

# SC/67B/SCP02 Rev1

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## Scientific Committee Handbook - Working methods of the IWCs Scientific Committee

SC Chair, Vice Chair and Convenors



INTERNATIONAL  
WHALING COMMISSION

# Scientific Committee Handbook

## Working methods of the IWC's Scientific Committee

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### 1. INTRODUCTION

#### *1.1 The Scientific Committee Handbook*

The Scientific Committee Handbook (SC HB) is a guide to the Scientific Committee's working methods. These working methods have been developed and agreed by the Committee, and endorsed by the Commission since the first Scientific Committee meeting in 1950. The basis for this Handbook was prepared by Greg Donovan (IWC Head of Science) and Phil Hammond (former Scientific Committee chair). The more formal rules are incorporated into the Commission's Rules of Procedure. The Handbook is intended as an online easy source of information on the Scientific Committee working methods and activities. It contains all cross-references to the IWC Rules of Procedures and Financial Regulations and to any other decision of the Commission relevant for the Committee. This guide is complemented by the 'Annex 1': a consolidated compilation of full documents on the Scientific Committee rules, working methods, guidelines and protocols' as agreed by the Committee and endorsed by the Commission (see section 11). The SC HB also links the relevant sections to a number of IWC webpages and portals (section 10).

The SC HB and its 'Annex 1' represent the Committee's method of working. They are periodically updated to ensure that (a) they represent the Committee's most efficient working methods (this is a standing agenda item at the Committee's annual meetings) and (b) incorporate all instructions received from the Commission (e.g. via Resolutions or reports). All updates are discussed and agreed by the Committee in Plenary. Any proposed changes to these working methods is subject to discussion by the full Committee and approval by the Commission.

This Handbook is updated annually after the Scientific Committee report is approved and any proposed amendments to it or to the formal Rules of Procedure are submitted to the Commission for its consideration at each biennial meeting.

#### *1.2. The Scientific Committee*

The Scientific Committee was established by the Commission in 1950. This in part is a reflection of Article IV of the Convention that refers to scientific research and the publication of results, statistics and reports and in part a reflection of Article V.2 of the [Convention](#) that states that *inter alia* Schedule amendments '...shall be based on scientific findings....'. It has met [each year](https://iwc.int/historical)[LINK TO WEB PAGE: <https://iwc.int/historical>] since then.

The Scientific Committee was established in accordance with the Commission's Rule of Procedure M.1 and its general terms of reference are given in Rule M.4 and in the preambular section Rules of Procedure of the Scientific Committee, available [here \(Section 11: Chapter 1\)](#).

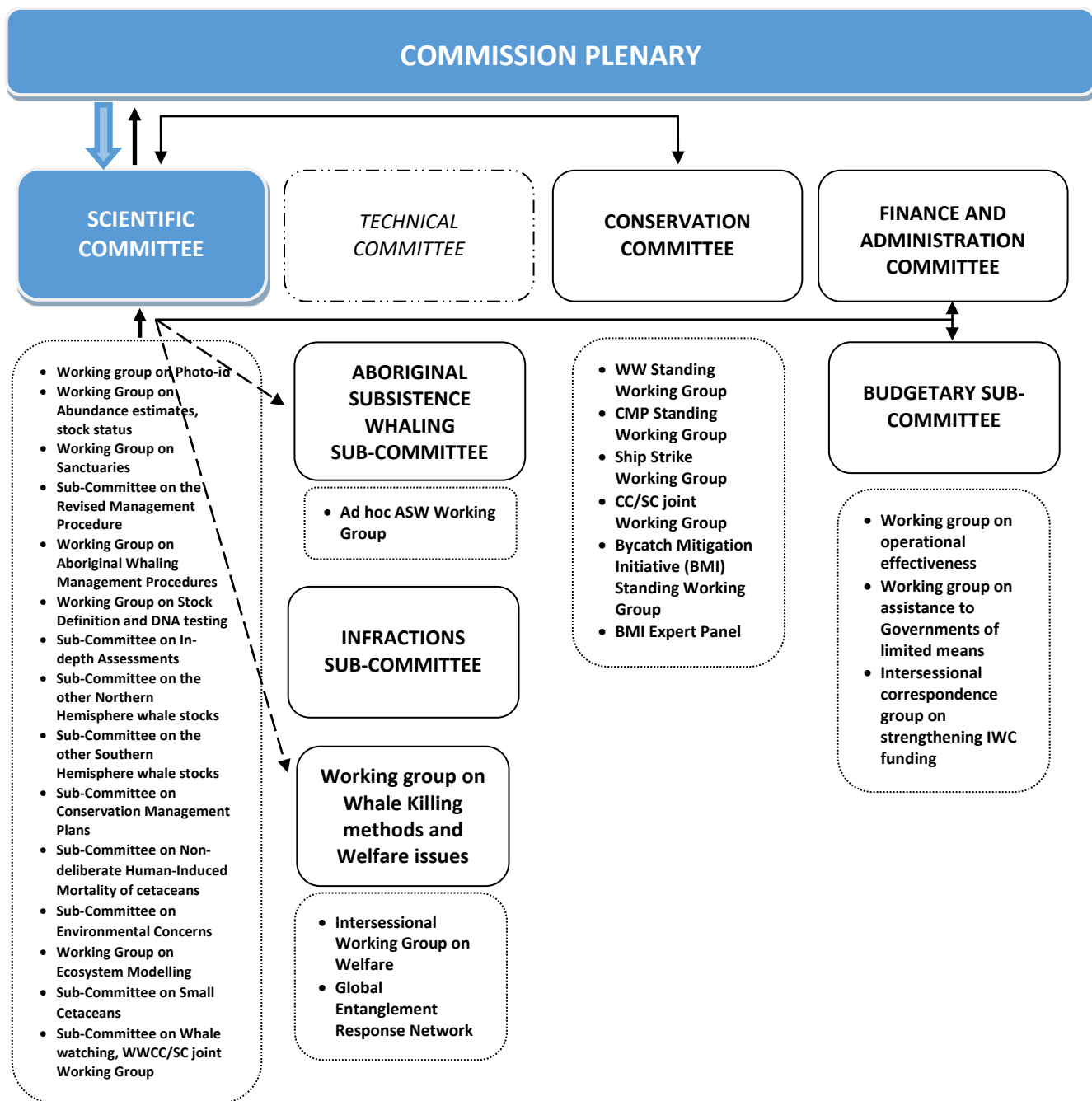
The Scientific Committee covers a wide range of scientific subjects with respect to the conservation and management of cetaceans (see section 9). These are covered in its broad Agenda over each biennium. Its agenda is based upon the draft agenda submitted by the Committee to the Commission for comment and approval and any general or precise instructions given by the Commission at its biennial meetings.

The Rules of Procedure (RoP) of the Scientific Committee are decided by the Commission and published biennially in the Report of the Commission Meeting as well as being available [here \(Section 11: Chapter 1\)](#).

This document has been developed to provide a relatively simple explanation of the work of the Scientific Committee and its procedures and to be of value for scientists and non-scientists alike. It is intended to be a living document, regularly updated and incorporated into the IWC website. A pdf version of this document may be found [here\[LINK TO THE PDF VERSION OF THE SC HANDBOOK AND ALL APPENDIXES\]](#).

## 2. PLACE IN THE COMMISSION SYSTEM

The Scientific Committee is one of four Committees established by the Commission, the others being the Finance and Administration Committee, the Technical Committee and the Conservation Committee (see Fig. 1).



**Fig. 1.** Schematic summary of IWC structure showing **information/reporting flow from the Scientific Committee**. The Technical Committee has not met in recent years. Note that the Commission instructs the Scientific Committee and agrees its workplan.

Formally, the Scientific Committee reports directly to the Commission (which considers the Scientific Committee's reports under appropriate items in its Plenary agenda) but in practice, some relevant sections of its reports are first reported to other bodies of the Commission, depending on their Agendas (see Table 1). (read more...[DROP DOWN BOX])

The Technical Committee has not met for several years but when it did meet the Scientific Committee used to provide advice on *inter alia* commercial whaling catch limits. The broad Scientific Committee agenda is determined by the Commission. Other Commission bodies can request the advice of the Scientific Committee via the Commission. Occasionally, individual Commissioners ask the Scientific Committee for advice and this is dealt with if time permits.

**Table 1:** Recent examples of the Scientific Committee first reporting to other bodies of the Commission

Commission body	Scientific Committee items
Aboriginal subsistence whaling sub-committee and Working Group on ASW	Aboriginal subsistence whaling management procedure (AWMP), advice on aboriginal subsistence whaling catch limits
Conservation Committee	Ship strikes, Whale watching, Conservation Management Plans, Small Cetaceans, Sanctuaries, Entanglements, Bycatch
Working Group on Whale Killing Methods and Welfare Issues	Strandings, Entanglements
Finance and Administration Committee	Rules of Procedure changes
Budgetary sub-committee	Research fund proposals

### 3. MEMBERSHIP AND OFFICERS

#### 3.1 Membership (SC RoP A.1-7, C.5; Financial Regulations C.1)

The membership of the Scientific Committee comprises the following:

1. **National Delegates;** (read more...)[DROP DOWN BOX]

National delegations are made up of scientists (SC RoP A.1) nominated by the Commissioner of each Contracting Government; there is no limit to the size of any delegation. Each country represented on the Scientific Committee nominates a Head of Delegation who has one vote, should voting be required. However, the Scientific Committee has chosen to work on a consensus basis to 'decide' scientific matters (see section 5) and voting is typically not used apart from occasionally with respect to choosing a Chair and/or Vice-Chair (SC RoP C.5; see also section 3.2).

Under certain circumstances, an expert may be allocated national delegate status by a Contracting Government through an alternative path (see Financial Regulations C.1 on '*Voluntary Assistance Fund to facilitate Governments in Capacity to Pay Groups 1 and 2 that are not EU Member States or members of the Organisation for Economic Cooperation and Development to participate fully in the work of the Commission*').

2. **Invited Participants (IPs);** (read more...)[DROP DOWN BOX]

Invited participants are non-voting members of the Scientific Committee. Although treated as one category, IPs fall into two broad categories:

1. those scientists and experts that are identified by the Convenors (see section 4.1.1) as providing necessary expertise to allow them to successfully complete the work of their group and for which funding will be provided by the IWC *if available*; and
2. those scientists or other experts who have requested to participate in meetings of the Scientific Committee and admitted by the Chair of the Scientific Committee in consultation with the relevant Convenors. These IPs will be expected to show how they will contribute to the Committee's work and will commit to attend using their own funding.

The timetable and process for Invited Participants is summarised below (SC RoP A.6):

At least 4 months prior to a meeting	Convenors suggest IPs based on draft agenda/workplan. Other scientists and experts may request to attend explaining their potential contribution to priority items.
3.5 months prior to a meeting	Chair in consultation with Convenors and Secretariat develop list of IPs and invitation letters sent stating that funding <i>may</i> be available. If prospective IPs cannot obtain their own funding, the Secretariat will prepare a costed list within two weeks. Governments are forwarded this list to ascertain whether they can offer funding for some of the listed scientists.
3 months prior to a meeting	Secretariat supply Chair with consolidated list of potential IPs and costs, for decisions on funding based on priorities and consultations with Convenors and Secretariat.
2 months prior to a meeting	IPs informed of outcome of funding requests. See Section 11: Chapter 8 for full details.

See Chapter 8.1 of Annex 1 for more details.

Although IPs can participate fully in the Committee's scientific work, they are expected to use discretion with respect to recommendations pertaining to the Scientific Committee's procedures and policies, including catch limits and management advice. IPs are also expected to use their discretion as regards their involvement in the formulation of potentially controversial material. The Chair, in Plenary sessions, or Sub-groups chairs, during their sessions, may identify such topics and may rule IPs out of order at his/her discretion (SC RoP A.5.g).

### 3. **Observers from accredited Inter-Governmental Organisations and Non-Governmental Organisations.** (read more...)[DROP DOWN BOX]

The Scientific Committee has a history of co-operation with many relevant IGOs and regional agreements (including FAO, UNEP, ASCOBANS, ACCOBAMS, NAMMCO, CCAMLR, etc.). Those observers are subject to confirmation by the Chair of the Scientific Committee and may attend as non-voting members. IUCN (which has both governmental and non-governmental members) is accorded the same rights.

As is the case for the IPs, although Observers can participate fully in the Committee's scientific work, they are expected to use discretion with respect to recommendations pertaining to the Scientific Committee's procedures and policies. They are also subject to the same rules of debate, as specified above (bullet point 2).

In addition, Scientific Committee meetings can be attended by **scientific representatives of non-member governments, observers from non-governmental organisations** (whose CVs show that they have sufficient scientific background to understand the technical discussions) and **local/independent scientists**, at the discretion of the Chair of the Scientific Committee (in consultation with the Chair and Vice-Chair of the Commission if the Chair believes attendance is inappropriate).

With respect to recommendations pertaining to the Committee's procedures and policies, all observers are also expected to use discretion and leave those decisions to the 'voting' members of the Committee.

#### **3.2 Officers (RoP I, M.9 and SC RoP C)**

The formal officers of the Scientific Committee are the **Chair** and the **Vice-Chair**; they are assisted by the IWC Secretariat's **Head of Science**. At present, the Chair and Vice-Chair are elected by the Heads of Delegation, normally every three years; unless there are special circumstances, the Vice-Chair succeeds the Chair automatically. Although voting can occur to allow the election of these officers, the preferred approach is to reach consensus.

The role of the Chair and Vice-Chair is to facilitate the work of the Scientific Committee in providing the best scientific advice to the Commission. As is the case for the Chair of the Commission, the Scientific Committee Chair's role is '*to serve the Commission, and as such, shall serve in an individual capacity and not represent the views of their Contracting Government, when acting as Chair*' (Commission Rule F.1). To accentuate this, when presenting the results of the Scientific Committee's work at the Commission meeting, the Chair of the Scientific Committee usually sits with the Secretariat's Head of Science and they work together to deliver the report and answer questions.

The IWC Secretariat's Head of Science (HoS) is the liaison officer dedicated to support the Scientific Committee activities. The HoS also oversees the production of all IWC scientific meeting reports and publications (see sections 5.2-5.4).

Read all details on the role of these officers [here](#)[DROP DOWN BOX].

The primary tasks of the Chair of the Scientific Committee (usually carried out in consultation with the Vice-Chair and the Head of Science) are:

1. Annual Meeting related activities:
  - a. to develop the draft agenda for the annual Scientific Committee meeting and circulate it 60 days in advance;
  - b. to integrate any comments received on the draft agenda and circulate a revised draft agenda 21 days in advance of the Annual Meeting for discussion and adoption at the opening plenary;
  - c. to develop a timetable and *modus operandi* for discussion and adoption at the opening plenary (see below);
  - d. to appoint Convenors for sub-committees, standing working groups, etc. (see below);
  - e. to approve invited participants, observers and local scientists (see section 4.1.1);
  - f. to Chair Annual Meetings (Plenary sessions, including Special Permits);
  - g. to organise and chair Convenors' meetings, including the post-meeting Convenors' meeting;
  - h. to finalise the biennial budget and workplan of the Committee (last days of Plenary);
  - i. to assist the Head of Science in finalising the Scientific Committee report.
2. Other intersessional work:
  - a. to determine the participation of the expert group to review special permits and chair their meeting (see below);
  - b. to chair the following groups:
    - i. Standing Steering Group on Special Permits (this is a shared responsibility with Vice-Chair and HoS);
  - c. to participate in the following groups as an *ex officio* member:
    - i. Data Availability Group;
    - ii. Strandings Initiative Steering Group;
    - iii. IWC-SORP Standing Steering Committee;
    - iv. Commission Standing Working Group on Special Permit Programmes (Resolution 2016-2);
    - v. Conservation Committee Standing Working Group on the Bycatch Mitigation Initiative;
    - vi. Conservation Committee Standing Working Group on Conservation Management Plans;
    - vii. Conservation Committee Whale Watching Working Group on Whale watching;
    - viii. Joint CC/SC Working Group;
    - ix. Review Group of the Voluntary Research Fund for Small Cetaceans;
    - x. Steering Group for the Voluntary Conservation Fund.
  - d. to oversee the intersessional progress of the Scientific Committee on identified tasks (see 4.3);
  - e. to liaise with the Secretariat on the relevant work of all other bodies of the Commission (i.e. ASW, F&A, BS, CC);
  - f. to participate in Bureau meetings upon request;
  - g. to present the work of the Scientific Committee to the Commission (biennially):
    - i. prepare and present the 2-year summary of main recommendations and the biennial workplan of the Scientific Committee in conjunction with the Vice-Chair and Head of Science;

The Vice-Chair acts as Chair in his/her absence or if there is a conflict of interest. On those occasions, he/she exercises the powers and duties prescribed for the Chair. The primary tasks of the Vice-Chair of the Scientific Committee (usually carried out in consultation with the Chair and the Head of Science) are:

1. support to the Chair on Annual Meeting-related activities and intersessional activities;
2. to prepare the biennial budget of the Committee (for its approval in Plenary);
3. to chair the Data Availability Group;
4. to co-chair the Special Permits sessions;
5. to co-chair the Standing Steering Group on Special Permits (this is a shared responsibility with Vice-Chair and HoS);
6. to participate in the following groups as an *ex officio* member:
  - i. Strandings Initiative Steering Group;
  - ii. IWC-SORP Standing Steering Committee;
  - iii. Conservation Committee Standing Working Group on the Bycatch Mitigation Initiative;
  - iv. Conservation Committee Standing Working Group on Conservation Management Plans;
  - v. Conservation Committee Whale Watching Working Group on Whale watching;
  - vi. Joint CC/SC Working Group;

- vii. Review Group of the Voluntary Research Fund for Small Cetaceans;
- viii. Steering Group for the Voluntary Conservation Fund.

The IWC Secretariat's Head of Science (HoS) is the liaison officer with the Scientific Committee. The primary tasks of the HoS (usually carried out in consultation with the Chair and the Vice-Chair) are:

1. support to the Chair on Annual Meeting-related activities and intersessional activities;
2. to coordinate (including acting as Plenary rapporteur) all IWC scientific meeting reports and publications, with the assistance of other Secretariat staff;
3. to represent the Committee at scientific meetings of other IGOs when designated;
4. to co-chair the Standing Steering Group on Special Permits (this is a shared responsibility with Chair and Vice-Chair);
5. to participate in the following intersessional groups as an *ex officio* member:
  - i. Data Availability Group;
  - ii. Aboriginal Subsistence Whaling Working Group of the Commission;
  - iii. Strandings Initiative Steering Group;
  - iv. IWC-SORP Standing Steering Committee;
  - v. Conservation Committee Standing Working Group on the Bycatch Mitigation Initiative;
  - vi. Conservation Committee Standing Working Group on Conservation Management Plans;
  - vii. Conservation Committee Whale Watching Working Group on Whale watching;
  - viii. Joint CC/SC Working Group;
  - ix. Review Group of the Voluntary Research Fund for Small Cetaceans;
  - x. Steering Group for the Voluntary Conservation Fund;
  - xi. Other groups that the Scientific Committee or Commission may deem necessary.

The Committee is represented at the Aboriginal Subsistence Whaling Working Group of the Commission by two members selected by the Chair of the Scientific Committee. The current members in this role are Prof. Lars Walløe and Dr. Alex Zerbini.

A list of Chairs since the inception of the Committee is given in Table 2. [DROP DOWN BOX]

Chair	Country	SC meetings chaired
N.A. MACKINTOSH	UK	1950-63
J.T. RUUD	Norway	1964
D.G. CHAPMAN	USA	1965-74
K.R. ALLEN	Australia	1975-79
J.L. BANNISTER	Australia	1980-82
M.F. TILLMAN	USA	1983-85
G.P. KIRKWOOD	Australia	1986-88
R.L. BROWNELL JR	USA	1989-91
P.S. HAMMOND	UK	1992-93
S.B. REILLY	USA	1994-96
J.L. BANNISTER	Australia	1997-99
J.E. ZEH	USA	2000-02
D.P. DEMASTER	USA	2003-05
A. BJØRGE	Norway	2006-09
D. PALKA	USA	2010-12
T. KITAKADO	Japan	2013-15
C.M. FORTUNA	Italy	2015-18
		2018-

### 3.3 Conflict of interest

The Committee is mindful of the need to avoid potential or perceived situations of 'conflict of interest', especially regarding chairing duties or membership in evaluation groups (e.g. IWC-SORP and SMRF funding, chairing Special Permits or AWMP/IR discussions, etc.). Committee's members are encouraged to self-report any such situation that may concern them. Given their role, the Chair, Vice-Chair and Head of Science are often

asked to take over additional duties when an unavoidable situation of 'conflict of interest' becomes apparent. In situations where they have themselves a conflict of interest, an *ad hoc* Chair may be appointed by consensus.

#### 4. STRUCTURE AND MEETINGS (RoP M.4b, SC RoP C1-5, D1-3)

The primary meeting of the Scientific Committee is the **Annual Meeting** (in recent years usually been held for two weeks between mid-May and mid-June). In 2012, the Commission agreed to move to biennial meetings (usually at the beginning of October). The Scientific Committee continues to meet annually (about 100 days before the Commission in years when it meets). At the request of the Commission the Scientific Committee may hold full intersessional meetings on particular issues, but these are rare. The Scientific Committee may hold **Intersessional Workshops** that do not comprise the full Scientific Committee and the results are reported to the Scientific Committee at annual meetings; these workshops may either be on a specific one-off topic (e.g. climate change and cetaceans) or may be to make progress with ongoing work of the Committee (e.g. with respect to in-depth assessments, *Implementations and Implementation Reviews* of the Revised Management Procedure or Aboriginal Subsistence Whaling Management Procedure).

##### 4.1 The plenary and sub-groups

The authoritative body is the full Scientific Committee. Its broad agenda is set in response to the needs of the Commission and approved by the Commission biennially. The Scientific Committee's Rules of Procedure outline in the Terms of Reference, the primary topics of interest and their origin in either the Convention, Schedule, Commission Resolution or Commission decision. A more detailed two-year workplan and budget (highlighting priority topics and activities) is agreed each year the Commission meets and presented to the Commission for approval/modification. Both the workplan and budget are structured to allow some flexibility on the allocation of resources (i.e. time and funds) for additional activities arising from agreed intersessional work. In order to efficiently address its broad agenda, the Committee forms a number of sub-committees and working groups (generically called sub-groups), with their own convenors (for the duties of Convenors see Item 4.1.1) and rapporteurs. Rapporteurs play a vital role in the work of the Committee. They are members appointed by the relevant Convenors and their responsibility is to take notes during the sessions and develop a draft report (for the duties of Rapporteurs see Item 5.2).

All of these sub-groups are subservient to the whole Committee: their work is carried out in relation to the Committee agenda; therefore, sub-groups make recommendations to the Committee but it is the Committee that makes recommendations to the Commission. Occasionally, the full Committee does not agree with the conclusions or recommendations of a subgroup. Although this has been rare it is entirely proper - the Plenary is not obliged to rubber stamp a sub-group report or else discussions of such reports would be meaningless. See Item 5 to learn how these instances are handled in reports.

Some items of the Committee's agenda are dealt with only in Plenary sessions (i.e. cooperation with other International organisations, Special Permits, budget, working methods and Rules of Procedure).

Read more on the sub-groups [here](#). [DROP DOWN BOX]

The Chair decides on the appropriate sub-groups for the Annual Meeting based on the workplan and finalises this in the notes to the draft agenda circulated before each Annual Meeting (see example in Table 3).

**Table 3:** Example of sub-groups: 2017 Annual Meeting

Sub-committees/working group name	Convenor	Co-convenor
Scientific Committee Plenary, SC	Fortuna	Suydam
Plenary sessions on Special Permits, SC/SP	Fortuna	Suydam
<i>Ad hoc</i> Working group on interactions between Scientific and Conservation Committees, SC/CC	Parsons	Rojas-Bracho
<i>Ad hoc</i> Working group on Photo-id, PH	Olson	
<i>Ad hoc</i> Working Group on IWC Global Data Repositories and National Reports, GDR	Double	Miller (Secretariat)
<i>Ad hoc</i> Working Group on Abundance estimates, stock status and international cruises, ASI	Zerbini	Butterworth
Sub-Committee on the Revised Management Procedure, RMP	Bannister	
Standing Working Group on the development of an Aboriginal Whaling Management Procedures, AWMP	Donovan	Brandon
Working Group on Stock Definition and DNA testing, SD&DNA	Lang	Tiedemann



Sub-Committee on In-depth Assessments, IA	Palka	Herr
Sub-Committee on the other Northern Hemisphere whale stocks, NH	Brownell	
Sub-Committee on the other Southern Hemisphere whale stocks, SH	Jackson	Bell
Sub-Committee on Conservation Management Plans, CMP	Walløe	Urban-Rámirez
Working Group on Non-deliberate Human-Induced Mortality of cetaceans, HIM	Leaper	Currey
Standing Working Group on Environmental Concerns, E	Rowles	Hall
Working Group on Ecosystem Modelling, EM	Kitakado	
Sub-Committee on Small Cetaceans, SM	Scheidat	Porter
Sub-Committee on Whale watching, WW	Suydam	

It is the Chair's responsibility to appoint Convenors for each of the sub-groups; this requires a balance of several features including experience, geographical spread, good communication skills in English, and a balance of the need for new perspectives with the need for continuity (more important in some groups than others). Participants select which sub-groups they plan to attend during online registration.

Sub-groups can be defined as follows:

- (1) *Sub-Committees* - established by the Chair to efficiently address long-standing issues referenced in the Convention, Schedule or as a result of a specific request of the Commission.
- (2) *Working Groups* - normally a spin-off from a Sub-committee (or the Plenary) on a specific agenda item that entails a serious increase in work load that cannot be handled by the sub-committee/Plenary and thus becomes a priority topic in itself. There are two types of Working Groups:
  - (a) *Ad hoc Working Groups (AWG)* that are created to accomplish a specific task (or set of tasks) expected to be achieved in the short-term which may complete their work and be dissolved or evolve into a Standing Working Group or sub-committee;
  - (b) *Standing Working Groups (SWG)* created in response to a request from the Commission on a specific topic (e.g. the development of an aboriginal subsistence whaling management procedure) or established by the Chair to address longer-term specific issues, perhaps evolved from the task of an *ad hoc* Working Group.

The Chair, in consultation with the Vice-Chair and HoS (Rule C), is in charge of the Committee organisation. Working groups and sub-committees are established or dissolved according to their proposals, approved by the Commission, with the exception of those groups identified by the Commission and indicated as 'standing' groups.

#### 4.1.1 The role of convenors, eligibility and duration of appointments

Convenors are directly identified by the Chair and Vice-Chair (with advice from the Head of Science), who usually consult with other members of the Scientific Committee. A Co-convenor may be appointed to assist the Convenor of a sub-group and, at the same time, gain experience in chairing and learn Committee procedures. All Committee members (i.e. Delegates and IPs) are eligible to become Convenors or Co-convenors.

The role of the Committee's Chair and all Convenors is largely administrative and is to ensure that (a) the Committee functions properly (in line with the Committee's Rules of Procedure and the Commission's instructions); (b) all matters on the Committee's Agenda are discussed and that the necessary expertise is available during meetings to do so; and (c) that clear scientific advice is delivered to the Commission.

It is not their role to represent positions of Governments or others but rather to be sensitive to all viewpoints. The composition of the group may change annually due to contingencies or rearrangement of the sub-committees and working groups.

The 'Convenors' Group' comprises the Chair, Vice-Chair, Head of Science, Secretary to the Commission, Secretariat computing manager, Convenors and Co-convenors. This group is there to assist the Chair and Vice-Chair.

Requirements to be appointed as Convenor/Co-convenor include appropriate scientific background and/or chairing experience, knowledge of Committee procedures and appropriate communication skills. Being perceived as a balanced and fair Scientific Committee member is also a desirable characteristic.

Read more details on Convenors' responsibilities [here](#). [DROP DOWN BOX]

A Convenor's responsibilities can be summarised as follows.

***Intersessionally:***

1. to facilitate intersessional progress on identified tasks including providing advice to the Chair as appropriate;
2. to identify potential invited participants for their sub-group in consultation with their sub-groups participants;
3. to assist the Secretariat during the intersessional editorial work for the publication of the final sub-group report and plenary Scientific Committee report;
4. review and approve/disapprove papers submitted to the Annual Meeting for relevance to each subgroup's agenda.

***At the Annual Meeting:***

1. to develop the draft agenda for the sub-group's work for discussion and agreement at an organisational meeting of the sub-group;
2. when elected chair (as is normally the case, unless there is a formal objection from the floor) by the sub-group at its opening meeting, they are expected:
  - (a) to meet daily in the Convenors' Group to determine the business and timetable for the coming days;
  - (b) to provide advice to the Chair on other meeting-related matters should they arise;
  - (c) to chair the sub-group meetings efficiently and fairly and if necessary establish small expert groups;
  - (d) to authorise working papers should they be deemed necessary (see below);
  - (e) to develop budget requests relevant to their subgroup;
3. to recruit and appoint rapporteurs and ensure the sub-group's report follows the guidelines for reports, and to draft and present a summary of the sub-group report to the full Plenary which will compose the relevant sections of the Plenary report;
4. to develop with other members of the Convenors' Group a prioritised list of workshops, studies, or other projects proposed for funding (that list needs to be made available to the full Committee at least by 6pm on the penultimate day of the Scientific Committee Annual Meeting);
5. to ensure that the final version of the sub-group report is completed by the end of the day after the Scientific Committee meeting;
6. to meet in the Convenors' Group the day after the Scientific Committee meeting to finalise the draft workplan for the coming year(s).

The Scientific Committee Chair, in consultation with the Vice-Chair and the Head of Science, appoints Convenors/Co-convenors and thus retains discretion on the composition of the Convenors' Group that works with and advises him/her.

On the last day of the Scientific Committee meeting of the year of the appointment of a new Vice-Chair and the inception of the new Chair, it shall be assumed that all Convenors/Co-convenors have completed their terms. However, the new Chair and Vice-Chair may reconfirm Convenors/Co-convenors for the following term, if they are available and willing. This will be usually done at the meeting of the Convenors' Group the day after the Scientific Committee meeting. The Scientific Committee Chair and Vice-Chair, in consultation with the Head of Science, may replace or invite Convenors/Co-convenors whenever they deem it appropriate.

#### ***4.2 Logistics***

Discussions at Annual meetings follow a similar pattern each year (e.g. see Table 4 in the drop-down box below). Plenary opens on the first day. Additional morning Plenary sessions may be called during the following week, e.g. to deal with Special Permits. The more detailed scientific work is undertaken by sub-committees or working groups over the following week (see Item 4.1); the final three days are held in Plenary sessions, primarily to review the work of the sub-groups, discuss working methods and the Committee's budget and to agree the report. (read more...)[DROP DOWN BOX]

The workload of the Committee is such that simultaneous sessions of sub-groups must be held; whilst every attempt is made by the Convenors to avoid clashes of sub-groups with overlapping participants, this is not always possible. The aim is to have a scheduled 105 sessions (three concurrent sub-group meetings for each of five work sessions per day, starting at approximately 08:30 and ending typically at 18:00). If possible, formal evening sessions are avoided to allow: (1) rapporteurs to draft reports; (2) time for small break out groups (e.g. to do simulation runs and testing); and (3) dedicated sessions on particular topics that can be attended by all. See Table 4 below for an example time schedule.

**Table 4:** Example time schedule for an Annual Scientific Committee meeting.

Date	Items	Comments
First day	Plenary session, then read documents	SC Agenda Items 1-4, plus begin other items as appropriate
Second to ninth days	Predominantly sub-groups (possibly some short plenary meetings)	To organise the work, complete sub-group agendas and agree reports
Tenth day	<i>Tentative</i> rest day with no meetings	Subject to cancellation if insufficient progress is made...
Eleventh to thirteenth days	Plenary sessions. Intention to finish no later than 5pm on the last day	To complete agenda and agree report, including work plan and draft initial agenda for next Annual Meeting
Fourteenth day	Convenors to complete editorial work on sub-group and plenary reports and attend the final Convenors' Group meeting; consider refinements of the draft initial agenda, priorities, and changes in organisational structure implied by the draft initial agenda or by discussions during the meeting.	

### 4.3 Intersessional Groups

As a large part of the work of the Scientific Committee occurs intersessionally, the Committee and its sub-groups may establish intersessional groups at each Annual Meeting. The lifespan of such groups is one year, they must report their progress at the following Annual Meeting and they must be formally re-established if the work is ongoing. There are three types of intersessional groups:

1. *Steering Groups* (SG); [DROP DOWN BOX]

*Steering Groups* (SG) are groups that have been set up to ensure that particular meetings, workshops or identified pieces of work are completed by the next Annual Meeting. They have the authority to make decisions on behalf of the Committee within the context of their terms of reference (e.g. meeting budget spends, participants, agreements on parameters for analyses). Numbers are limited and membership is agreed at the Annual Meeting although the Convenor of the SG may request additional members or respond to late requests to be members. The expected outcomes will be either a workshop/meeting report or an analytical paper.

1. *Intersessional Correspondence Groups* (ICG); [DROP DOWN BOX]

*Intersessional Correspondence Groups* (ICG) are groups that have been set up to ensure progress on particular topics within the intersessional period. Membership is more flexible and open. It is expected that a written report/working paper on progress will be submitted to the appropriate sub-group or to the Committee at the Annual Meeting.

2. *Advisory Groups* (AG); [DROP DOWN BOX]

*Advisory Groups* (AG): these are occasional groups established by the Committee to provide scientific and technical advice on specific issues if requested by a Contracting Government or the Scientific Committee.

The existing Intersessional Correspondence Groups, together with their Terms of Reference and membership can be found [here](https://iwc.int/correspondence-groups) (LINK TO WEB PAGE: <https://iwc.int/correspondence-groups>).

Intersessional Correspondence Groups are not to be considered as a substitute for intersessional meetings.

## 5. REPORTS AND PAPERS (SC RoP E1-5)

The Committee informs its discussions at its Annual meetings through the use of a range of different types of document. Specific rules are applied on how to handle their submission and discussion. Similar rules apply to documents submitted to intersessional workshops.

### 5.1 Types of documents

The Scientific Committee receives and writes several types of documents and reports. These are summarised briefly below. All papers are publicly available in the Secretariat's archives although some have conditions on citation (see Item 5.2). For financial and environmental reasons, primary papers are distributed wholly electronically on the IWC website. Only sub-group chairs and rapporteurs may request hard copies from the Secretariat during the course of the Committee meeting.

The categories of documents received by the Scientific Committee are as follows:

1. National Progress Reports; (read more...)[DROP DOWN BOX]

National Progress Reports have their origin in Article VIII, Paragraph 3 of the Convention. All member nations are urged by the Commission to provide Progress Reports to the Scientific Committee following

the most recent guidelines developed by the Scientific Committee and adopted by the Commission. The report is intended as a concise summary of the cetacean research undertaken in member countries as well as a summary of information on direct and incidental anthropogenic mortality. An online submission system has been developed. Country representatives are informed directly on how to use this facility. For further information contact IT Support

2. SC Primary Papers; (read more...)[DROP DOWN BOX]

Primary scientific papers (not 'For Information' papers – see below) and discussion documents on Scientific Committee processes should be submitted to the Committee following an agreed template and style. Authors are requested to submit at least preliminary titles, authors and ideally an abstract about seven weeks before the meeting to be reviewed and approved or otherwise by the Convenor for inclusion in the relevant subgroup's agenda. Approved Primary papers must be submitted (using an online submission system) by the end of the first day of the Annual Meeting. Under special circumstances, the Chair in consultation with the Vice-Chair, Head of Science and relevant Convenor may either extend this deadline or agree to upgrade a working paper (see point 4 below) to the status of a Primary paper and allocate a document number.

Papers are allocated document numbers and categories by the Secretariat. Table 5 presents examples of categories of papers.

**Table 5:** Categories of Primary papers presented to the Scientific Committee (last updated: May 2018)

Category	Title	Description
ASI	Abundance estimates, stock status and international cruises	Papers on abundance estimates, stock status and international cruises
AWMP	Aboriginal Whaling Management Procedure	Papers mainly relevant to the AWMP, the Greenlandic Research programme and aboriginal subsistence whaling by Greenland and St. Vincent and The Grenadines
CMP	Conservation Management Plans	Papers relevant to cetacean stocks subject to CMPs or proposed as CMP candidates.
E	Environmental Concerns	Papers mainly relevant to environmental concerns
EM	Ecosystem Modelling	Papers relevant to the Ecosystem Modelling working group
HIM	Non-deliberate Human-Induced Mortality of cetaceans	Papers mainly relevant to the issue of estimation of accidental Human-Induced mortality rates, particularly bycatch and ship-strikes.
IA	In-depth Assessments	Papers mainly relevant to Antarctic minke whale assessments, SOWER cruises, IWC-DESS, sperm whales
NH	Northern Hemisphere whale stocks	Northern Hemisphere whale stocks not subject to hunts or CMPs
PH	Photo-id catalogues	Papers relevant to IWC Photo-id catalogues and related initiatives
RMP	Revised Management Procedure	Papers relevant to general RMP matters and Implementations or Implementation Reviews
SAN	Sanctuaries	Papers relevant to the discussion on new proposals on IWC Sanctuaries or containing information on existing Sanctuaries.
SCP	Scientific Committee Process	Papers relevant to the working methods of the Scientific Committee including improvements to the review process for Scientific Permits and Sanctuaries
SD&DNA	Stock Definition and DNA testing	Papers mainly relevant to Stock Definition, including general stock identity issues and those related to the issue of DNA testing
SH	Southern Hemisphere assessments	Papers mainly relevant to the assessment of Southern Hemisphere whales stocks not subject to hunts and CMPs
SM	Small Cetaceans	Papers mainly relevant to small cetaceans
SP	Special Permits	New information on special permits programmes, review papers and response papers
WW	Whale watching	Papers mainly relevant to whale watching

Submission of Primary papers does not preclude publication in peer-reviewed scientific journals (or indeed elsewhere), although they reside in the Secretariat, are publicly available on request and are considered part of the public domain. The Committee has agreed that authors may put the following text on the title page of their manuscripts – it will automatically be put on the website download pages for Primary papers: *'Papers submitted to the IWC Scientific Committee are produced to advance discussions within that Committee; they may be preliminary or exploratory. It is important that if you wish to cite this/a paper outside the context of an IWC meeting, you notify the author at least six weeks before it is cited to ensure that it has not been superseded or found to contain errors.'*

3. For Information Papers; (read more...)[DROP DOWN BOX]

This category is for papers that (a) have been submitted to a journal, (b) are in press, (c) have been published, or (d) have been submitted to another meeting (IWC or elsewhere).

4. SC Working Papers; (read more...)[DROP DOWN BOX]

Working papers are intended to expedite resolution of disagreements or stimulate debate within the meeting. They are only distributed with the agreement of the chair of a sub-group or the Scientific Committee Chair for plenary sessions. Recognising that such papers are often written at the last minute in order to stimulate discussion or present the results of a preliminary analysis which subsequently the author feels (or is told) is flawed, it has been agreed that they officially disappear at the end of the meeting. Working papers containing substantive or lengthy contributions may be upgraded to a Primary paper (see point 2 above) or appended to the Committee or sub-group reports with the author's permission, and with the agreement of the Scientific Committee Chair and Vice-Chair, in consultation with the Head of Science. Any working paper that forms the basis of management advice must be appended to the appropriate report. Non-appended working papers have no status once the meeting is closed and thus cannot be cited in Primary papers or publications (or the report of the Committee or one of its sub-groups).

When considering whether to upgrade a working paper to a Primary paper, the Chair and Vice-Chair, in consultation with Head of Science will apply the following criteria:

1. the working paper has been presented and discussed within a sub-group or during the Plenary, such that there has been the opportunity to comment on it; and
2. the text of the sub-group or plenary report would be significantly improved, streamlined or clarified by the ability to reference the paper as a Primary paper.

5. SC Reports (including sub-groups/workshops). (read more...)[DROP DOWN BOX]

The Scientific Committee report is the public face of the work of the Committee. It has to serve a number of functions providing a concise yet comprehensive account of the scientific work undertaken for the benefit of (1) the participants; (2) scientists not attending the meeting; and (3) the Commission.

The Scientific Committee report and its Annexes (primarily the work of the sub-groups) is extensive, comprising in some years over 600 published pages in the IWC's *Journal of Cetacean Research and Management* (previously in *Rep int Whal Commn*). A primary component of the Plenary report is a summary of the work of the sub-groups. When reporting the work of the sub-groups each sub-group Chair provides a draft of what could comprise the main Committee discussions of those topics. The Head of Science may edit those draft reports into a format consistent with the reports of the Committee. While it is not common for the Plenary session to radically alter conclusions reached in sub-groups, this can happen. As noted above (Item 4), the Plenary is the ultimate body to decide the Committee's view.

In terms of reporting, if the Plenary as a body disagrees with the conclusions of a sub-group, this is handled quite simply by (1) explaining the reasons for this in the Plenary report and (2) including a footnote to the relevant section of the sub-group report.

However, at various times in its history, the Committee has struggled with how to deal not with major changes by the Committee but rather with comments by an individual or small group of individuals. The concern has been that by including such comments in the full Plenary report, they are effectively given far greater weight than similar comments made in the sub-group itself.

Given this, in 2004, the Committee agreed that:

1. every attempt is made to achieve consensus on sub-group conclusions and recommendations – in particular sufficient time must be made available for a full presentation to the Committee of major issues in a sub-group report (e.g. development of a new *SLA*, provision of catch limits, modifications to annotations to the RMP);
2. if the Chair rules that there is insufficient time to debate an issue, this must be clearly stated before discussion starts or during the discussion and reflected in the Plenary report;
3. general discussion that does not alter sub-group conclusions or recommendations shall be briefly reported along the lines of 'There was additional discussion of the conclusions/recommendations but the Committee endorses the view of the sub-group.'

4. statements under individual names should not be allowed in the body of the report but they may request to have a statement included in a 'Minority Annex' – the Plenary report will merely record that 'a minority statement (or statements) is (are) given in Annex Z.'
5. if the general discussion results in the Committee being unable to agree as a body to a conclusion /recommendation, the report will reflect the discussion with a brief rationale under 'Some.... Others ...Yet others' culminating with a statement that 'under such circumstances, the Committee was unable to endorse the sub-group conclusion/recommendation.'

## 5.2 Style of sub-group reports

Sub-group reports need to be:

- (1) concise and comprehensible both to people who attended the meeting and people who did not; and
- (2) as complete as possible (including references and artwork) by the end of the meeting as the Scientific Committee Chair and HoS will have only two weeks after close of meeting (see Commission Rule of Procedure M.5) to finalise the full Committee report (including sub-group reports as Annexes) for distribution to Commissioners and Contracting Governments. This will have the additional benefit of allowing the published version (as published in the *Journal of Cetacean Research and Management*) to be completed more quickly.

Since 2016, the Committee's advice, agreements, recommendations and conclusions are written according to a standard format, which helps in highlighting and identifying them, the primary intended recipients (of course it is recognised that in a general sense, the whole report provides advice to the Commission) and the context in which they generated. [See below for more details.](#)[DROP DOWN BOX]

### 5.2.1 General style of sub-group reports

General guidelines for rapporteurs have been developed and full details can be found here (Section 11: Chapter 7).

The sub-group agenda are used to form the outline of the report, but additional sub-items can be inserted if this improves the clarity of the report.

The text of the report is not a verbatim or quasi-verbatim record. As a general approach, rapporteurs need to write a good, logically structured 'essay' on the topic of the agenda item, based on the discussions, irrespective of the order in which comments were made.

Individuals' names should be avoided, unless someone specifies that they would like a particular statement attributed to them or there is no general agreement on a given issue.

Sub-groups are referred to in the past tense, including their recommendations and agreements. **Bold** should be used when the sub-committee has **agreed** on, or **recommended** something.

Authors must provide brief summaries of their papers, which will be edited for consistency and style, and to keep a fair balance. It must be clear where an author's summary ends and the sub-group discussion begins. For complex or controversial discussions, the relevant parts of the draft report should be shown to the relevant participants before being inserted in the draft report.

## 5.3 Advice, recommendations and conclusions

Important action items, such as agreements and recommendations, are highlighted by placing them in boxes. These boxes include the code of the primary intended recipients, text providing the context in which the advice, agreement, recommendation or conclusion arose, followed by the actual advice, agreement, recommendation or conclusion. See examples [here](#)[DROP DOWN TEXT]:

The first row of the box provides the code of the primary intended recipients (SC=recommendation internal to the Scientific Committee, G=general scientific recommendation; C-A=advice to the Commission; C-R=recommendation to the Commission; CC=recommendation relevant to the Conservation Committee; AWS=recommendation relevant to the Commission's Aboriginal Subsistence Whaling sub-committee; CG-A=advice to a contracting government or governments; CG-R=recommendations to a contracting government or governments; G-R=recommendations to a non-contracting government or governments; S= recommendation relevant to the Secretariat).

*Attention:* [intended audience:] SC, C-A

[context:] *The Committee has completed the Implementation Review of North Atlantic common minke whales. [agreement/advice:] Based on the results of the Implementation Simulation Trials, the Committee **agrees** that variants 1, 3, 4 and 5 (see Item 6.1.2) are acceptable in terms of conservation performance. Of those, variant 5 achieves the best performance in terms of catch.*

Attention: [intended audience:] G, CG-R

[context:] *The Committee welcomes the results of the long-term studies of gray whales in the wintering areas in the lagoons of Mexico and the northbound shore-based migration counts. [recommendation/advice:] It reiterates the importance of these long-term studies and recommends that they continue, particularly for analyses of abundance and calf production in conjunction with environmental factors. Such analyses can provide general as well as specific insights on the population dynamics of whales in response to environmental factors.*

Attention: [intended audience:] G, CC

[context and recommendation/advice:] *The Committee **recommends** that the work on dynamics of collisions between large ships and large whales, such as that in SC/67a/HIM16 continue, noting its potential to provide advice on mitigation measures. It also encourages the author to discuss with relevant stranding coordinators what type of data could be collected to help improve the models.*

#### **5.4 Chair's overview of sub-group work**

Following a Commission request, the Committee is constantly trying to improve its communication strategy. At the past two Commission's meetings the Scientific Committee Chair, Vice-Chair and Head of Science prepared a new document titled "Short overview of the work of the Scientific Committee at its 2015 and 2016 Annual Meetings" (see for example document IWC/66/17). These documents were greatly appreciated by Contracting Governments.

#### **5.5 Distribution of reports**

The Rules of Procedure deal with the availability of reports. In summary, the Annual Meeting report, Reports of Special Committee Meetings (and sometimes intersessional Workshops) are confidential until they are sent by the Secretary to the full Committee, Commissioners and Contracting Governments and/or made available on the website. Confidentiality applies to the 'outside' world and does not preclude Committee members from discussing the report with their Commissioners. Reports of intersessional Steering Groups or sub-groups are confidential until they have been discussed by the Scientific Committee, normally at an Annual Meeting.

The Scientific Committee occasionally agrees recommendations which include a request to the Secretariat to contact CGs, non-CGs or IGOs in order to raise specific concerns or offer assistance to tackle urgent matters. In years when the Commission meets, contact will be made by the Secretariat after the Commission's endorsement of these recommendations. Neither the IWC Secretariat nor any other IWC Committee or Working Group can send a letter to an individual Contracting Government independent from the Commission.

Members of the Scientific Committee should be aware of these restrictions and potential solutions.

## **6. RESEARCH FUNDS**

Each biennium, the Commission approves a research budget for the Scientific Committee for activities that the Committee believes are essential to its work in providing the best scientific advice to the Commission (Financial Regulations Rule C, SC RoP G.1, G.3). This includes *inter alia* Workshops (see Item 4), data processing, data collection and collation (SC RoP H), analyses and the costs of inviting experts to annual and intersessional meetings (see Item 3.1). Read more here.

All research funds have an allowance for dealing with contingencies and emergency situations. See Table 6 for more detail on this matter. Reports on all funds (i.e. Research fund and Voluntary funds; see Table 6) are submitted annually to the Scientific Committee Plenary. All relevant information on their balance, including necessary adjustments, is reported to the Commission via the Committee annual report.

**Table 6:** Summary of Funds available to support Scientific Committee activities and relevant coordinating bodies

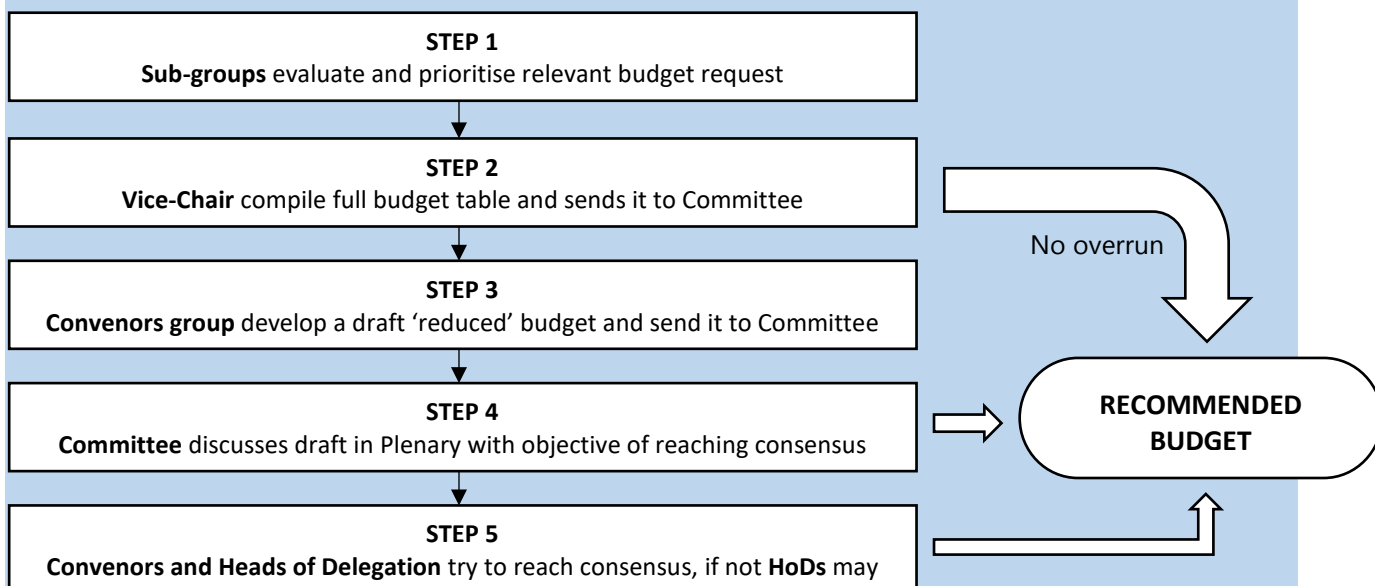
<i>Fund name</i>	<i>Fund coordinating body</i>	<i>Contingency fund per year</i>	<i>Contingency fund coordinating officers</i>
Research Fund	SC plenary, Convenors, HDs	10% [under consideration]	SC Chair and Vice-Chair, relevant convenors, Head of Science/Secretary
Voluntary Fund for Small Cetaceans' Research and Conservation	SM Review group	10% [under consideration]	SM Review group: SC Chair and Vice-Chair, SM Convenor/s, IWC Head of Science, and a number of competent SC members who provide a wide geographical scope and relevant expertise
Voluntary Research Fund on Southern Ocean Research Partnership	IWC-SORP Scientific Steering Committee (SSC), IWC-SORP Assessment Panel	15,000	IWC-SORP SSC: a representative, with technical expertise, nominated by each member nation of the Partnership, SH Convenor/s o, SC Chair, IWC Head of Science, IWC-SORP Secretariat and CCAMLR observer to IWC Scientific Committee.
Voluntary Fund for Aboriginal Subsistence Whaling	SC plenary, Convenors, HDs	None	SC Chair and Vice-Chair, relevant convenor, Head of Science/Secretary

### 6.1 Scientific Committee projects and activities

Most of the research supported by the IWC arises from discussions at Annual Meetings of the Committee. However, the Committee can accept applications developed by sub-groups for funding for research projects, the objectives of which are to advance the work of the Committee following a *pro forma* given [here \(Section 11: Chapter 5\)](#). In years when the Commission meets, the Committee develops an overall budget summary document including a short summary of the objectives of each proposed item for funding, as part of the Committee's report. (read more...)[DROP DOWN BOX]

At present, the annual research budget is about £315,800. Details can be found in the [Scientific Committee report](#).

In 2015 the Committee finalised a new approach to Improve the Scientific Committee's process for developing a consensus Budget recommendation to the Commission, which was endorsed in 2016. This new procedure is usually applied in years when the Commission meets and includes the following steps:



#### Step 1: Sub-groups evaluate, prioritise and rank each budget request/proposal

The precise mechanism for doing this is the responsibility of the individual sub-groups and their report will explain their approach as well as the result. Each request to the sub-group is filled in the appropriate *pro forma* ([here](#)), which includes information on objectives, relevance to work of the Scientific committee and its relevant sub-group, methods, deliverables, work plan, budget breakdown, in-kind support, etc.



Prior to submission of a project with a budget exceeding £20,000 the proponent should consult with the Chair, Vice-Chair and Head of Science to receive guidance, for example, on the relevance of the project to the Scientific Committee, the appropriateness of the budget, the likelihood of success.

The evaluation and prioritisation process should be initiated as early as possible within the sub-group. Whatever mechanism is agreed by the sub-group it should consider factors such as conflict of interest. Caution should also be used for projects proposed by active members of the Scientific Committee. The Scientific Committee should have in place safeguards to ensure all proposals are subject to equal scrutiny and challenge. This will maintain the integrity of the Scientific Committee by ensuring necessary transparency in the handling of possible conflicts of interest. The use of the agreed evaluation criteria (or scoring/prioritisation sheet) helps to ensure this. There is also the possibility of the Convenor, in consultation with the sub-group, requesting the process be completed anonymously by all members of the group, particularly for controversial cases. In general, proponents should be asked to leave the room when their proposal is discussed.

The evaluation process to prioritise proposals is conducted using the *agreed evaluation criteria* ([here](#)) and considers such factors as relevance to work of the sub-group, likelihood of success, value for money, timeline etc. Please note that not all projects with a good/sufficient score can be funded nor is the arithmetic ranking fully reflected in the final funding decision. The final decision is taken on the basis of a thorough and fair discussion beyond that of the simple scoring process. The prioritisation process should occur towards the end of the sub-group meeting, so that it can be considered in terms of factors such as the sub-groups two-year work plan and the Scientific Committee's two-year budget. Where appropriate it may also consider the outcomes of previous similar or related proposals or proposals by the same authors/groups. The sub-group may decide to comment on implications of delaying some proposals or parts of some proposals. Where proposals are not deemed worthy of funding or considered a priority at this time by the sub-group, the rationale will be given.

Proponents together with the sub-groups shall also consider possibilities to reduce budgets in light of the necessity of cuts being made during the following steps, especially considering the two-year period. The sub-group report will contain a short summary of all of the proposals, evaluation, costs and ranking. The full *pro formas* are also made available to the full Committee by the Secretariat. A table summarising all budget requests will be included at the end of each sub-group report and also sent directly to the Vice-Chair.

### **Step 2: Scientific Committee Vice-Chair, Chair and Convenors**

The Vice-Chair (in conjunction with the SC Chair and convenors) compiles an overall budget summary document including a short summary of the objectives of each proposed item for funding. If the total does not exceed the expected budget available and each item meets the required scientific, administrative and logistic standards (Chair and Convenors will briefly reconsider all proposals), the total budget shall be provided to the Committee for its final approval.

If there is an overrun the Chair informs the Committee immediately and moves to Step 3.

### **Step 3: Reduced Budget**

The Chair and Convenors develop a draft Reduced Budget by considering inter alia:

- (1) implications of delaying funding for a particular project;
- (2) implications for future years' budgets (beyond the current two-year process): long-term projects that are likely to require ongoing funding should be clearly identified;
- (3) implications for the overall work of the Scientific committee;
- (4) any expected wider benefit of funding overall commission objectives; and
- (5) decisions from previous years (consideration is to be given to meritorious proposals rejected/postponed in a previous year, if their value is high in the new ranking).

Among equally important activities that suffer cuts, as good practice, cuts in different years should not pertain always to the same activities/sub-groups, but they should be equally spread in the long-term.

### **Step 4: Discussion on draft Reduced Budget in Plenary**

This Reduced Budget is submitted to the full Committee as soon as possible (and no later than 6pm the day before it is to be discussed), along with an explanation for the proposed reductions. The draft Reduced Budget is discussed by the Committee no later than the morning of the last day of Plenary. Every effort should be made to reach consensus.

If consensus is reached, the Reduced Budget is included in the Committee's report and the process described (i.e. details are provided on why reductions were applied for each of the affected projects). A summary of the full set of submitted proposals is also included in the report.

If consensus cannot be reached then Step 5 will be followed.

### **Step 5: Chair and Convenors and Heads of Delegation**

The Scientific Committee Chair, Convenors and Heads of Delegation reach a final decision, taking fully into account the discussions thus far. If consensus cannot be reached, Head of Delegations vote on a way forward and options are submitted to the Commission, and the rationale reported in the Committee's report.

However the agreement is reached, during presentation of the agreed budget to the Commission, a list of all the research/work proposals put forward to the Scientific Committee (with their associated ranking) will be available to the Commission as an appendix to the budget documentation. In case of a cut to the recommended Scientific Committee budget by the Commission, the Scientific Committee Chair, Vice-Chair and Head of Science will proceed to cuts on lower priority activities (identified through this process).

#### *6.1.1 Mid-term and final evaluation of the budget*

A mid-term (i.e. after one year) and a final revaluation of the budget is necessary.

In the mid-term, the Chair, Vice-Chair, Head of Science and Secretary present the actual situation on activities completed and provide to the Scientific Committee a simple plan for covering any over expenditure or reallocation of any unspent funds.

The transfer of funds from one activity to another should be made in a way which maintains generally their original intent (e.g. workshop/meetings, research projects, modelling, databases, preparation of technical material for the website, etc.). For example, unspent funds previously assigned to the organisation of a workshop can be transferred to the organisation of another workshop during the same year or the year after. Where small sums are involved (up to £2,000) there may be more flexibility in changing categories to ensure an overall balanced budget.

In case of some foreseen activity that did or will not take place (e.g. modelling no longer useful or no longer possible due to the lack of appropriate experts), the Chair, Vice-Chair, and the Head of Science, in consultation with the Secretary, will propose alternate funding options taking into account the Scientific Committee priorities and projects, which were previously identified by the Scientific Committee, but not selected for funding. These options will be presented to the Scientific Committee for agreement. This concept applies to all research funds (see section 6.3).

**6.2 Unsolicited research projects and activities (SC RoP G.2)** [Note: There is a proposal for deleting this RoP. If the proposal is accepted, this section will be removed from the SC HB]

In addition, the Committee may consider and accept outside research proposals (i.e. those which are not generated through the Committee's own work) following the same pro forma and evaluation process of Committee's proposals (section 6.1). Unsolicited projects must be to be submitted to the Secretariat (secretariat@iwc.int) at least four calendar months prior to the annual Committee meeting where they will be considered.

#### **6.3 Voluntary research funds (Financial Regulations Rule C and its Appendixes 1 and 4)**

There is also a Voluntary Fund for Small Cetaceans Conservation Research ([https://iwc.int/sm\\_fund](https://iwc.int/sm_fund)), a Southern Ocean Research Program (SORP) Fund (<https://iwc.int/sorp>) and a Voluntary Fund for Aboriginal Subsistence Whaling), which are assigned and managed through specific procedures. All proposed disbursements need to have the Scientific Committee's recommendation and the Commission's endorsement before they become active. See Section 11: Chapter 5 to this document for all relevant pro-forma and criteria.

[NOTE: the webpage <https://iwc.int/guidelines-for-funding-research> should not exist OR the text above should replace the existing webpage on the Research Fund]

## **7. PROCESS FOR REVIEW OF SCIENTIFIC PERMITS**

Article VIII of the Convention allows governments to issue special permits to their nationals to take whales for scientific research. The Schedule (Para. 30) provides for the Scientific Committee to review and comment on them (see also SC RoP F).

Although the Scientific Committee and the Commission itself can comment on proposed permits, the final decision over content and numbers of animals resides with individual Contracting Governments. The issue of scientific permit whaling has become increasingly controversial within the Commission as has the question of the review of scientific permit proposals and results.

All proposed permits have to be submitted for review by the Scientific Committee following Guidelines adopted by the Commission ([Section 11: Chapter 4](#)). (read more...)[DROP DOWN BOX]

The Scientific Committee's review has concentrated on the following issues, whether:

- the permit adequately specifies its aims, methodology and the samples to be taken;
- the research is essential for conservation and management, the work of the Scientific Committee or other critically important research needs;
- the methodology and sample size are likely to provide reliable answers to the questions being asked;
- the questions can be answered using non-lethal research methods;
- the catches will have an adverse effect on the stock;
- there is the potential for scientists from other nations to join the research programme.

The Committee inevitably includes the scientists who are proposing the permit and the usual way that the review was carried out was for all scientists to be present for discussions although the comments of the proposers and the rest of the Committee are identified in the report. As one might expect with such a large group of scientists, the review of any permits rarely resulted in unanimity either in favour or against the scientific merit of the proposal. The published reports of the Scientific Committee have reflected the agreements and disagreements of the review process, for both new and continuing permits (e.g. *Journal of Cetacean Research and Management* (Suppl.) 10, pp.341-42; *Journal of Cetacean Research and Management* (Suppl.) 11, p.64).

In 2009, in an attempt to improve the review process for both new permit proposals and periodic review of results of ongoing or completed programmes, the Committee proposed a new approach (traditionally known as the 'Annex P' process because Annex P was where it was first specified) that was accepted by the Commission. The primary change involved the initial review of a new proposal, or interim and final reviews of permit programmes at a small specialist workshop with a 'limited but adequate' number of invited experts (The 'Expert Panel') who may or may not be present members of the Scientific Committee. A limited number of scientists associated with the proposal can attend the workshop in an advisory role, primarily to present the proposal and answer points of clarification and not to participate in the discussion of the Panel. The practical way this was implemented at the first meeting this process (a mid-term review of the JARPN II programme) was that proponents provided brief presentations of their documents to the Panel in the morning session and answered questions of clarification; for the rest of the day the Panel was left alone to discuss the results and develop its report. In addition, Scientific Committee members are allowed to submit documents/analyses and attend open sessions as observers. Since 2009 the Annex P has been improved few times; all versions have been agreed by consensus. The most recent version of this detailed process is given [here](#). The report of Expert Panel, along with comments made upon it by the Scientific Committee at its Annual Meeting, are submitted to the Commission.

## 8. DATA AVAILABILITY PROCEDURES

The Scientific Committee uses a very large amount of data to provide the best advice to the Commission. Some of these data are provided by Member governments to the IWC as a requirement under the Convention/Schedule. These data are held and administered by the Secretariat. Other data are provided by or can be made available from governments, other organisations and individuals. The availability of data has sometimes proved to be a complex and sensitive issue.

### 8.1. Data Availability Agreement

Recognising that a balance must be struck between the needs of the Scientific Committee and the rights of the scientists who have invested considerable time and effort in collecting the data, the Scientific Committee has formulated a Data Availability Agreement overseen by a Data Availability Group (DAG) comprising the Chair and Vice-Chair of the Committee and the Head of Science.

Primary Contact and correspondence should be with the Vice-Chair ([sc.vice-chair@iwc.int](mailto:sc.vice-chair@iwc.int)). Copies should also be sent to the Chair of SC ([sc.chair@iwc.int](mailto:sc.chair@iwc.int)) and the Head of Science ([head.science@iwc.int](mailto:head.science@iwc.int); [greg.donovan@iwc.int](mailto:greg.donovan@iwc.int)).

There are two data availability procedures:

1. **Procedure A** applies to data required for the RMP, AWMP and to provide advice on aboriginal subsistence whaling catch limits before the relevant SLAs have been completed.
2. **Procedure B** applies to data required for analyses deemed important in providing advice to the Commission other than catch limits (e.g. on the status of stocks not subject to IWC regulated whaling).

The full Rules are downloadable here ([Section 11: Chapter 3.1](#)) and you can read more on the full process ([here](#)[DROP DOWN BOX]).

### 8.1.1 Deadlines

Under Procedure A, there are deadlines for papers using those data to be submitted to the Scientific Committee (Table 7).

**Table 7:** Tentative deadlines under Procedure A

Type of paper	Time before the first day of Scientific Committee Plenary and <i>Implementation Reviews</i> Intersessional meetings
Final datasets available	6 months
Papers using novel methods	3 months
Papers using standard methods	2 months
Papers responding to those above	1 month

### 8.1.2 Datasets

Summary lists of the data available can be downloaded from Table 8. Applications for such data shall be copied to the DAG.

**Table 8:** Summary lists of the data available

<i>Subject</i>
<b><i>western North Pacific common minke whales (2012)</i></b>
Genetic data for the <i>Pre-Implementation Assessment</i> (Japan)
Genetic data for the <i>Pre-Implementation Assessment</i> (USA)
Genetic data for the <i>Pre-Implementation Assessment</i> (Korea)
Sightings data for the <i>Pre-Implementation Assessment</i> (Japan)
Sightings data for the <i>Pre-Implementation Assessment</i> (Korea)
<b><i>western North Pacific common minke whales (2018)</i></b>
Genetic data for the <i>Pre-Implementation Assessment</i> (Japan)
<b><i>Eastern North pacific gray whales (2012)</i></b>
Summary of data for the 2012 <i>Implementation Review</i>
<b><i>Bering-Chukchi-Beaufort Seas stock of Bowhead whales (2012)</i></b>
Summary of data for the 2012 <i>Implementation Review</i>
<b><i>Bering-Chukchi-Beaufort Seas stock of Bowhead whales (2018)</i></b>
Summary of data for the 2018 <i>Implementation Review</i>

### 8.1.3 Applications

Applications made under Procedure A should be made to the contact persons identified in the summary files provided above and copied to the DAG. Applications made under Procedure B should follow the protocols provided below (if no Protocol is listed contact the DAG).

### 8.1.4 Protocols

At present, these are the agreed protocols for approaching the following bodies for data available under Procedure B (Table 9). Right click link and choose 'Save target as..' to download.

**Table 9:** Lists of the available protocols for data access

<i>Title</i>	<i>Link</i>
Protocol for access to samples/data from the Institute of Cetacean Research (ICR), Tokyo, Japan (JCRM 6 (suppl.): 56-7)	ICR
Protocol for access to samples/data from the Cetacean Research Center (CRC), National Fisheries Research and Development Institute, Korea, (JCRM 6 (suppl.):57)	CRC
Protocol for access to data from the University of Auckland	UAuckland

### 8.1.5 Agreements

For the successful operation of the agreement, certain conditions must be met that ensure the rights of the data holders as detailed in the Rules available (see 8.1.3, 8.1.4 and [Section 11: Chapter 3.1](#)). An example of the standard agreement letter can be downloaded [here](#).

### 8.1.6 Report on data availability requests

The Data Availability Group reports annually to the Committee on all received requests for data access and their outcome.

## 8.2 Other available datasets outside the Data Availability system

In addition, the Committee has procedures to consider applications for the use of acoustic data, tissue samples or photo-identification photographs collected in IWC research programmes (i.e. SOWER and POWER, SORP and other IWC datasets), outside the Data Availability system. An example of the user proposal form for SOWER and POWER data can be downloaded [here](#) ([Section 11: Chapter 3.2](#)). The POWER Cruise Steering Group reviews these proposals. Data Availability procedures for SORP data can be found [here](#) (<http://www.marinemammals.gov.au/sorp>; <https://iwc.int/sorp>).

At its Annual Meeting, the Committee receives a full report on the outcome from all data access request from the DAG and from the Secretariat.

## 9. SCIENTIFIC WORK

The Scientific Committee covers a wide range of scientific subjects related to the conservation and management of cetaceans, such as the Revised Management Procedure, Aboriginal Whaling Management Procedure and in-depth ('comprehensive') assessments, environmental concerns, DNA, whale watching, small cetaceans and Conservation Management Plans.

**Table 10:** AWS and RMP *Implementation and Implementations Reviews* [this table needs periodic updates]

AWS Hunt	Year <i>SLA</i> developed (IRs completed)	Next <i>Implementation Review</i>
Alaska and Chukotka bowhead	2000 (2007, 2012)	Start 2018
Chukotka gray/Makah gray	2001 (2010, 2012)	Start 2019
West Greenland humpback	2014	Start 2020
West Greenland bowhead	2015	Start 2021
West Greenland fin	2017/18 est.	2023 estimated
West Greenland/East Greenland common minke	2018	2024 estimated
RMP Stock	Year <i>Implementation</i> (IRs) completed	Next <i>Implementation Review</i>
North Atlantic (NA) common minke whales	1993 (2003, 2008, 2017)	Start 2022
Western North Pacific (WNP) common minke whales	2003 (2013)	Start 2018
WNP Bryde's whales	2007	Start in 2017
NA fin whales	2009 (2016)	Start 2023
Antarctic minke whales	1992 (no <i>Implementation Reviews</i> have occurred since, given the adoption of the Southern Ocean Sanctuary in 1994)	

With respect to whale stocks, the approaches differ depending on the nature of actual or potential direct exploitation and indirect exploitation. The objective for aboriginal subsistence whaling is for *Strike Limit Algorithms* to be developed for all stocks by 2018 (this work is on track with two *SLAs* left to be completed for the Greenlandic hunts). There is a system of regular (5-6 year) *Implementation Reviews* with established guidelines (Table 10). Similarly, those stocks that might be subject to whaling under the RMP follow a formally documented approach with established Requirements and Guidelines (*pre-Implementation Assessment, Implementation, Implementation Review* every 5-6 years; Table 10; [Section 11: Chapter 2.1 and 2.4](#)). The RMP *pre-Implementation Assessment* for new species/populations is usually preceded by an in-depth assessment.

The Committee has no formal guidelines for assessing the effect of special permit catches on stocks, but has agreed that it should normally follow a similar modelling approach to that used for AWMP and RMP with respect to modelling potential effects in light of uncertainty. In 2016, the Committee agreed to start drafting guidelines in this area.

For stocks not subjected to direct hunting by contracting governments, the Committee has followed an ‘in-depth’ assessment approach (Table 11). Table 11 provides a short summary of the Committee’s work on whale stocks. A similar table will be constructed for small cetaceans by 2020. At present, this is less formal (and has no timeline) and takes into account the available information and uses modelling to establish the status of the population(s) i.e. where the population is now compared to its pre-exploitation state and what are the current trends are. This follows a similar approach to the RMP in that there is a pre-assessment evaluation of the available information to see if it is sufficient to carry out an in-depth assessment. Once an assessment is completed it is revisited when sufficient new information is available to warrant it.

**Table 11:** Current assessment/management status of large whale stocks and SC sub-groups responsible

Species	Region	Assessment/Management Status	Sub- Group
Blue whale	North Pacific	Pre-In-Depth Assessment	NH
	North Atlantic	No assessment plans at present. Receive new information	NH
	Southern Hemisphere	Antarctic wide in-depth assessment completed. Investigation to see if smaller scale in-depth assessment feasible	SH
Sei whale	North Pacific	Ongoing <i>In-Depth Assessment</i> . Subject of Special Permit whaling	IA/SP
	North Atlantic	Request for RMP <i>Implementation</i> postponed. Receive new information	NH
	Southern Hemisphere	No assessment plans. Receive new information.	SH
Fin whale	North Pacific	No assessment plans. Receive new information.	NH
	North Atlantic	<i>Implementation Review</i> completed. Subject of whaling under reservation	RMP
	West Greenland hunt	SLA being developed. Subject of Aboriginal Subsistence Whaling	AWMP
	Southern Hemisphere	Examining feasibility of undertaking in-depth assessment. Receive new information.	SH
Omura’s Whale	Indian Ocean, north and central west Pacific	No assessment plans. Receive new information.	NH
Gray whale	North Pacific	Rangewide review in progress	CMP
	western	Subject of Conservation Management Plan	CMP
	Chukotka, Makah hunts	SLA developed. Next <i>Implementation Review</i> expected in 2019. Subject of Aboriginal Subsistence Whaling	AWMP
Common minke whale	North Pacific	Other than outlined below, no assessment plans. Receive new information.	NH
	Western	Next <i>Implementation Review</i> expected in 2019. Subject of special permit whaling	RMP/SP
	North Atlantic	Other than outlined below, no assessment plans. Receive new information.	NH
	central and eastern	Complete <i>Implementation Review</i> in 2017. Subject of whaling under objection	RMP
	East Greenland	SLA being developed. Subject of Aboriginal Subsistence Whaling	AWMP
	West Greenland	SLA being developed. Subject of Aboriginal Subsistence Whaling	AWMP
	Southern Hemisphere	No assessment plans for dwarf minke whales. Receive new information	SH
Antarctic minke whale	Southern Hemisphere	Assessment recently completed. Subject of Special Permit whaling	IA/SP
Bryde’s whales	North Pacific	Other than outlined below, no assessment plans. Receive new information especially from IWC-POWER	NH
	Western	<i>Implementation Review</i> starting in 2017. Was subject of Special Permit whaling until 2016	RMP/SP
	North Atlantic	No assessment plans. Receive new information.	NH
	Southern Hemisphere	No assessment plans. Receive new information.	SH
Right whale	North Pacific	No assessment plans. Receive new information.	NH
	North Atlantic	Other than outlined below, no assessment plans. Receive new information.	NH
	Western	New assessment required.	IA
	Southern Hemisphere	Assessment recently completed. Receive new information	SH
	SE Pacific, South Atlantic	Two populations subject of Conservation Management Plans	CMP
Bowhead whale	North Atlantic	Other than outlined below, no assessment plans. Receive new information.	NH
	Greenland hunt (and Canada)	SLA developed. Subject of Aboriginal Subsistence Whaling (also by Canada - a non-member nation)	AWMP
	North Pacific		
	Bering-Chukchi-Beaufort Seas	Subject to Aboriginal Subsistence Whaling	AWMP
	Okhotsk Sea	SLA developed. Next <i>Implementation Review</i> expected in 2019. Subject of Aboriginal Subsistence Whaling	NH
Humpback whale	North Pacific	Subject to <i>In-Depth Assessment</i> (P-IA)	IA
	North Atlantic	Due a new assessment (last one completed in 2002). Receive new information.	NH
	West Greenland hunt	Subject of Aboriginal Subsistence Whaling	AWMP
	St. Vincent and The Grenadines	Subject of Aboriginal Subsistence Whaling	AWMP
	Southern Hemisphere	Assessment recently completed. Receive new information	SH
	Arabian Sea	Proposed for Conservation Management Plan	CMP
Sperm whale	Global	Reviewing assessment plans. Receive new information	IA

### **9.1 Cooperation with other organisations**

The importance of collaboration with other international organisations is well recognised and encouraged on many issues including bycatch, ship-strikes, environmental concerns, small cetaceans, ecosystem modelling, etc.

### **9.2 General assessment issues and Revised Management Procedure**

The Sub-committee on the Revised Management Procedure considers general assessment issues generated from the RMP discussions (or those from other sub-groups e.g. AWMP, IA) such as: (1) the relationship between  $MSYR_{mat}$  and  $MSYR_{1+}$ ; (2) text for the 'requirements and guidelines for conducting surveys' e.g. with regard to model based abundance estimates; (3) implications of RMP and AWMP simulation trials for consideration of 'status'; and (4) matters of relevance to special permits that involve RMP considerations including effects of catches upon stocks.

In addition, this sub-committee is in charge of assessment of whale stocks subject to RMP or Special Permits: (1) ongoing *Implementation Reviews* (see Table 10), and (2) preparation of new *Implementation Reviews* (e.g. North Pacific common minke whales). Items related to the stock structure and abundance of these stocks are dealt with by the sub-groups on SD&DNA and ASI, respectively. Issues related to specific special permits are dealt with by the RMP sub-committee and included under Item 'Special Permits' of the main Scientific Committee report. See full details on the RMP [here \(https://iwc.int/rmp\)](https://iwc.int/rmp).

### **9.3 Aboriginal Whaling Management Procedure and stocks subject to Aboriginal Subsistence Whaling including management advice**

The Standing Working Group on the Aboriginal Whaling Management Procedure (AWMP) is in charge of: (1) completing and updating the Aboriginal Subsistence Whaling Management Procedure (completion and updating of SLA for all hunts, and conducting *Implementation Reviews*, [Section 11: Chapter 2.4](#)); and (2) provide annual advice on stocks subject to Aboriginal Subsistence Whaling (ASW; <https://iwc.int/aboriginal>) hunts - Greenland hunts for common minke, fin, humpback and bowhead whales, Chukotka hunt for gray whales, potential Makah hunt for gray whales, Alaska and Chukotka hunts for bowhead whales, St. Vincent and The Grenadines hunt for humpback whales. Items related to the stock structure and abundance of these stocks are dealt with by the sub-groups on SD&DNA and ASI, respectively.

### **9.4 Whale stocks not subject to direct takes or to CMPs**

Stocks not subject to direct takes (see Item 9.2 and 9.3) by contracting governments or to CMPs (see Item 9.5) are considered by three different sub-committees. They include (1) stocks in the process of (or final preparations for) an In-depth Assessment (IA); (2) Southern Hemisphere (SH) or Northern Hemisphere (NH) stocks for which a recent in-depth assessment has occurred or for which data are being assembled to see if an In-depth Assessment is feasible; and (3) the remaining Southern Hemisphere (SH) or Northern Hemisphere (NH) stocks for which there is limited information (which are not considered each year, nor each biennium). Efforts will be made to develop a longer-term strategy to assess all stocks. Items related to the stock structure and abundance of these stocks is dealt with by the sub-groups on SD&DNA and ASI.

### **9.5 Cetacean stocks that are or might be the subject of Conservation Management Plans**

The Sub-committee on Conservation Management Plans (CMP; <https://iwc.int/conservation-management-plans>), with a focus on progress with scientific aspects, considers cetacean stocks that are: (1) the subject of existing CMPs (i.e. SE Pacific and S Atlantic southern right whales, North Pacific gray whales and Franciscana) or (2) are high priority candidates for a CMP (i.e. Humpback whales in the northern Indian Ocean including the Arabian Sea). It will also periodically reconsider stocks that have previously been considered as potential CMPs, recognising that the Commission has stressed the need for Range States to support any IWC CMPs (i.e. northern Indian Ocean Blue whales, Mediterranean Fin whale and Sperm whale, Boto in Amazonia). Items related to the stock structure and abundance of these stocks is dealt with by the sub-groups on SD&DNA and ASI.

### **9.6 Stock definition and DNA testing**

The Working Group on Stock Definition and DNA testing (SD&DNA) reviews: (1) new papers on stock structure on behalf of other sub-groups (AWMP, CMP, EM, HIM, IA, NH, RMP, SH, SM and WW); (2) DNA testing matters including those related to DNA registries ([Section 11: Chapter 3.4](#)); (3) guidelines for ensuring DNA data quality and for analyses of genetic data ([Section 11: Chapter 2.3](#)); (4) general statistical and other issues related to stock structure matters using a suite of data and techniques; (5) terminology appropriate to

stock definition, unit-to-convert and 'viable' population for use across sub-groups and the Committee; and (6) population models to test spatial stock structure models.

As genetic data are frequently applied to give advice to the IWC (including, but not limited to, detection of population structure) there is a need to agree on data quality criteria for currently used DNA marker types (sequences, microsatellites, Single Nucleotide Polymorphisms [SNPs]; possibly nuclear DNA sequencing in the future). The guidelines and considerations on DNA quality provided here ([Section 11: Chapter 2.3](#)) represent common practice subject to ongoing discussion and will need future adaptation, as the state-of-the-art of DNA analysis in population genetics progresses. It is also evident that, although accordance to these guidelines is highly desirable, this does not preclude consideration of genetic work failing to fully meet these standards. For studies explicitly carried out to give stock definition advice to the IWC, adherence to these guidelines is strongly recommended.

### **9.7 Cetacean abundance estimates, stock status and international cruises**

The Working Group on cetacean Abundance estimates, stock Status and International cruises (ASI) focuses on: (1) reviewing new abundance estimates on behalf of other sub-groups (AWMP, CMP, EM, HIM, IA, NH, RMP, SH, SM and WW), which are included in the Abundance summary table ([LINK TO A WEB PAGE](#)); (2) developing a biennial document compiling agreed abundance estimates including a basin wide summary ([LINK TO A WEB PAGE](#)); (3) methodological issues including model-based abundance estimates; (4) discussion on how to present information on the status of stocks (<https://iwc.int/status>) including a summary of information on the status of stocks based on completed in-depth assessments or RMP and AWMP *Implementations*; and (5) the design and analyses of IWC research projects related to abundance estimation including relevant IWC-SORP projects and IWC-POWER cruises (<https://iwc.int/power>), including Guidelines on survey design and techniques ([Section 11: Chapter 2.2](#)).

### **9.8 Non-deliberate human-induced mortality of cetaceans**

The Sub-committee on Non-deliberate Human-Induced Mortality of cetaceans (HIM) currently discusses: (1) entanglement of large whales (<https://iwc.int/entanglement>); (2) ship strikes (<https://iwc.int/ship-strikes>); (3) approaches for addressing the bycatch of small cetaceans (<https://iwc.int/bycatch>); and (4) relevant information submitted in National Progress Reports and evaluate its adequacy.

The Sub-committee addresses the assessment and scientific aspects of mitigation of non-deliberate mortality of cetaceans. The main focus is on large whale entanglement, bycatch of small cetaceans and ship strikes. The Working Group continues to consider methods to estimate mortality rates from these causes for use in the Committee's In-depth Assessments and *Implementation Trials*. The Sub-committee also contributes to the joint work programme of the Scientific and Conservation Committees, providing scientific views on aspects of the Commission's Ship Strikes Working Group and large whale disentanglement initiatives. The Working Group also considers scientific advice relevant to furthering cooperation between IWC and other international bodies including the International Maritime Organization. Specific topics that are considered by the working group include:

1. Bycatch and entanglement
  - i. Review the information submitted by member countries in National Progress reports relevant to bycatch and entanglement;
  - ii. Estimation of rates of entanglement, risks of entanglement and mortality for large whales and evaluate mitigation measures for preventing large whale entanglement;
  - iii. Estimation of rates of bycatch, risks of, and mortality for small cetaceans including consideration of scientific aspects of bycatch mitigation measures and prevention;
2. Ship Strikes
  - i. Review progress on developing a global data base of ship strike incidents;
  - ii. Estimation of risks and mortality from ship strikes;
  - iii. Consideration of methods to identify high risk areas;
  - iv. Evaluate options to mitigate risk of ship strikes with a focus on identified high risk areas.

### **9.9 Environmental concerns**

The Standing Sub-committee on Environmental Concerns (E; <https://iwc.int/environment>) focuses on a wide range of topics, including Pollution 2020, Oil spill impacts, cumulative impacts, harmful algal blooms, marine debris, diseases of concern, strandings and mortality events, noise, climate change.



### **9.10 Ecosystem modelling**

The Sub-committee on Ecosystem Modelling (EM) covers topics including: (1) co-operation with CCAMLR, (2) several issues relevant to ecosystem modelling, including ensemble averaging, effects of long-term environmental variability, IBEMs and aspects of ecosystem services, and aspects of ecosystem services; (3) relevant aspects of Special Permits programmes; (4) spatial modelling and (5) review of ecosystem modelling developments outside the IWC.

### **9.11 Small cetaceans**

The Sub-committee on Small Cetaceans (SM; <https://iwc.int/smallcetacean>) covers a wide range of topics. These are usually the following: (1) a focus on the annual priority species/stock/topic; (2) update on the Voluntary Fund for Small Cetacean Conservation Research ([https://iwc.int/sm\\_fund](https://iwc.int/sm_fund)); (3) review progress on previous recommendations where new information is available (species only are periodically considered); (4) review takes of small cetaceans; (5) update on progress made on the topic of 'poorly documented hunts of small cetaceans for food, bait or cash.' Items related to the stock structure and abundance of these stocks are dealt with by the sub-groups on SD&DNA and ASI.

### **9.12 Whale watching**

The Sub-committee on Whale watching (WW; <https://iwc.int/whalewatching>) focuses on scientific aspects of whale watching especially: (1) the impact of whale watching on cetaceans (Modelling and Assessment of Whale watching Impact, MAWI); (2) data collection and analytical techniques including use of platform of opportunity data; and (3) emerging concerns. It will also review progress on the Commission's 5-year strategic plan and joint work with Conservation Committee (Online handbook; 5-Year Strategic Plan for Whale Watching; General principles and guidelines, <https://iwc.int/wwguidelines>).

### **9.13 Special permits**

The discussion on Special Permits (SP; <https://iwc.int/permits>) is carried out in special Plenary sessions. This item includes: (1) planning for Expert Panel workshops and review of reports from them in accordance with Annex P (new, ongoing or final); (2) reviewing progress with recommendations made by Panels and the Committee; (3) short reviews of updates from ongoing programmes; Detailed technical review of analyses/papers from special permits occurs in the relevant sub-groups of the Committee (EM, HIM, IA, NH, RMP and SH).

### **9.14 Whale sanctuaries**

The Scientific Committee also has a Working Group on Sanctuaries (SAN) that, when necessary, carries out: 1) reviews of any new Sanctuary proposals, 2) scheduled reviews of existing Sanctuaries and 3) responses to requests from the Commission on scientific aspects of sanctuaries (<https://iwc.int/sanctuaries>).

### **9.15 IWC databases and catalogues**

The IWC is increasingly acting as a repository of data (including genetic samples currently stored at the Southwest Fisheries Science Center, La Jolla, California). These databases and archives include: (1) the IWC catch database; (2) the National Progress Report database; (3) the IWC sightings database (IWC-DESS) which holds sightings and effort data from the IWC IDCR, SOWER and POWER cruises as well as data submitted under the RMP; (4) the IWC photographic archive for the IWC IDCR, SOWER and POWER cruises; (5) a number of photo-identification catalogues (e.g. Southern Hemisphere blue whales, Antarctic humpback whales, various species from IWC-POWER etc.); (6) the [global ship strikes database](#) and possibly other future databases (e.g. entanglements). Under this item the Committee addresses: (1) common guidelines and principles for IWC databases including data availability; (2) design issues and (3) provide a summary of holdings.

The *Ad hoc* Working Group on Photo-identification (PH) supports the IWC work conducting cetacean population assessments through photo-ID databases (catalogues of cetacean photo-identifications and associated geographical and biological data, including genetic data when applicable and appropriate). Specifically, this Working Group: (1) develops guidelines for catalogues contributing photo-ID data to IWC assessments and/or that are IWC funding recipients ([Section 11: Chapter 3.5](#)); (2) reviews progress in archiving IWC photo-ID data for IWC IDCR, SOWER, and POWER cruises; (3) reviews ongoing species-specific catalogue developments (e.g. Antarctic humpback whales, Southern Hemisphere blue whales); (4) supports the collaboration of photo-ID catalogues in order to integrate databases as an underpinning of cetacean population assessments.

In 2017 the Committee established with the Secretariat an intersessional Standing Steering Group on IWC Global Data Repositories and National Reports (GDR) with the following tasks: (1) Review technical progress on existing Global Data Repositories (i.e. databases); (2) Consider needs and specifications for potential new databases, including developing simple technical guidelines on new proposals (Section 11: Chapter 5.2); 3) Produce a budget and workplan for the implementation and development of existing and new databases.

## 10. LIST OF WEB PAGES AND PORTALS LINKED TO THE SC HANDBOOK [TO BE COMPLETED]

- ✓ Venues and dates of all previous meetings (<https://iwc.int/historical>)
- ✓ Intersessional correspondence groups (LINK TO WEBPAGE: <https://iwc.int/correspondence-groups>)
- ✓ Abundance summary table
- ✓ Biennial report on agreed abundance estimates including a basin wide summary
- ✓ Meetings' portal
- ✓ SORP (<https://iwc.int/sorp> and <http://www.marinemammals.gov.au/sorp>)
- ✓ WW portal

## 11. CONSOLIDATED COMPILATION OF SCIENTIFIC COMMITTEE RULES OF PROCEDURE, WORKING METHODS, GUIDELINES AND PROTOCOLS [Note: once completed, this could be simply become 'Annex 1']

In 2018, the Committee introduced the use of a consolidated compilation of Committees' Rules of Procedure, details on working methods, guidelines and protocols (e.g. 'Annex P', 'Requirements and Guidelines for Implementations under the Revised Management Procedure', 'Data Availability Guidelines', 'Guidelines for DNA data quality control for genetic studies relevant to IWC') to allow this material to be easily accessible and reference all updates throughout time.

This is the structure of this consolidated compilation:

CHAPTER 1: RULES OF PROCEDURE OF THE COMMISSION, FINANCIAL REGULATIONS AND RULES OF PROCEDURE OF THE SCIENTIFIC COMMITTEE [Appendix 1]

CHAPTER 2: REQUIREMENTS AND GUIDELINES FOR IMPLEMENTATIONS

2.1 Requirements and Guidelines for *Implementations* under the Revised Management Procedure (RMP) [Appendix 7]

2.2 Requirements and Guidelines for Conducting Surveys and Analysing Data within the Revised Management Scheme [Appendix 12]

2.3 Guidelines for DNA data quality control for genetic studies relevant to IWC [Appendix 17]

2.4 Requirements and Guidelines for *Implementations* under Aboriginal Subsistence Whaling Management Procedure [Appendix 8]

CHAPTER 3: GUIDELINES FOR DATA SHARING AND ARCHIVING

3.1 Data Availability Guidelines [Appendix 6]

3.2 Procedure to consider applications for the use of acoustic data, tissue samples or photo-identification photographs

3.2.1 *Research Proposal: Request for use of: (1) IWC IDCR/SOWER; and/or (2) IWC-POWER samples/data* [Appendix 16]

3.4 DNA registries template [Appendix 10]

3.5 Photo-id catalogue guidelines (?) [Appendix 13]

CHAPTER 4: PROCESS FOR THE REVIEW OF SPECIAL PERMIT PROPOSALS AND RESEARCH RESULTS [Appendix 5]

4.1. Process for the Review of Special Permit Proposals and Research Results from Existing and Completed Permits

CHAPTER 5: SCIENTIFIC COMMITTEE BUDGET RECOMMENDATIONS

5.1 Research Fund procedure, SORP, SMRF and **unsolicited projects** *pro forma* and criteria [Appendix 4]

5.2 Technical guidelines on new proposals for Data bases [Appendix 14]

CHAPTER 7: GUIDELINES FOR WRITING AND EDITING IWC REPORTS [Appendix 3]

7.1 Informal guidelines for Rapporteurs and sub-groups' chairs

CHAPTER 8: GUIDELINES ON LOGISTIC ARRANGEMENTS FOR INVITED PARTICIPANTS' ATTENDANCE [Appendix #]

8.1. Guidelines on logistic arrangements for Invited Participants' attendance at Scientific Committee meetings

8.2 IWC policy for paying travel for Invited Participants