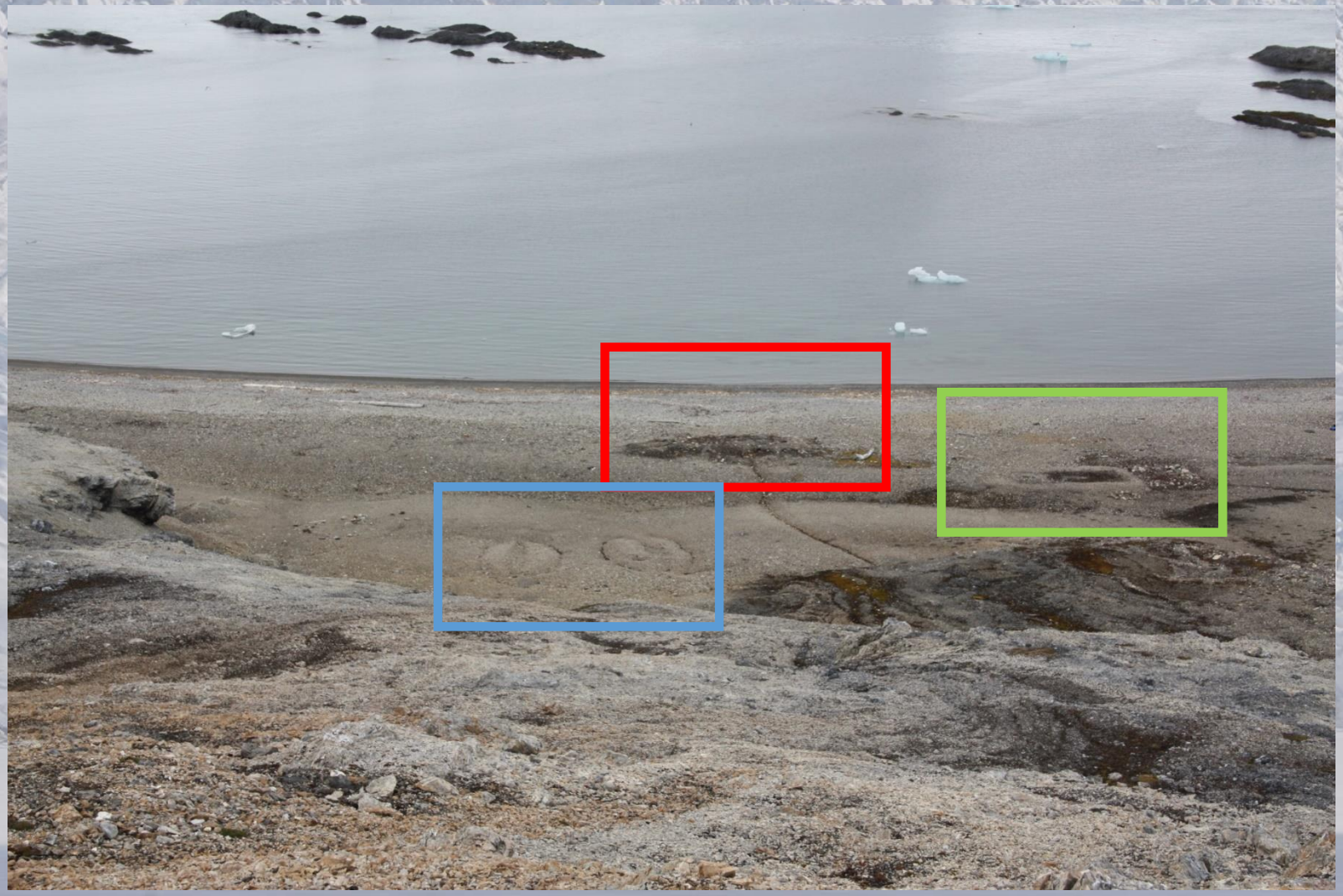
10

Source: Anon. (1860). Voyage to Spitzbergen in the year 1613. (S. F. Haven, Ed.). Boston: American Antiquarian Society.

Arkeologvika

A former land-based station

Eine ehemalige landbasierte Station



Caroline Botman, LASHIPA 9 expedition, 2010.

Arkeologvika

A former land-based station

Eine ehemalige landbasierte Station

- Whales in the fjord / Wale im Fjord
- Harbour / Hafen
- Landing beach / Landungsstrand

Blubber oven / Tranofen

Building / Gebäude

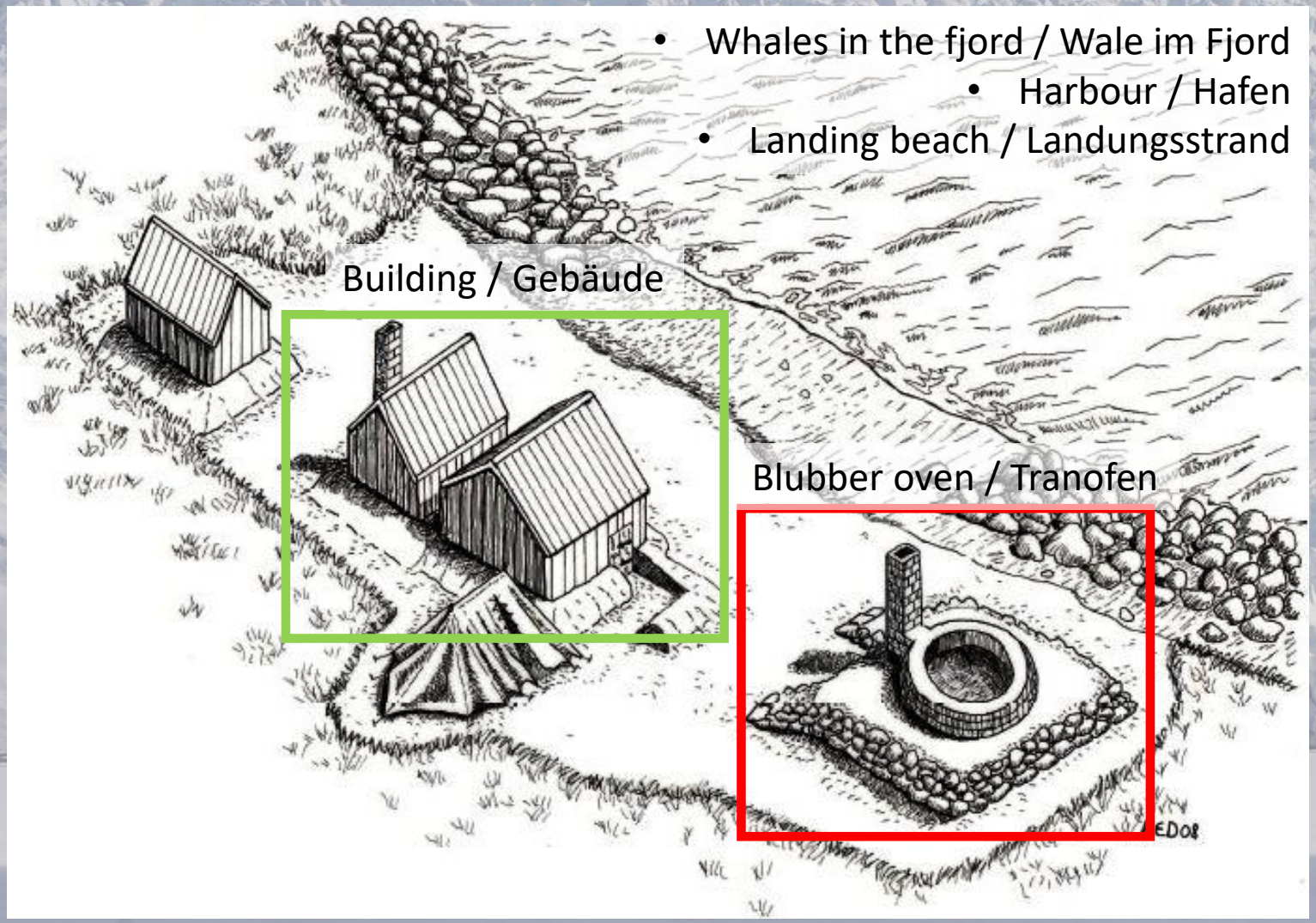
Shallops (chopping) /
Schaluppen (Speckschneiden)

Caroline Botman, LASHIPA 9 expedition, 2010.

Arkeologvika

Very similar to the example

Ganz ähnlich dem Beispiel



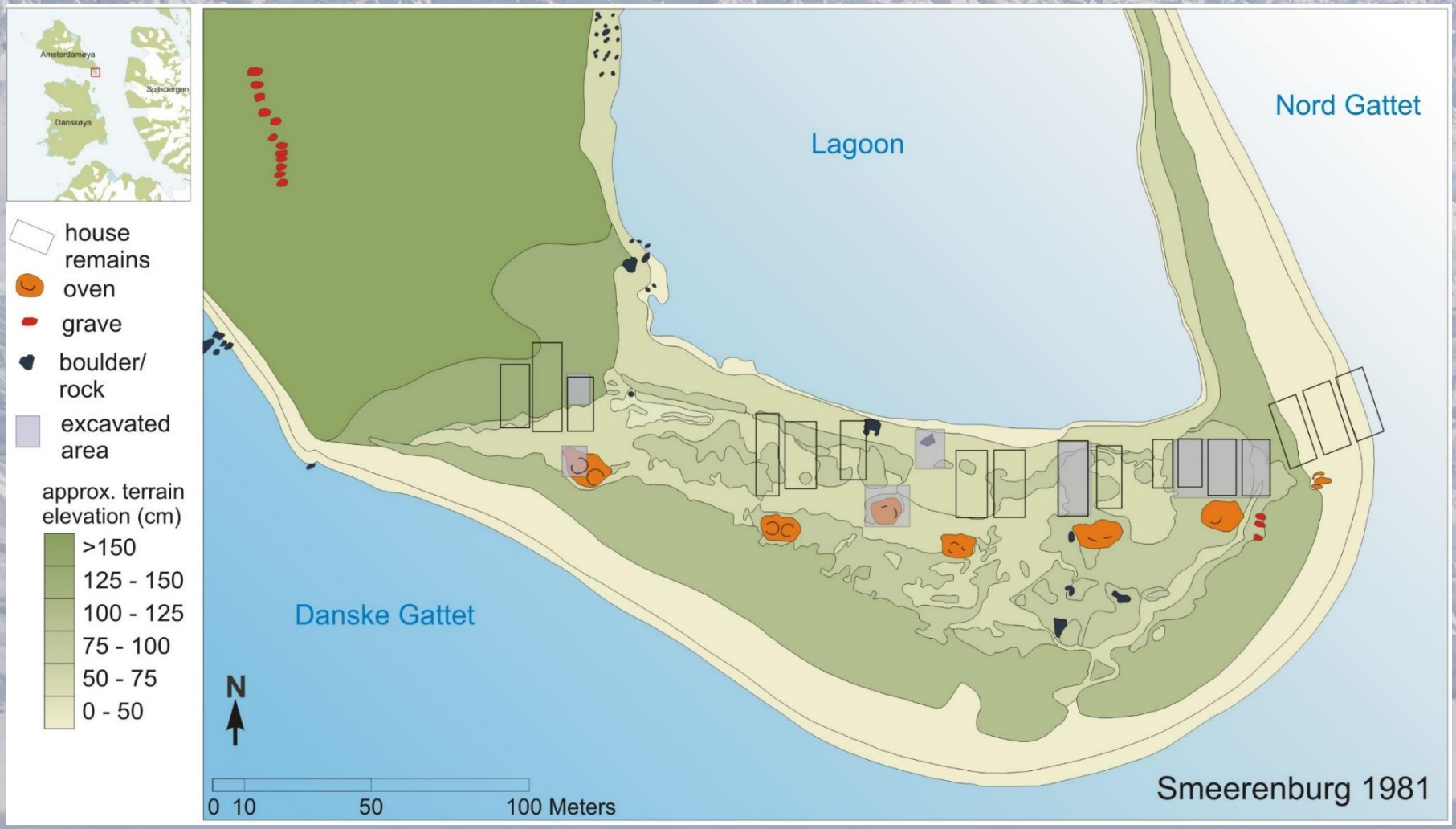
http://icelandmag.visir.is/article/tour-archaeological-digs-basque-whaling-stations-westfjords

Smeerenburg

Smeerenburg

As complex as land stations got

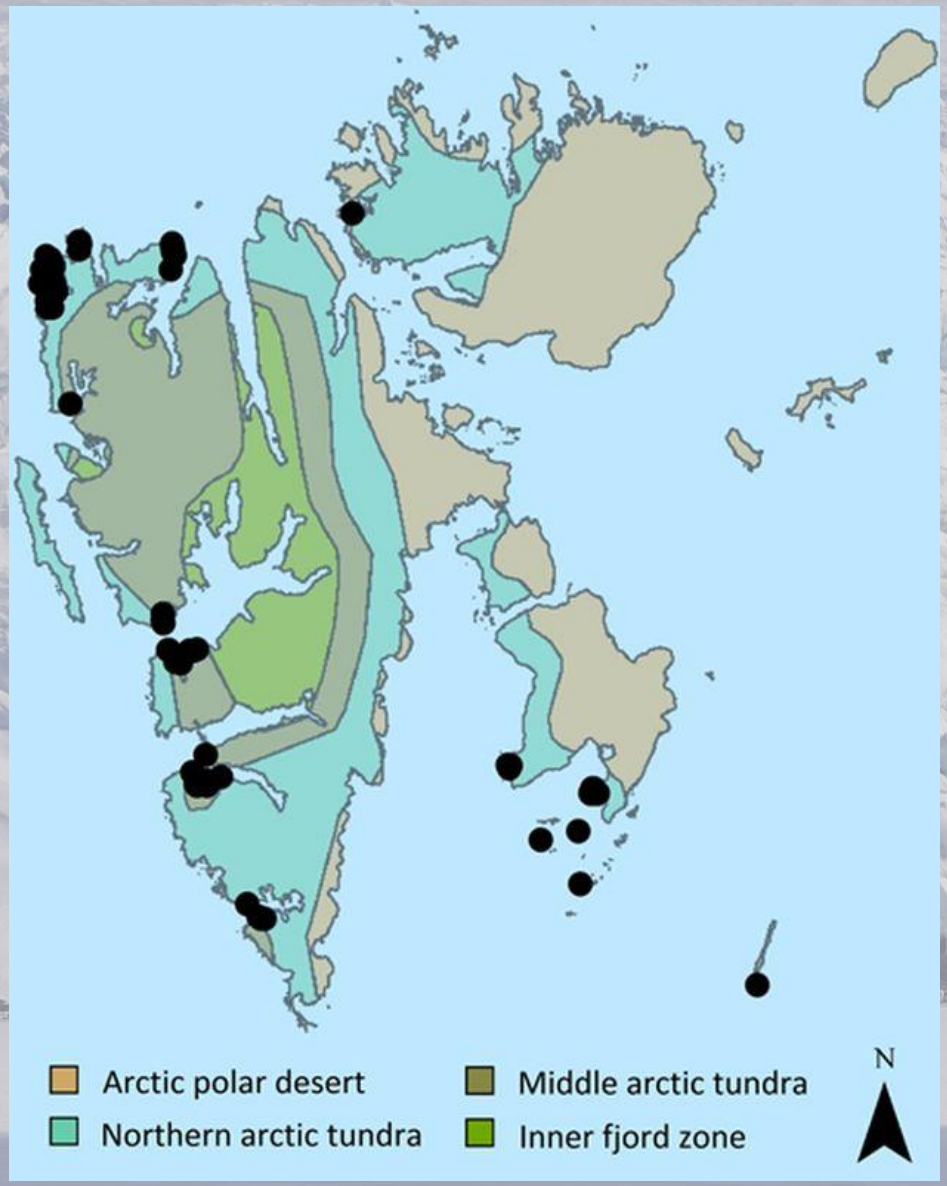
So complex wie Landstationen wurden



4. Spitsbergen Case Study

4. Spitzbergen-Fallstudie

The locations of former whaling stations are determined by the presence of **whales** as well as the **accessibility** of the fjords and the presence of good **landing sites**. The north and northeast were *inaccessible* due to ice.



Die Standorte der ehemaligen Walfang-stationen wurden durch die Anwesenheit von **Walen** sowie die **Zugänglichkeit** der Fjorde und das Vorhandensein guter **Anlandestellen** bestimmt. Der Norden und Nordosten waren wegen des Eises *unzugänglich*.

4. Spitsbergen Case Study

4. Spitzbergen-Fallstudie

This is how it might have been

So könnte es gewesen sein

Jetses, C. (1911) Ter walvisvaart [Zum Walfang]

5. Intensification and impact

- **Arctic whaling began in Spitsbergen (Svalbard)**
- Initially, **land-based** whaling stations
- In 1626, whalers from Zaandam may have hunted whales in the **open sea**
- Diversification of whaling grounds (Jan Mayen, Davis Strait)

5. Intensivierung und Auswirkung

- **Arktischer Walfang begann in Spitzbergen (Svalbard)**
- Anfänglich Walfang-stationen **an Land**
- Im Jahr 1626 haben Walfänger aus Zaandam möglicherweise Wale im **offenen Meer** gejagt
- Ausbreitung von Walfanggebieten (Jan Mayen, Davisstraße)

5. Intensification and impact

- Try-works aboard whaling vessels from 1655 (dangerous!)
- Dutch last rendered oil in Spitsbergen ca. 1669
- Smeerenburg abandoned by **1671**

→ whaling now in the open sea, almost independent of land (graves, fresh water)

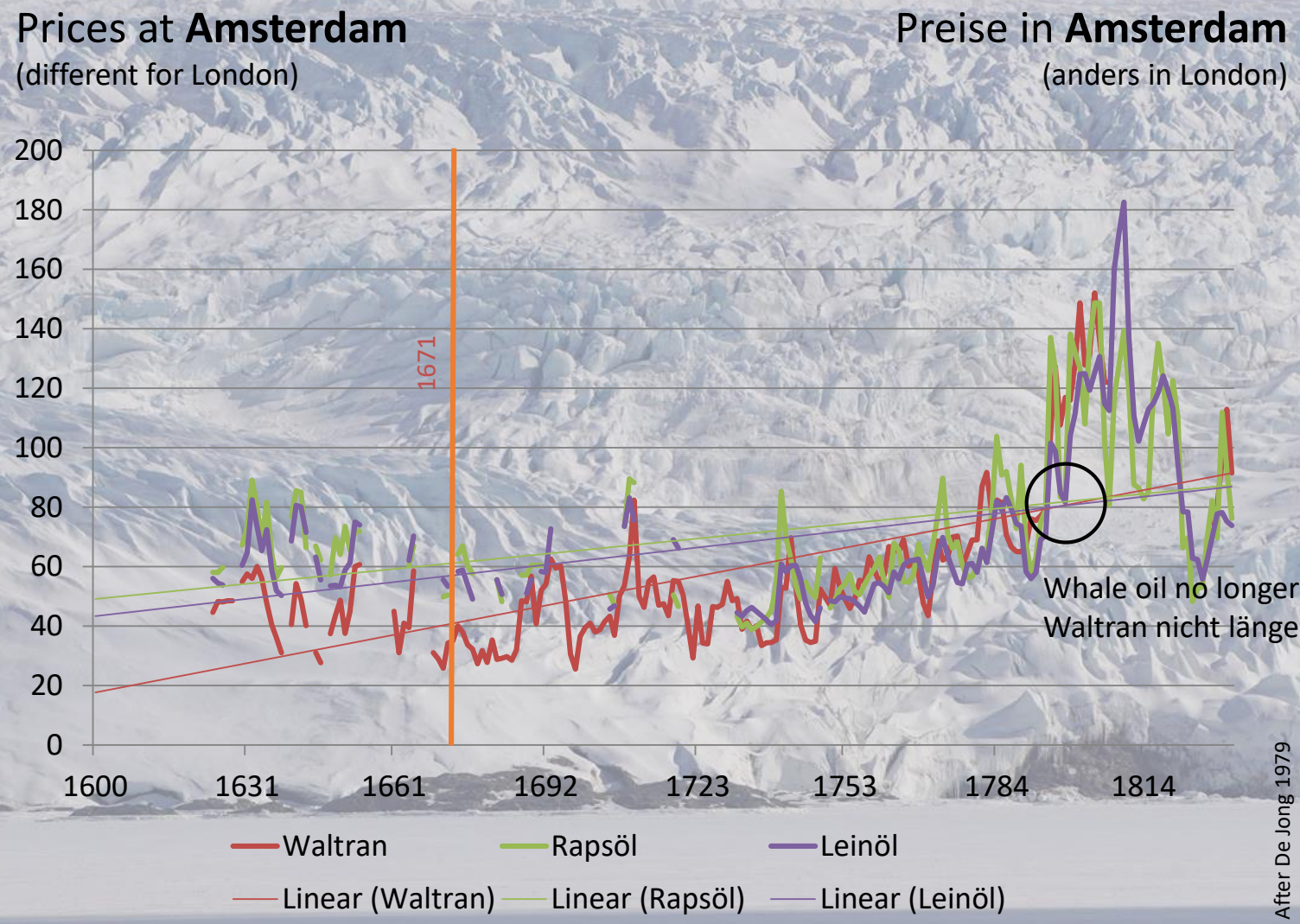
5. Intensivierung und Auswirkung

- Trankocher an Bord von Walfangschiffen ab 1655 (gefährlich!)
- Letztes niederländisches Trankochen in Spitz-bergen ca. 1669
- Smeerenburg **1671** aufgegeben

→Walfang jetzt auf dem offenen Meer, fast unabhängig von Land (Gräber, Frischwasser)

Demand

Nachfrage

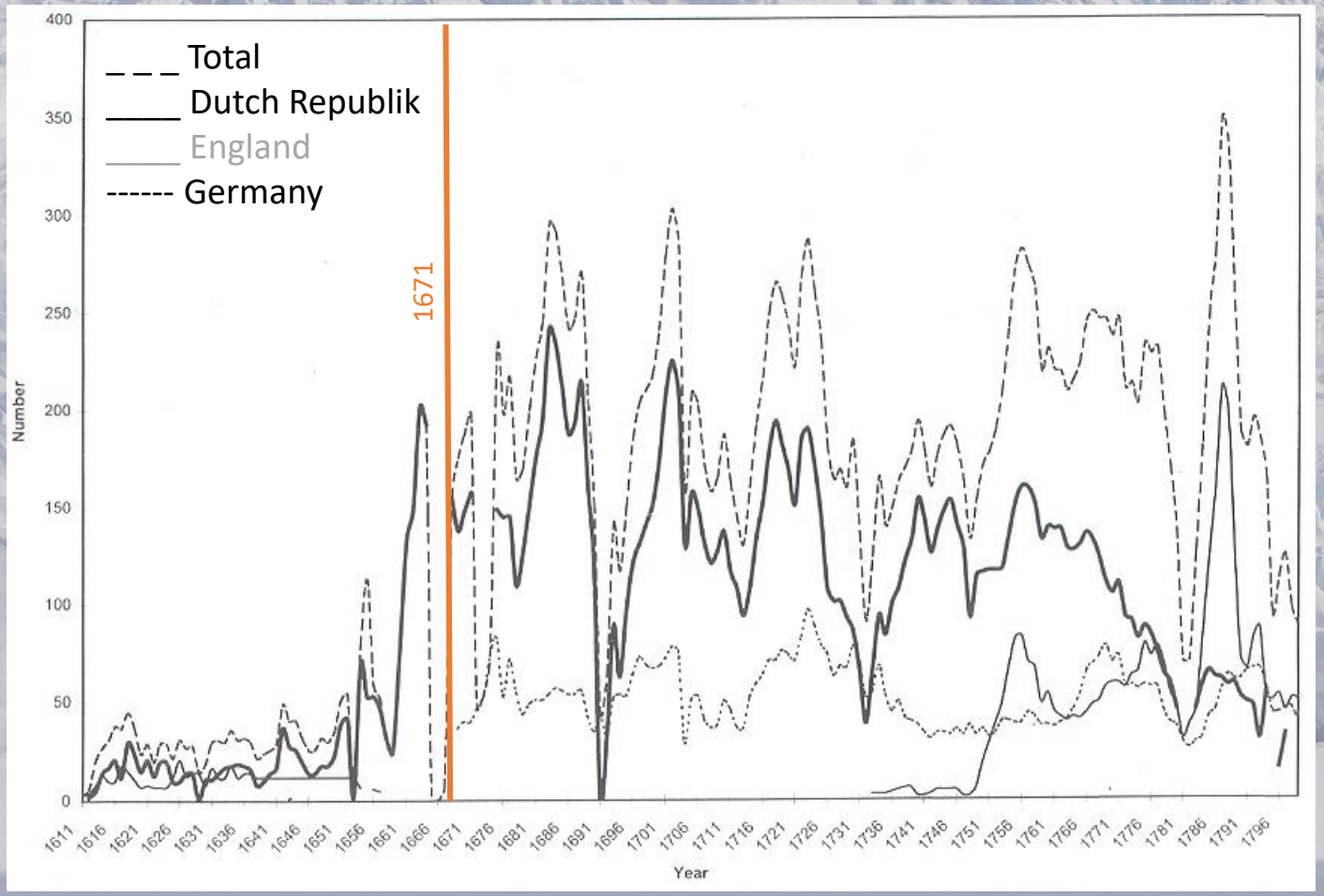


Intensity

Intensität

No. of whaling **vessels** in Spitsbergen, 1611-1796

Zahl der Walfang**schiffe** in Spitzbergen, 1611-1796



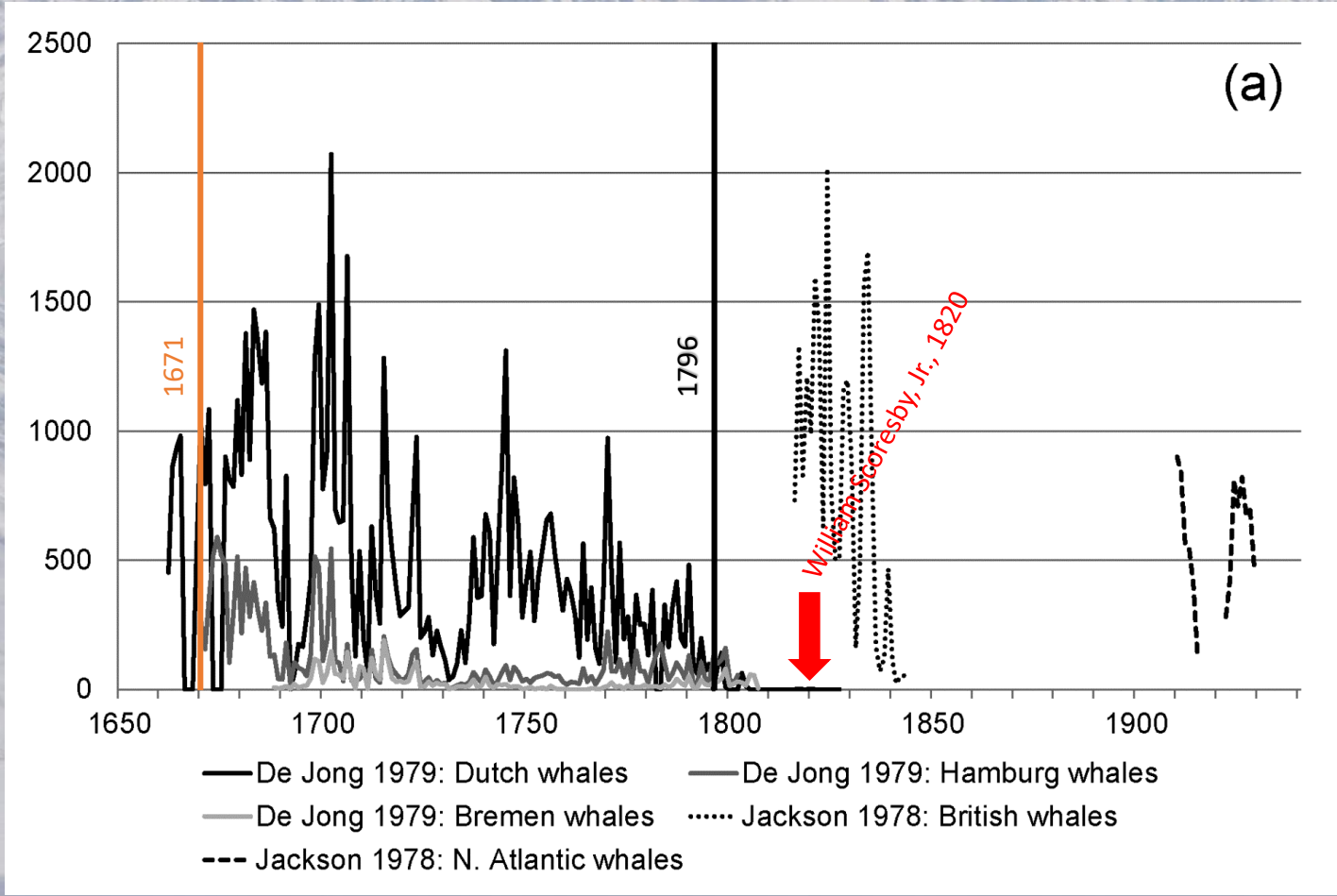
Graph F. Kruse

Intensity

Intensität

No. of **whales caught**, Spitsbergen Fishery

Anzahl der **gefangenen Wale**, Grönlandfahrt



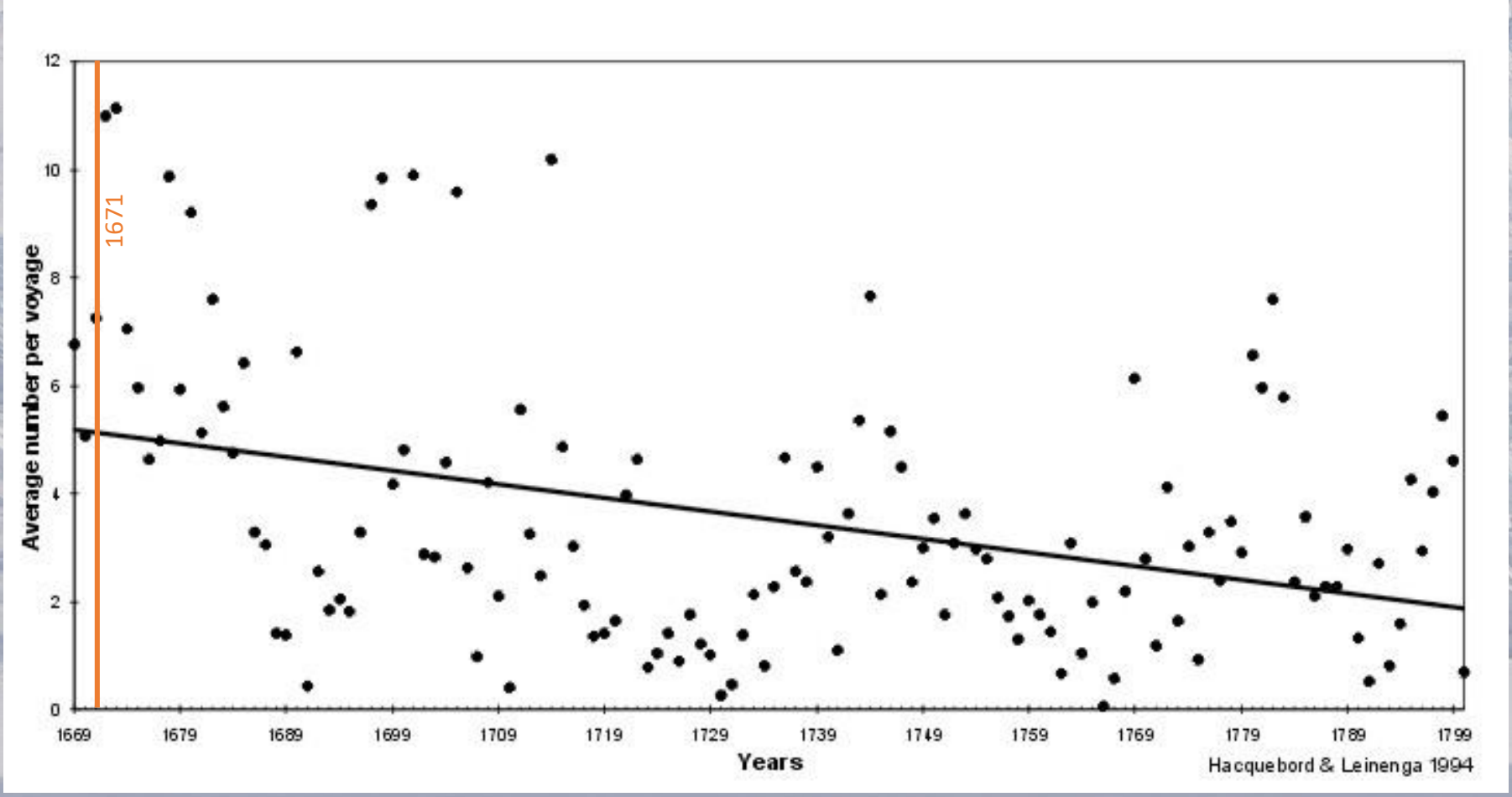
Graph F. Kruse

Impact

Auswirkung

Av. no. of **whales per voyage**, Spitsbergen Fishery

Ø Anzahl von **Walen pro Fahrt**, Grönlandfahrt

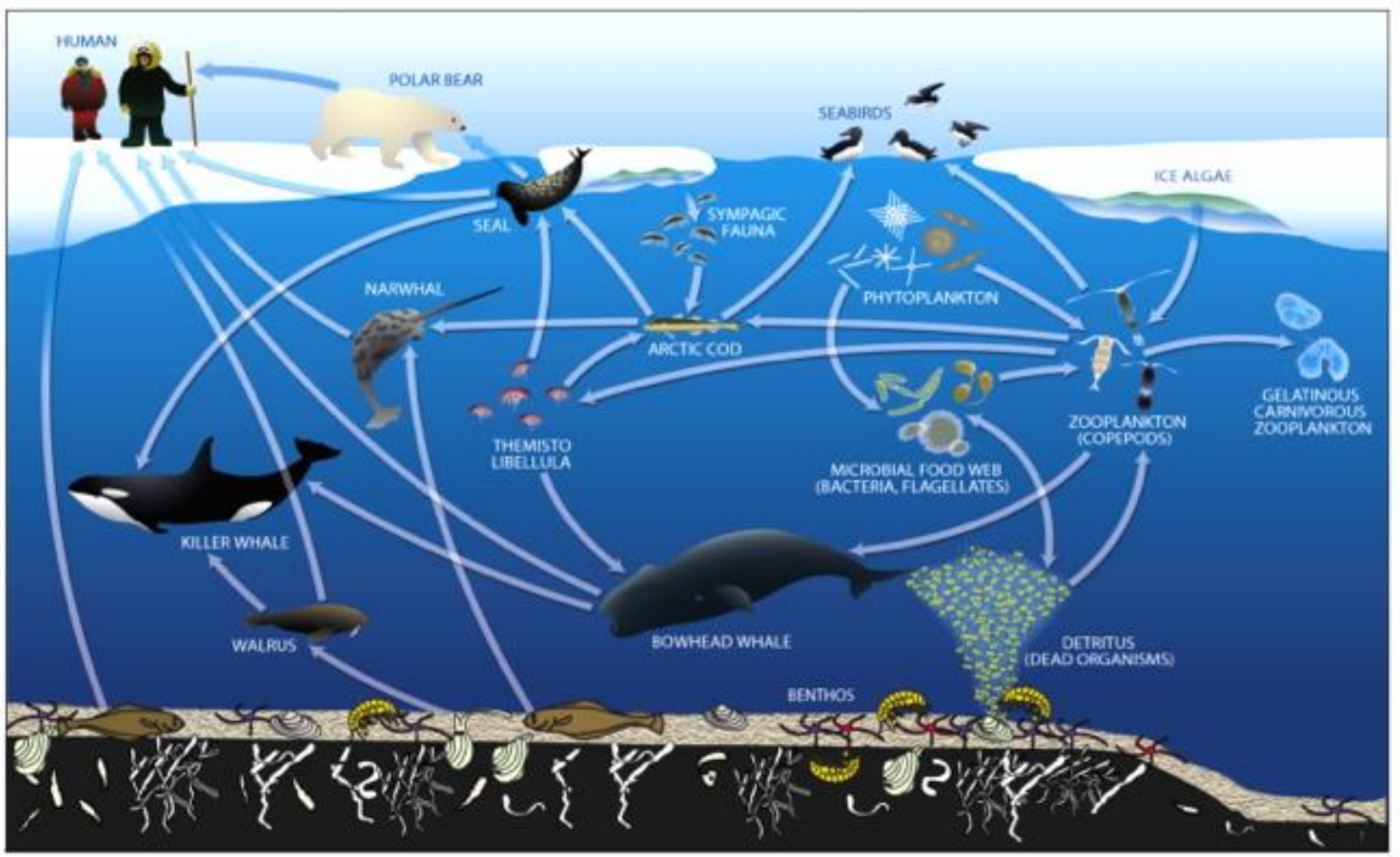


Impact

Auswirkung

Arctic food web **with** the large baleen whales
Schematic

Arktisches Nahrungsnetz **mit** den großen Bartenwalen
Schematische Darstellung



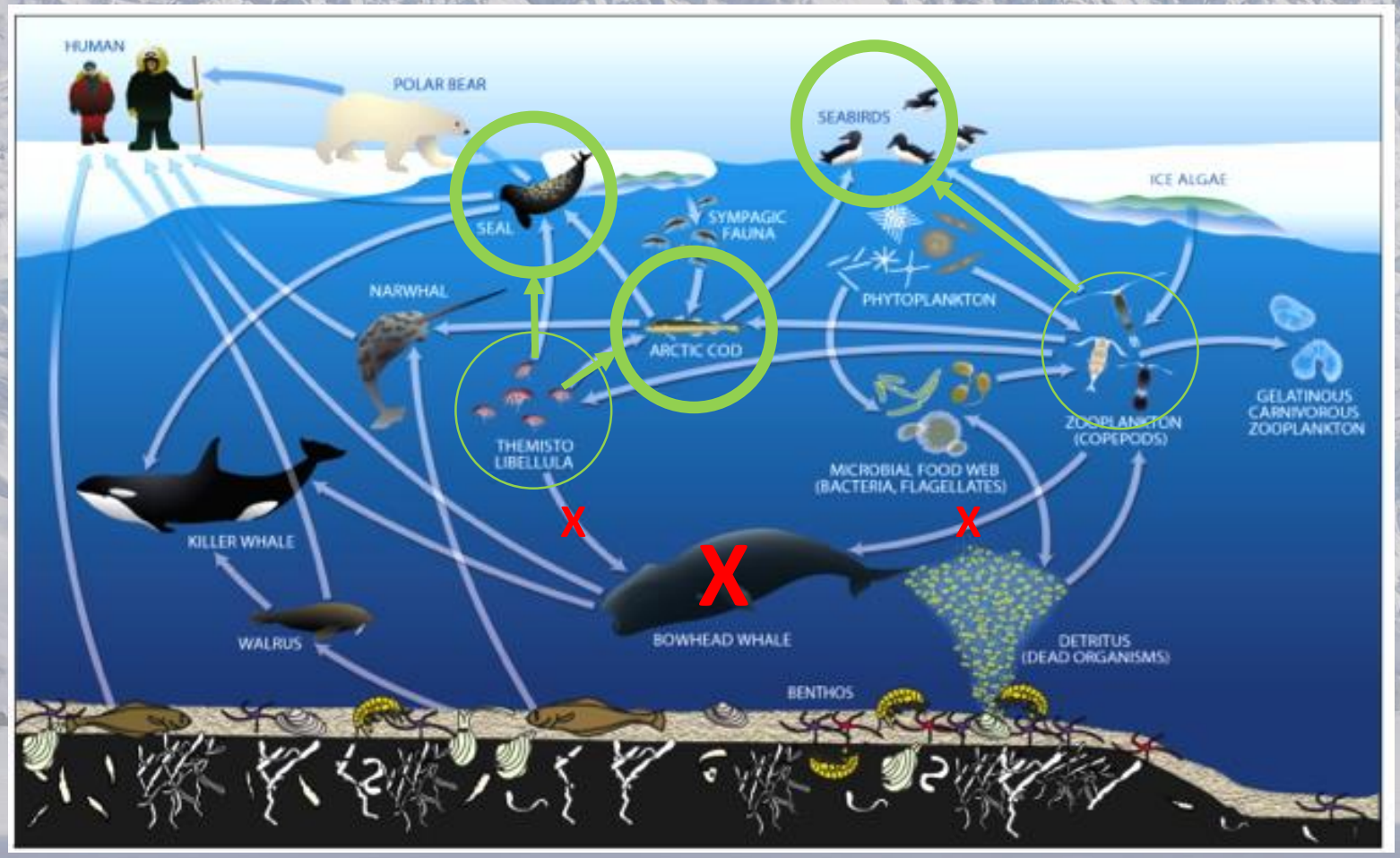
www.nunatsiaqonline.ca

Impact

Arctic food web **without** the large baleen whales
Schematic

Auswirkung

Arktisches Nahrungsnetz **ohne** die großen Bartenwale
Schematische Darstellung



www.nunatsiaqonline.ca

Impact

Auswirkung

Arctic food web **with and without** bowheads and walruses
State of research in 2000

Arktisches Nahrungsnetz **mit und ohne** Grönlandwale und Walrosse
Forschungsstand 2000

Oceanologia

2000 | 42 | 1 |

Greenland whales and walruses in the Svalbard food web before and after exploitation

Weslawski J.M., Hacquebord L., Stempniewicz L., Malinga M.

Pełny tekst:

Pobierz

Języki publikacji: EN

Abstrakty:

EN Between 1600 and 1900 two numerous and ecologically important large marine mammals were extirpated in the Svalbard archipelago. These were the pelagic-feeding Greenland whale (Balaena mysticetus) and the benthic-feeding walrus (Odobaenus rosmarus rosmarus), the initial stocks of which prior to exploitation are estimated to have numbered approximately 46 000 and 25 000 animals respectively. Their annual food consumption at that time is estimated to have been some 4 million tons of plankton and 0.4 million tons of benthic organisms. Assuming that the primary and secondary production of the shelf/coastal ecosystem in the 16th century (before the peak of the Little Ice Age) was similar to that of the present day, the authors have concluded that a major shift in the food web must have occurred after the Greenland whales and walruses were eliminated. Planktonivorous seabirds and polar cod (Boreogadus saida) very probably took advantage of the extirpation of the Greenland whales, while eiders (Somateria mollissima) and bearded seals (Erignathus barbatus) benefited from the walrus's extinction. In turn, the increased amount of pelagic fish provided food for piscivorous alcids and gulls, and may have given rise to the huge present-day seabird colonies on Svalbard.

Impact

Auswirkung

Arctic food web **with and without** bowheads (*state of research in 2000)*

Arktisches Nahrungsnetz **mit und ohne** Grönlandwale (*Forschungsstand 2000)*

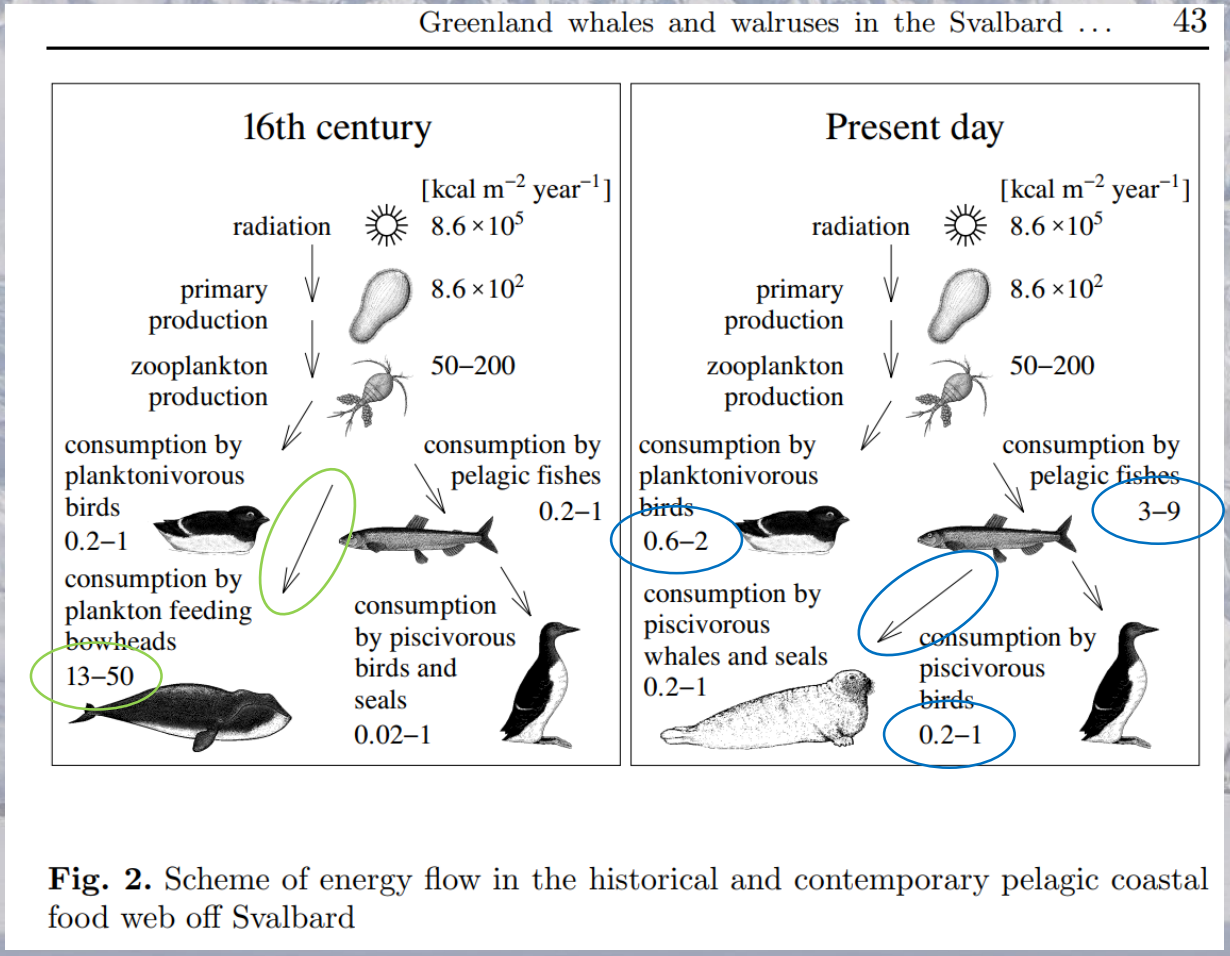


Fig. 2. Scheme of energy flow in the historical and contemporary pelagic coastal food web off Svalbard

Emerging questions:

- Did the decrease of the bowhead lead to an increase in planktonivorous birds, pelagic fish, and piscivorous birds (greater food availability)?
- Did piscivouours whales an dseals fill the newly created niche?
- Is there a large surplus of plankton?
- How will the food web change when the baleen whales increase in number again?

Aufkommende Fragen:

- Führte der Rückgang der Grönlandwale zu einer Zunahme von planktonfressenden Vögeln, pelagischen Fischen und fischfressenden Vögeln (größere Nahrungsverfügbarkeit)?
- Haben fischfressende Wale und Robben die neu entstandene Nische besetzt?
- Gibt es einen großen Überschuss an Plankton?
- Wie wird sich das Nahrungsnetz verändern, wenn die Zahl der Bartenwale wieder zunimmt?

Impact

Auswirkung

Arctic food web **with and without** walruses (*state of research 2000)*

Arktisches Nahrungsnetz **mit und ohne** Walrosse (*Forschungsstand 2000)*

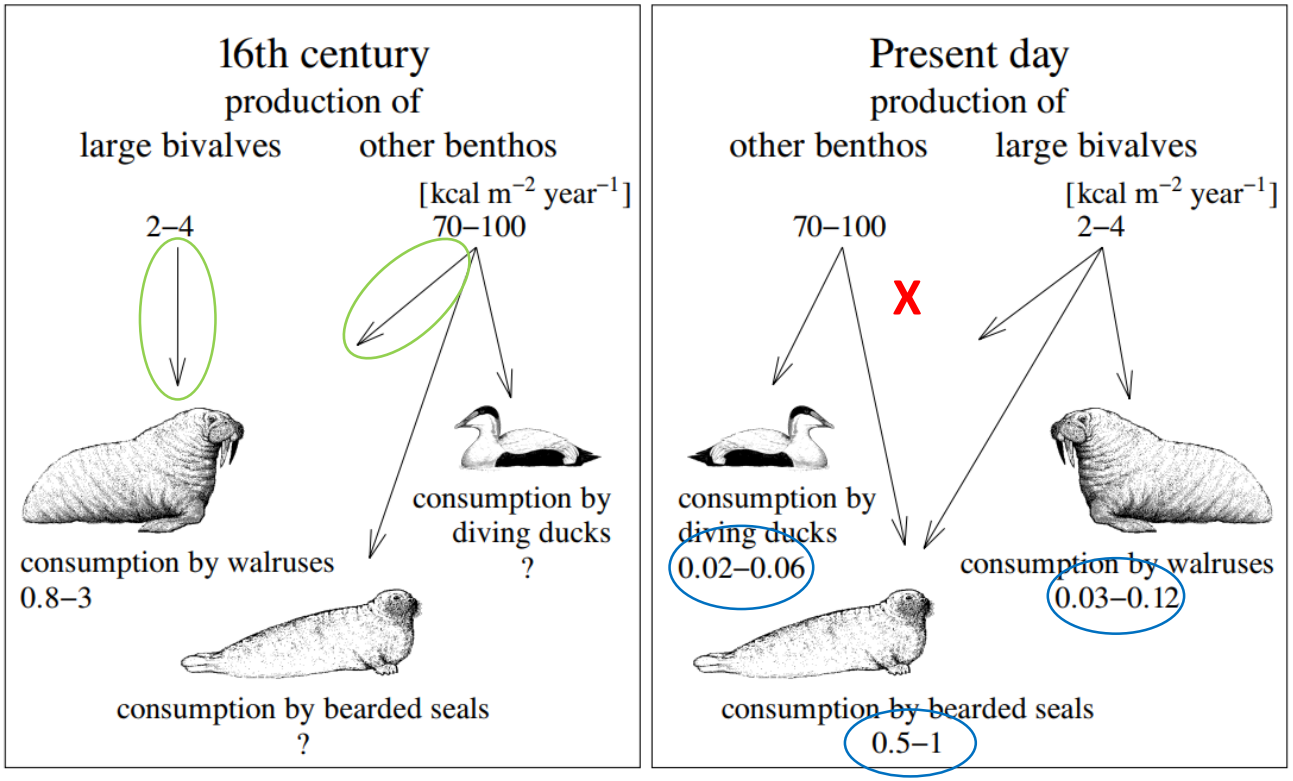


Fig. 3. Scheme of energy flow in the historical and contemporary benthic coastal food web off Svalbard

Emerging questions:

- In 2000, the population of Atlantic walrus had recovered to ca. 2000 animals (see slide 74). Today, there are even more. How do the pattern and amount of consumption differ?
- What does the return of the walrus mean for Eider duck and bearded seal?

Aufkommende Fragen:

- Im Jahr 2000 hatte sich der Bestand des Atlantischen Walrosses auf ca. 2000 Tiere erholt (siehe Folie 74). Heute sind es sogar noch mehr. Wie unterscheiden sich Muster und Umfang der Ernährung?
- Was bedeutet die Rückkehr des Walrosses für Eiderente und Bartrobbe?

6. William Scoresby, Jr.

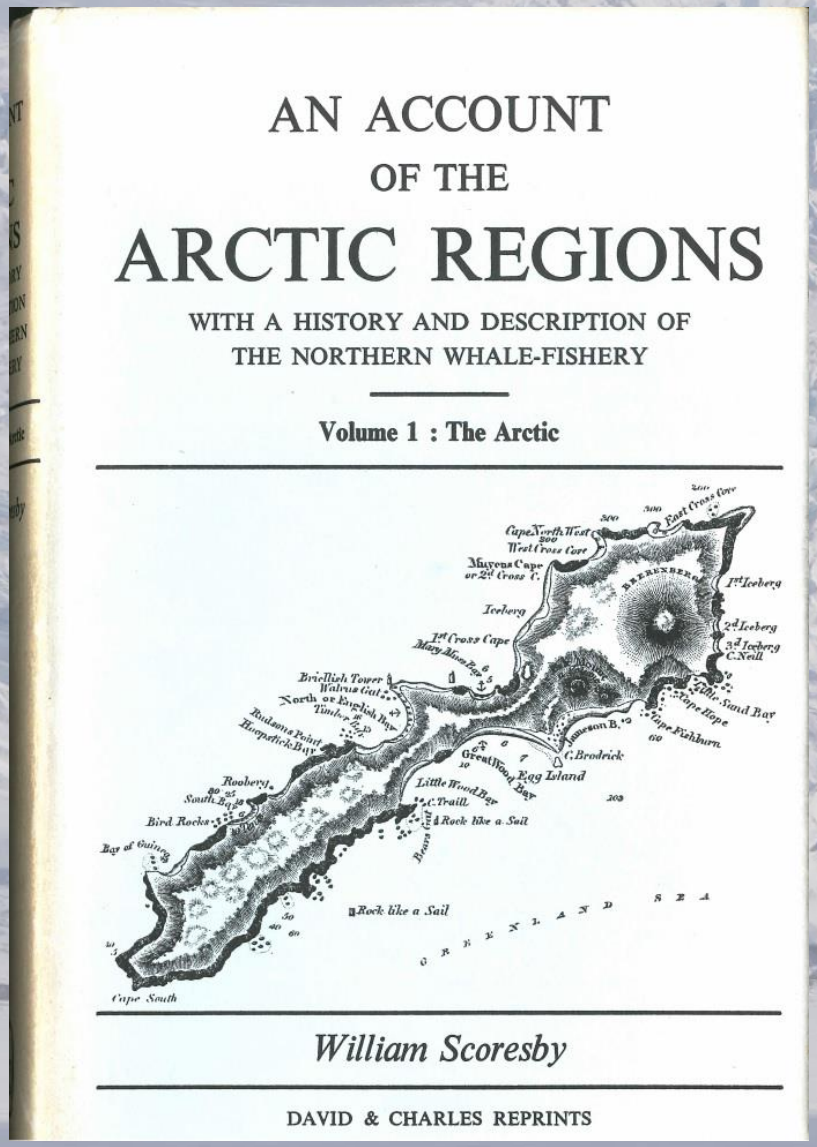
- A special example of a whaler
- An important example of how knowledge gained from whaling advanced polar research
- "The British navigator. Polar explorer and whaler. Undertook many voyages into the waters between Greenland and Spitsbergen. Reached the east coast of Greenland in 1822. Considered one of the founders of modern North Pole exploration. His **exact travel reports** served as documents for almost all renowned North Pole explorers of the 19th century. Produced the first accurate map of the east coast of Greenland between 69 degrees 30 minutes and 75 degrees north latitude.“
(https://whoswho.de/bio/william-scoresby.html)

6. William Scoresby, Jr.

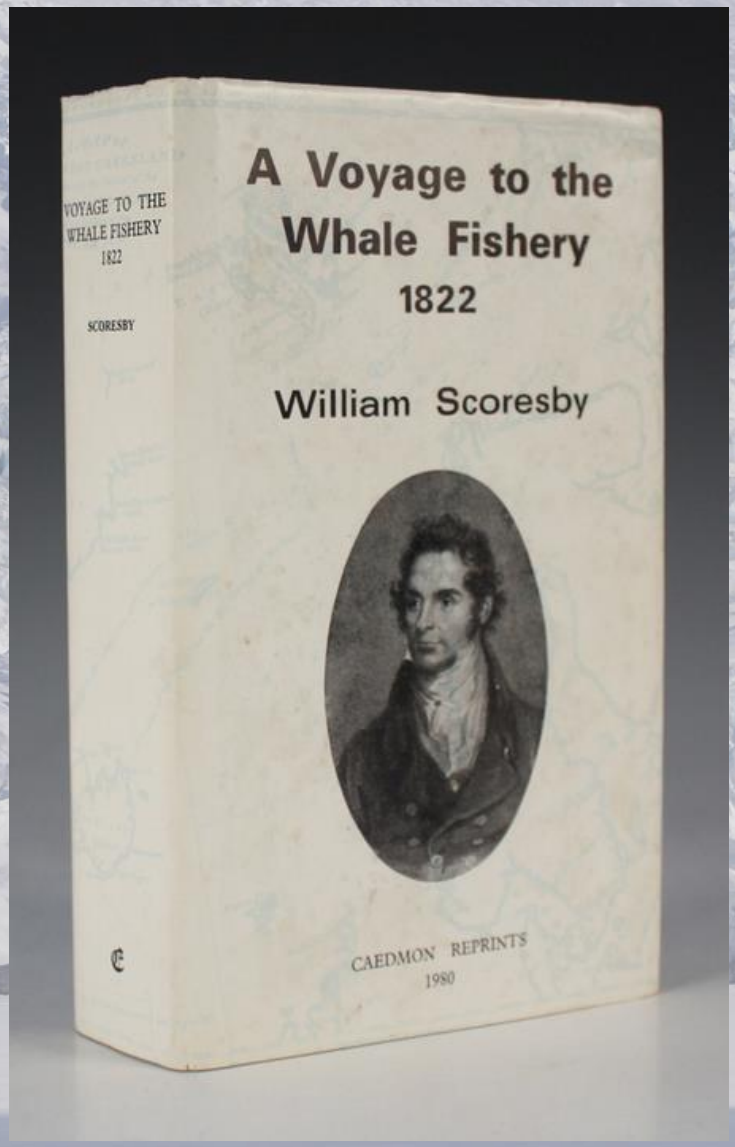
- Ein besonderes Beispiel eines Walfängers
- Ein wichtiges Beispiel wie Erkenntnisse aus dem Walfang die Polarforschung vorantrieben
- „Der britische Seefahrer. Polarforscher und Walfänger. Unternahm viele Fahrten in die Gewässer zwischen Grönland und Spitzbergen. 1822 erreichte er die Ostküste Grönlands. Gilt als einer der Begründer der modernen Nordpolforschung. Seine **exakten Reiseberichte** dienten fast allen namhaften Nordpolarforschern des 19. Jahrhunderts als Unterlagen. Fertigte die erste genaue Karte der Ostküste Grönlands zwischen 69 Grad 30 Minuten und 75 Grad nördlicher Breite.“
(https://whoswho.de/bio/william-scoresby.html)

6. William Scoresby, Jr.

6. William Scoresby, Jr.

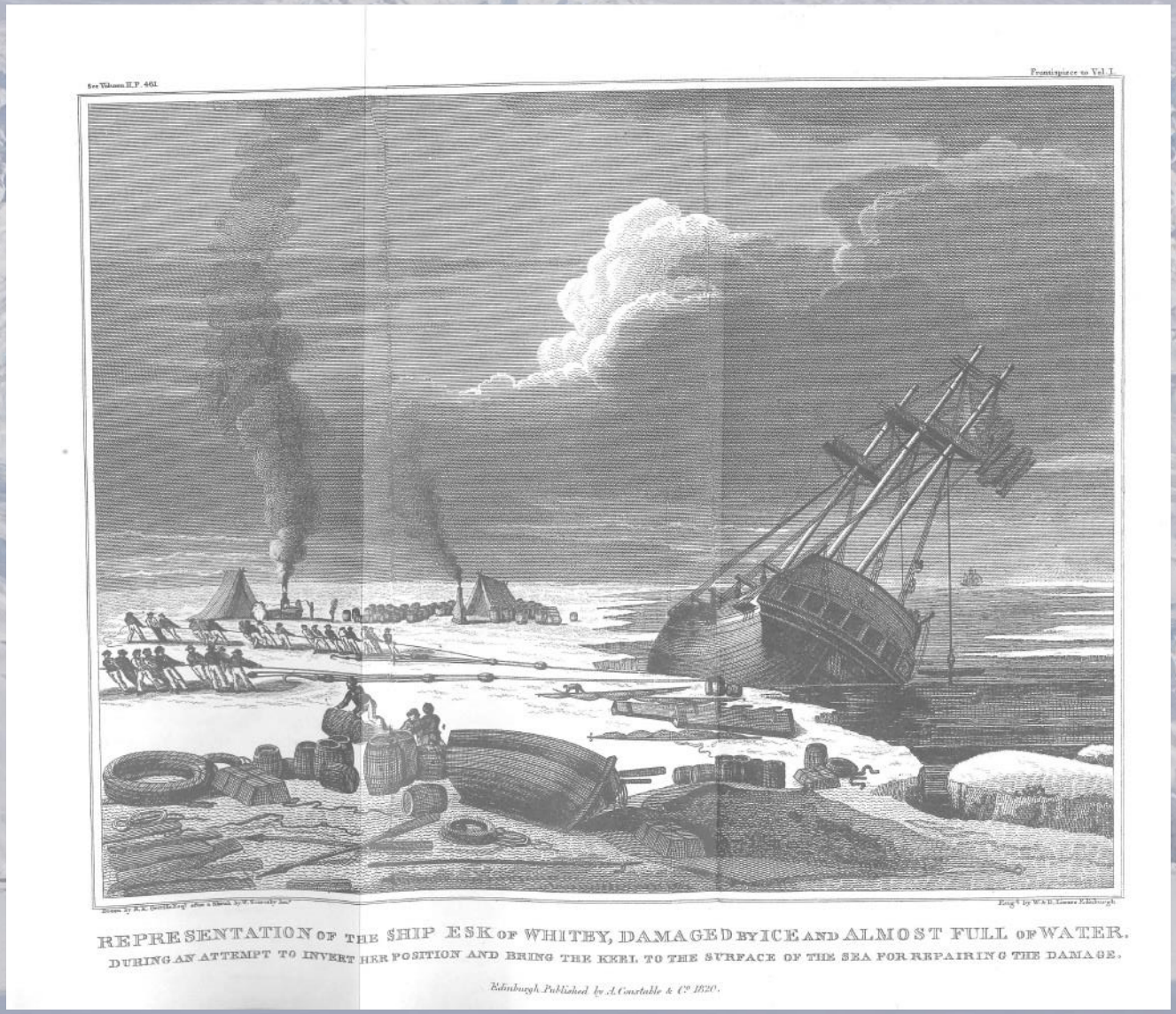


1820



6. William Scoresby, Jr.

6. William Scoresby, Jr.



Scoresby (1820) Account of the Arctic in 2 vols

6. William Scoresby, Jr.

6. William Scoresby, Jr.

PLATE XII.

Fig. 1. BALÆNA MYSTICETUS, or COMMON WHALE.

58 Feet long.

The Mouth being open shows the position of the Whalebone.

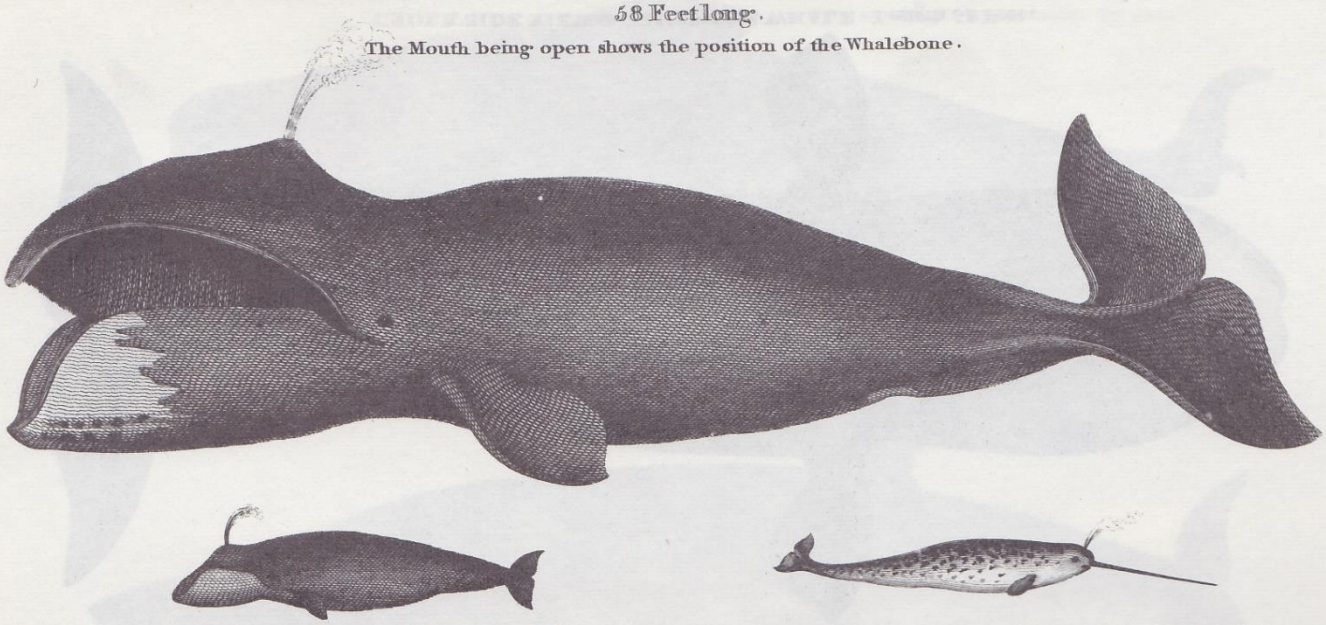


Fig. 2. CUB of the COMMON WHALE 17 Feet long.

Fig. 3. NARWAL, Length exclusive of the Tusk 14 Feet.

Scale, One-tenth of Inch to a Foot.

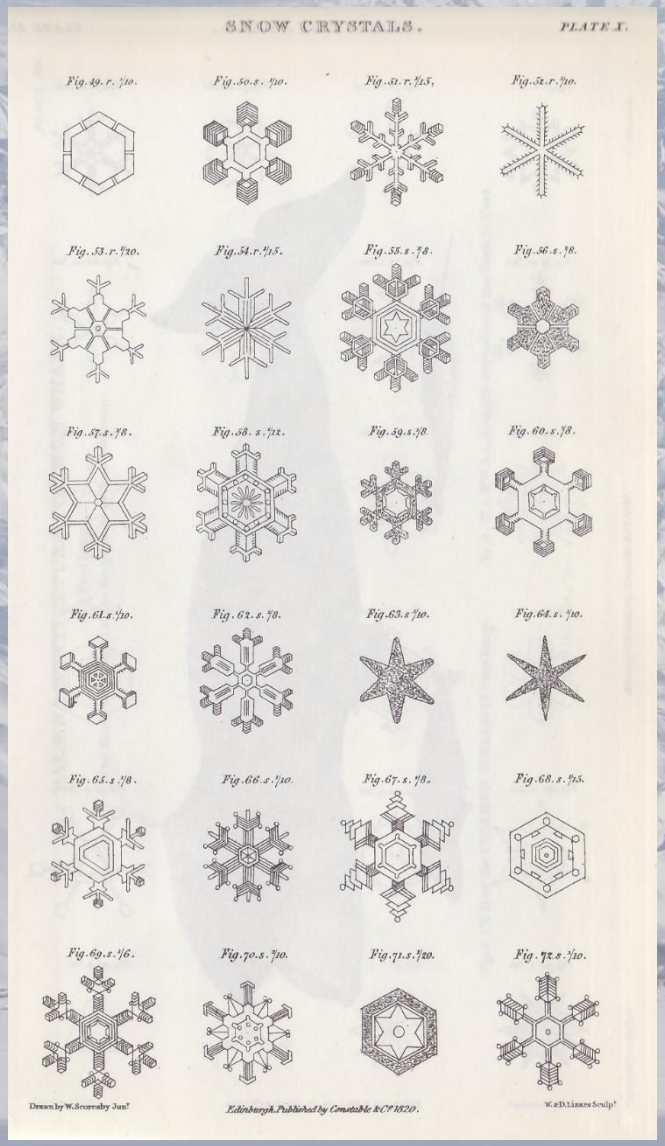
Drawn by W. Scoresby Junr.

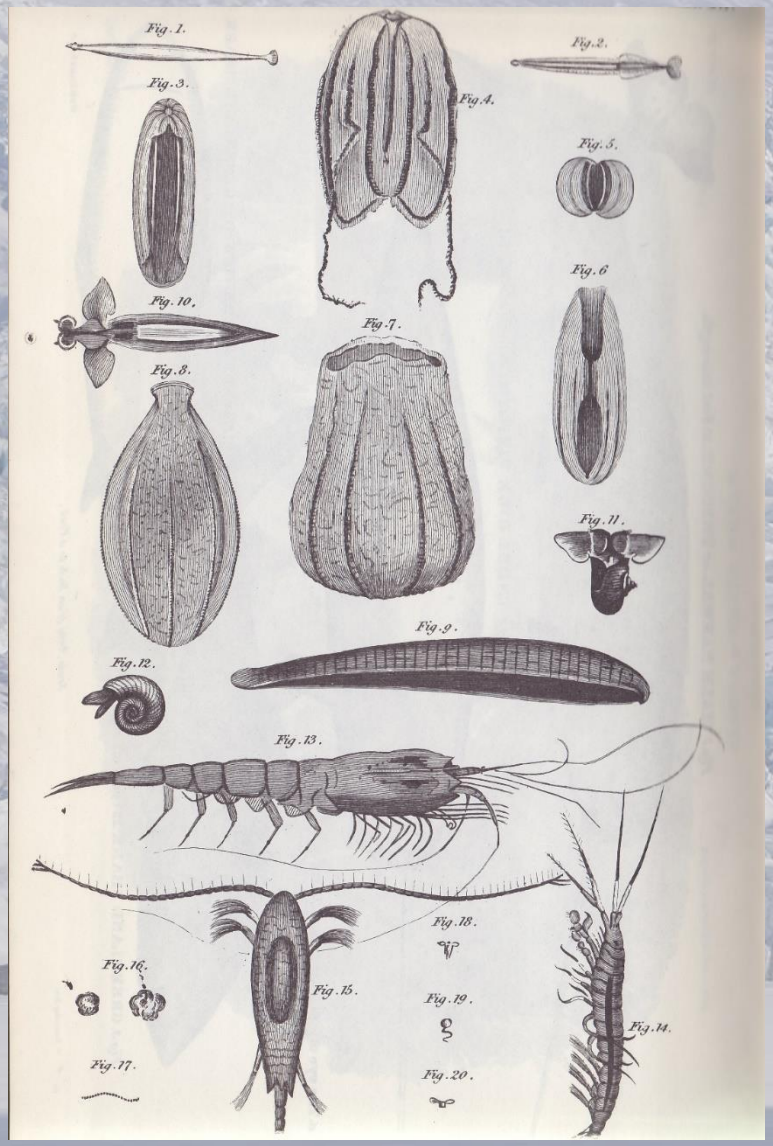
Edinburgh Published by Constable & Co. 1820.

Scoresby (1820) Account of the Arctic in 2 vols

6. William Scoresby, Jr.

6. William Scoresby, Jr.

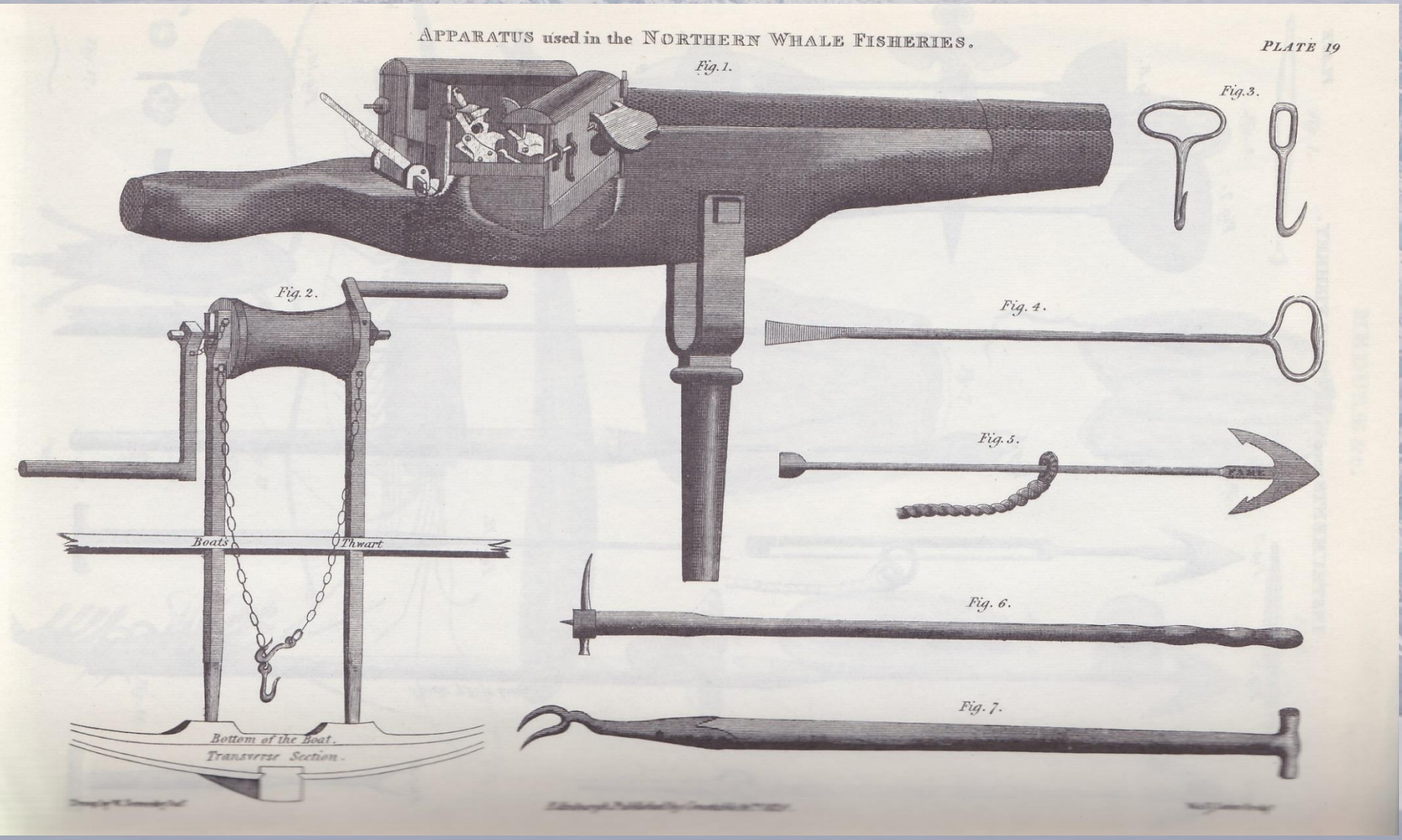




Scoresby (1820) Account of the Arctic in 2 vols

6. William Scoresby, Jr.

6. William Scoresby, Jr.



Scoresby (1820) Account of the Arctic in 2 vols

6. William Scoresby, Jr.

6. William Scoresby, Jr.

PLATE XXII.

APPARATUS for CUTTING BLUBBER.

Fig. 1.

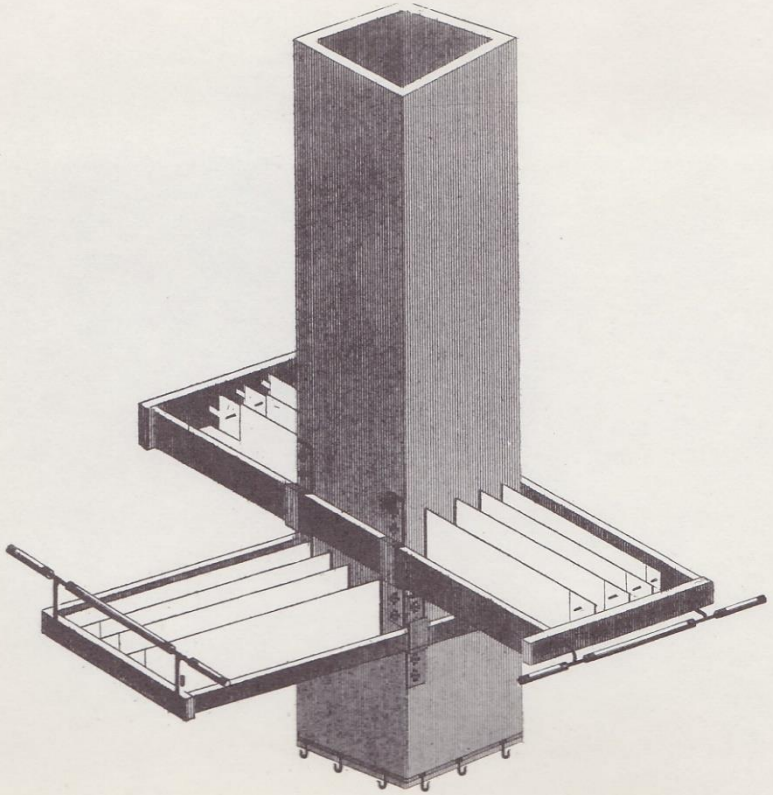
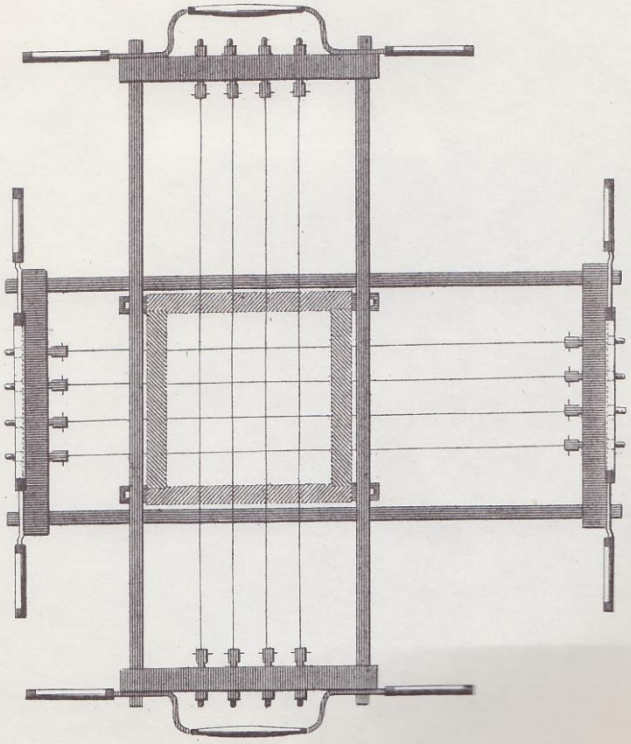


Fig. 2.



Scoresby (1820) Account of the Arctic in 2 vols

7. Lessons?

- There is some excellent research into the **whaling history of Spitsbergen** and important lessons to be learnt from it, esp. for *modern fisheries*:

7. Lektionen?

- Die **Geschichte des Walfangs auf Spitzbergen** und die daraus zu ziehenden Lehren sind hervorragend erforscht, insbesondere für die *moderne Fischerei*:

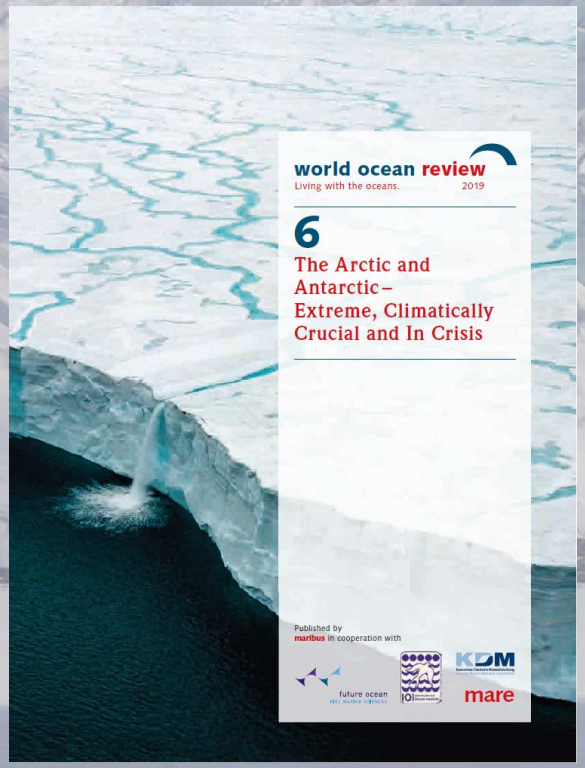
Allen, R.C. and Keay, I., 2001. **The first great whale extinction: the end of the bowhead whale in the eastern Arctic.** *Explorations in Economic History*, *38*(4), pp.448-477.

Allen, R.C. and Keay, I., 2004. **Saving the whales: lessons from the extinction of the Eastern Arctic Bowhead.** *The Journal of Economic History*, *64*(02), pp.400-432.

Allen, R.C. and Keay, I., 2006. **Bowhead Whales in the Eastern Arctic, 1611-1911: Population Reconstruction with Historical Whaling.** *Environment and history*, *12*(1), pp.89-113.

7. Lessons?

- **In a broader sense**, we can ask ourselves if this case study of Spitsbergen has taught us something **about Arctic resource management** in general. *And if we are acting accodingly!*



https://worldoceanreview.com/en/download/

7. Lektionen?

- **Im weiteren Sinne** können wir uns fragen, ob wir aus dieser Fallstudie über Spitzbergen etwas über das **Ressourcenmanagement in der Arktis** im Allgemeinen gelernt haben. *Und ob wir dement-sprechend handeln!*

https://worldoceanreview.com/de/herunterladen/

7. Lessons

- *"An economic upswing with side effects"*
- "The polar regions have always been **rich in raw materials and natural resources** and fascinate people all over the world. However, making them a profitable business has often been difficult in the past because ***ice and cold blocked access***." (WOR6, p. 258)

7. Lektionen

- *"Ein Wirtschaftsaufschwung mit Nebenwirkung"*
- "Die Polarregionen sind seit jeher **reich an Rohstoffen und natürlichen Ressourcen** und faszinieren Menschen auf der ganzen Welt. Daraus jedoch ein lohnendes Geschäft zu machen, gestaltete sich in der Vergangenheit oftmals schwierig, weil ***Eis und Kälte den Zutritt versperrten***." (WOR6, S. 258)

7. Lessons

- *"An economic upswing with side effects"*
- "In the wake of the dramatic ***climate change***, the gates are now opening up to gold miners, investors and tourists, especially in the Arctic. While Arctic residents see this development as an opportunity, scientists and environmentalists are warning of the **serious consequences**." (WOR6, p. 258)

7. Lektionen

- *"Ein Wirtschafts-aufschwung mit Nebenwirkung"*
- "Im Zuge des dramatischen ***Klimawandels*** aber öffnen sich nun vor allem in der Arktis die Tore für Goldgräber, Investoren und Touristen. Während die Arktisanrainer diese Entwicklung als Chance begreifen, warnen Wissenschaftler und Umweltschützer vor den **schwerwiegenden Folgen**."
(WOR6, S. 258)

Vol. 39: 51–62, 2019
https://doi.org/10.3354/esr00948

ENDANGERED SPECIES RESEARCH
Endang Species Res

Published June 6

Encouraging encounters: unusual aggregations of bowhead whales *Balaena mysticetus* in the western Fram Strait

Marijke N. de Boer[1,2,*], Nicole Janinhoff[3], Griet Nijs[4], Hans Verdaat[1]

[1]Wageningen UR, Wageningen Marine Research, 1780 AB Den Helder, The Netherlands
[2]Seven Seas Marine Consultancy, PO Box 11422, 1001 GK Amsterdam, The Netherlands
[3]Bergmannsweg 12, 31199 Diekholzen, Germany
[4]Natuurpunt Studie vzw, 2800 Mechelen, Belgium

ABSTRACT: The subpopulation of the bowhead whale *Balaena mysticetus* in the East Greenland-Svalbard-Barents Sea is endangered and until recently was believed to number in the tens. Recent studies have suggested that this subpopulation appears to be increasing. Here, we report on unusual aggregations of bowhead whales within the Fram Strait. We present opportunistic and effort-corrected observations of bowhead whales made from a small expedition vessel during cruises in June (2015–2018). Bowhead whales were sighted on 85 occasions (220–227 whales). An aggregation in 2015 (n = 84 whales) and high numbers in 2018 (n = 104–110) exceeded all previous records. The index of whale abundance was significantly higher in open water-leads (1.08–1.14 whales km^{-1} of survey effort) compared to areas with drift-ice (0.51–0.53 whales km^{-1}). The highest abundance index was measured in deep waters where the bottom slope was relatively steep. Our findings highlight the temporal and spatial consistency of this species in areas with relatively loose ice cover (open water-leads) and steep slopes. It is unknown how global warming and resultant changes in ice-extent are going to affect bowhead whales within the Strait and whether they will find new feeding grounds due to an expanding open-ocean habitat. These slopes may become increasingly important to bowhead whales and Arctic top predators as a spring/early summer feeding ground. These relatively large numbers of bowhead whales are encouraging and can help direct future research monitoring programs to study the population ecology of these endangered whales.

KEY WORDS: Bowhead whale · *Balaena mysticetus* · Svalbard stock · Abundance · Platform of opportunity · Conservation · Fram Strait

Ending on a good note

Eine gute Nachricht zum Schluss

Ermutigende Begegnungen: ungewöhnliche Ansammlungen von Grönlandwalen in der westlichen Framstraße

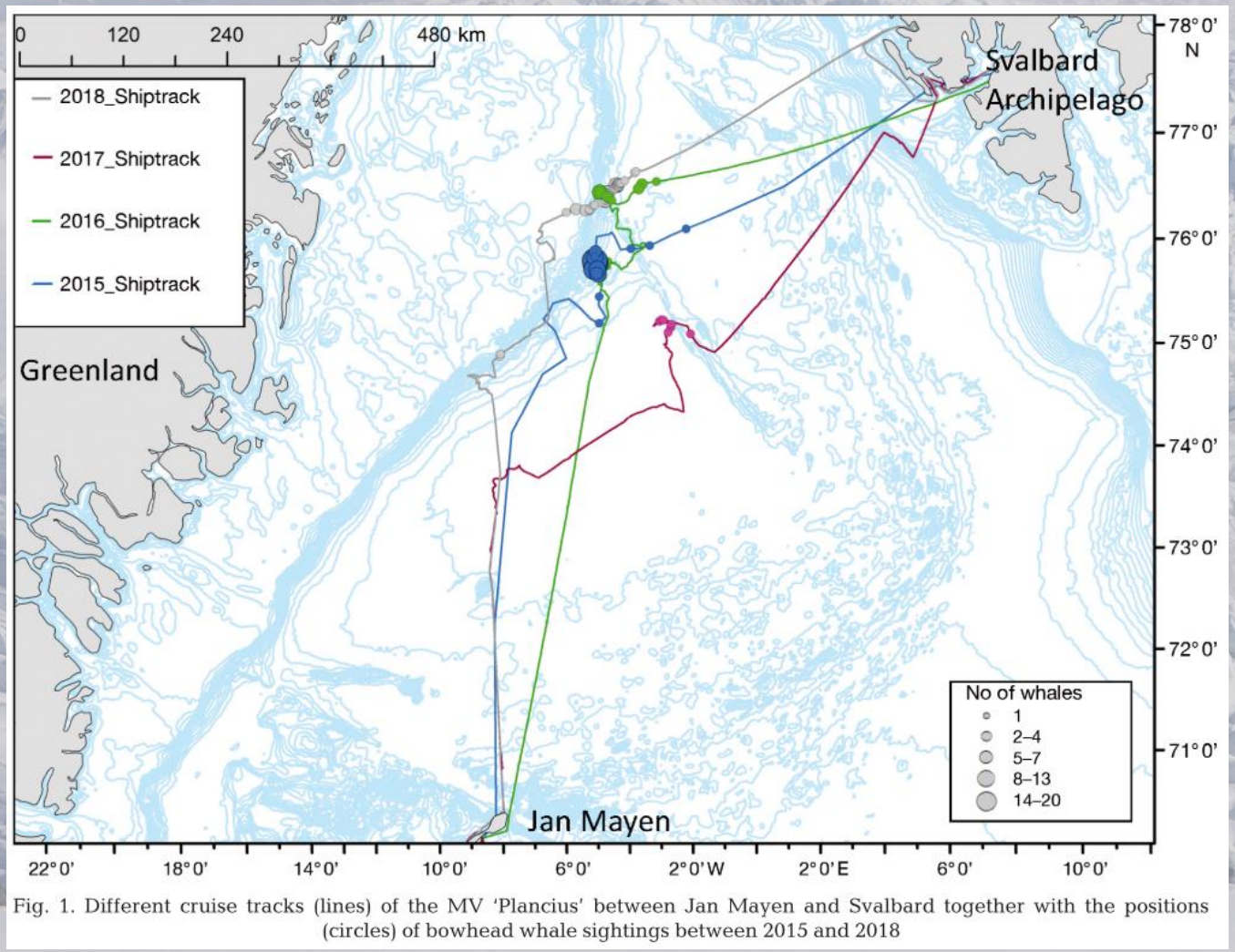


Fig. 1. Different cruise tracks (lines) of the MV 'Plancius' between Jan Mayen and Svalbard together with the positions (circles) of bowhead whale sightings between 2015 and 2018

De Boer et al., 2019: 53

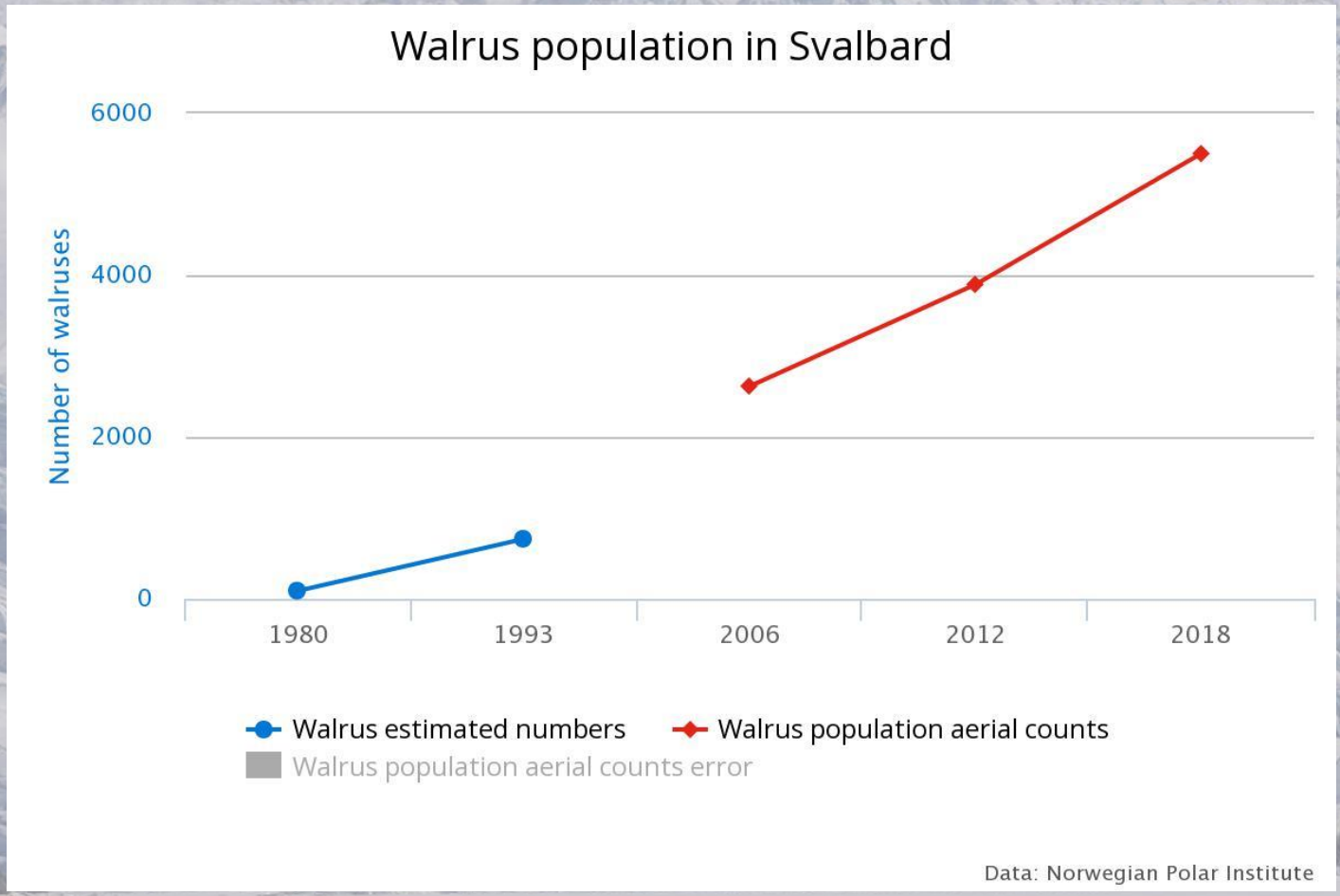
Ending on a good note

Eine gute Nachricht zum Schluss

Ermutigende Begegnungen: ungewöhnliche Ansammlungen von Grönlandwalen in der westlichen Framstraße

Encouraging encounters

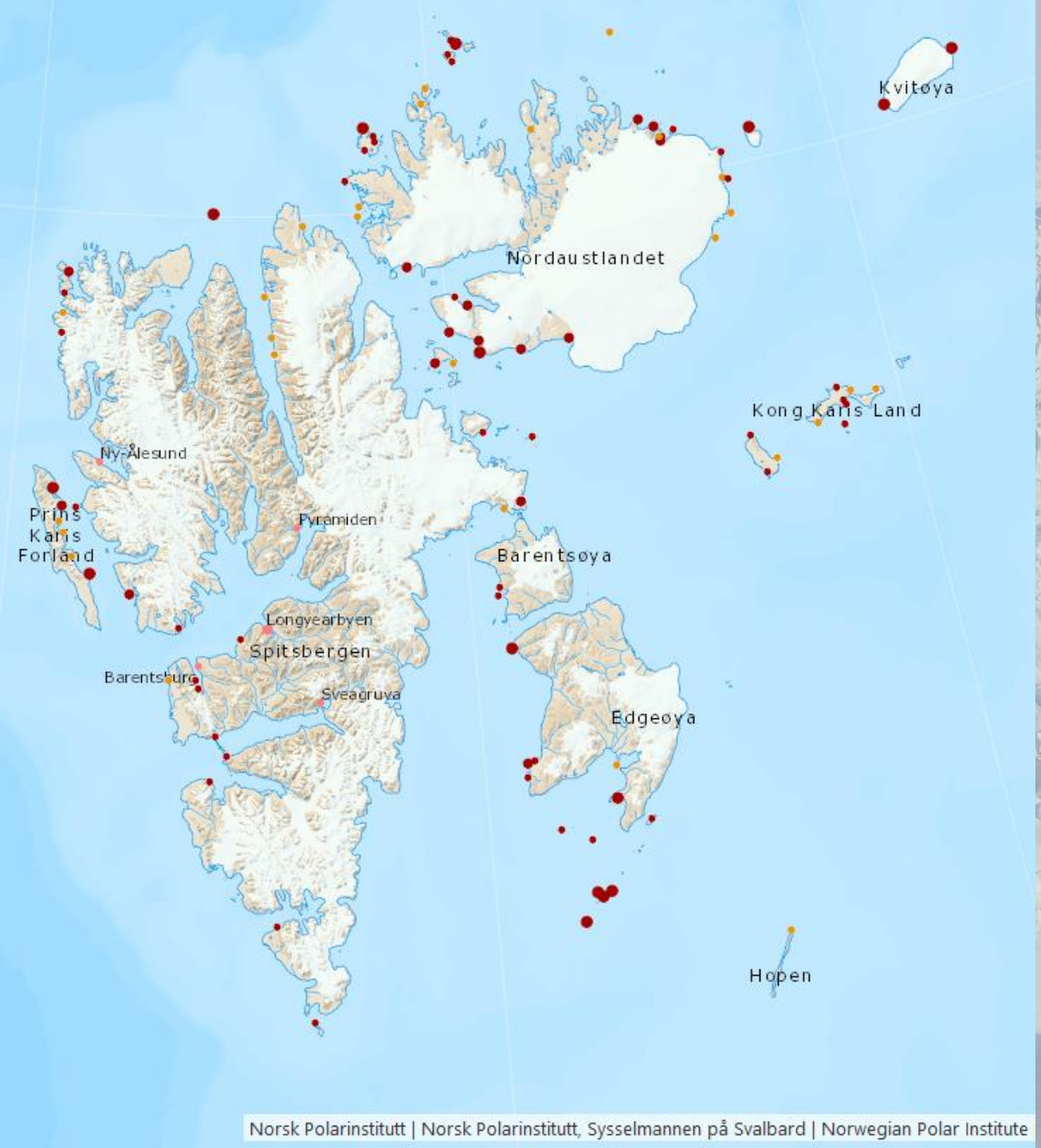
Ermutigende Begegnungen



Ending on a good note

Eine gute Nachricht zum Schluss

Zunehmender Walross-bestand in Svalbard



Ending on a good note

Eine gute Nachricht zum Schluss

Zunehmender Walross-bestand in Svalbard

Encouraging encounters

Ermutigende Begegnungen

Who‘s who

VolkswagenStiftung

C A U

Christian-Albrechts-Universität zu Kiel

Mathematisch-Naturwissenschaftliche Fakultät

zenodo