



NAMMCO ANNUAL MEETING 30

*29-30 March 2023
Rødbanken, Tromsø*

MEETING OF THE COUNCIL

DOCUMENT 07	ADMINISTRATIVE REPORT 2022
Submitted by	Secretariat
Action requested	Take note
Background/content	The document summarises the activities of the Commission and the Secretariat in 2022.

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ABBREVIATIONS USED IN THE REPORT

Committees and other bodies:

AEWG: Working Group on Abundance Estimates
 AM: Annual Meeting
 BYCELS: Council Working Group on By-catch, Entanglements and Live Strandings
 CHM: Committee on Hunting Methods
 CIO: Committee on Inspection and Observation
 CollAr: NEAFC and OSPAR collective arrangement.
 FAC: Finance and Administration Committee
 HoDs: Heads of Delegations
 JWG: NAMMCO-JCNB joint scientific Working Group
 MFWI: Marine and Freshwater Institute, Reykjavík, Iceland
 MMEN: CAFF Marine Mammal Expert Network
 MM: Marine mammals
 MRI: Marine Research Institute, Tromsø, Norway
 NSP: NAMMCO Scientific Publications Series
 RFABs: Regional Fisheries Advisory Bodies
 RG: Resource Group
 SC: Scientific Committee
 SEC: Secretariat
 SG: Sub-Group
 SpC: Scientific Planning Committee (NASS 2024)
 StC: Steering Committee
 StG: Steering Group
 UiT: The Arctic University of Norway, Tromsø
 WG: Working Group
 WS: Workshop

Staff:

AC = Albert Chacón, Scientific Secretary (from 01.05.2022)
 CW = Charlotte Winsnes, Deputy Secretary
 GD = Geneviève Desportes, General Secretary
 HM = Heleen Middel, Assistant (01.05.2022) & Interim (01.11.2021 – 30.04.2022) Scientific Secretary
 JD = Jana Djukarić (from 22.08.2022), intern
 JS = Josephine N. Schulze (06.01.2022 – 02.09.2022), intern
 MB = Martin Binachon (to =07.01.2022), intern

ADMINISTRATIVE REPORT 2022

The Administrative Report provides an overview of the activities of the Commission and the Secretariat over the year 2022.

1. NAMMCO OFFICERS

The officers listed in Table 1 below are those elected at the 28th Annual Meeting on 22-25 March 2021 or their replacement.

Table 1. NAMMCO officers in 2022

Committee	Chair (Party: Officer)	Term
Commission	NO: Ole-David Stenseth	April 2021 – March 2023
	Petter Meier, acting as Chair	From 23 May 2022
Finance and Administration Committee (FAC)	IS: Ásta Einarsdóttir	April 2021 – August 2022
	Jón Práandur Stefánsson	Sept. 2022 – March 2023
Management Committee for Cetaceans (MCC)	FO: Ulla S. Wang	April 2021 – March 2023
Management Committee for Seals and Walrus (MCSW)	GL: Amalie Jessen	April 2020 – March 2023
Committee on Hunting Methods (CHM)	NO: Kathrine Ryeng	April 2019 – March 2023
Committee on Inspection and Observation (CIO)	NO: Hild Ynnesdal	April 2021 – June 2022
	Guro Gjelsvik	July 2022 – March 2023
Scientific Committee (SC)	FO: Bjarni Mikkelsen, Chair	April 2019 – Sept. 2022
	GL: Aqqalu Rosing Asvid, Chair	Sept. 2022 – March 2025
	IS: Sandra Granquist, Vice-Chair	Sept. 2022 – March 2025
Working Group on By-catch, Entanglements and Live Strandings (BYCELS)	FO: Ulla S. Wang	April 2021 – March 2023

2. FOCAL ACTIVITIES 2022

1.1 COMMITTEES

A summary of the focal activities in the NAMMCO Committees during 2022 is presented below. Further information is also available in the list of meetings under item 5. *NAMMCO Meetings*.

1.1.1 Committee on Hunting Methods

The CHM met once since Council 29 updating and exchanging information related to hunting and hunting methods in member countries, also reviewing 2021 reported data. The Chair and the Secretary have started the work on developing the 2nd information video that will focus on target area and shooting angle in the large whale hunts.

1.1.2 Committee on Inspection and Observation

Responding to Council's decision to decrease the budget for the observation activities in 2023, the CIO revised the plan. CIO related data for 2021 and 2022 submitted by member countries were reviewed.

1.1.3 Council Working Group BYCELS

Following a recommendation from BYCELS, Council 29 agreed to make it a standing WG which will be activated when called upon.

Member countries reported data on by-catch, entanglement and strandings for 2021 were reviewed.

1.1.4 Scientific Committee

A SC meeting, SC 29, was held in January 2023, which discussed the status of all requests for advice and received available updates on all pinniped and cetacean species. At this meeting, the SC also reviewed the reports of the working group (WG) and workshop (WS) meetings held in 2022 since SC28. This included a WG on by-catch (BYCWG, May 2022), and a WG on Harbour Porpoise (HPWG, November 2002) focussing on Norway and reviewing data availability and requirement for an assessment of dolphins and pilot whales. The SC also held a joint workshop with the JCNB on Disturbance focussing on narwhal, beluga and walrus (JWGNBDWS, December 2022). It held a meeting in preparation of the panarctic bearded seal WS (BSWS) and the ringed seal WG. The SC also continued developing a principle-based approach to setting management objectives, with a particular focus on depleted stocks.

A sub-group of the SC is member of the Steering Group (StG) of the MINTAG project, which aim at developing a smaller satellite transmitter tagging system for use on fast rorquals. The project has progressed well in 2022. Several StG meetings were held online, as well as a Kick-off meeting (online) between the StG and the chosen manufacturer (Wildlife Computers, WC) in March and a physical Tag Design Seminar in October in Copenhagen, with participation of Japan and Wildlife Computers.

Another sub-group, which constitutes the Scientific planning Committee (SpC) of the NASS 2024, also continued its planning and held one meeting in November and one during the SC 29 meeting in January 2023.

1.1.5 Finance and Administration Committee

In 2022, the FAC held 1 online meeting (January) and two face to face meetings (May and September). The focus of the Committee was the review and update of the Staff Rules (the latest modification was in May 2016 with the addendum of the item 11. Relocation), the review of draft financial rules, and the preparation of the draft and forecast budgets of the Commission.

1.2 SECRETARIAT

Besides the usual support to the Commission's and subsidiary bodies' activities, and the preparation of meetings, specific Secretariat's activities in 2022 were:

Preparing a draft revision and update of the Staff Rules for the FAC, considering the changes in the secretariat and Norwegian employment-related regulations. The revised Staff Rules were finally adopted by the HoDs in June 2022.

Preparing the Food Conference, which was held in the Faroe Islands in October 2022.

Preparing the review of the implementation of the 2nd Communication Plan CP 2 2019-2022, and preparing the next communication plan CP3 2023-2024, which were presented to the Council 29 in September. Developing communication events relevant to CP3 (e.g., Appendix C#5).

Organising the hiring of a new Scientific Secretary (job announcement, preselection and selection of candidates, interviews), who started 1 May 2022.

Preparing a draft of NAMMCO's first financial rules for presentation to Council 29.

Updating the species pages on the website (adding recent catch data from NPR 2021 and assessment information, updating descriptions of ongoing research projects in Member Countries). The pages for the narwhal, beluga, humpback whale, and fin whale were also updated, after the review of the Scientific Committee at its 28th meeting in January 2022. Preparation of a species page for the common dolphin.

Creating a revamped website, which was launched in April 2022 to mark the 30th anniversary of NAMMCO in 2022. This included a new landing page, a re-organisation of existing pages, and the addition of new informative pages.

Updating NAMMCO's databases, including those on Requests from the Council to the SC and SC responses; Proposals for Conservation and Management and Research Recommendations, and Responses

from Member Countries; Removals (with the data received from Member Countries in their National Progress Reports 2021).

Support to the MINTAG project, including supporting the finalisation of the financial agreement between the project partners; conduct the discussion related to the agreement and contract with the Tag Manufacturer, Wildlife Computers; the development and maintenance of the MINTAG website www.mintag-project.com (Figure 1).

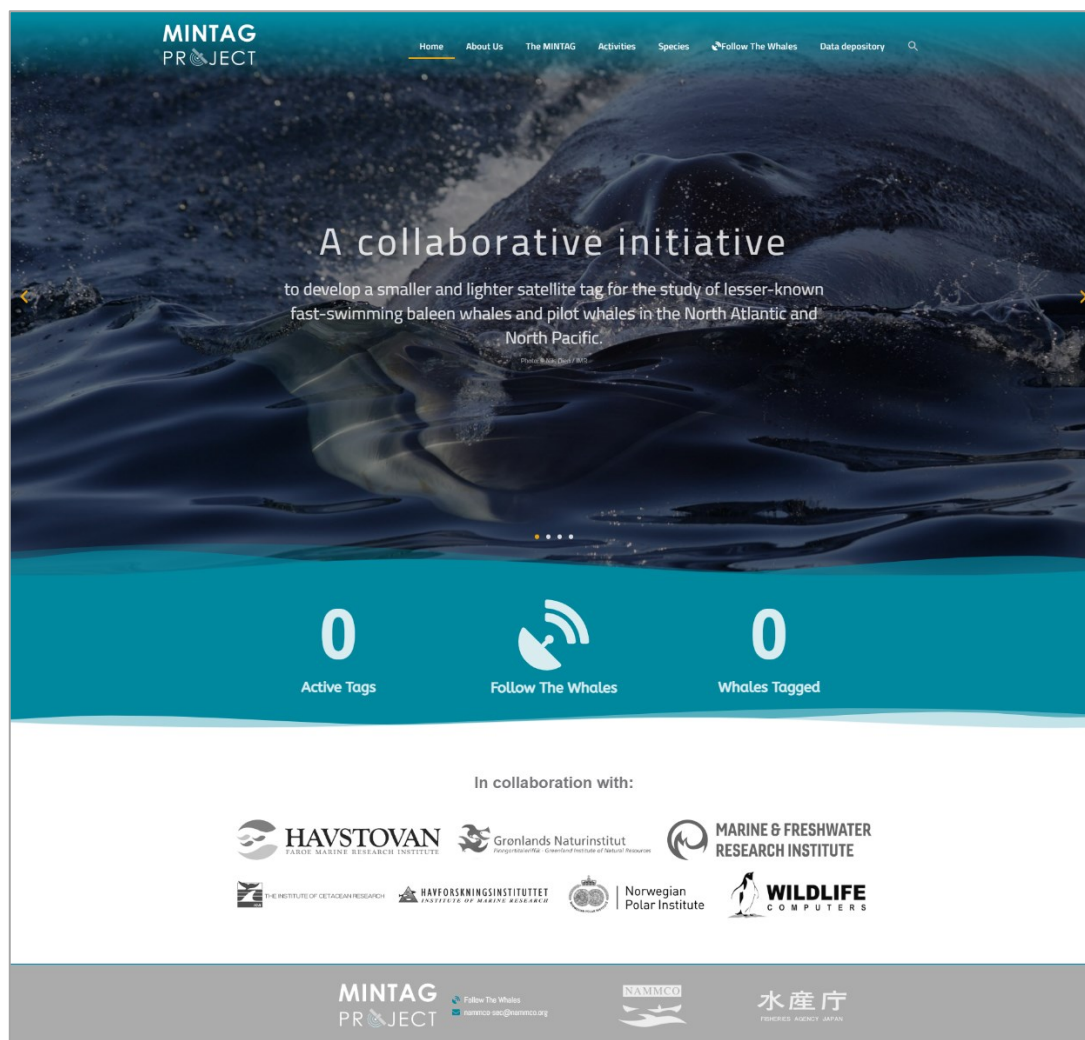


Figure 1 Landing page of the MINTAG website

3. SECRETARIAT STAFF

In 2022, the Secretariat staff has included 8 employees and interns, although not all at the same time, as described in Table 2.

Table 2. Secretariat staff in 2022

General Secretary	Geneviève Desportes (GD)
Deputy Secretary	Charlotte Winsnes (CW)
Scientific Secretary	Heleen Middel (HM): to 30 April
	Albert Chacón (AC): from 1 May
Assistant Scientific Secretary	Heleen Middel (HM): 1 May - 15 July
	Martin Binachon (MB): to 7 January
Interns	Josephine N. Schulze (JS): 6 January - 2 September
	Jana Djukarić (JD): from 22 August

4. COVID-19 PANDEMIC

The global coronavirus (COVID-19) pandemic continued to impact somewhat the operations of NAMMCO in 2022, with several meetings being held online and the postponement of the Annual Meeting from March to September, because of the continued uncertainty regarding travel and meeting possibilities in the first half of 2022. For the same reasons, the activities under the NAMMCO Observation Scheme were cancelled in 2021 for 2022.

5. NAMMCO MEETINGS

Table 3 presents a chronological overview of the NAMMCO meetings held in 2022. The staff attending each meeting is specified, as well as the date when the report or the minutes were adopted. All the reports that are publicly available can be found on the NAMMCO website under [Meeting reports and documents](#).

6. EXTERNAL RELATIONS

NAMMCO maintains relationships with a number of governmental and inter-governmental bodies, notably with those concerned with marine mammal conservation and/or management, such as CAFF and ASCOBANS, as well as IWC and ICES.

6.1 CAFF

Two members of the NAMMCO SC (Hansen and Ugarte) and the NAMMCO Secretariat (Desportes) are active members of the *Conservation of Arctic Flora and Fauna (CAFF) Circumpolar Biodiversity Monitoring Program (CBMP) - Marine and of its Marine Mammal Expert Network (MENN)*.

The 2021 NAMMCO proposal of a joint NAMMCO-CAFF/MENN workshop to conduct a pan-Arctic review of the status of bearded seals, a species of common interest, was well received and a first joint Steering Group meeting was held in November 2021. The Joint Workshop was originally planned for May 2022. However due to the war in Ukraine, the AC and its subsidiary paused all their meetings activities in 2022. As a consequence, the Joint CAFF-NAMMCO panarctic workshop on Bearded Seal was postponed to September 2022, then to an undefined date. In a common agreement, it was then planned as a NAMMCO panarctic workshop with similar agenda, co-Chairs (Christian Lydersen, Atlantic side - NAMMCO SC; and Peter Boveng, Pacific side - NOAA), and participants (although without Russian participants).

Informal calls were held with the CAFF Secretariat in 2022.

6.2 ASCOBANS

Desportes followed the few directly relevant agenda items from the last ASCOBANS Advisory Committee (AC27) in September 2022.

Following the hunt of Atlantic white sided dolphins in the Faroe Islands, ASCOBANS AC26 in 2021 established an "Intersessional Working Group on Lagenorhynchus sp." (IWG) to, among others a) Review the available information about the population structures and trends, distributions, abundances, mortalities, reproductive outputs, health, diet, behaviour, and data gaps related to both species in the NE Atlantic; and b) Review issues that pose a conservation threat to the species and their populations.

However, contact with the ASCOBANS Secretariat indicated that the IWG had not been active since AC26 and in 2022.

As a fair amount of information dealt with by the IWG will come from the NASS survey series, the studies conducted in the Faroe Islands and the North Atlantic genetic studies based on a large number of Faroese samples, SC 29 supported an exchange of information between the NAMMCO Dolphin WG (DWG) and the IWG, may be with some common participants. The ASCOBANS and NAMMCO Secretariat are keeping each other informed about the developments.

Table 3. Overview of NAMMCO meetings in 2022

Date	Meeting	Venue	Staff	Output
January				
7	2022 Food Event RG	online	CW, GD	
17	NASS2024 Scientific Planning Committee	online	HM	Minutes and slightly updated survey proposal
20	FAC	online	GD, CW	Report approved 4 February
24-28	SC	online	HM, GD, JS	Report approved 16 February
February				
7	2022 Food Event RG	online	CW, GD	Minutes approved 10 February
10-11	CIO	online	CW, JS	Report approved 18 February
22	MINTAG StG	online	GD, HM	
22	BS WS Steering Group	online	GD	With SC members and CAFF & CBMP representatives
22 & 24	CHM	online	CW	Report approved 8 March
March				
15	NAMMCO Observer Corps	online	CW	No report - mostly info provided to the observers
23	2022 Food Event	online	GD, CW	Minutes approved 8 April
24	MINTAG webinar	online	GD, HM, JS	with Wildlife Computer
29-30	Chair & FAC Chairs' meeting	Tromsø, NO	GD., CW	with ODS (Chair) and AE (FAC Chair)
April				
27	FAC	online	GD	Report adopted 6 Mai 2021
May				
3	2022 Food Event	online	CW, GD	
16	2022 Food Event RG	online	CW, GD	Minutes approved 15 June
19-20	CIO, CHM, BYCELS	CPH	CW	Report approved on 21-22 June 2022
24-25	FAC / HoDs	CPH	GD, CW	FAC Report approved 16 June 2022
25	BYCATCH WG	online	GD, AC, HM	Report approved 13 June 2022
June				
2	HoDs	online	GD	
July				
1	2022 Food Event RG	online	CW, GD	
September				
6	HoDs	online	GD, CW, AC	Review communication plan
7	2022 Food Event RG	online	CW, GD	
9	MINTAG StG meeting	online	GD, JD; AC	Minutes approved 11 September 2022
11	HODs	Oslo	GD	
12	Meeting with Japan	Oslo	GD	
	FAC	Oslo	SEC	Report approved 12 September 2022
13-15	HoDs/FAC	Oslo	GD, CW	
	MCs	Oslo	SEC	Report approved
	Council 29	Oslo	SEC	Report approved
October				
25-26	MINTAG design seminar	Copenhagen	JD + GDonline	Report approved 10 November 2022
28	Status Food Event	online	CW, GD, AC, JD	What remains to be followed up
November				
7-10	Harbour Porpoise Working Group	Oslo	AC, GD	Report approved 24 November 2022
16	Mini Ringed and Bearded Seals WG	online	AC, GD	Minutes approved on 22 November 2022
21	Food Conference evaluation	online	CW, GD, AC, JD	Minutes approved 22 November 2022
24	NASS2024 Scientific Planning Committee	online	AC, GD	Minutes approved 25 November 2022
December				
6	Follow-up Food conference: cookbook	online	CW, GD, AC, JD	
12-16	JWG Disturbance Workshop	Copenhagen; DK	AC	Report approved on 9 January 2023
13	HoDs	online	GD, CW	The future of NAMMCO. Minutes approved 10 January 2023

6.3 NATIONAL AND IGO EVENTS ATTENDED BY THE SECRETARIAT

Table 4 below presents a chronological overview of the events organised by national bodies or inter-governmental organisations that were attended by the Secretariat during 2022. The staff that attended the meeting is specified, as well as their contribution. References to observer reports (available in Appendix A) are provided when relevant.

Table 4. Overview of national bodies or inter-governmental organisations events attended in 2022

Date	Organisator // Meeting	Venue	Staff	Comment	App. A #
March					
2	Norwegian BBNJ Reference Group	online	GD		
8 & 16	CAFF Board	online	GD		
Mai					
25/04 - 07/05	IWC // SC68c	online	GD, HM	Attend relevant committees & items	
June					
6-9	NASCO annual meeting	online	GD	Following some agenda points on 8/6	
7	Norwegian BBNJ Reference Group	online	GD		
July					
7-8	Sustainable Use meeting	online	GD & PN	Presentation 'Another Sound of Music' (incl. Presentation of NAMMCO Food Event)	1
September					
2-3, 5, 9	RSN	Hybrid, online	CW, GD	Some agenda points, no report	
28-30	ASCOBANS // AC 27	online	GD	Relevant agenda points	
October					
11-13	Excursion for the diplomatic corps in NO	Svalbard	GD		2
13-21	IWC - Commission 68 // WG on Whale Killing Methods and Welfare Issues	online	CW	Presentation of NAMMCO effort in hunters' training, incl. the 1 st training video	3
November					
15-16	NO // Norwegian Marine Mammal Scientific Advisory Board AM	Tromsø, NO	CW		4
December					
7-8	NO Whalers Union biannual meeting	Svolvær	CW	Presentation on the NAMMCO Food Event	5

6.4 IGO EVENTS ATTENDED BY MEMBER COUNTRIES ON BEHALF OF NAMMCO IN 2021

As is the practice, Member Countries represented NAMMCO at the 2022 annual meetings of NASCO (Faroe Islands), NAFO (Iceland) and NEAFC (Norway).

6.5 CONTACT WITH IGO SECRETARIATS, PARLIAMENTS, INSTITUTES

The Secretariat staff maintained in 2022 a closer contact with some IGOS secretariats and staff from various institutions, either for facilitating the sharing of information or for preparing joint events. A list of the attended meetings is provided in Table 5.

6.5.1 Regional Fishery Body (RFB) Secretariats' Network

NAMMCO has actively contributed to the [Magazine](#) edited by the RSN since 2011 by submitting material for publication that describes the importance of its work on the conservation and management of marine mammals and highlighting ongoing priorities.

In 2022, NAMMCO contributed to Issue No 21 dedicated to "[Ecosystem approach to fisheries \(EAF\)](#)". Highlighted were the 2022 Food Conference, NAMMCO's efforts to accommodate an Ecosystem approach and information on upcoming activities.

6.5.2 Norwegian Centre for the Law of the Sea (NCLOS)

NCLOS and the NAMMCO Secretariat continued in 2022 the contacts and cooperation initiated in 2020. They organised jointly the 4th Marine Mammal Student Symposium on 7 April 2022 with the theme

“Connecting scientists, policymakers, and users: How can we cooperate to safeguard marine mammals and their environment?”. See Table 6 and Appendix C#2 for more information.

In 2022, NCLOS and NAMMCO decided to formalise and enhance their cooperation and signed a **‘Memorandum of Understanding for scholarly and scientific cooperation’** in June 2022.

Table 5. Overview of meetings with secretariats and institutes in 2022

Date	Secretariat // Institute	Venue	Staff	Comment // Subject
February				
22	CAFF SEC	online	GD	With T. Barry, CAFF. Organisation of a joint CAFF-NAMMCO panarctic Bearded Seal WS
April				
6	Norwegian Centre for the Law of the Sea - UiT	Tromsø, NO	GD	With V. De Lucia, on cooperation, possible 'MOU'
26	UiT, Arctic and Marine Biology	online	GD	BIO-3506 Course Café (Top Predators course)
June				
3, 14	Septentrio, UiT	online	AC	NAMMCO editorial process, with Aysa Ekanger
14, 17	Wildlife Computers	online	GD, CW	MOU MINTAG, with CEO and scientific adviser
15	IS MFWI	online	GD	MINTAG, July testing at Icelandic whaling station, with GV (MFWI)
29	IWC SEC	online	GD, CW, AC	Catch-up and mutual information meeting
July				
5	NEAFC and OSPAR SEC	online	GD	On NAMMCO joining CollAr, with ES of NEAFC and OSPAR
August				
9	Canada DFO (S. Reinhart)	online	GD	Reconnecting, and NAMMCO Food event & CA Sealing Event
November				
1	MRI	Tromsø, NO	SEC	Informal meeting with SC members (TH & MB)
11	Øyrekka Folkehøgskole	Mausund	GD	Opportunities for cooperation and project development
22	UiT, Arctic and Marine Biology	Tromsø, NO	GD	Prep 2023 IuT course Bio-3506 on Top Predators

6.6 EXTERNAL RESEARCH PROJECTS WITH PARTICIPATION FROM NAMMCO

NORDIC SEALS

This research and networking project, launched in December 2020, is funded by the Nordic Council of Ministers Working Group for Fisheries (AG-Fisk) and is coordinated by Matís in Iceland (Jónas Viðarsson). The objective is to identify, discuss and analyse the challenges associated with the moratorium on seal hunting and to explore alternatives for how to address seal management in the future. Specifically, it aims to a) collate information on seal populations and distribution in the North Atlantic, b) examine the impacts of seal populations on the Nordic seafood industry, c) identify means of controlling seal populations (including sustainable harvesting) and d) identify potential products and markets for seal products, whilst also considering barriers such as animal welfare concerns and pollutant loads. The project has partners from Iceland, the Faroe Islands, Canada, and Denmark. NAMMCO is an “associated partner”.

The project has progressed slowly and with intermittence due to competing priorities at Matís, and *de facto* did not progress in 2022. It is unknown whether the report will be finalised, and the meeting/conference hosted. Some very preliminary results were presented by the Matís at the European Fishmeal and Fish Oil Producers Biennial in Skagen (DK) in June 2022.

7. IT SECURITY

NAMMCO IT support company is asked to regularly check the level of IT security at the Secretariat and provide recommendations on how it can be improved if necessary.

Such a check was performed in August 2022 and showed that the security was not optimal for an organisation exposed internationally and dealing with a sensitive matter. Improvements were recommended, and that they could be done at relatively low cost.

See Appendix B for the diagnostic and the recommendations provided.

8. COMMUNICATION AND OUTREACH

Outreach efforts to communicate the work of NAMMCO to a wide variety of audiences is important to ensure that the organisation is a) visible and accessible to diverse groups, b) maintains strong international networks, and c) fulfils its desire to be transparent. The outreach activities conducted by NAMMCO in 2022 included: maintenance of an up to date and engaging website, the International Conference and Showcase '*Marine Mammals: A Sustainable Food Resource*', presentations at external events and training programs, publications of Volume 12 of the NAMMCO Scientific Publications and articles in academic journals, as well as engagement with social media platforms.

This part of the report provides an overview of the outreach activities conducted by the Secretariat and/or supported by NAMMCO in 2022. It is divided into four sections: 1) Website, 2) Overview of presentations made at different fora in 2022; 3) Summary of activities on the NAMMCO website and on social media; and 4) Overview of reports and scientific publications.

8.1 WEBSITE

NAMMCO 29 reiterated that the website www.nammco.org remains the most important information platform for the organisation, both as an internal and external tool. It is therefore important to keep it updated and accurate. Top priority was therefore granted to the provision of continual updates regarding the work of NAMMCO committees, and the knowledge on the different species.


8.1.1 Improvements

8.1.1.1 Revamped website

Throughout 2021 and the beginning of 2022, the Secretariat has been working on a revamped NAMMCO webpage. This webpage was launched on 13 April 2022 to celebrate the 30th anniversary of the Nuuk agreement. Besides a restructure of the menu (including a new heading "Resource Management") and a completely new landing page, several new content pages were added: Resources, Sustainability, Responsibility, Supporting Sustainable Development Goals, Hunting Past & Present (Figure 2).


8.1.1.2 Website News/Blogs

News posts on the website included announcements of new articles published in Volume 12 of the NSP, event announcements such as the 2022 Marine Mammal Student Symposium, the International Conference and Showcase '*Marine Mammals: A Sustainable Food Resource*', and introductions to the new staff. A total of 24 news items were published on the website in 2022, as well as 3 blogs posts on interns' experiences and a reminder of the letter NAMMCO sent to the UN Special Envoy at the occasion of the 2021 Food Systems Summit, and which remains to date unanswered.



NORTH ATLANTIC MARINE MAMMAL COMMISSION
CONTRIBUTING TO A SUSTAINABLE NORTH

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[RESOURCE MANAGEMENT](#)
[MARINE MAMMALS](#)
[CALENDAR & LIBRARY](#)
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SUSTAINABLE DEVELOPMENT GOALS

In 2015, the United Nations General Assembly defined 17 Sustainable Development Goals (SDGs) as an urgent call for action. These interlinked global goals form a blueprint for Member States, organisations, and companies, to achieve a better and more sustainable future for people and planet, now and in the future.

NAMMCO is committed to the sustainable and responsible use of marine resources by developing effective conservation and management measures for marine mammals, while acknowledging the rights and needs of coastal communities. The sustainable use of marine mammals by coastal communities contributes to a lower environmental footprint, improved livelihoods, and economic growth, and support 7 of the SDGs.


LOW ENVIRONMENTAL IMPACTS



14 LIFE BELOW WATER


- In NAMMCO management areas, most of the hunts take from stable or increasing stocks.
- The use of marine mammals comes with low collateral costs such as pollution, habitat destruction, or by-catch.
- Using marine mammals for food provisioning implies a very limited usage of freshwater.
- The use of marine mammals has a low carbon footprint, in particular compared to alternatives (e.g., importing farmed meat and many plant proteins, use of artificial fabrics, etc.).
- Most hunts are highly resource efficient, little of the animal goes to waste.

[Read more about the Life Cycle Assessment study which NAMMCO initiated.](#)




Fin whale mother and calf © Oleksandr Kuznetsov, NEFSC/NMMA


IMPROVED LIVELIHOODS



2 ZERO HUNGER




11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION


- The hunting of marine mammals provides cash and benefits where few or no alternatives are available.
- The consumption of marine mammals contributes to health and well-being of communities and corresponds to their food preferences.
- The hunting and use of marine mammals is an important aspect of the cultural identity of many coastal communities. It involves social activities and sharing within the community.
- The continued hunting of marine mammals allows for the transgenerational transmission of environmental knowledge and changes accumulated over time.

[Read more about the cultural importance of marine mammals.](#)




Norway, minke whales © Eirikur H. Jónsson


ECONOMIC GROWTH



1 NO POVERTY




8 DECENT WORK AND ECONOMIC GROWTH



10 REDUCED INEQUALITIES

- For some coastal communities, the use of marine mammals provides jobs in areas where there are few or no alternatives.
- The hunt of marine mammals creates more varied fisheries and expands the length of the harvesting season.
- Securing small-scale fisheries/hunting, that are important for livelihoods, food provisioning and community well-being, supports Blue Justice.



Using cods heads of seal skin © David Greenfield/Pathphoto

Figure 2 New page on the NAMMCO website about the [Sustainable Development Goals](#)

8.1.2 Website Content Quality Review

Based on recommendations from the Committees, the Council endorsed in 2020 a process for reviewing the content quality of the NAMMCO website.

The task is finalised for the CIO and CHM, although the committees will keep reviewing any new addition. The SC reviews four species page at each committee meeting. At its 2022 meeting, the SC reviewed and provided comments on the information provided for four species: humpback whale, fin whale, narwhal, and beluga.

8.2 OUTREACH EVENTS & LECTURES

Table 6 presents an overview of the outreach events that the staff of the Secretariat attended in 2022. Most of the events where NAMMCO gave a presentation are described in more detail in Appendix C.

The main focus of 2022 was the NAMMCO Food Event held in Tórshavn in October. The 2-day conference included a marine mammal food court and highlighted the use and importance of whales and seals as a food resource. It focused on the role of marine mammals as part of sustainable and resilient food systems and food cultures in the North Atlantic. More information can be found in Table 6 and Appendix C#4, as well as meeting document NAMMCO/30/17.

Table 6. Outreach events attended by the Secretariat in 2022.

Date	Organisator // Meeting	Venue	Staff	Contribution & Comment	App. C #
March					
25	DIS Copenhagen // Lecture	Tromsø, NO	GD	1.5hr lecture to students from USA 'Regional Marine Mammal Management in the North Atlantic – Contributing to a sustainable North'	1
April					
5	Course for European PhD Students	Copenhagen, DK	GD online	1 hr lecture to European PhD students on 'How NAMMCO communicates on a controversial theme'	
7	NAMMCO - NCLOS // 4th Marine Mammal Student Symposium	online	JS, HM, GD	Chaired by HM, with 2 presentations by NAMMCO staff as below. Website news and FB post. GD: 'NAMMCO - Contributing to a sustainable North' MB: 'User knowledge in NAMMCO, challenges and opportunities'	2
August					
22	South Denmark University / Fjord&Bealt	Kerteminde, DK & online	GD	1.5 hr lecture to scientists, students and MM trainers, from different nationalities 'So how come is NAMMCO a conservation organisation?'	3
October					
4-6	NAMMCO Food Event: International Conference and Showcase 'Marine Mammals: A Sustainable Food Resource'	Tórshavn, FO	SEC	2-day conference including a marine mammal food court which highlighted the use and importance of whales and seals as a food resource in the North Atlantic.	4
29	DIS Copenhagen // Lecture	Tromsø, NO	AC, CW, JD	1.5hr lecture to students from USA 'Regional Marine Mammal Management in the North Atlantic – Contributing to a sustainable North'	1
November					
12	Øyrekka Folkehøgskole	Mausund, NO	GD	1-day Seminar on marine mammals as food resource 'Marine Mammals: controversial resources' – Part 1: 'Exploring the resource and its environment - including us'	5

8.3 ACTIVITIES ON WEBSITE AND SOCIAL MEDIA IN 2022

An extended summary of the activity in 2022 on the NAMMCO website, Facebook, Twitter and Instagram accounts is available in Appendix D.

8.3.1 Activities on nammco.org

The [NAMMCO website](https://www.nammco.org) has had 33,183 users between 1 January 2022 and 31 December 2022, which is an increase of 28 % from 2021, and an increase of 51% from 2020.

Most users find the website through an organic search, while 30 % navigate to the site directly. Social media referred just over 7 % of users.

The top countries visiting the website for 2022 are the USA, followed by the UK, China, and Canada. As in previous years, the distribution of gender is relatively equal among the website users and users in the age classes 18-24 and 25–34 were the most numerous users.

Some of the most popular pages, apart from the landing page, were the pages related to the Food conference followed by individual species pages. This suggests that the website is used as a general source of information on marine mammals. It is also worth noting that the Narwhal species page was still popular and the fourth most visited page on the website in 2022 after being third most viewed in 2021.

8.3.2 Facebook

Posts on Facebook during 2022 have included the weekly “*Fun-fact Friday*” posts, news on the website, new articles published in the NSP, dissemination of scientific articles with NAMMCO scientists as co-authors, as well as scientific articles relevant to NAMMCO’s work (with all posts cross-linking to the NAMMCO website).

As of March 9th, 2023, the [NAMMCO Facebook account](#) has 2,644 likes and 2,919 followers. The account received 172 new likes and 237 new followers since July 17th, 2022. [In Comparison, CAFF has 4.000 followers, ASCOBANS has 1.400 likes and followers, and ACCOBAMS 2.700 followers and 2.300 likes].

The top three Facebook posts of 2022 (measured as the number of persons reached by the post) ranged between 17,000 to 69,000 users. These posts are all ‘*Fun Fact Friday*’: a repost of humpback whale inspiring the design of wind turbines “*Did you know that humpback whales have inspired new wind turbine technology?*”, the origin of the name sperm whale “*Did you know the origin of the name ‘sperm whale’?*” and the bone structure of cetaceans’ flipper “*Did you know that the flippers of cetaceans have great similarities with the bone structure of human hands?*”. The latter was by far the most popular post, with 1,706 likes, 71 comments, and 390 shares. See the posts in Appendix D.

The posts are also regularly shared by other organisations working with marine mammals, such as the (World) Society for Marine Mammalogy (based in the US), the American Cetacean Society, the Sea Watch Foundation (UK), the Aquatic Mammals Journal, Humpbacks and High-rises (Australia), and the Intra-Quebec Sealers Association.

8.3.3 Twitter

Although NAMMCO has had a Twitter account, activities on this platform have not been prioritised and received less time and attention than Facebook. Tweets included announcements of new articles in the NSP, dissemination of articles with NAMMCO scientists as co-authors, announcement of website news, retweets of relevant information and activities of organisations with whom NAMMCO fosters external relations.

Due to this and the unfortunate development of Twitter in the last quartal of 2022, the Secretariat decided to delete the account. Therefore, insights on performance before are not available. However, as of 29 April 2022, the NAMMCO Twitter account had 544 followers.

8.3.4 Instagram

With the adoption of the new communication plan, [CP3](#) 2023-2024, adopted at NAMMCO 29 and focussing in reaching a younger public, combined to the arrival of the new intern Jana Djukarić active on Instagram, the Secretariat decided to start an Instagram account named [nammco_org](#) which was launched on September 08, 2023. Activities on this platform have, however, not prioritised and received less time and attention than Facebook. Posts included announcements of new articles in the NSP, dissemination of articles with NAMMCO scientists as co-authors, publication of reports and promotion for the Marine Mammal Student Symposium. The account has 103 followers (13.03.2023). Instagram only offers to get insights for the last 90 days (13.12.2022-12.03.2023) in which 533 accounts were reached (an increase of 558 % compared to the period 14.09.2022-12.12.2022).

The three posts which have reached the most accounts in 2022 were the news on the food conference with 14 likes and 66 reached accounts, the announcement of Council 29 with 7 likes and 64 reached accounts and the first post with 8 likes, 63 accounts reached and 4 new followers. See the posts in Appendix D.

8.4 PUBLICATIONS

8.4.1 NAMMCO Reports

The NAMMCO reports that have been published in 2022 can all be found on the NAMMCO website under '[Meetings Reports and documents](#)'.

8.4.2 NAMMCO Scientific Publications

Volume 12 of the NAMMCO Scientific Publications series: *Chacón, A.F., Middel, H. and Wickson, F. (eds) Marine Mammals in the North Atlantic. NAMMCO Scientific Publications, 12.* <https://doi.org/10.7557/3.12> saw its first publication in May 2021 and was finalised in December 2022.

The volumes of the Scientific Publications series have typically been species-based, around particular NAMMCO meetings that take place. As there was no such clear topic in 2020, it was decided that volume 12 would be based on an open call for submissions. Submissions were welcomed from across all disciplines (e.g., biology, economics, and law) relevant for the conservation and management of marine mammals in the North Atlantic. The deadline for submissions was initially 1 October 2021, but was extended to 31 December 2021 due to the COVID-19 situation.

Volume 12 encompasses one workshop report, 5 research articles, 2 reviews and 1 note. The workshop report was published in May 2021, the first research article in January 2022, and the last review article in December 2022. The titles and references of the articles involving the NAMMCO scientific community are provided in Appendix E.

The volume is dedicated to Dr. Gísli Arnór Víkingsson († July 2022) and includes his *In Memoriam*. Víkingsson was the head of the Icelandic Delegation to the NAMMCO Scientific Committee and was a member of the committee since its first meeting in 1993.

8.4.3 Publication in other Scientific Journals

The Secretariat staff has authored and co-authored a number of scientific articles that were published in 2022. Additional articles have also been submitted for publication and are currently undergoing peer-review. The titles and references of these published or submitted articles are provided in Appendix F.

8.4.4 Species Review for the IUCN Red List

In 2022, Desportes contributed to the revision of the outdated [2007](#) European Assessment of the long-finned pilot whale for the IUCN Red List of Threatened Species, invited by and together with Drs. P. Verborgh and P. Gauffier from the Madeira Whale Museum.

9. INFORMATION REQUESTS

Throughout the year, various informal information requests are made to the Secretariat by students, educational institutes, RFMOs, Parties representatives or other organizations, as well as the media. These requests are answered to the best of the ability of the Secretariat, or when relevant, forwarded to the Heads of Delegation.

Responding to the request of the Arctic Council related to the Observer Reporting process for the 2023 Observer Review cycle, the NAMMCO Secretariat provided the report on relevant NAMMCO activities in June 2022.

10. NAMMCO INTERSHIP PROGRAMME

The NAMMCO internship program, which started in November 2017, continues to be a very positive and useful experience for the Secretariat and the selected candidates. It provides the Secretariat with substantial additional human resources and expertise, e.g., in technical and legal domains, and helps to alleviate the demanding workload for the permanent staff. Having interns able to carry out various administrative or technical duties in the daily work of the organisation (e.g., uploading documents, formatting articles etc) generate time for the permanent staff to focus on tasks requiring higher levels of expertise. Bringing new people into the organisation on a regular basis brings brought new life, ideas, energy, motivation, and creative input to the otherwise small Secretariat.

The ability to have overlap between interns, when feasible, supports continuity in the handover of duties and alleviates the input from the Secretariat, as outgoing interns instructs incoming ones in some of the more technical aspects of their work (e.g., website editing). Although the interns remain under supervision of the permanent staff during their whole internship, this overlap increases the level of technical support, while reducing the time used by permanent staff on induction and orientation processes.

All interns contribute to the day-to-day work of the Secretariat, in particular helping to prepare for any meetings of the Commission. They are responsible for public outreach activities on social media; they create posts for the Facebook, Twitter and Instagram sites of NAMMCO, including the *Fun Fact Friday* posts. This work is carried out under the supervision of the Scientific Secretary and has been very beneficial for growing the NAMMCO community and NAMMCO's audience.

In 2022, three interns have served at NAMMCO and their background and whereabouts are described below.

10.1 MARTIN BINACHON (FR)

15.08.2021 – 07.01.2022, M.A. in Polar Law, University of Akureyri (IS)

Martin was first involved with the preparation of the material which should be presented at the IUCN World Conservation Congress in September 2021 and help manning the NAMMCO bod at the Congress. Afterwards his focus was on User Knowledge and how user knowledge was 1) collected, and 2) integrated into research, considering which experiences might be relevant to NAMMCO. The work he prepared was presented at the meeting "User Knowledge in Research and "User Knowledge Collections" are documents to the Management Committees at this annual meeting. A presentation of the first project was given to the 2022 Student Symposium: "User Knowledge in Research".

After his internship, Martin worked as Policy Officer for Negotiations on the Ocean, Seas and Poles for the French Ministry of Ecological Transition.

10.2 JOSEPHINE N. SCHULZE (DE)

06.01.2022 – 02.09.2022, M.Sc. in Marine Mammal Sciences, University of St Andrews (UK)

Josephine contributed to the preparation and running of several meetings, including the meeting of the Scientific Committee in January 2022 and several working groups. She helped updated several species page, and copy-editing submission to the NSP serie. She started on building up the common dolphin species page and was the leading organiser of the 4th Marine Mammal Student Symposium in cooperation with NCLOS, held in April 2022 (hybrid meeting) – See Table 6 and Appendix B.

After her internship, Josephine started applying for PhD and other positions, while working as ocean and northern light guide in Iceland and Norway.

10.3 JANA DJUKARIĆ (DE)

from 22.08.2022, M.Sc. in Marine Biology, University of Stockholm (SE)

Because of the delay of the Council meeting to September 2022, Jana started in being involved in the technical preparation of and support to the 29th Annual Meeting of NAMMCO in September in Oslo and the Food Event in October in Tórshavn. She was of an unvaluable technical help before and during the two events. Jana became then, and still is, the main support to the MINTAG project, both arranging meetings and rapporteuring, and keeping the MINTAG website updated with new development. She was the only Secretariat representant at the MINTAG Tag Design Seminar in Copenhagen in October 2022.

She continued to ensure postings on NAMMCO social medias and website and launched the Instagram account. She prepared a common dolphin species page. She helped finalizing and publishing the review of knowledge on bearded seals, which was initiated by an earlier intern and was finally published in Volume 12 of the NAMMCO Scientific Publications in December 2022: 'Bearded seals in the Atlantic Arctic: Review of post 2010 knowledge available for informing stock assessments' by Scherдин, N., Djukarić, J. and Desportes, G (See Appendix E).

Jana will be intern at the Secretariat until May 2022, and is so far the only intern who will have contributed and participated to two Annual Meetings.

11. FINANCIAL STATUS UPDATE

The audited accounts for 2022 closed with a surplus of NOK 303,448 as compared to NOK -761,440 foreseen in the budget adopted by the Council at NAMMCO 28. The general reserve increased and amounted to NOK 2,127,993 compared to the budgeted NOK 668,910.

The 2022 Accounts can be found in Appendix G. The 2022 Audited Accounts and Financial Statements can be found in document NAMMCO/30/05.

The positive discrepancy between the budget and the account continues to be partly explained by COVID-19 limitation, with several online meetings and less travelling and, in particular, the postponement of the observation activities from 2022 to 2023, as well as the postponement of two WG meetings from 2022 to later, e.g., the Coastal seals WG and the pilot whale WG.

APPENDIX A. SECRETARIAT OBSERVER REPORTS – NATIONAL AND IGO EVENTS ATTENDED

1. Report of NAMMCO Observer to the Meeting on Sustainable Use (SU) of Aquatic Living Resources

Desportes attended this meeting, held online 7-8 July. The meeting reviews the current situation regarding sustainable use of aquatic resources and the developments occurring on a regional and global basis in terms of use, conservation, regulations and restrictions, and campaigns. The future actions of Japan and other SU countries within different international and national fora, including the IWC, was discussed.

The meeting reaffirmed the sustainable use of aquatic living resources based on scientific evidence as a universal principle. Over 45 countries, including all NAMMCO Parties, and several fisheries organisations were represented at the two-half-day closed online meeting.

Desportes & Nolsøe (FO) gave the presentation “**Another Sound of Music**”. It illustrated how NAMMCO attempts to communicate and open a dialog on the sensitive and controversial issues that are whaling and sealing and to normalise marine mammals as food resource by setting this use in a nowadays perspective (food security, blue economy, SDGs, etc). Examples given were the posters prepared for the 2021 IUCN World Congress, and the coming Food Event “*Conference and Showcase: Marine Mammals – a Sustainable Food Resource*” in October in the Faroe Islands.

2. Report of NAMMCO participant to the Excursion for the diplomatic corps in NO

As Head of Mission, Desportes was invited by the NMFA to participate in the excursion organised for the diplomatic corps in Svalbard. This represented a unique opportunity to informally present NAMMCO and its work to ambassadors from many different countries, and it initiated interesting discussions on whaling and sealing. Desportes also showcased the advantages of using seal products (coat, boots and gloves) in the Arctic climate. Discussion with staff from the NMFA gave the opportunity to discuss the work of NAMMCO. Emphasis was put on how NAMMCO communicates with some success the use of marine mammals as food resources by placing it in the perspective of SDGs, Blue Economy and Food Security.

3. Report of NAMMCO Observer to the Meeting of the IWC WG on Whale Killing Methods and Welfare Issues

NAMMCO was invited to give a presentation of the work of the Committee on Hunting Methods with particular emphasis on new initiatives. Winsnes informed that during its time the CHM has forwarded 124 recommendations to its member countries of which 87% has been acted upon resulting e.g. in significant improvements to time to death and instant death rate. The remaining recommendations largely revolves around training and the transfer of knowledge. In 2021, NAMMCO agreed to produce a series of short instructional videos to supplement existing written information (manuals on hunting and maintenance of equipment) and the 1st video, focusing on hunter safety is freely available on the NAMMCO website. The 2nd video, focusing on target location and shooting angle in the large whale harpoon grenade hunts, is expected to be finished in 2023.

4. Report of NAMMCO Observer to the meeting of the Norwegian Marine Mammal Scientific Advisory Board

Winsnes attended the meeting held online 15-16 October 2022 at the Fram Center, Tromsø, Norway. This is an annual meeting for all Norwegian actors dealing with marine mammals. Information on all research and management issues are given and discussed, and the meeting provides recommendations to national authorities. It is attended by representatives from the Ministry, Directorate for Fisheries, and relevant research institutes. Although this is a national forum, NAMMCO has been invited to participate in recent years.

Quota recommendations were given for all target species.

5. Report of NAMMCO Observer to the meeting of the Norwegian Small Whalers Union

Winsnes attended the biannual meeting held 7 December in Svolvær, Norway. The meeting was two-folded, with the annual meeting of the Union followed by a joint meeting with “Merkevareforeningen Norsk Hval (MNH)”. MNH is a non-profit organisation aimed at marketing activities disseminating information on all aspects of sustainable hunting with a special focus on the meat and its gastronomic and health qualities. The website www.norskhval.no is run by the organisation. The overall aim is to increase the profit of the industry for hunters, producers and retailers. The internal market in Norway is still far from reaching its potential and the joint meeting discussed ways of improving this. The meeting was attended by representatives from the Ministry, Directorate for Fisheries, the Fisheries Association and relevant research institutes, in addition to hunters and buyers.

Nammco – August 2022



1. IT-STATUS REPORT FOR NAMMCO

Equipment

NAMMCO have got a firewall, network switch, wireless access point and a server in addition to 4 laptops. Data and email are in Microsoft Office 365 cloud.

Firewalls

The firewall is not licensed and should be updated with new firmware. There is no operational agreement for this equipment. Because of the lack of license on the firewall, there are no security filtration set up.

Server

The server is discontinued, the users need to doublecheck that there is no data they have not copied out before it is turned off.

Laptops

All the laptops are connected to the discontinued server and needs to be disconnected and set up against the Microsoft cloud. There is antivirus software on the laptops, but it is not monitored, and there is no operational agreement on the computers and antivirus.

Diagnostic and recommendations

Security for organizations like yours is becoming more and more important. Your work and your organization are exposed internationally and might attract people with other views. So, either random or targeted attacks is a possibility. We recommend that you consider the following recommendations to reduce the attack surface.

Based on the information above we have the following recommendation for changes/upgrades, note that the cost are estimates and not binding:

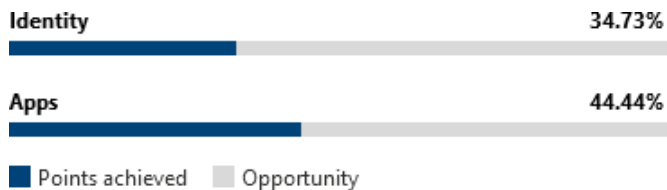
- Buy license for the firewall – ca. 4500/year
- Configure security filtration on internet traffic on the firewall – 1-2 hours to set up
- Disconnect laptops from the old server and connect them to Office 365 – 1-2 hours per computer
- Operational agreement for the networking equipment - ca 550/month
- Operational agreement and antivirus for the laptops – 120/laptop/month
- Inbound spam filter for email – 20/user/mnd

2. SECURITY POSTURE REVIEW - OFFICE 365

Microsoft's security experts have created something called the "Microsoft Secure Score" which is a representation of an organization's security posture when it comes to identity and application security.

Secure Score: 36.08%

23.45/65 points achieved



3. IMPROVEMENTS TO INCREASE YOUR SECURITY:

- Require MFA for all administrative roles
- Require MFA for all users
- Block legacy authentication
- Monitoring of high-risk users
- Monitoring of high-risk sign-ins

4. SUMMARY

Based on your security review, we see that there is great potential to increase security by switching to a Business Premium license for all users. The recommendations we make in this document are based on Microsoft's best practices and contain the recommendations that fall under the category of advanced security.

Our recommendation would be to purchase Business Premium, which will provide opportunities to improve vulnerabilities in your Azure tenant. The aim will be to raise the safety score as high as possible and preferably as high as 90%. When the new license is in place, we will be able to monitor future threats in addition to being able to follow up security scores over time.

With a Business Premium license there will also be options for setting up Microsoft Intune, which is a Mobile Device Management solution. This is something we can look into in more detail if desired.

Upgrading from Business Standard to Business Premium is around 80,- more per user per month charged by Microsoft. We charge a onetime fee of 5000 and a monthly recurring cost of 90 per user per month for the job of increasing your security posture and continuously monitor the security of your Azure tenant and identities.

APPENDIX C. REPORTS FROM OUTREACH EVENTS ORGANISED OR ATTENDED BY THE SECRETARIAT

1. Lecture to DIS Copenhagen

Desportes & Chacón gave a 1.5-hrs lecture on 25 March and 2 November to two groups of ca. 25 US students of DIS Copenhagen, which were on Study Tour in Tromsø *“Regional Marine Mammal Management in the North Atlantic – Contributing to a sustainable North”*.

DIS is a non-profit academic institute offering semester, academic year, and summer abroad programs for students from North American universities, who have completed at least two semesters in their own university.

The lecture presented NAMMCO foundation, vision of conservation, and processes in its advisory work, as well as its work in disseminating science and fact-based information on marine mammal and marine mammal hunting and use. It also underlined the challenges in managing marine mammals and providing food for thoughts in presenting marine mammal use, and seal bans, in the perspective of blue economy and sustainable food systems.

Clearly, the US students were presented with perspectives and logics they had not been presented with before, which created a very lively discussion and rethinking.

2. Marine Mammal 4th Student Symposium 2022

The North Atlantic Marine Mammal Commission (NAMMCO), in association with the Norwegian Centre for the Law of the Sea (NCLOS) and the University of Tromsø Arctic Biology department, hosted on 7 April symposium for students working with marine mammals, titled *“Connecting scientists, policymakers and users: how can we cooperate to safeguard marine mammals and their environment”*.

NAMMCO arranged the first Marine Mammal Student Symposium in 2019, with the intention to make this event annual. A symposium has been arranged every year since, with the dual purpose of promoting the work NAMMCO does amongst early career marine mammal scientists and marine-oriented lawyers and creating networking opportunities for students. Due to the uncertainty regarding Covid-restrictions, the symposium was held for the first time as a hybrid event (online and in-person). The online platform created an opportunity to include students from all over the world, and 83 participants registered for the event from countries such as Norway, Ireland, Finland, United Kingdom, and the Philippines.

NAMMCO Intern took the lead in organising the symposium and NAMMCO Scientific Secretary (HM) served as moderator. The morning session encompassed short presentations of NAMMCO and NCLOS by the Desportes and Pr. Jakobsen respectively. An icebreaker session for the students followed to facilitate contact and networking. The morning session was rounded out with a series of 9 student presentations, and 2 short break-out groups to discuss the presentations. After a lunch break, the participants reconvened for another round of students’ presentations followed by discussion in breakout sessions.

The student presentations across the day covered a range of different topics, spanning both biology and law, and addressed a number of different themes, such as telemetry, bycatch, abundance surveys, and regulations on marine mammals as well as fishery related talks. Martin Binachon (earlier NAMMCO intern) presented its project on user knowledge being integrated into research within the framework of NAMMCO.

The afternoon session also included a presentation from two invited keynote speakers: Richard Caddell (University of Cardiff, Law of the Sea) and Victoria Buschmann (Greenland Institute of Natural Resources, Conservation Biology).

NAMMCO considered the symposium to have been a success overall, although the balance between participants’ and presenters’ law versus science background was tilted towards science, which requires attention for future joint symposiums.

3. Presentation at South Denmark University / Fjord & Belt Marine Centre

In August 2022, Desportes was asked to give a presentation on NAMMCO by the daily leader of the Marine Biological Research Centre from the Institute of Biology of the University of Southern Denmark, Ass. Prof. M. Wahlberg.

The presentation “*So how come is NAMMCO a conservation organisation?*” was given at the weekly hybrid seminar of the research group, held in connection with its collaborators from different countries, in total ca. 40 persons. The Marine Biological Research Centre is paired with the Fjord&Bælt marine centre. Both centres house a collection of live harbour porpoises and harbour and grey seals used for education and research, and therefore marine mammal trainers, volunteers, and students, as well as students on other marine-related subjects, of various nationalities (IS, CA, DK, DE, FR, IT, SE, SP, USA). Similar, to the lectures given to DIS students (see under 1), the lecture focussed on NAMMCO messages, replacing the use of marine mammals in the framework of sustainable food systems, blue economy, SDGs, and food security. The discussion afterwards was extremely interesting. The perspectives presented were clearly very new for this, mostly dolphin-kisser, audience, and evidently challenging their own vision. Several expressed that this was an eye opener on the issue and its complexity, with the main question being which food/resource is *de facto* the most environmentally friendly.

4. NAMMCO Food Event

The NAMMCO conference and showcase “**Marine mammals – A sustainable Food Resources**” was hosted by the Faroe Islands and held in Tórshavn on 5-6 October 2022 and highlighted the use and importance of whales and seals as a food resource and focused on the role of marine mammals as part of sustainable and resilient food systems and food cultures in the North Atlantic and around the world– today and in the future.

The event included a 1 ½ day conference with an introduction following by four theme sessions: 1) Sustainability and climate, 2) Nutrition and food safety, 3) From the sea to the plate, and 4) Food for the future. The conference featured a Food Court where international chefs from Canada, the Faroe Islands, Greenland, Iceland, Japan, and Norway, showcased how marine mammals are used in different food cultures. The Chefs’ 2-day workshop prepared a variety of whale and seal dishes served at the Food Court the last evening. The food displayed the potential for more innovative use of marine mammals in modern gastronomy. During a cultural evening two documentaries were screened, the documentary “*Ice, Seals and Men*” (2013) by Shane Mahoney on the history and conservation of the Newfoundland harp seal hunt, and the documentary “*Behind the Cove*” by Keiko Yagi aiming at presenting a comprehensive picture of the dolphin and whale hunting issues in Japan. The documentary includes interviews of people on both sides of the whaling dispute in response to the film “*The Cove*”. The participants were also able to join an excursion to Klaksvík, where presentations from a whaler from Taiji, Japan, and on the slaughter customs in the Faroes and Japan were given, and cultural performances were displayed.

Some of the main messages from the Conference included:

- With a growing world population in a time of climate crisis and geopolitical instability, marine mammals remain a staple and environmentally friendly food source for many, making an important contribution to global food security and nutrition.
- Marine mammals continue to have essential economic, social, and cultural importance as renewable resources for many societies around the world, a reality that is becoming better recognised in international discussions.
- Younger generations are showing a growing interest in marine mammals as food, with an emphasis on choosing climate-friendly resources and preserving local food heritage for the future.

Hosted by the Government of the Faroe Islands, the Conference gathered some 175 participants from a range of backgrounds, including hunters and academics, chefs and policy makers, scientists and media in Canada, Denmark, the Faroe Islands, France, Germany, Greenland, Iceland, Japan, Norway, Spain, Sweden, Switzerland, UK, and USA.

5. Seminar on marine mammals as food resource at Øyrekka Folkehøgskole

NAMMCO Secretariat is running an outreach test relevant to the communication plan, CP3, adopted by Council 29, with a Norwegian Folk High School (Øyrekka Folkehøgskole, Mausund). The package is called “Marine Mammals: controversial resources”, and entails two sessions of 5-hrs each:

- 1 Exploring the resource and its environment – including us (November 2022)**
- 2 Threats to & sustainability of resources – food for thoughts (April 2023)**

The venue is Øyrekka Folkehøgskole and is conducted as a school session with the students discussing and exchanging views. The first session explored 1) which type of resources (species, distribution, abundance, who consume them, conservation issues) marine mammals are, 2) NAMMCO work, 3) the relation human beings entertain with the resource, from consuming it to setting it on an untouchable pedestal. The session was carried out through a mix of lecturing, playing ‘*ethical*’ games and screening the film “*Angry Inuk*”.

The second session will explore the threats to marine mammals and how to assess their impact. It will also explore how the relative sustainability of alternative (food) resources can be defined. The students will have worked with their teachers ahead of the session on the threats to marine mammals and will present their findings. The film “*The islands and the whales*” will be screened. The session will end with a role play, casting different stakeholders of the whaling/sealing issues (e.g., hunters, conservationists, protectionists, animal rights activists, alliance for a sustainable use, and scientific advisers) to discuss the relative impact of the different human threats on marine mammals, and advocating their roles view of perceiving/using marine mammals.

APPENDIX D. STATISTICS OF ACTIVITIES ON THE NAMMCO WEBSITE AND SOCIAL MEDIA

1. Website

Unique users

2019: (1 Jan – 31 Dec) 19,747

2020: (1 Jan – 31 Dec) 16,410

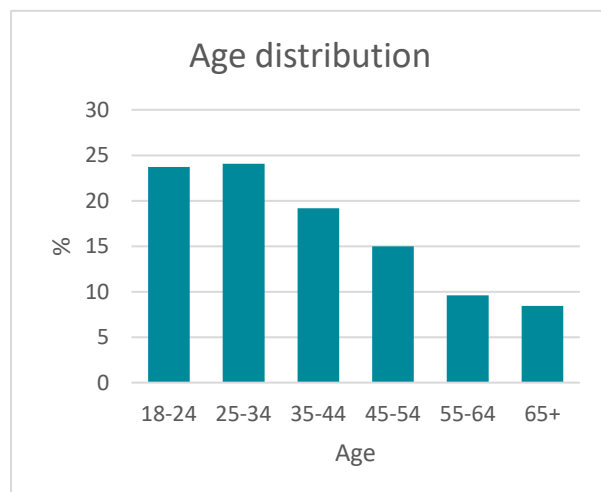
2021: (1 Jan – 31 Dec) 25,854

2022: (1 Jan – 31 Dec) 33,183

Audience

Men: 48.7 %

Women: 51.3 %



Most popular pages (views):

Front page	13,350
Conference and Showcase	2,867
Conference and showcase program	2,033
Narwhal	1,751
Atlantic Walrus	1,601
Killer whale	1,273
Conference and Showcase speakers	1,192
Blue whale	1,165
Internship	1,031
News	1,026

Web users by country:

US	25.8 %
UK	8.7 %
China	7.1 %
Canada	6.9 %
Norway	5.9 %
Germany	4.0 %
Denmark	2.9 %
Iceland	2.8 %
Faroe Islands	2.2 %
France	1.8 %

How did they find NAMMCO?

Organic search	57.3 %
Direct	30.4 %
Social media	7.2 %
Referral	5.0 %

2. Facebook

Likes and followers

Year	Likes	Followers
2020	1 197	1 222
2021	2 213	2 291
2022	2 644	2 919
Data from 09.03.2023		

Audience

Men: 42.7 %

Women: 57.3 %

Top 10 page likes by country

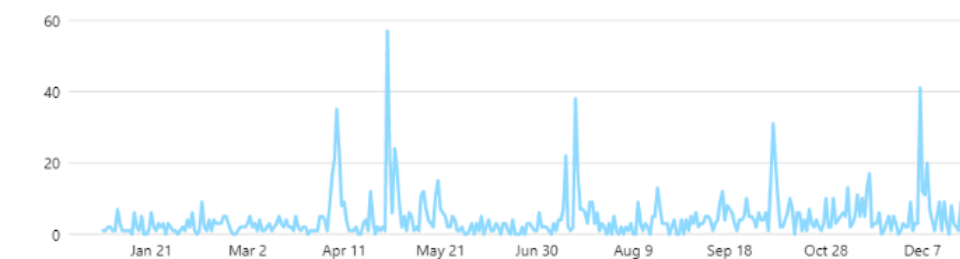
United States	9.7 %	UK	6.4 %
Faroe Islands	9.6 %	Canada	5.0 %
Norway	7.6 %	Mexico	4.1 %
Denmark	7.0 %	France	4.0 %
Greenland	6.5 %	Spain	4.0 %

Performance results in comparison to 01.01.22-31.12.22

161,682 ↑ 33.9%



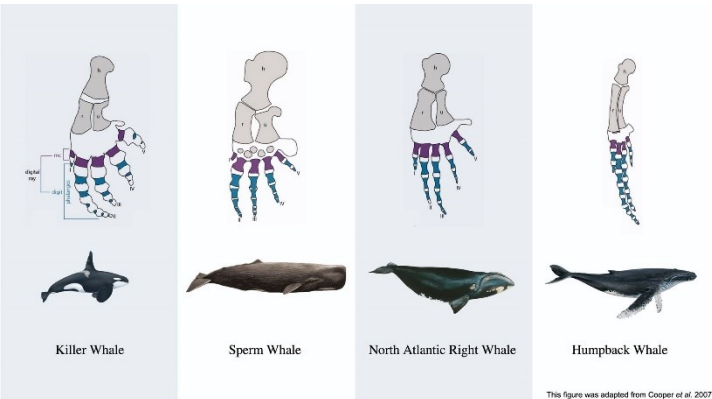

1,610 ↑ 70.6%



260 ↑ 53.8%



Top 3 posts (in terms of both reach and likes) between January 2022 and January 2023:

<p>29/04/22</p>  <p>Killer Whale Sperm Whale North Atlantic Right Whale Humpback Whale</p> <p><small>This figure was adapted from Cooper et al. 2007</small></p>	<p>Did you know that the flippers of cetaceans have great similarities with the bone structure of human hands?</p> <p>As cetaceans evolved from terrestrial mammals with weight-bearing forelimbs to an aquatic world, their forelimbs turned into a flipper that is constructed of soft tissue. Having elongated and streamlined flippers in an aquatic environment helps with lift, breaking, turning and stabilising the animal while swimming.</p> <p>In addition to soft tissue development, the bone morphology of most cetaceans changed to better support the changing flipper shape. Like most baleen whales, humpback whales for example only possess four digits, with their second digit being largely elongated. In contrast, toothed whales like killer whales, have five digits. Researchers are not in agreement what exactly causes the digit reduction, but hypotheses assume that narrow and longer flippers for most baleen whales could be associated with remaining stable when swimming at higher speeds for lunge feeding, while more broad flippers may offer a larger surface area for manoeuvring tight turns at lower speed and shallower lagoons.</p> <p>Read the full study on the 'Evolution of hyperphalangy and digit reduction in the cetacean manus' by Cooper et al. (2007) here: https://anatomypubs.onlinelibrary.wiley.com/.../ar.20532</p> <p>To learn more about cetaceans in NAMMCO's management area, follow this link: https://nammco.no/whales-dolphins-and-porpoises/</p>	<p>69,405 organic reach 1,706 likes 71 comments 390 shares 1,884 post clicks</p>
<p>08/04/22</p> 	<p>For today's #FunFactFriday we are throwing it back to one of our most successful posts! Did you know that humpback whales have inspired new wind turbine technology?</p> <p>The humpback whale is a giant in the sea, yet it manages tighter turns than any other baleen whale. This is due to the tubercles (bumps) on the leading edges of its flippers. Research found that humpback whale flippers have an angle of attack up to 40 percent steeper than that of a smooth flipper before stall (loss of lift) occurs. Tubercles change the distribution of pressure on the flippers so that some parts stall before others. Therefore, different parts of the flipper stall at different angles of attack, which gives the whale more freedom to attack at higher angles. Prototypes of wind turbines blades mimicking humpback whales' pectoral fins have been created. Tests show that the turbines with tubercles generate the same amount of power at 16 km per hour that conventional turbines generate at 27 km per hour. Tubercles on the blade's leading edge enable it to capture more energy from the wind, but also reduce noise and increase its stability.</p> <p>You can read more about this interesting biomimetic research & technology development here: https://doi.org/10.1093/icb/icr016</p> <p>Are you eager to learn more about the fascinating humpback whale? Visit our species page: https://nammco.no/topics/humpback-whale/</p> <p>📷 1: Tubercles on a humpback flipper © thara58/Pixabay 2: Tubercle technology on a wind turbine blade © WhalePower</p>	<p>50,546 organic reach 842 likes 34 comments 161 shares 3,392 Post clicks</p>

13/05/22



Did you know the origin of the name 'sperm whale'? The heads of sperm whales are filled with a white, oily substance called spermaceti. At the start of commercial whaling in the 18th century, whalers mistook it for the sperm of the whales. The theory was debunked when this substance was also found in female sperm whales. The name, however, stuck into modern days.

The spermaceti organ can hold a volume of up to 2,000 liters of oil, which was used for wax in ointments, candles, cosmetics and textile products. Sperm whales are thought to use the spermaceti organ for echolocation. The oil would help to transmit and focus sound to be able to find prey at the dark depths where sperm whales hunt.

Learn more about sperm whales by visiting our species page:
<https://nammco.no/sperm-whale/>
Photo © Dmitry Kokh

17,170 organic reach
537 likes
11 comments
71 shares
741 post clicks



3. Instagram

Launch: 08 September 2022

Followers: 103 (13.03.2023) Following: 125

Posts: 18 (13.03.2023)

Top 3 posts (in terms of both reach and likes) between September 2022 and January 2023:

<p>21/10/22</p>		<p>Hunters, academics, chefs and policy makers, scientists and media from Canada, Denmark, the Faroe Islands, France, Germany, Greenland, Iceland, Japan, Norway, Spain, Sweden, UK, and USA met in Tórshavn, the Faroe Islands last week to discuss the role marine mammals play as sustainable food sources. Discussions and presentations were complemented by a food court where chefs from around the world had prepared a special tasting menu of whale and seal dishes to showcase how these valuable resources are used in different cuisines.</p> <p>The main messages from the Conference included:</p> <ul style="list-style-type: none"> • With a growing world population in a time of climate crisis and geopolitical instability, marine mammals remain a staple and environmentally friendly food source for many, making an important contribution to global food security and nutrition • Marine mammals continue to have essential economic, social and cultural importance as renewable resources for many societies around the world, a reality that is becoming better recognised in international discussions • Younger generations are showing a growing interest in marine mammals as food, with an emphasis on choosing climate-friendly resources and preserving local food heritage for the future. <p>Watch the conference film on our YouTube channel (link in bio) #food #marinemammals #faroeislands #conference #nammco</p>	<p>66 accounts reached 85 impressions 14 likes 0 new follower</p>
<p>09/09/22</p>		<p>We are happy to announce that Norway will host the 29th Annual Meeting of NAMMCO from the 13th to 15th September in Oslo, where recent research and developments relevant to the conservation and management of whales and seals in the North Atlantic will be discussed.</p> <p>Update will be provided on the progress of two exciting projects: the MINTAG project, which aims to develop miniaturised satellite tags to be used on lesser-known under-studied fast-swimming rorquals and pilot whales for bringing information on their movements and stock structure, and the NASS 2024, continuing the 30-year series of large North Atlantic cetaceans sightings surveys and bringing new information on abundance and trend in abundance. Both types of information are essential to the sound management of whale stocks.</p> <p>Check out our link in bio to find more information of our work on our website! #NAMMCO29 #meeting #council #management #oslo</p>	<p>64 accounts reached 77 impressions 7 likes 0 new follower</p>

08/09/22



"Four peoples depending on the sea and conserving it."

NAMMCO is an international regional body for cooperation on conservation, management and study of cetaceans (whales, dolphins and porpoises) and pinnipeds (seals and walruses) in the North Atlantic. It was founded by Norway, the Faroe Islands, Iceland and Greenland who are committed to the sustainable and responsible use of all living marine resources, including marine mammals. Finally on Instagram, you can follow us to learn more about the work of NAMMCO, marine mammal species of the Arctic, as well as the conservation and management of marine mammals.

Click the link in bio to visit our homepage to learn more about our work!

#nammco #conservation #marinemammal #arctic #management #science #research

63 accounts reached
71 impressions
8 likes
4 new followers

APPENDIX E. PUBLICATIONS FROM NAMMCO COMMUNITY IN NSP 12

This list provides an overview of the involvement of the NAMMCO scientific community in [Volume 12](#) of the NAMMCO Scientific Publications, 'Marine Mammals in the North Atlantic'. The names of members of NAMMCO committees and NAMMCO staff are indicated in bold.

Chacón, A.F. (2022). Preface. *NAMMCO Scientific Publications*, 12. <https://doi.org/10.7557/3.6881>

Desportes, G., Pike, D., Heide-Jørgensen, M. P., & Sigurjónsson, J. (2022). In Memoriam: Gísli Arnór Víkingsson — 1956 - 2022. *NAMMCO Scientific Publications*, 12. <https://doi.org/10.7557/3.6888>

Biuw, M., Øigård, T.A., Nilssen, K.T., Stenson, G., Lindblom, L., Poltermann, M., Kristiansen, M. and **Haug, T.** 2022. Recent Harp and Hooded Seal Pup Production Estimates in the Greenland Sea Suggest Ecology-Driven Declines. *NAMMCO Scientific Publications*, 12. <https://doi.org/10.7557/3.5821>

Stenson, G., Gosselin, J.-F., Lawson, J., Buren, A., Goulet, P., Lang, S., **Nilssen, K. T., & Hammill, M.** (2022). Pup Production of Harp Seals in the Northwest Atlantic in 2017 During a Time of Ecosystem Change. *NAMMCO Scientific Publications*, 12. <https://doi.org/10.7557/3.6214>

Solvang, H., **Haug, T** and **Øien, N.** (2022). Recent trends in temporal and geographical variation in blubber thickness of common minke whales (*Balaenoptera acutorostrata*) in the Northeast Atlantic. *NAMMCO Scientific Publications*, 12. <https://doi.org/10.7557/3.6308>

Granquist, S. M. (2022). The Icelandic harbour seal (*Phoca vitulina*) population: trends over 40 years (1980–2020) and current threats to the population. *NAMMCO Scientific Publications*, 12. <https://doi.org/10.7557/3.6328>

Heide-Jørgensen, M. P., & Lage, J. (2022). On the availability bias in narwhal abundance estimates. *NAMMCO Scientific Publications*, 12. <https://doi.org/10.7557/3.6518>

Scherdin, N., Djukarić J. and Desportes, G. 2022. Bearded seals in the Atlantic Arctic: Review of post 2010 knowledge available for informing stock assessments. *NAMMCO Scientific Publications*, 12.

Székely, D., Cammen, K. M., & Tange Olsen, M. (2022). Needles in an ocean haystack: using environmental DNA to study marine mammals in the North Atlantic. *NAMMCO Scientific Publications*, 12. <https://doi.org/10.7557/3.6482>

Smith, S.D.G. and Ryeng, K.A. 2022. Developments in the Quantitative Assessment of Welfare Outcomes in Hunted Mammals Subject to Shooting. *NAMMCO Scientific Publications*, 12. <https://doi.org/10.7557/3.5914>

Smout, S., Murray, K., Aarts, G., **Biuw, M.,** Brasseur, S., Buren, A., Empacher, F., Frie, A.K., Grecian, J., Hammill, M., **Mikkelsen, B.,** Mosnier, A., **Rosing-Asvid, A.,** Russell, D., Skaug, H., Stenson, G., Thomas, L., ver Hoef, J., **Witting, L.,** Zabavnikov, V., Øigård, T.A., Fernandez, R. and **Wickson, F.** (2021). Report of the NAMMCO-ICES Workshop on Seal Modelling (WKSEALS 2020). *NAMMCO Scientific Publications*, 12. <https://doi.org/10.7557/3.5794>

APPENDIX F. PUBLICATIONS IN OTHER SCIENTIFIC JOURNALS 2022-2023

Only the name of the first author and the names of the Secretariat's staff and members of the NAMMCO's committees are provided. The name of authors directly affiliated to NAMMCO for the publication are indicated in bold.

Published or in Press:

Stepien, E.N. ... **Desportes, G.** ... 2023. Determination of growth, mass, and body mass index of harbour porpoises (*Phocoena phocoena*): Implications for conservational status assessment of populations. *Global Ecology and Conservation*, 4 e02384. <https://doi.org/10.1016/j.gecco.2023.e02384>.

Verborgh, P. and **Desportes, G.** in press. Long-finned pilot whale *Globicephala melas* (Trail 1809). Submitted to *Handbook of the Mammals of Europe*. Springer.

Walhberg, M. ... **Desportes, G.** ... 2023. Historical Perspectives – Purposeful porpoises training at Fjord&Bælt: the first 25 years. *Aquatic Mammals* 49(1): 104-116 + Supplemental material. <https://doi.org/10.1578/AM.49.1.2023.104>

APPENDIX G. BUDGETS AND ACCOUNTS 2022

Income	CL28 budget 2022	Accounts 2022
Contributions Faroes	616,010	616,010
Contributions Greenland	616,011	615,960
Contributions Iceland	1,232,021	1,232,021
Contributions Norway	2,467,427	2,467,427
Reimbursement NO		290,367
Income // Contributions	4,931,469	5,221,785
Expenditure		
Staff related costs	3,067,509	3,167,321
Internship	167,400	97,043
Staff travel and subsistence	350,000	167,695
Meetings	215,000	159,642
Office rent	292,000	298,895
Office supply	136,000	124,676
Communication and outreach	150,000	39,228
Accounts and auditing	210,000	180,765
Observation Scheme	431,000	-
Committee for Hunting Methods		197,485
Committee for Inspection and Observation	-	-
Working Group on BYCELS	-	-
Scientific Committee	324,000	133,921
Capacity building	20,000	-
Other expenses		70,641
NASS	150,000	
Project: MINTAG	150,000	200,000
Project: Food Conference		80,453
Earmarked funds (SCWG+CHM) - 45000 + 97020		
Total expenditure	5,697,909	4,917,765
OPERATING RESULT	-766,440	304,020
Financial revenue	5,000	7,648
Financial costs		-8,221
RESULT to/from Reserve	-761,440	303,448
Total Reserve	1,430,350	1,824,545
Transfer to/from general reserve	-761,440	303,448
New Total Reserve 31.12	668,910	2,127,993