

# Annex L

## Report of the Sub-Committee on *Implementation Simulation Trials*

**Participants:** Donovan and Wilberg (Convenors), Aguilar Arakaki, Allison, Baba, Baird, Bell, E., Bickham, Brandon, Brownell, Butterworth, Chauca Choi, S-G., Huánuco, Cipriano, Citta, de Moor, Double, Fortuna, Fyfe, Givens, Goetz, Hielscher, Houtman, Iida, Jaramillo Legorreta, Katara, Katsumata, Kee, K-L., Kelly, Kitakado, Lang, Leal, Lee, M-K., Lundquist, Matsuoka, Nelson, T., O'Loughlin, Øien, Palka, Pampoulie, Pastene, Porter, Punt, Reeves, S., Robbins, Salvador, Scheimreif, Schubert, Scordino, Sigurðsson, Solvang, Staniland, Suydam, Tamura, Tiedemann, Wade, Walløe, Weller, Witting, Yasokawa, Yoo, Yoshida, Zerbini.

### 1. INTRODUCTORY ITEMS

#### 1.1 Welcoming remarks

Donovan welcomed the participants to the meeting. He noted that the primary tasks were to: (1) undertake the *Implementation Review* for North Atlantic fin whales (of relevance to both AWMP and RMP); (2) ensure that the Committee is able to provide advice on ASW hunts to the Commission in 2024; and (3) consider the implications of the decision of the Commission to move to biennial meetings after 2024 for the work of this sub-committee.

#### 1.2 Election of Chair

Donovan was elected Chair and Wilberg as co-chair.

#### 1.3 Appointment of rapporteurs

Punt, Donovan, Allison and Wilberg acted as rapporteurs.

#### 1.4 Adoption of Agenda

The adopted Agenda is shown in Annex A.

#### 1.5 Documents available

The sub-committee considered primary papers SC/69A/IST/01 and SC/69A/IST/04 as well as past reports, previously published papers and any relevant papers in SDDNA and ASI.

### 2. GENERAL ASSESSMENT AND MODELLING ISSUES (IST)

The Chair noted that issues related to the 'Status of Stocks Initiative' are now dealt with under ASI (see Annex D) and issues related to  $r_{max}$  for small cetaceans are dealt with under HIM (see Annex J) and were also addressed at the pre-meeting on Hector's and Maui dolphin modelling (SC/69A/REP/04).

#### 2.1 Progress on previous recommendations

There are no outstanding recent recommendations to consider.

#### 2.2 Workplan

The sub-committee agreed to keep this item on the agenda in case the Committee assigns it tasks in the future.

### 3. IMPLEMENTATION REVIEW OF NORTH ATLANTIC FIN WHALES (AWMP AND RMP)

The primary objectives of both an AWMP and an RMP *Implementation Review* are to:

- (1) review any new information (including data relevant to stock structure, biological data, and abundance) to ascertain whether the present situation is as expected (i.e., within the parameter space tested during the development of a *Strike Limit Algorithm (SLA)*) or the previous RMP *Implementation* or *Implementation Review*) and to determine whether new simulation trials are required to ensure that the Commission's conservation objectives are met; and
- (2) review the information required for the *SLA* or *Catch Limit Algorithm*, i.e. catch data and, when available at the time of the Review, new abundance estimates (note that receiving new abundance estimates can also occur outside an *Implementation Review* at an Annual Meeting).

More information on RMP *Implementations* and *Implementation Reviews* can be found in IWC (2012) and for the AWMP in IWC (2019, pp.179-182).

This *Implementation Review* is relevant to West Greenland (AWMP) and Iceland (RMP). Initial discussions took place at the IST meeting in Copenhagen last year as reported in IWC (2023).

### 3.1 New information related to stock structure

At the last *Implementation Review*, eight stock structure hypotheses were considered (cf. IWC (2016), pp. 138ff). Their respective plausibility was mostly evaluated in light of non-genetic information, given the lack of genetic structure detected using the available mtDNA and microsatellite data (Pampoulie *et al.*, 2008). Three hypotheses (IV, VII, and VIII) were ranked 'low plausibility' (i.e. omitted from further consideration) because they were incompatible with tagging data.

This year, the sub-committee on SDDNA (Annex O) advised that there was no new information to either suggest new hypotheses and/or to delete any of the existing broad hypotheses. They established an intersessional correspondence group to develop a research plan to examine further the stock structure of fin whales (both with respect to additional samples, analytical techniques, and statistical analyses, including approaches developed for North Atlantic common minke whales) within the next few years. The sub-committee **welcomed** this information and noted that a thorough examination of stock structure should provide an important component of the next *Implementation Review*.

### 3.2 New information on abundance

Table 1

Estimates of abundance for North Atlantic fin minke whales endorsed by the Committee and deemed suitable at least for use in trial conditioning. Additional background and notes are provided in the full table available from the Secretariat.

Sub-area	Cat.	Date stamp	Estimate	CV	References
EG	1A	1988	5,269	0.221	Pike and Gunnlaugsson (2006); Buckland <i>et al.</i> (1992); Wade (2009)
EG	1A	1995	8,412	0.288	Pike and Gunnlaugsson (2006)
EG	1A	2001	11,706	0.194	Pike and Gunnlaugsson (2006)
EG	1A	2007	12,215	0.20	Pike <i>et al.</i> (2008)
EG	1A	2015	6,440	0.26	IWC (2019); Hansen <i>et al.</i> (2018)
EG	1A	2015	12779	0.21	Pike <i>et al.</i> (2019)
EI/F	1A	1988	5,261	0.277	Christensen <i>et al.</i> (1992), Øien (1990); Pike and Gunnlaugsson (2006); Wade (2009)
EI/F	1A	1995	6,647	0.288	Øien (2003); Pike and Gunnlaugsson (2006); Wade (2009)
EI/F	1A	2001	7,490	0.255	Pike and Gunnlaugsson (2006); Wade (2009)
EI/F	1A	2007	1,613	0.26	Pike <i>et al.</i> (2008); Gunnlaugsson <i>et al.</i> (2010)
EI/F	1A	2015	7357	0.53	Pike <i>et al.</i> (2019)
N	A	1995	3,964	0.21	Wade (2009)
N	A	1999	3,749	0.24	Wade (2009)
WG	1A	2005	9,800	0.62	IWC (2019); Hansen <i>et al.</i> (2018)
WG	1A	2007	15,957	0.72	IWC (2019); Hansen <i>et al.</i> (2018)
WG	1A	2015	2,215	0.41	IWC (2019); Hansen <i>et al.</i> (2018)
WI	1A	1988	4,243	0.229	Pike and Gunnlaugsson (2006); Buckland <i>et al.</i> (1992); Wade (2009)
WI	1A	1995	6,800	0.218	Pike and Gunnlaugsson (2006)
WI	1A	2001	6,565	0.194	Pike and Gunnlaugsson (2006)
WI	1A	2007	8,118	0.26	Pike <i>et al.</i> (2008)
WI	1A	2015	16862	0.22	Pike <i>et al.</i> (2019)
Sp	A	1989	17,355	0.266	IWC (1992); IWC (1993); Buckland <i>et al.</i> (1992)

The approved abundance estimates for North Atlantic fin whales are shown in Table 1. The sub-committee noted that a new survey is planned to take place in 2024 that will cover areas relevant to both the AWMP and RMP.

It was noted that under the IWC RMP, abundance estimates are required every 6 years. If one is not available, then the phase-out procedure defined would be applied<sup>1</sup>.

The new abundance estimate for West Greenland from the 2024 survey is expected to be available for approval in 2025. This is discussed further below.

### 3.3 Catch and removals data

The catch data since the last *Implementation Review* have been reported to the Secretariat and are summarised in Table 2.

<sup>1</sup> see <https://iwc.int/management-and-conservation/rmp>.

Table 2  
Summary of catch and reported bycatch information on North Atlantic fin whales since the last RMP *Implementation Review* (M=males, F=females, U=unknown).

Year	West Greenland									Iceland				Notes	
	Total	Landed			Lost	Total	Bycatch			Total	Landed				Lost
		M	F	U	U		M	F	U		M	F	U		
2014	12	6	5	-	1	-	-	-	-	137	81	53	3		
2015	12	2	8	0	2	0	-	-	-	155	87	67	1		
2016	9	4	4	0	1	1	1	-	-	-	-	-	-		
2017	17	2	5	9	1	0	-	-	-	-	-	-	-		
2018	7	3	3	0	1	0	-	-	-	146	67	79	-	Incl. 2 hybrid blue/fin	
2019	8	2	3	2	1	0	-	-	-	-	-	-	-		
2020	6	2	1	0	3	-	-	-	-	-	-	-	-		
2021	2	1	1	0	0	-	-	-	-	-	-	-	-		
2022	4	1	3	0	0	-	-	-	-	148	53	92	3		

### 3.4 Consideration of need for new simulation trials

*Attention: SC*

After reviewing the new information, the sub-committee agreed that there is no need for additional simulation trials and therefore **agreed** that the *Implementation Review* for North Atlantic fin whales was completed. The next *Implementation Review* will take advantage of the work of the group established under SDDNA to focus in particular on stock structure issues.

### 3.5 Modelling-related issues

*Attention: SC, Secretariat*

Although not necessary to complete the present *Implementation Review*, the sub-committee **reiterated** the need for some additional work related to the operating models/control program for North Atlantic fin whales:

- (1) incorporate the SLA into the control program to set the aboriginal catch in West Greenland;
- (2) revise the control program to be able to run using different compilers;
- (3) consider how stochastic mixing can be incorporated to mimic fluctuations in abundance in the West Greenland sub-area; and
- (4) replicate the most recent methods to run the trials.

The need for sufficient resources to provide computing support for IST work is discussed further under Item 6.

### 3.6 Conclusions and workplan

The sub-committee **agreed** that the *Implementation Review* for North Atlantic fin whales is complete. Matters related to the timing of the next *Implementation Review* and computing support are considered under Item 6.

## 4. PLAN FOR PROVISION OF AWS ADVICE TO THE COMMISSION IN 2024

The Commission will require advice on all ASW hunts in 2024. The Commission has agreed that if the scientific advice and the quota requests are unchanged, Schedule numbers will automatically be renewed for the next quota block.

The sub-committee examined its ability to provide advice on those hunts for which SLAs are used to provide advice i.e., all except the hunt of humpback whales by St Vincent and The Grenadines. It **agreed** that it is in a position to provide the advice required by the Commission in 2024 (see Table 3 below).

Questions related to the longer-term ability of IST to undertake timely *Implementation Reviews* will be considered under Item 6.4. There was considerable discussion of this issue last year prior to the Commission's decision to go to biennial SC meetings (IWC, 2023, Item 6.5).

### 4.1 Consideration of gray whale hunts in the light of new information on *inter alia* the 'UME'

#### 4.1.1 Background

The *Gray Whale SLA* and the Makah Management Plan were tested using operating models that were fitted to monitoring data and hypotheses related to future dynamics and data collection. The models developed and fitted during the Gray Whale Rangewide Review (IWC, 2015; IWC, 2016b; IWC, 2017b; IWC, 2018b; IWC, 2019b), formed the most

recent basis for evaluating the performances of the *Gray Whale SLA* and the Makah Management Plan in terms of their ability to achieve the Commission’s conservation and management objectives for aboriginal subsistence whaling. These operating models include multiple areas in the North Pacific along with several alternative stock structure hypotheses. Elevated strandings along the eastern North Pacific migration route (termed a UME, Unusual Mortality Event under US guidelines), and declines in abundance since the completion of the Rangewide Review in 2018 are indicative of a second mortality event starting in 2019 that appears to be coming to an end (see also SC/69A/IST01). Consideration is needed to evaluate whether, and if so, when, the set of scenarios used to evaluate the performances of the *Gray Whale SLA* and the Makah Management Plan need to be revised to take into account new information on the expected magnitude and frequency of such events.

#### 4.1.2 New information and testing space

Several groups within the Committee considered new biological information for the ENP gray whales. The ASW sub-committee discussed the UME and its potential causes (see Annex E) and the major reduction in the size of this population from 2015-16. The SDDNA Working Group discussed new information (Bierlich *et al.* submitted; SC69a/FI05) related to differences in morphometrics and length-at-age growth curves between ENP (Eastern North Pacific) and PCFG (Pacific Coast Feeding Group) whales (see Annex O). While SDDNA encouraged further work that might inform whether whales with small body sizes are more likely to recruit into the PCFG rather than making the longer migration to the northern feeding grounds (NFG), it made no suggestions for changes to the present stock structure hypotheses for North Pacific gray whales. The ASI working group (Annex D) reviewed and recommended that the 2022 estimate of abundance for the ENP gray whales and the revised time-series of estimates of abundance for 1998-2020 for the PCFG be adopted. This sub-committee noted that new abundance estimates are expected for at least 2022-2023 for ENP and 2021 and 2022 for PCFG. It is hoped that abundance estimates can also be provided for 2023-2024 for the ENP and 2023 for the PCFG.

To provide some insight into the implications of the UME and recent abundance estimates, SC/69A/IST01 developed new operating models for the eastern North Pacific gray whales that include a mortality event during 2019-2022 (continuing into 2023) for the Northern Feeding Group (NFG) and new abundance data (formally adopted by the ASI sub-committee at this meeting as noted above, including for the PCFG). Trials were conducted for stock structure hypotheses 4a/3a, 4b/3b, 4c/3c, 4e/3e, 7a/5a, and 6b, with sensitivity explored to changes to assumptions related to the frequency of episodic events, and allowance for an additional mortality event for the PCFG. These operating models were used to conduct projections under the *Gray Whale SLA* and the Makah Management Plan that use these new scenarios related to possible future mortality events.

#### 4.1.3 Conclusions, recommendations and workplan

The new information on abundance and stock structure does not suggest that the trials developed for the eastern North Pacific gray whales are outside of the tested space in these aspects. However, the recent UME for the ENP is outside the tested space in terms of size and duration compared to the UMEs incorporated into the scenarios related to episodic events examined during the Gray Whale Rangewide Review and previous *Implementation Reviews*. The scenarios examined in SC/69A/IST/01, whilst not the full set of trials examined during the last *Implementation Review*, captured more frequent, longer and more severe episodic events. The set of projections reported in SC/69A/IST/01 suggests that the performances of the *Gray Whale SLA* and the Makah Management Plan are robust to a broader set of scenarios related to episodic events than that considered during the evaluation of the Makah Management Plan.

Attention: SC, ASW

After considerable discussion as to the timing of the next *Implementation Review* for Eastern North Pacific gray whales, including whether a special *Implementation Review* was warranted (see IWC, 2019, for the AWS definitions and guidelines related to special *Implementation Reviews*). The sub-committee **recommends** that:

- (1) intersessional work under an intersessional steering group (Donovan, Double, Lang, Punt, Scordino, Staniland, Weller) is undertaken to extend the approach used in SC/69A/IST/01 to further investigate robustness to allow conclusions to be reached in 2024 with respect to ‘episodic events’ and the provision of Committee management advice;
- (2) every effort is made to provide new abundance estimates for the ENP and PCFG for review by the Committee in 2024;
- (3) although planning will begin immediately, the most effective time to hold the next *Implementation Review* is in 2026 when *inter alia* two more abundance estimates will be available – plans for that *Implementation Review* including budget requirements should be finalised at the 2024 Scientific Committee meeting; and
- (4) the USA should continue the annual gray whale counts and produce abundance estimates for review by the Committee as promptly as possible.

## 4.2 Other hunts

The sub-committee examined its ability to provide advice on those hunts for which SLAs are used to provide advice i.e., all except the hunt of humpback whales by St Vincent and The Grenadines. It **agreed** that it will be in a position to provide the advice required by the Commission in 2024 (see Table 3).

The sub-committee was informed that an aerial survey will take place in West Greenland in the summer of 2024 with the expectation that an abundance estimate will be ready for submission to the Committee in 2025. The implications of this in the context of Biennial Meetings is discussed further under Item 6.

## 5. PROGRESS ON PREVIOUS RECOMMENDATIONS

The sub-committee reviewed the recommendations within the IWC database and provided advice to the Secretariat on outcomes and closure.

## 6. BIENNIAL/LONG-TERM WORKPLAN

### 6.1 Implications of biennial meetings

The Aboriginal Whaling Scheme (IWC, 2019 – developed by the Committee and endorsed by the Commission), the Scientific Committee Handbook (by SC Chair, 2018); and the Commission's Rules of Procedure and the Schedule to the International Convention for the Regulation of Whaling impose requirements on:

- (1) ASW governments and thus hunter organisations seeking aboriginal subsistence whaling (ASW) quotas; and
- (2) how and when the Scientific Committee provides advice on ASW catch limits.

These requirements were developed when Committee meetings were held annually. Last year, the Committee informed the Commission of the potential problems a move to biennial meetings could cause in the light of the provision of timely advice (IWC, 2023).

At IWC68 in October 2022, the Commission agreed that Committee meetings would occur in 2023, 2024, and biennially thereafter. In light of this change, the Commission directed the Committee to prioritize topics related to ASW such that the Committee can provide advice in years when strike limits are reviewed. The sub-committee spent considerable time discussing the implications of the Commission's decision for its work.

Some of the key factors related to the provision of advice by the Committee are discussed below and ideas for resolving these are presented in the concluding sections.

#### *Abundance estimates are required at least every 10 years*

A successful abundance survey is not considered to have 'occurred' until the resulting abundance estimate is agreed (i.e., endorsed) by the Committee via ASI. Upon endorsement, the 10-year time window is deemed to have begun in the year in which the survey was conducted. The AWS includes a 'grace period' provision that was intended to allow for factors related to e.g., field conditions, *not* the timing of Committee meetings (which were annual when the AWS was written). An example is that an abundance estimate for several West Greenland stocks will be ready for Committee approval in 2025 (the survey is in 2024) – without a mechanism to obtain that endorsement, those hunts will formally be invoking the 'grace period' implying a technical violation that was beyond the control of the ASW country.

#### *Implementation Reviews (IRs) are required 'normally' every 5 to 6 years.*

It is important to note that IRs do not (and normally will not) need to coincide with catch-limit renewal years. The AWS also allows for *Special Implementation Reviews* under exceptional circumstances, i.e., 'if information be presented to suggest that there is a possibility that the Commission's conservation objectives may not be met' (IWC, 2019, p. 181).

For practical reasons, the Committee tries to work on only one IR at a time - each IR normally requires one or two Committee meetings (usually with intersessional workshops) to complete although complex IRs (e.g., if new stock structure hypotheses need to be developed and trials run) may take much longer (e.g., three Committee meetings and two workshops). This has proved to be successful and represented a reasonable timeframe within the annual Committee meeting schedule. The schedule for IRs by IST (established before biennial meetings) is given in table 10 of SCRep2022 and potential effects of biennial meetings (without intersessional workshops), as discussed by the Committee last year (IWC, 2023, Item 6.6), could substantially lengthen the time required to conduct IRs. If a *Special Implementation Review* is deemed necessary, this will clearly interfere with the timing of other IRs.

#### *What comprises a full Committee meeting/provision of advice?*

The formal provision of advice to the Commission must come from the Scientific Committee (even though the work to develop that advice comes through one or more sub-committees). If the Committee only meets biennially then this could potentially preclude the important timely provision of advice (e.g., the provision of a needed abundance estimate, such as for the West Greenland example above) or endorsement of advice through an *Implementation Review*.

Table 3

Summary of availability of information to provide advice to the Commission in 2024 and beyond showing potential timings of *Implementation Reviews* under different resource scenarios and assumptions about the time required (see text). Note: that the years in columns 3 and 4 represent the earliest time that an IR would begin; and results of IRs would be endorsed by the full Committee only during even years once the Committee moves to biennial meetings.

Species/stock	Implementation (and subsequent IRs) completed	Next planned IR (w/4 meetings per biennium <sup>1</sup> ).	Next planned IR w/ only biennial SC (1 meeting per biennium <sup>2</sup> )	Year of last approved abundance estimate	Removals data up to date
WG humpback whales (AWMP)	2014	2024 (+10)	2024 (+10)	2015	Yes
Eastern North Pacific gray whales (AWMP)	2004 (2010, 2013, 2020)	Plan 2024, start 2025, complete ~2026 (+6)	Plan 2024, start 2026, complete ~2028 (+8)	2022	Yes
BCB bowhead whales (AWMP)	2000 (2007, 2012, 2018)	2026 (+8)	2028 (+10)	2019	Yes
West Greenland bowhead whales (AWMP)	2015 (2022)	2027 (+5)	2030 (+8)	2022	Yes
Common minke whales off Greenland (AWMP)	2019, 2022	2028 (+6)	2032 (+10)	2015 (subareas CG and WG)	Yes
North Atlantic common minke whales (RMP)	1993 (2003, 2008, 2017, 2022)	2028 (+6)	2034 (+12)	subareas E+CM for period 2014-2019; subarea ES 2019	Yes
North Atlantic fin whales (AWMP, RMP)	2009 (2016, 2023)	2029 (+6)	2036 (+13)	2015 (subareas EG, EI/F, N, WG, WI)	Yes

<sup>1</sup>Four meetings per biennium = one year with one in-person SC meeting and one in-person intersessional meeting and a second year with two in-person intersessional meetings (this is the current situation for IST that allows the completion of ~one IR per year). Numbers in parentheses in each cell represent how many years since the last IR. <sup>2</sup>This column reflects only one in-person meeting (i.e., one in-person SC meeting) during the biennium and no intersessional meetings.

### The situation post-2024

Timely and reliable advice to the Commission on ASW hunts involves two main components: (1) regular *Implementation Reviews* (normally every 5-6 years); and (2) agreed abundance estimates every 10 years.

*Around one Implementation Review* has been conducted per year (often needing an intersessional workshop). If the average effort needed per IR remains the same, but intersessional meetings cease and Committee meetings are biennial, IRs will be completed with 12- and 14-year intervals (or longer), rather than the 5–6-year interval currently expected. In fact, the amount of work/time required per IR can vary significantly depending on the nature of new information and the need or otherwise for additional analyses, revisions to operating models, or new simulation trials. This cannot always be predicted in advance.

The sub-committee **stresses** that to maintain the regular schedule of IRs (in the context of biennial meetings, consideration might be given to modifying the AWS text to ‘normally 6-8 years’), provision must be made to allow for intersessional workshops (that may require experts from SDDN and ASI as well as IST), especially to cope with situations (hopefully rare) where new simulation trials are likely to be required. This has resource implications (finance and personnel) that the Commission must face if it intends to fulfil its expressed commitment to support fully the provision of Committee advice for the management of aboriginal subsistence whaling. Table 3 provides a summary of availability of information to provide advice to the Commission in 2024 and beyond showing potential timings of *Implementation Reviews* under different resource scenarios and assumptions about the time required.

#### Attention: SC, Commission

*Whilst the Committee must of course, fully justify requests for intersessional workshops related to IRs and the provision of ASW advice, the sub-committee recommends that Commission should develop an approach that under a biennial regime, ensures the necessary ASW work can be funded in a prompt manner if the situation arises. One approach that should be considered is to make potentially available a ‘ring-fenced’ amount of money within the Committee budget (c.f. the ‘AWMP Developers’ Fund’ that was created and approved by the Commission during SLA development) that was available for use when needed under agreed circumstances. An intersessional system to allow that money to be accessed (e.g., establishing a Steering Group) would need to be developed.*

The Committee has frequently pointed out to the Commission the difficulties it faces with the lack of alignment between the approval of the budget by the Commission (usually in the northern Autumn), the Commission’s financial year (starting 1 January) and the timing of the Committee meetings (usually in northern Spring). This means that in the worst scenario, the Committee must squeeze any work that it funds into the short period between 1 January and say, 20 April.

This could exacerbate even more the problems of maintaining the proper schedule of IRs. An approach such as that outlined above would address this problem.

Depending on ASW timing requirements and Committee biennial meetings, consideration should also be given to a mechanism for exceptional Committee consideration and approval of intersessional work (related to both IRs and necessary supporting science as provided by SDDNA and ASI/ASG) in years when the Committee does not meet – for example by ‘electronic post’ as was in effect for the recent virtual meetings and most recent Committee report where the IST sections were the result of a separate in-person meeting following the virtual meeting and agreement was reached by the Heads of Delegation via an electronic procedure.

*Attention: SC, Commission, Secretariat*

*In conclusion, the sub-committee **highlights its concerns** over the move to biennial meetings and the inability of the Committee (via its sub-groups) to provide thorough and timely advice on ASW hunts under this new regime unless an effective, and, where necessary, flexible, mechanism is developed. It notes that this issue is also of relevance to other aspects of the Committee’s work.*

*The sub-committee **recommends** that the Committee develops a mechanism to work intersessionally with inter alia the Secretariat, the Commission’s F&A and ASW governments to develop a fair and effective mechanism to address these issues at the Commission’s 2024 meeting.*

### Computing workplan

The sub-committee is heavily dependent on computing support to carry out its work. It thanked Katara for providing an overview of her tasks in the coming year, many of which are essential to the work of IST. It thanked Katara for her work this year but recognises that further considerable work is required for an effective handover from Allison who has now retired but is generously helping free of charge. Such a handover can only be achieved in a reasonable timeframe with additional support.

*Attention: SC*

*The sub-committee **notes** that the overall question of computing support for the Scientific Committee will be discussed in plenary. The sub-committee **recommends** that a full discussion, including priorities, resources and timeframe takes place and a formal plan is developed as soon as possible and certainly for the 2024 meeting. The sub-committee recommends that a full discussion, including priorities, resources and timeframe takes place and a formal plan is developed as soon as possible and certainly for the 2024 meeting. It **suggests** to the Committee that an intersessional advisory group is established to liaise with the Lead for Modelling and Statistics in order to prioritise the tasks requested by the Committee and to be available to assist Katara if she requests it.*

## 7. INFORMAL ADVICE ON ADDITIONAL METHODS FOR PROVIDING ADVICE TO THE COMMISSION IN LIGHT OF SC/69A/O/05, THE SC COMMUNICATIONS INITIATIVE

The sub-committee briefly discussed this issue at the end of the meeting and agreed that options including providing a fact ‘sheet’ on the process it uses to develop aboriginal subsistence whaling advice with appropriate visual materials, perhaps including flow charts would be one possibility.

## 8. ADOPTION OF REPORT

The report was adopted at 14:48hrs on 2 May 2023.

The sub-committee held a moment’s silence to remember Gísli Víkingsson who died on 18 July 2022. Gísli, from Iceland, was a long-term contributor to the work of this sub-committee and its predecessors (RMP and AWMP) and attended the last IST workshop in Copenhagen last year. In addition to his great biological knowledge, he was invariably kind and helpful to all members of the group, had an excellent sense of humour and was a wonderful piano player.

Donovan thanked the sub-committee for its constructive discussions and the rapporteurs for their hard work. They in turn thanked him for his usual efficient chairing.

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## Appendix 1

### AGENDA

1. Introductory items
  - 1.1 Welcoming remarks
  - 1.2 Election of Chair
  - 1.3 Appointment of Rapporteurs
  - 1.4 Adoption of agenda
  - 1.5 Documents available
2. General assessment and modelling issues
  - 2.1 Progress on previous recommendations
  - 2.2 Workplan
3. *Implementation Review* of North Atlantic fin whales
  - 3.1 New information related to stock structure
  - 3.2 New information on abundance
  - 3.3 Catch and removals data
  - 3.4 Consideration of need for new simulation trials
  - 3.5 Modelling-related issues
  - 3.6 Conclusions and workplan
4. Plan for provision of AWS advice to the Commission in 2024
  - 4.1 Consideration of gray whale hunts in the light of new information on *inter alia* the UME
  - 4.2 Other hunts
  - 4.3 Workplan to provide advice in 2024
5. On previous recommendations
6. Biennial/long-term workplan
7. Informal advice on additional methods for providing advice to the Commission in light of SC/69A/O/05
8. Adoption of Report