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ICES SCIENCE COMMITTEE

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Minutes from the meeting of the ICES Science Committee (SCICOM)

8 and 13 September 2019



ICES

CIEM

International Council for
the Exploration of the Sea

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1 Opening

The SCICOM Chair welcomed the participants and thanked the Secretariat and all contributors of meeting documents.

A special welcome was extended to new member, Manuel Hidalgo, who joins as alternate for Spain, Ingemar Berglund who joins for Sweden, and to two new Supporting Officers in the ICES Secretariat, Malene Eilersen and Alondra Sofia Rodriguez, who were joining their first SCICOM meeting

The Chair reported that this would be the last SCICOM meeting for Myron Peck and John Pinnegar in their role as SICCOME chairs, for Jörn Schmidt and Eva-Lotta Sundblad in their role as SIHD chairs and for Laura Uusitalo as SCICOM member for Finland.

The SCICOM Chair noted that this has been a good year for SCICOM, with implementation of the Science Plan progressing well, new groups like WGECON and WGSOCIAL working effectively, improving links between science and advice, and good support from Bureau and Secretariat for modernising working procedures and processes.

The SCICOM Chair acknowledged support from Bureau and Secretariat for progress towards modernising the way we are handling the resolutions via a new form and database. He considered this an important step for ICES, as it would allow us to audit, report and share our activities much more easily.

2 Introduction of agenda and timetable

The agenda (Document 1) was approved.

SCICOM Chair introduced the new “SCICOM members’ open forum, to be held towards the end of the meeting, and the need to reflect on important topics and priorities for future SCICOM consideration (item 21). SCICOM members were invited to suggest topics they would like to discuss in this session.

3 Follow-up on decisions taken at the meetings of SCICOM (March 2019 meeting and on SCICOM Forum)

SCICOM Chair, with reference to the minutes approved by SCICOM for March 2019 and Document 4 and 5, gave a summary of the decisions taken on the SCICOM Forum and the ICES Resolutions Forum, and summarised the actions completed.

In relation to the SCICOM actions in the minutes SCICOM Chair reported that all items had been closed out, as shown in the background document on ‘SCICOM actions and decisions’, with the following exception: “Include instructions on the ICES peer-reviewed papers site to state how information on new publications should be submitted to ICES”, which would be carried over to the SCICOM March meeting. This was an intentional delay and had been discussed with ICES Publications.

SCICOM Chair thanked members involved with action items for helping to complete their actions.

4 Process for handling resolutions during ASC and for package sign-off thereafter

The Secretariat, with reference to Document 6, informed SCICOM members of the process and deadlines for finalization of the draft resolutions. The package of draft resolutions (available via SharePoint site) will be approved at a joint ACOM/SCICOM WebEx meeting on 1 October. SCICOM members would be notified a week before the WebEx meeting to review the draft resolutions and submit their comments to the Secretariat before the actual meeting.

Important deadlines:

DRAFT RESOLUTIONS FOR EXPERT GROUPS:	FRIDAY, 20 SEPTEMBER
Draft resolutions package sent to SCICOM and ACOM for review:	Monday, 23 September
ACOM/SCICOM WebEx meeting for approval of Expert Group Resolutions:	Tuesday, 1 October at 15:00–17:00 CET
Nominations for keynotes for ASC 2020 (to be selected after the joint WebEx 1 Oct):	Tuesday, 24 September

5 General arrangements for Annual Science Conference 2019

5.1 ASC Award Selection Group process and planning (Best Paper, Poster, Early Career Scientist Awards)

SCICOM appointed this year's ASC Award Selection Group in March 2019: Nils Olav Handegard (Chair), Laura Uusitalo, Jörn Schmidt, Hedinn Valdimarsson, Francis O'Beirn, Maris Plikshs, Mike Rust, Steven Degraer, Silvana Birchenough, Svetlana Kasatkina, Ellen Kenchington and Francisco Velasco (as ACOM representative).

The group was tasked to select the winners of the 2019 ASC Merit Awards, which were presented at the Closing Ceremony. SCICOM Chair mentioned that Document 9 contains recommendations to help the judging run smoothly and consistently. The Secretariat has prepared hard-copy and online scoring lists for the judges.

The ASC programme of the last day had been changed to avoid the rush to prepare materials for awardees before the ASC closing ceremony. A plenary talk was scheduled right before the awards ceremony.

5.2 Chaperoning keynote speakers

SCICOM representatives were appointed as hosts and contact persons to liaise with the keynote speakers and to introduce them prior to the presentations:

- Mette Skern-Mauritzen for Manuel Barange;
- Myron Peck for Gretta Pecl (with keynote introduction by John Pinnegar);
- Silvana Birchenough for Cisco Werner.

Panel members will not have a formal chaperone as this component of the schedule is managed locally.

5.3 Preview of Theme and Network Session proposals for the ASC 2020 in Copenhagen and call for suggestions for plenary speakers

In March 2019 SCICOM appointed the Annual Science Conference Group (ASCG), tasked to propose the ASC Session Programme for ASC 2020 to be held in Copenhagen, Denmark: Brian MacKenzie (Chair), Peter Wright, Kevin Friedland, Ellen Kenchington, Steven Degraer, Sarah Bailey, Silvana Birchenough, Jörn Schmidt, and Wojciech Wawrzynski. Henrik Mosegaard and Kiersten Curti were nominated to act as ACOM representatives for theme and network session selection.

SCICOM Chair introduced the related meeting documents, consisting of an overview of proposals (Doc 10), the full descriptions of the proposals (Document 11) and a background document describing the process of selection (Document 13).

The Secretariat had received 24 proposals for theme sessions and 7 proposals for network sessions.

The science priorities and the rankings and comments provided by SCICOM members form the basis of the preselection of the ASC Session Programme and are used to achieve an overall balance of scientific topics while leaving flexibility to accept excellent proposals whatever the topic. The allocations to science priorities made by proposers for many of the proposals needed to be revisited / reallocated to the right areas by the ASCG.

Action: SCICOM to conduct a consultation with proposers of ASC 2020 sessions to check if the guidelines to proposers are clear.

5.4 Network Sessions at ASC 2019: leads for feedback to SCICOM

The following SCICOM members volunteered to report back to SCICOM from the network sessions:

- Social aspects of climate change adaptation: Kevin Friedland
- Global impacts of shipping: Sarah Bailey
- Knowledge market on Natura 2000: Francis O'Beirn

6 Reports and highlights from Steering Groups

6.1 Aquaculture SG

Mike Rust (Chair of ASG) with reference to Document 14 gave an update on the progress of the Aquaculture Steering Group. He noted that he is nearing the end of his term. Three expert groups that were initiated at the start of the revitalisation of aquaculture in ICES are planning to renew their resolutions this year (WGAGFA, WGPDMO and WGSEDA). This year, some science highlights from the ASG expert groups and workshops include (1) advancing thinking on risk assessment for diseases and biosecurity, and (2) developing socio-economic papers in collaboration with the AORA working group. The expert groups have requested more cross-group communication, so Rust plans to set up a webinar series for the steering group and also hold steering group meetings at conferences that are well-attended by ASG members. In the upcoming year, the ASG will focus on paving the way for science to flow into advice, with particular attention to aquaculture products such as the Aquaculture Overviews. As a first step, the steering group will survey delegates to help identify how aquaculture is managed in the member states, and develop a roadmap guided by adopting some of available methods and information on the best existing advice from different countries. Rust also relayed that plans to develop viewpoints were side-lined

in favour of developing the regional advice products and papers. However, the steering group will be working on some papers in the following year, including how aquaculture fits into an ecosystem-based approach.

A SCICOM member asked whether the group was addressing the relationship of wind farms and aquaculture; Rust stated that this topic is of importance and of interest to the aquaculture community. Finally, Mike Rust reported that he was working with Myron Peck to consider planning a workshop to draw scientists working on aquaculture in EU projects into ICES groups.

Action: Mike Rust and Myron Peck to consider planning a workshop that will help draw scientists working on aquaculture in EU projects into ICES groups, such that the ICES groups would provide continuity for their science (given that major EU funded projects in these areas are about to conclude).

6.2 Integrated Ecosystem Assessments SG

Mette Skern-Mauritzen (Chair of IEASG) with reference to Document 15 provided an overview presentation of IEASG activities for the past year. Steering group activities of note over the past year are: (1) 6 workshops that facilitated interdisciplinary work in IEA and across other ICES expert groups, and (2) the addition of two new IEA groups for the Greenland Sea and the Azores that will help produce reports that will contribute to new Ecosystem Overviews, and (3) a journal article on the benefits of including fishers' knowledge to improve model predictions (Bentley *et al.*, 2019 in ICES JMS). IEASG has contributed to three ASC 2019 theme sessions and will also hold a business meeting during the ASC.

IEASG priorities for 2020 include: (1) development of a workshop in collaboration with FRSG chair Patrick Lynch focusing on bridging IEAs and fisheries advice, and (2) a workshop to improve the conceptual figure included in the ecosystem overviews; as recommended at the Workshop on the Design and Scope of the 3rd Generation of ICES Ecosystem Overviews (WKEO3).

SCICOM Chair Simon Jennings commented that the addition of new IEA groups was excellent, and the continued advancements to collaboration on climate science across ICES was good given that this is an overarching theme for the steering groups. SCICOM members agreed with these comments about work on climate change, but questioned whether the scope of information included in the IEA reports and Ecosystem Overviews was too narrowly focused on temperature changes as opposed to broader physical and chemical changes. The EPDSG Chair, Silvana Birchenough, noted that expert groups are making scientific progress on understanding the impacts of ocean acidification.

This discussion about the content of IEA and Ecosystem Overviews broadened into a SCICOM discussion on how SCICOM and ICES can improve linkages between ICES expert group work with the UN Decade of Ocean Science for Sustainable Development (2021–2030). This was especially relevant given some upcoming UN Decade of Ocean Science regional meetings focused on ICES ecoregions (e.g. Halifax in January 2020 for the North Atlantic).

ICES General Secretary Anne Christine Brusendorff noted that ICES is participating in a number of relevant international meetings, include the recent Arctic Futures 2050 (held in September 2019) and the UN Decade of Ocean Science meetings.

Action: Pierre Petitgas and Mette Mauritzen to consider developing a format for an event that would increase contact between IEA groups and others, and provide a platform for initiating integrative science.

Action: Rafael González-Quirós and Mette Mauritzen to consider how IEA work can be linked into the Halifax Decade of Ocean Science regional meeting in Jan 2020.

6.3 Fisheries Resources SG

Patrick Lynch (Chair of FRSG) with reference to Document 16, presented an update from the newly established Fisheries Resources Steering Group, which is still in the process of defining itself and setting up working processes. FRSG has scheduled a SG meeting during 2019 ASC.

The FRSG has established a [SharePoint page](#). This provides a summary of each Expert Group to help clarify the science needs on the advisory side and to identify advice priorities to be discussed.

FRSG Chair highlighted some research priorities and recommendations for FRSG groups and hoped that some of the ICES expert groups would have an incentive to pick these up. These research priorities and recommendations are listed on the share-point at: <https://community.ices.dk/Committees/FRSG/SitePages/HomePage.aspx>

EOSG chair noted that fast response times are often required of FRSG expert groups and questions stemming from advice requests may be received at short notice. These working arrangements are different from those for most expert groups in other SGs.

In response to a question about how fisher behaviour was considered by FRSG groups, the FRSG Chair noted that it is an important priority. FRSG has groups that are thinking about how to model this behaviour, but this is not necessarily linked to social and economic content, so it would be valuable if other expert groups could contribute. SCICOM chair suggested that this could be coordinated through the SIHD chairs; SIHD chair Alan Haynie noted that SIHD is working with the FRSG chair to coordinate some of the economic input to fisheries groups.

There was additional discussion by SCICOM on ways to improve the communication on the benchmark process to expert groups with a biological focus.

Action: SIHD and Patrick Lynch to discuss and implement most effective ways to coordinate fisher behaviour work.

Action: Patrick Lynch to make information on timing of benchmark processes more readily available to biologically-focused expert groups.

Action: Patrick Lynch to assess the relationship between timing of benchmarks and relevant work conducted by biologically-focused expert groups, and determine if the timing is effectively supporting the benchmark process.

6.4 Ecosystem Observation SG

Sven Kupschus (Chair of EOSG), with reference to Document 17, provided an update on EOSG activities. A large number of EOSG groups successfully collaborated on the first science highlights series on “Maintaining the continuity of the long-term data sets.” The EOSG chair thought that the shorter format worked well for the EOSG expert groups to highlight their ongoing work and challenges. A number of new working groups and workshops were established under the EOSG umbrella in 2018-2019, including the Working Group on Technology Integration for Fishery-Dependent Data

(WGMLEARN) and the Working Group on Technology Integration for Fishery-Dependent Data (WGTIFD). The EOSG chair noted that the process of establishing one-time workshops has been useful for groups to evaluate whether they truly have the scientific need to establish longer-term groups, and that workshops also help ICES to make progress on detailed topics with a clearly defined endpoint.

The EOSG Chair reported that EOSG communication and organization continues to be challenging, as the number of groups is large. This will be a topic of focus at the upcoming Workshop on the Realignment of the Ecosystem Observation Steering Group (WKREO) in October 2019. The chair indicated that a discussion with SCICOM about the outcomes of WKREO would be useful. The chair will also be seeking to identify how coordination can be improved between expert groups within EOSG and other ICES expert groups that rely upon the work of EOSG groups. For example, there could be opportunities to co-develop more evaluation tools with end users and more collaborative engagement with IEA groups that are using EOSG data. The EOSG chair will be attending some RCG meetings, and hopes to improve linkages with EOSG. EOSG has made good progress on the science plan activities related to data provision and QAQC. However, the chair noted that while EOSG is the largest steering group, relatively few of the science plan codes were relevant to their work. He suggested that more of these would be helpful for making linkages to the plan and improving management and reporting of progress on the science plan goals.

SCICOM Chair relayed that he thought the EOSG science highlights series was a success. He also commented that expansion of the science plan codes could be used to manage and report activity in EOSG. IEASG Chair, Mette Skern-Mauritzen, suggested that improved communication between IEA and EOSG chairs would be beneficial, and indicated that the involvement of some survey experts in IEA groups has been a good example of this cross engagement working well.

Action: Mette Skern-Mauritzen and Sven Kupschus to discuss ways to strengthen IEASG and EOSG interaction, with a focus on transfer of data into the EO process and taking account of outcomes of REO, CONSERVE and INTRA, and report to the March 2020 SCICOM meeting.

6.5 Human Activities, Pressures and Impacts SG

Sarah Bailey (Chair of HAPISG) with reference to Document 18, reported from the Human Activities, Pressures and Impacts Steering Group. The steering group is adding two new expert groups this year focusing on cumulative effects assessment approaches in management (WGCEAM) and shipping impacts in the marine environment (WGSHP). Unfortunately, one of the chairs had to step down from WGSHP, so HAPISG chair will fill this position temporarily until a new chair can be identified. The HAPISG Chair met with her expert group chairs at both the 2019 WGCHAIRS meeting the 2019 ASC. Collectively they are working to identify additional viewpoints and science highlights.

Sarah Bailey noted that communication with the expert group chairs was sometimes one-sided, this was echoed by other SG chairs in the room. She suggested that adding the science highlights into the annual evaluation form would help ensure more communication on scientific progress, as many groups are not actively communicating them to the HAPISG chair, nor including this information currently in their evaluations or reports.

Most working groups have been on-track to fulfilling their ToRs and work independently, but a few have overdue reports and others could improve the quality of

their reports. A few groups are low on membership, including the Marine Chemistry Working Group (MCWG). SCICOM Chair noted that maintaining growth and expertise in their area was important for ICES, but other members of SCICOM suggested that the group's breadth was potentially too wide to maintain as a single group given the many disciplines that contribute to marine chemistry. The HAPISG chair will discuss this with the MCWG Chair, and potentially rework the ToRs to get more engagement from the community.

EOSG chair Sven Kupschus, agreed with comments about improving SG communication. ASG Chair Mike Rust suggested that the evaluations could also include a key science highlights graphic in addition to the description box requested by Sarah Bailey.

SCICOM members continued a discussion, also brought up during the EOSG briefing about how many groups the ICES community and Secretariat should support, noting that there is frequent discussion in SCICOM of adding groups, but an omission of discussion on dissolving groups. SCICOM chair noted that the resource pool that ICES could draw upon did not have to be seen as fixed in all areas, because new groups like WGECON, WGSOCIAL and WGMLEARN were attracting scientists who had not previously engaged in the ICES community. He also emphasised that groups are being dissolved at the end of term if they do not have the momentum and membership to put forward a new resolution. But, if there were even small groups of committed scientists who saw benefits of working under the auspices of ICES on areas of relevance to our Science Plan then we should seek to support them.

Action: SCICOM members to make efforts nationally to identify members for MCWG and encourage attendance of existing members at MCWG.

Action: ICES Secretariat and SCICOM Chair to add science highlights box to interim and final e-evaluation forms.

Action: Sarah Bailey to discuss with MCWG chair whether the scope of this group is too general and if this is a reason why it is becoming less attractive to scientists. If generality is having undesirable effects on membership then propose plan for better brigading marine chemistry work in ICES.

6.6 Ecosystem Processes and Dynamics SG

Silvana Birchenough (Chair of EPDSG) with a reference to Document 19, gave an overview of progress for the Ecosystem Processes and Dynamics Steering Group. EPDSG expert groups have had many successful coordination activities within the steering group and with HAPISG; these include an ASC 2019 session on shipping impacts, plans for a joint meeting of WGBOSV and WGITMO in early 2020, and submission of a joint ICES/PICES ASC 2020 session on ocean acidification.

Two scientific papers were published by EPDSG expert groups in 2019, two more are in preparation, and a special issue on decommissioning offshore man-made installations will be published as an ICES Journal Theme Issue in January 2020. Four new EPDSG groups are under development, focusing on a wide range of topics including impacts of warming on fish growth rates and fisheries yields, small pelagic fish (with PICES), blue carbon (with PICES), and scallop aging. The EPDSG chair also represented ICES at a number of meetings in 2019 including a meeting on the UN Decade of Ocean Science for Sustainable Development, and will be presenting the steering group at the Mediterranean Science Commission (CIESM) in October.

There was additional discussion by the EPDSG chair and other members of SCICOM about the potential to streamline the resolution process for joint ICES/PICES working groups. This was added as an action item, but SCICOM is aware that the flexibility to adopt any changes may be limited due to ongoing efforts to streamline the processing of ICES resolutions.

Action: Head of Science Support Department and SCICOM Chair to link up with Robin Brown (PICES) to discuss whether the process for developing joint PICES-ICES expert groups can be improved, while recognising and respecting underlying differences between our organisations.

7 SCICOM Operational Groups and interactions between Operational Groups and ICES Secretariat

7.1 ICES Training Group (Chair of Training Group, Jan Jaap Poos and Conference and Training Coordinator, Anna Davies)

Jan Jaap Poos (Chair of Training Group) with reference to Document 20 gave an update from the ICES Training Group. The training courses already held in 2019 and the courses planned for 2019 / proposed for 2020 were presented. He noted that there were two new additions to the ICES Training Programme offered in the autumn:

- Introduction to CPUE standardization and development of annual indices of stock abundance, 4–8 November 2019, ICES HQ, Copenhagen, Denmark (requested by WGCATCH)
- Introduction to mapping and spatial analysis with R, 25–29 November 2019, ICES HQ, Copenhagen, Denmark

The training courses proposed for 2020 will be confirmed in October after the Training Group has met via WebEx. SCICOM members were encouraged to bring forward suggestions for new training courses.

A suggestion was made to have a policy/guideline on how to handle training courses supported by ICES projects. Head of Science Support explained that these requests for training courses are dealt with on a case-by-case basis, and so far the process has been smooth. The courses get publicity through their consortium, and are normally well attended. The most important thing is to ensure that the courses are well aligned with the Science Plan and this is currently done as part of the approval process.

A question was raised on whether online courses are still on the agenda? The Chair of Training Group responded that the online courses have been high on the agenda for the past ca. six years, and SCICOM members are welcome to propose online courses if the tools for running the courses online are made available.

Decision: Pieter-Jan Schön to replace Mark Dickey-Collas as ACOM representative on Training Group.

Action: SCICOM members to send Jan Jaap ideas for training courses and instructors, in areas linked to the ICES Science Plan.

7.2 ICES Science Impact and Publication Group

Ruth Anderson (ICES Editor), with reference to Document 21 presented an overview of the state of publications, as well as an update on the ICES bibliographical database.

SCICOM noted that the ICES Journal of Marine Science (IJMS) is doing well and the impact factor has increased from 2.760 in 2017 to 3.367 in 2018.

ICES Techniques in Marine Science (TIMES)

TIMES has seen very low publication rates. Since last ASC there has been only one publication and there are three in the pipeline. Considering the investment in the TIMES publication, ICES should be producing 3–4 per year. The ICES Editor reported that the author base is not big enough and the topic range is quite narrow. ICES Editor, together with the new TIMES series editor, Tatiana Tsagaraki, will be working towards broadening the scope for TIMES and changing the description to be less chemical/biological. The target is to establish TIMES as a broader outlet for handbooks, manuals and best practice guidelines intended for practical application in the laboratory, office or the field.

During discussion, several useful comments and suggestions were made in relation to TIMES and the following action items were agreed for follow up.

Action: SCICOM members to promote opportunities to contribute to TIMES at their national institutes.

Action: Ruth to discuss with Howard Browman the likely response to the development of an ICES methods journal as an alternative to TIMES, but in concept only and not because there is a clear wish to establish one at this time.

Action: A subgroup consisting of ICES Editor, EOSG Chair and DIG Chair to consider scope of, and relationships between, SISPS and TIMES and whether their remits and differentiation are clearly defined or necessary.

Action: ICES Editor and Chair of Training Group to look at links between release of TIMES and provision of training in techniques reported. To advise if opportunities exist to link training courses to the publication of TIMES.

ICES Cooperative Research Reports (CRR)

SCICOM noted that the CRR series is doing well. Eight CRR reports were published since the last ASC and 8 reports are currently in process. Prior issues with overdue reports have been solved by tightening deadlines.

ID Plankton Leaflets Series

The two series editors, Antonina dos Santos and Lidia Yebra, have done an excellent job revitalizing the series. The aim is to publish 2-3 Leaflets per year. One leaflet has been published since the last ASC, 2 are under revision, and a further 4 are being prepared.

ID Leaflet Series on Diseases and parasites of fish and shellfish

Two leaflets have been published since last ASC under Series Editor, Neil Ruane, and a further 4 are under preparation. The series is well in line with a target output of 2-4 per year.

ICES bibliographical database

To improve data collection and output possibilities, a restructuring of the bibliographical database has been conducted. The next steps involve transfer of information from the old database to the new database, and development of guidelines for how to provide new entries for the database.

ICES own publication database (for CRR, TIMES and ID Leaflets) has been updated – all documents have been given a DOI and the metadata has been expanded (e.g. addition of keywords). This will simplify access to ICES own publications and tracking of usage.

The ways in which ICES is acknowledged in journal articles are still very variable, and there is still some work to do to encourage expert groups to use the recommended format.

SIPG Chair

SCICOM Chair reminded the meeting that he had acted as a custodian Chair of the Science Impact and Publication Group since its establishment, and SCICOM members were asked to consider volunteering for role of SIPG Chair.

Decision: On the second day of the meeting, Nils Olav Handegard (Norway) volunteered and was appointed as the new Chair of SIPG, replacing SCICOM Chair as custodian chair.

7.3 ICES Data and Information Group

Jens Rasmussen (DIG Chair), with reference to Document 22, gave an update from DIG.

On the governance evaluation for the Transparent Assessment Framework (TAF), the chair noted that TAF has been taken through a structured evaluation process with 43 questions. TAF is rapidly developing, and it is fully expected that the governance evaluation will be updated to reflect changes and improvements. There are a number of governance groups, some already in operation (WG DG, SmartDots, and SC-RDB) and three new governance group resolutions will be presented for Acoustic Portal, TAF, and spatial fisheries data.

On Data Centre accreditation the DIG chair reported that, as part of the move towards overall Quality Assurance Framework, ICES Data Centre presented an evaluation to DIG for two main accreditation schemes. DIG decided to support Core Trust Seal (CTS) and ICES Data Centre has started the evaluation of criteria. ICES expects to be in a position to apply for accreditation (for datasets managed within the Data Centre) in 2020.

DIG routinely performs a review of the ICES Data Policies. Looking ahead, DIG believes a separation of the data license and data policy will be more effective and clearer for users. DIG will evaluate existing open data licenses in the ICES context and report the outcomes to the SCICOM 2020 March meeting.

In relation to harmonising and opening up data guidelines, DIG is identifying possible new maintainers (EG's) for 13 data guidelines and UK MEDIN has offered to help align data guidelines. Once in place, the website will become a signposting table for status and links.

Neil Holdsworth reported from the Open Sea Lab that took place in Ghent early September. The event was cosponsored by Emodnet, European Network, Copernicus and

ICES. It was a very successful event, and ICES contributed with expertise and put in ideas for challenges, coaches, and a presentation. ICES also provided data and services for all the hackers to use. The winning team was from ILVO. The event will probably be repeated in two years and will be expanded to become a global event.

In relation to DIG Chairmanship, the three-year term of the current DIG chair is coming to an end in 2019. DIG recommended a one-year extension for the current chair, Jens Rasmussen (UK). The current chair indicated willingness to extend the chairmanship for the one-year period

Decision: Jens Rasmussen to continue as DIG Chair in 2020.

8 Raising the profile of data and technology in ICES: introduction

SCICOM Chair, with reference to Document 23, explained that the aim of this item was to inform and to canvas general views on the pros and cons on whether the creation of a new Steering Group focusing particularly on data and technology issues would benefit ICES. The potential aims of a new steering group would be to project data and technology more strongly. The creation of a new structure would not imply a change to the role for DIG, which is an operational group, but as an operational group, DIG does not profile itself externally as strongly as a Steering Group.

The following comments and reflections were made:

- Data and technology are two separate issues; they are sometimes interrelated, and both are crosscutting. For this reason, it would not make sense to combine the issues in one steering group.
- Data needs to be organised in such a way that we can use the new technologies, so they are to some extent connected.
- Establishing a Strategic Initiative might be more relevant because of the cross-cutting nature of the issue; this could provide a forum, where the EG Chairs dealing with technology could participate and interact.
- The crosscutting aspects of data and technology are recognised by all and that is both good and bad. It also means that the topic belongs to everyone and no one. It is about getting a common thread through it.
- An Operational Group would provide the best way to deal with data, it is something that we need a permanent structure for, whereas technology is so broad that a SI might be appropriate.

SCICOM Chair thanked for all the good comments and thoughts and noted that if SCICOM decides to carry this forward, a matrix approach to look at the pros and cons of a new Steering Group or Strategic Initiative would be needed, as well as a decision on whether “data” and “technology” would be handled together. This item would be revisited at the Friday meeting after SCICOM members had taken an opportunity to reflect on the options and best ways forward for ICES.

Shiny Server

Jens Rasmussen (DIG Chair), with reference to Document 24, presented the proposal for ICES to host an R Shiny server. SCICOM views were invited on whether ICES Secretariat should be encouraged to host a platform for an R Shiny server for the ICES community, and if guidelines around their use in the ICES context need to be developed concurrently (and by whom). Jens explained that the R Shiny package allows R

programmers with no web development background to be able to create web applications (apps) which are interfaces to R analyses. An ICES R Shiny Server would allow ICES experts to share applications within their expert group, more widely across ICES and potentially allowing public access in some cases. The transition to Shiny could be two-stage process to minimize risks, first using the resource internally (sandbox environment) and subsequently expanding its use externally. Another option could be to provide Shiny internally only. There are resource implications for both solutions and a number of issues would need to be resolved in terms of resource demand, managing the security, quality assurance, and the reputational side for ICES.

Decision: SCICOM recognises the growing use of Shiny by expert groups and recommend ICES provide a Shiny server to provide internal support to Shiny users and developers. SCICOM noted that it is premature to develop an external-facing server without understanding credibility and related risks to ICES.

Action: DIG to develop a term of reference that tasks them to consider the benefits and risks of an external facing Shiny server.

9 Streamlining ICES processes – resolutions forms and resolutions database

Julie Kellner (Science Professional Officer) with reference to Document 42 presented an update on the ongoing work to streamline ICES resolutions.

Julie Kellner commented that the resolution form content is now out for review with the Secretariat, the steering group chairs and a number of expert group chairs. After the review, the next step will be the production stage and testing of the form, and finally revision of the instructions in the Guidelines for Expert Groups. The Secretariat is aiming for adoption of the new form by all expert groups in January 2020, with detailed information provided at the WGCHAIRS meeting.

Several options have been considered for the new form platform and the pros/cons of some of these options were presented. It has been decided to use Adobe PDF because of the robustness of exportability and the usability of a PDF form on any platform. Track changes on forms is not an option on all platforms evaluated (including Microsoft Word forms), but Adobe PDF has good commenting options which allow for feedback.

The resolutions database will be developed using Microsoft Dynamics as platform as it can provide the necessary flexibility, would be supported with in-house expertise and server resources, and does not required additional financial investment for a database platform.

Development of the workflow process will be priority for the Secretariat during the next months, and the plan is to work closely with the supporting officers and steering group chairs to identify a well-defined path for authorship, review, approval, and archival.

Microsoft PowerBI will be used for the user interface with the databases. This platform allows for the development of customized dashboards and interactive reports for different audiences (e.g., steering group chairs, SCICOM, ACOM, supporting officers, etc.).

In connection with the revision of the instructions in the Guidelines for ICES Groups, the Secretariat will also be working on the highlighting instructions for drafting Terms of Reference (ToR). The existing guidance is not always followed and it will be essential

for the usefulness of the database that ToR are stand-alone. It was suggested that machine learning could be used to guide the user in the right direction when developing Terms of Reference and thereby improve them through time.

SCICOM Chair thanked Julie, Neil and everyone involved in the resolutions database project within the ICES Secretariat. He commented that it will be absolutely fantastic to have this new resolutions database, leading to better reporting, auditing and management of our science.

Action: SG chairs should review the current guidance for writing terms of reference from two perspectives and report the outcomes of their review to Julie Kellner and the SCICOM Chair. The perspectives are (a) current interpretability and usefulness and (b) expected interpretability and usefulness given developments of the resolutions form and database.

10 Reports from the Strategic Initiatives and proposals for new chairs

10.1 Strategic Initiative on Climate Change and Marine Ecosystems (SICCME)

John Pinnegar (SICCME Co-Chair), with reference to Document 25, presented an update from SICCME, covering 2019 activities and future plans. SICCME has been involved in various activities in 2019 and collaborating closely with IPCC, CERAS and PICES throughout the year.

John Pinnegar reported that both he and Myron Peck will finish their term as SICCME Chairs at the end of 2019 and so this will be their final SCICOM meeting. From 2019 onwards the proposed SICCME chairs are Christian Möllmann (Germany) and (co-chair to be announced).

John Pinnegar reported that the SICCME chairs and Mike Rust (Aquaculture Steering Group) met via Skype to talk about climate change and aquaculture. This discussion included a review of recent aquaculture activities within the EU CERES and ClimeFish projects, and climate vulnerability assessment including interactions with the wider food production sector.

There has been good ICES participation and collaboration with the IPCC, specifically in the “Fourth Lead Author meeting for the IPCC Special Report on the Ocean and Cryosphere in a Changing Climate (SROCC)”. Two SICCME members were selected to participate, Anne Hollowed as a lead author on Chapter 3 “Polar Regions” and Manuel Barange was selected as a Review Editor for Chapter 5 “Changing ocean, marine ecosystems and dependent communities”. SICCME members also participated in developing the 6th Assessment Report (AR6) due to be published in IPCC in 2021.

Planned activities for later in 2019 include contributions to the upcoming PICES annual meeting to be held 16–27 October. On Sunday, 20 October there will be a SICCME business meeting, where the vision of the group through 2020 will be reviewed and updated, to include ongoing and planned contributions to AR6 and longer-term planning for contributions to AR7. John Pinnegar has been requested to serve as a panellist for a session on “Fisheries Management in the face of a changing climate” at the FAO “International Symposium on Fisheries Sustainability: Strengthening the Science Policy Nexus” in November in Rome, Italy.

Tara Marshall (UK ICES) has submitted a proposal a joint ICES-PICES Working Group on Impacts of Warming on Growth Rates and Fisheries Yields (WGGRIFY), chaired by C. Tara Marshall, UK (ICES), Paul Spencer, USA (PICES), Alan Baudron (ICES) and

John Morrongiello, Australia (Guest). The group will be recruiting participants at the ASC 2019. The meetings will use video conferencing to allow WG members to participate remotely.

SCICOM Chair thanked the SICCME chairs for the report and commented that he was pleased to see the scale of the involvement of ICES and PICES scientists in this strategic initiative. The SCICOM Chair thanked the SICCME chairs, John Pinnegar and Myron Peck, for their good work in this strategic initiative.

SICCME leadership

Both Myron Peck and John Pinnegar will finish their term as SICCME Chairs at the end of 2019 and so this will be their final SCICOM meeting. From 2019 onwards the proposed SICCME chairs are Christian Möllmann (Germany) and (co-chair to be announced).

Decision: Christian Möllmann (Germany) to be appointed as the new Chair of SIC-CME.

Action: SICCME chairs to recommend an additional co-chair for this initiative.

10.2 Strategic Initiative on the Human Dimension (SIHD)

Jörn Schmidt, with reference to Document 26, gave an update from SIHD, to cover recent SIHD Activities within ICES, activities outside ICES to promote ICES and SIHD, and additional planned activities after September 2019.

The SIHD co-chairs distributed an updated letter to the SIHD network members in January 2019 and established a new SIHD Forum for discussing several topics, including the SIHD “Roadmap” and issues that have arisen since the 2018 ASC. The co-chairs opened the Forum, to encourage an ongoing discussion about how ICES can become a more active and influential contributor to social and economic science. The Roadmap will be updated again as priorities and activities evolve.

Future activities outside ICES to promote ICES and SIHD were presented:

- ICES activities related to conservation biology at the International Marine Conservation congress in August 2020
- SIHD are actively engaging in drafting sessions for the World Fisheries Congress 2020
- MSEAS Symposium 2020 to be held in Yokohama, Japan. The Symposium will discuss how to *really* work in an interdisciplinary way. Work is underway with SIHD leadership to plan the second ICES/PICES symposium. SIHD co-chairs are co-convening several sessions and serving on the MSEAS scientific committee.
- Running activities of the Group of Experts for the UN World Ocean Assessment – the The Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socioeconomic Aspects is currently in the 2nd cycle and will finish in 2020
- Global Ocean Social Sciences workshop – 5–6 November 2019 Brest

Two upcoming internal NOAA workshops, related to economics and stock assessment, were also brought to the attention of SCICOM. The first is a workshop in Seattle at the end of September, focused on management strategy evaluations (MSE) and fisheries

economics. The second will be a more general workshop focused on economics and social sciences and stock assessment to be held in February 2020.

SIHD Leadership

Eva-Lotta Sundblad and Jörn Schmidt will both be finishing their term as co-Chairs of the strategic initiative and are currently working to identify new chairs.

Action: Eva-Lotta Sundblad, Jörn Schmidt and Alan Haynie to recommend new chairs for SIHD.

SCICOM Chair thanked the chairs for their hard work and was very pleased to see the development of the strategic initiative and the breadth of international collaboration, as well as links into other steering groups and strategic initiatives.

11 Science highlights and promotion

11.1 Update from Communications

Celine Byrne (Communications Officer) gave an update from ICES communications on their ongoing efforts to raise the profile of ICES science.

Examples of selected science news items from 2019 were presented to SCICOM and SCICOM members were invited to send interesting stories to Communications to help promote ICES.

In the lead up to the 2019 ASC, Communications asked scientists that became involved with ICES early in their careers to summarise the impacts that this has had. Four short online profiles were developed with the resulting material and are available on the ICES news page. After the restructuring of the ICES website, these profiles will be moved to the new 'Join us' menu item.

Celine Byrne reported that ICES now has 10,700 followers on Twitter, 7791 followers on LinkedIn, and 4448 on Facebook. Facebook and Twitter are also directing users to the ICES website. Young scientists (age 25-34) are by far the largest user group on the ICES website and, looking at the traffic by country, US and UK are at the top. Most visitors find the ICES website by searching. The most visited pages are the library, the ASC website, the latest advice and stock assessment graphs.

Celine Byrne reported that there would be a communications professionals meeting at the ASC, with attendance of communications people from ICES member countries. The ASC Early Career Scientist Programme included a COMPASS science communication workshop, a breakfast meeting where Steering Group chairs introduced early career scientists to ICES, a mentor programme with 7-8 mentors who had volunteered to guide the early career scientists through the week, a Q&A with ICES Journal Editor-in-chief.

SCICOM Chair thanked Celine Byrne and Communications for all their efforts to increase the profile of ICES and to support the ASC ECS programme.

11.2 Science highlights

Julie Kellner (Science Professional Officer) with reference to Document 27, presented an update on Science Highlights in ICES. She began by outlining the purpose of ICES Science Highlights, namely to draw attention to the most impactful science coming out of the ICES network and to raise awareness of the breadth and impact of ICES scientific activity and expertise (crucial to show that ICES is not only about fisheries advice). SCICOM was informed that the new SharePoint site for science highlights guidance

and submission is ready for use. SCICOM members were encouraged to communicate examples and suggestions for science highlights as well as topical ideas for new science highlights series.

The Secretariat has been developing several topical science highlights series. In addition to these well-defined topical series, three ongoing series for broader participation by expert groups are under development, and the plan is to introduce them at the 2020 WGCHAIRS meeting. Most expert groups should be able to participate in at least one of these series. The proposed topics are 'Biodiversity', 'In the field' and 'In Other Words' (reviving an old series that was devoted to clarifying important terms and phrases used in the ICES community). IEASG and EPDSG (in particular though WGBIODIV) commented that they would be happy to contribute to the ongoing series on biodiversity.

Action: All SCICOM members to seek ideas and contributions for existing and future science highlights items or series and to submit via web form or directly to Julie Kellner.

11.3 Update on web restructure project

Terhi Minkinen, Communications Officer, with reference to Document 29, gave an update on the web restructure project. The goal of the project is to make ICES website more user friendly and make information easier to navigate, find, and access. A usability expert worked with a Secretariat team to develop the restructuring plan..

In general, the existing website is difficult to navigate. The usability consultant suggested a top menu structure, followed by a main menu with SCIENCE, DATA, ADVICE, JOIN US providing clear entries to the website. The top menu above the main menu will include News, Events and Library and these will all have one-click entries. The next steps include finalizing new design elements with a web designer and implementation of the new structure by January 2020. In 2020, another priority task will be to improve the search function. There has been a lot of feedback received and ideas gathered during the project, such as changes to the meeting calendar and the display of expert groups. Some of these can be considered in the future, depending on financial and human resources. Since only four external users had been interviewed regarding the website, there was a suggestion develop a survey and/or to use early career scientists to provide user feedback on the website.

11.4 Outputs from SCICOM subgroup on web projection

Sarah Bailey, with reference to Document 28, presented the report from the SCICOM subgroup on web projection. Sarah thanked the participants of the subgroup, Brian MacKenzie, Pierre Petitgas, Ellen Kenchington, Michael Rust, and Laura Uusitalo who had worked intersessionally since the March meeting to produce the report.

The subgroup was tasked to look at the web projection of expert groups to people with no special knowledge of the ICES system and to provide recommendations for how ICES can better publicize new/existing expert groups to a wider set of individuals. The group came up with short-term and longer-term proposals for improvements to the webpages to make them more interesting and inviting to external users. Currently the website is aimed at internal users, and rather needs to be aimed at external users. The sub-group proposed specific suggestions: 1) revitalise the website wizard by moving it to the home page and keeping it updated, 2) improve the search function for the expert group page, using key words on particular topics to find terms of reference and expert groups, 3) clarify and further develop the section on how get involved in ICES.

Other comments that are not directly related to webpages, but that may help improve ICES participation/ engagement include: 1) Applying a minimum 6 week's notice period for meetings announcements so that participants can apply for travel funding in time, 2) Posting approved meeting resolutions on the WGCHAIRS forum, 3) Increasing the use of multimedia on the webpage with YouTube as an interim medium for conveying ICES information in the short term.

SCICOM Chair thanked Sarah Bailey and the group for contributing actively to the web-restructuring project and thanked the Secretariat for already taking account of some of the outputs from the subgroup in the web restructuring project

DAY II: Friday, 13 September

SCICOM Chair welcomed the participants to the second day of the SCICOM meeting and gave a warm welcome to Chul Park (PICES Chairman), Fritz Köster (ICES President), and Anna Jöborn (via Skype for item 12).

12 Science Cooperation

Anne Christine Brusendorff (General Secretary) with reference to Document 30 reported on ICES work in relation to new legal instruments under development, ICES/PICES cooperation, as well as the benefits of Arctic Council observer status that ICES was granted in 2017 and UN General Assembly observer status granted in 2018.

12.1 PICES cooperation

Chul Park, PICES Chairman, extended his thanks for the good cooperation with ICES and thanked for a good meeting and Annual Science Conference. Chul Park noted that the ICES code of conduct document would be of interest for the PICES community. SCICOM Chair also thanked Chul Park for his attendance and responded that ICES would be delighted to share the guidelines on the code of conduct.

Action: ICES Secretariat to share ICES Code of Conduct and latest version of guidelines related to the Code of Conduct with Chul Park.

12.2 Arctic research

Anne Christine Brusendorff (General Secretary) reported on Arctic Research. ICES and PICES have joined forces and will coordinate activities related to the UN Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean. Whenever possible ICES and PICES will present joint proposals, and have already submitted a joint paper to the first meeting of the signatories to the Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean, which took place in Ottawa, May 2019, outlining the potential contributions of the two organisations.

The cooperation with PICES also relates to the negotiations on a new legal instrument on marine biodiversity beyond national jurisdiction, which is under the UN convention on the law of the sea. ICES and PICES are exploring possibilities for joint working groups also involving other intergovernmental working groups, and on how we can present our work and products within the four areas that are discussed under the draft convention. This especially relates to area-based management tools, environmental impact assessment, and capacity building. The intention is to state that ICES and PICES can provide a platform in these areas, open for other experts to engage, but also to state that we are already producing the scientific evidence base used by management organ-

isations to take decisions in areas beyond national jurisdiction. Anne Christine Brusen-dorff suggested being more upfront in our communication with our expert groups on and informing them about these ongoing negotiations and explaining to them how they can contribute.

During the UN negotiations ICES together with other intergovernmental organisations arranged a side-event where we informed about our activities and also gave a statement in the general assembly, where we informed about potential ICES contributions.

ICES and PICES Secretariats are in discussions, in cooperation with NOAA, to follow up on the recommendation from the Fifth FiSCAO meeting; Conduct joint NOAA/ICES/PICES pilot study on data hosting and sharing protocols using the fish distribution dataset developed during the 4th FiSCAO meeting.

12.3 Update on external projects and their benefits to member countries and the network

Wojciech Wawrzynski, Head of Science Support, with reference to Document 31, gave an update on external projects.

The importance of showing the Science Plan linkages in relation to projects was raised. Head of Science Support explained that, in-line with the ICES projects policy, the linkages to the Science Plan are addressed by the ICES coordination group and Bureau, when new projects are proposed. It would also be useful to highlight the Science Plan linkages in the in the project overview.

Action: Projects on ICES project summary sheet to be linked to Science Plan two level codes for March 2020 SCICOM meeting and thereafter (Secretariat).

12.4 ICES co-sponsored symposia 2019-2020

Julie Kellner (Science Professional Officer) with reference to Document 32 presented the status of the ICES co-sponsored science symposia.

Future handling of symposium resolutions

SCICOM was informed of a proposal that 2021 proposals for symposia will be reviewed at the SCICOM March meeting in 2020. Once the new resolution form is available the proposers will be asked to submit their draft resolutions using the new form indicating all the resource requirements expected. SCICOM members were asked to relay to their communities that the review of proposals will be done annually at the SCICOM March meeting.

SCICOM noted that the majority of ICES co-funding for symposia is earmarked to support the participation of Early Career Scientists, and that the Secretariat/Communications will be working towards increasing the prominence of ICES support for Early Career Scientists via news articles and interviews with ECS attending ICES co-sponsored symposia.

The ICES Secretariat is currently working with Communications on adding symposia to the public calendar on the website.

SCICOM Chair thanked Julie and colleagues for their good work rationalising the process for handling resolutions. SCICOM Chair welcomed views from SCICOM about the proposal for changing the process to review symposia once annually at the March SCICOM meeting. SCICOM agreed to carry forward the proposal.

Decision: SCICOM will, in future, review symposia resolutions on an annual basis at the March SCICOM meeting.

12.5 Update on ICES interaction with UN Decade of Ocean Science

SCICOM was informed about a new initiative to produce a Science Highlights series focusing on ICES work related to the societal outcomes of the United Nations Decade of Ocean Science. The Secretariat has been reaching out to relevant working groups, and some have responded that they would be very interested in contributing.

Anna Jöborn suggested a possible joint activity with ICES, a regional workshop/conference to be held in late 2022 or early 2023 under the UN Decade of Ocean Science, focusing on ecosystem understanding and ecosystem based management. The main objective for such a workshop could be to promote science-based decision-making for sustainable management. ICES could supply information about how we develop processes supporting ecosystem-based management for fisheries. Furthermore, implementation of the SDG indicators and particular SDG 14 could be discussed (who is doing what and what needs to be done to supply data and science for the indicators). Participation could be extended to the ICES community and the science community as a whole, the Regional Sea Conventions, FAO and UNEP. Funding is sought nationally (Sweden), via the Blue Action Fund, and ICES co-sponsorship would also be welcomed.

SCICOM Chair and General Secretary thanked for the workshop proposals, and noted that it could be a good opportunity for ICES to become involved and contribute to the 'UN Decade of Ocean Science', and to relate ICES work to the SDGs.

Decision: SCICOM expressed support for Swedish proposal for a regional workshop focusing on ecosystem understanding and ecosystem-based management, promotion of science-based decision-making and SDG indicators to be closely linked to UN Decade of Ocean Science.

13 Communications with EG Chairs

13.1 WGCHAIRS 2020

SCICOM Chair explained that the WGCHAIRS January meeting provides an opportunity for chairs of all our working groups to get together at the beginning of each year to share experiences and ideas, and co-ordinate work. The meeting is organised as a joint ACOM/SCICOM activity, with an ACOM focused day, a joint day and a SCICOM focused day.

SCICOM noted the dates for the next WGCHAIRS meeting: 28-30 January 2020. The meeting agenda is under development, but some expected foci will be the new resolutions form, updates to the "Guidelines for ICES Groups", ecosystem overviews, development of viewpoints, and reviewing progress with the scientific report series. The SCICOM Chair requested suggestions for more items from members.

Action: SCICOM members to send suggestions for WGCHAIRS agenda items to ACOM and SCICOM Chairs.

Action: Steering Group chairs should inform ACOM/SCICOM Chairs if they would like to have meetings of their SG in connection with WGCHAIRS.

Action (carried over from SCICOM meeting March 2019): WGCHAIRS topic on stakeholder engagement with Ecosystem Overviews to be included in WGCHAIRS 2020.

13.2 Update of Guidelines for ICES groups

SCICOM Chair, with reference to Document 33, gave an update on the purpose and review of the “Guidelines for ICES Groups”. SCICOM Chair highlighted the text on applying the new code of conduct in the guidelines and expressed concern that it may not have been sufficiently acted upon by expert groups. SCICOM Chair requested that SG Chairs/SCICOM members would encourage nationally that the code is followed and the importance of the code is disseminated.

Action: Slide to guide EG chairs when introducing ICES code of conduct to be provided for all expert groups via SharePoint system, taking account of guidance already provided to ACOM legacy groups (SCICOM and ACOM Chairs, Secretariat).

13.3 Chairs forum

SCICOM Chair informed SCICOM about the [WGCHAIRS Forum](#) which has been used to publicise crosscutting activities relevant to the majority of chairs, as well as to announce common messages and reminders, such as the release of new guidelines. Chairs have generally been very responsive to posts regarding report series, etc., and this was welcomed.

13.4 Authorship of ICES Expert Group reports

SCICOM Chair with reference to Document 34 (providing an example of the WGIBAR cover pages), informed SCICOM that the feedback towards the new ‘ICES Scientific Reports’ series has been very positive, but there has also been some issues related to the use of the template, and about authorship of reports and executive summaries that do not always follow the guidelines. It is still too early to monitor if one of the main goals of the new report series has been met (i.e. if the reports are being cited more because they have an ISSN and DOI).

Comments and questions

For the Executive Summaries, SCICOM members suggested that it would be useful to provide some good examples to help writers improve the quality of the executive summaries.

The committee also raised the issue that some participants are declining to be included as authors. This highlights the importance of the participants list in the annex, as this will always show the full list of participants and provide transparency on who attended the meeting.

ACOM Chair informed the meeting that there have been problems in some ACOM legacy expert groups with full authorship being made public when the lists include not only fisheries scientists, but also fisheries representatives. SCICOM Chair asked for clarification given that the expert group chair has the say on the authorship, was there an issue here that the chair could not manage in discussion with the expert group. It appeared that more thinking was needed on how to manage stakeholders in expert groups, and then the issue of authorship could be revisited and we could assess whether existing guidance needed to be modified.

14 Reports from the Advisory Committee

14.1 Advice Plan

ACOM Chair Mark Dickey-Collas gave an overview of recent ACOM activities related to the advice plan, the ecosystem, fisheries and aquaculture overviews and special requests (the PowerPoint presentation is available on SharePoint).

The ACOM Chair relayed that the Advice Plan is in the final stages of fine-tuning and is on track to be launched in December 2019, with planned introductions to MIRIA and MIACO in January 2020. There are six priority areas, Assuring quality, Incorporating innovation, Highlighting benefits (previously called Profiling approach), Sharing evidence, Evolving advice, and Identifying needs. SCICOM will be involved in supporting a number of the tasks in these priority areas.

A broad discussion in SCICOM followed the presentation about the Advice Plan priority “Assuring quality.” EOSG Chair noted that this could have a large impact on EOSG working groups, and that the groups will need extra time to address these issues and that more collaboration across expert groups would be needed to help achieve this goal. ACOM chair indicated that there is a plan to have extra resources available to support this priority, including a proposal to Council for extra funding to help improve the survey databases and other relevant databases. There was general consensus in the conversation by the ACOM and SCICOM chairs and a number of other SCICOM members that it is good for ICES to push to modernize the quality assurance process, continue to increase transparency through TAF, and to provide guidance on best practices. These were all viewed as positive advancements that would enable ICES to continue professionalizing the advice process. The ACOM chair thought that the goals in the plan were feasible given that 99 stocks are currently in TAF and mixed fisheries will soon be included in TAF.

IEASG chair indicated that it would be beneficial to have more support for scientists participating in the development of fisheries and ecosystem overviews. ACOM Chair also noted that there will be an audit in 2020 on how ecosystems have been brought into advice, as it is important that the added value of doing this is clear in order to gain more support (especially when there are currently mixed opinions on the value of including ecosystem considerations in advice among ICES member countries).

Action: Item on the new advice priorities to be included at WGCHAIRS and the ASC 2020.
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14.2 Ecosystem, Fisheries, and Aquaculture Overviews

ACOM Chair reviewed the progress with producing Ecosystem Overviews, noting that two new ecoregions were added in 2019 (Azores and the Oceanic Northeast Atlantic). Two additional ecoregions are planned for ecosystem overviews in 2020 – the Arctic Ocean and Greenland Sea. A number of updates to existing Ecosystem Overviews will take place in 2019 and 2020.

The ACOM chair reviewed the outcomes of the WKEO3 workshop that prioritized eight topics for potential inclusion in the Ecosystem Overviews. The workshop chairs are also working with ACOM to finalize a pipeline process for approval of new products for inclusion in the Ecosystem Overviews. The ACOM chair indicated that the pipeline currently did not include an evaluation of the product for relevance to stakeholders; indicating that this omission should be considered. Additionally, ACOM is addressing the need to identify how feedback on current Ecosystem Overview contents

can be received and handled. The WKEO3 workshop also suggested the need for a new workshop to improve the linkages between human activities, pressures and the state of the ecosystem. The resolution for this workshop is being developed by Henn Ojaveer (Denmark) and Mette-Skern Mauritzen (Norway) as WKTRANSPARENT.

The ACOM chair outlined the progress with developing Fisheries Overviews, including 4 new overviews that will be released in December, updates to 3 existing Fisheries Overviews, and 4 new overviews planned for 2020. Plans are to update these Fisheries Overviews annually because the state of the fish stocks will change every year. The technical guidelines and structure (order of the sections) of the Fisheries Overviews have also been updated.

The ACOM chair noted that the Aquaculture Overviews are currently in the planning process. There was a meeting at ASC to discuss these; participants included ASG chair, Mike Rust, and members of the Secretariat.

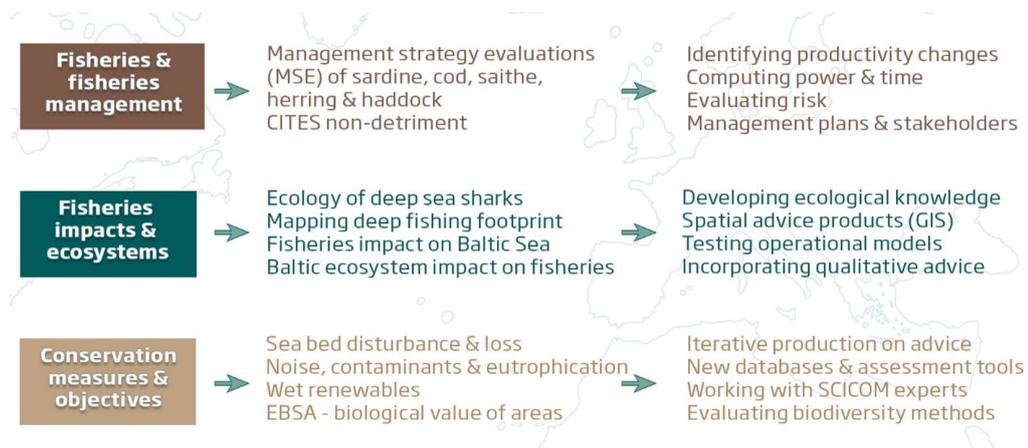
The IEASG chair asked who would oversee the pipeline process; the Secretariat indicated that ACOM vice chair Henn Ojaveer is working on a proposal to formalize the process.

EPDSG chair stated that she can help with supporting the priority areas outlined in the WKEO3 workshop, to engage the EPD expert groups in this process and identify some potential products for the ecosystem overviews. She will follow-up directly with the chairs of the WKEO3 workshop.

Action: Item on ecosystem, fisheries and aquaculture overviews to be included at WGCHAIRS 2020 meeting (ACOM and SCICOM chairs).

14.3 Special advice requests being addressed by ICES

ACOM Chair presented the special requests for 2019 and the process for handling these. The breadth of requests was wide, as outlined in the first and second column of the table reproduced below. The third column outlines ICES needs and scientific expertise to fulfil the special requests and the ACOM chair welcomes assistance from SCICOM to support these needs and provide scientific expertise. Additionally, SIHD input would be helpful in providing assistance with how to incorporate qualitative advice into advice.



ACOM Chair provided details on the special request process, from the request formulation through to the advice production; this includes steps to ensure data quality and process quality.

ACOM Chair is looking forward to Chris Cvitanovic (Australia) coming to ICES in 2020. Chris will work with ICES to do an external study of ICES as a knowledge provider. He has published a number of papers in this area, and has already worked in the Baltic on similar work. Chris is interested in ICES as a hybrid organization, which is both a knowledge broker and a boundary organisation.

ACOM Chair highlighted that it will be crucial for a steering group chair engaging with an advice requester (DGMARE, DGENV, OSPAR, HELCOM, NASCO, NEAFC) on behalf of ICES, to inform and work with the ACOM leadership. This is because the relationships with requesters are commercial relationships.

IEASG Chair indicated that the Steering Group chairs would benefit from understanding who stakeholders are as well as their needs and the SG chairs could be more involved in stakeholder meetings. The ACOM Chair noted that this whole area of stakeholder communication needs to be explored better by ICES, but keeping ICES legitimacy and credibility in this area are key.

EOSG Chair asked whether the engagement with RCGs was also restricted and whether the ACOM leadership should be informed about contacts. The ACOM chair clarified that only the ICES Secretariat should be talking to the RCGs on behalf of ICES.

EOSG Chair noted that the special requests are relatively short-term and difficult to plan for; he suggested that more long-term planning and prioritisation should be developed for these, including how they link to the science plan objectives. ACOM and SCICOM chairs noted that the special requests can be linked to the Science Plan priorities.

Action: ACOM Chair will work with ACOM and SCICOM to identify a process to work on fulfilling the shared needs identified in the advisory plan priorities and the emerging needs to support special requests. This information should be prepared for the SCICOM March 2020 meeting and should be shared with the Steering Group chairs.

Action: Add short text on managing communications with ICES clients to the advice text in the "Guidelines for ICES groups" (ACOM and SCICOM chairs, for edition 2019-2).

Action: If any SCICOM members have access to super computer time that could be used to support ICES advisory work then please inform the ACOM chair.

SCICOM Chair asked if there were any comments in relation to the proposed move of two working groups to FRSG.

Decision: Affiliation of WGHARP to be changed from HAPISG to FRSG and affiliation of WGTRUTTA to be changed from EPDSG to FRSG (Secretariat).

15 Implementation of ICES Science Plan: update

SCICOM Chair, with reference to Doc 38, 39, and 40, presented the Science Plan implementation. SCICOM was informed that proposed modifications from last SCICOM March meeting had been implemented, except for the item on publications that has been delayed due to a prior agreement that resources were not available to progress this immediately.

With reference to Doc 40 "Implementation plan tracking live", there were some actions that SCICOM had not been able to progress on. For instance, the mapping of the ToR to science plan codes. However, Professional Officer, Julie Kellner, is making rapid strides with the database for reporting for SCICOM and with the database SCICOM

will be able to map ToR to the Science Plan. The reporting database for SCICOM will include science plan numbers for every resolution, symposia, publication, workshops, expert groups, as well as relevant numbers from the advice plans. The new resolution form next year will ensure to have the science plan codes as well. The SCICOM chair will continue the live tracking of the Science Plan implementation and provide this as a regular SCICOM document.

Brian MacKenzie commented that he had also made progress on mapping the Science Plan onto the ASC sessions.

16 Raising the profile of data and technology in ICES: next steps

The SCICOM Chair invited SCICOM to discuss any further reflections and the potential way forward based on the previous meeting's discussion on raising the profile of data and technology in ICES. In the absence of clarity and unanimity about a way forward the SCICOM Chair suggested postponing further discussion until the SCICOM 2020 March meeting.

In discussion, SCICOM did reach a general consensus that ICES needs to be mindful of the increasing importance of data across all institutions. This also comes with increasing requirements from funding agencies for thorough data management plans and adoption of FAIR principles. SCICOM were unclear about working definition of technology that should be used in ICES and suggested this should be defined before any plans for a new Steering Group or Strategic Initiative were developed and carried forward.

SCICOM Chair summarised that the most important thing is to identify what it is ICES is seeking to profile more strongly (data, technology or both, and the scope of technology to be included) and the mechanism to support that (Steering Group, Strategic Initiative or another approach). The overall aim of raising the profile of data and technology is to be at the forefront of data and technology developments of relevance to marine science and to ensure the visibility externally. This requires a decision on what ICES wants to project outwards and how. A voluntary group would now develop a paper defining the scope of technology in ICES, the different levels at which ICES might define data and technology and a mechanism to raise the profile of data and technology.

Action: A subgroup consisting of Pierre Petitgas (Chair), Silvana Birchenough, Jörn Schmidt, Jens Rasmussen, Nils Olav Handegard, and a person TBA from Data Centre) will develop a document describing the scope of technology in ICES (or series of options ICES would use to describe scope) for presentation to March 2020 SCICOM meeting. Annex of document to include summary of Expert Group activities related to technology.

17 Draft resolutions

17.1 Draft resolutions for publications

Ruth Anderson (ICES Editor) presented a CRR draft resolution for reports covering the output and documenting the outcomes from the ICES workshops "Conflicts and Coexistence in Maritime Spatial Planning (MSP)" (WKCCMSP 2016) and "Coexistence and synergies in MSP" (WKCSMSP 2018). SCICOM noted that this CRR had been re-submitted and that the Series Editor had reviewed the new resolution, and had no amendments or issues to raise.

She then presented a TIMES draft resolution for a report on measuring nuclear abnormalities in mussel haemocytes and fish erythrocytes, edited by members of WGBEC and other colleagues in the field, including a clear description of the best practices for the collection and preparation of mussel haemocytes and fish erythrocytes for scoring nuclear abnormalities. SCICOM noted that the resolution had been read and approved by the TIMES Series Editor.

Decision: Resolutions for publications approved without changes.

17.2 Draft resolutions for expert groups, process post ASC

The Secretariat, with reference to Document 6, informed SCICOM members of the process and deadlines for finalization of the draft resolutions.

SCICOM Chair informed Steering Group chairs that since any changes to the generic Steering Group ToR would need to be agreed by a full process, changes in this round should be accommodated in the specific ToR.

18 Operational evaluation of ASC 2019

Anna Davies (Conference and Training Coordinator) summarised the statistics and main events of the ASC 2019. The full report will be included in the SCICOM Progress Report 2019. SCICOM Chair thanked everyone involved for a great week and for all the good work that went into organising the conference.

Overall the conference received a lot of good feedback. The poster space was excellent, very central and with lots of space around the posters. Also the quality of talks was exceptional, and this requires some rejections. Participation was very good, and lots of new people/students participated in the ASC.

Some felt that there was not enough time during theme sessions and in some sessions the conveners were giving talks, and this may have taken some of the time from presenters (it was noted that this could be linked to the high number of withdrawals). In relation to the points raised about length of sessions, there are trade-offs, we are where we are today as the result of a series of decisions that have tried to address these trade-offs.

SCICOM discussed how to reduce withdrawals. It was noted that several conferences require registration before you can submit, and it was suggested that ICES could ask for a deposit when papers are submitted, which would be deducted from the registration fee when attendance is confirmed. The best time to deal with payment is at the first acknowledgement of acceptance. It is cleaner / easier to have to accept/pay decision point when you are accepted.

Part of a session at the ASC 2019 was cancelled and there was no information outside the room to show that it had been cancelled. This should be avoided in future, but requires that convenors notify. .

A few talks were reported to be weakly linked with the theme of the session, which led to sessions with a very wide variety of talks. Next year we will have a contributed papers session which will increase access for a variety of talks, so talks that are not closely aligned to a session will have a home. In theme sessions, conveners need to check that talks link closely to the topic of the session.

SCICOM members asked about lowering the carbon footprints of ASC and methods to achieve this. SCICOM was informed that a Bureau WG, led by Bill Karp, is currently looking into CO₂ emissions of ICES and marine science and ways to address them.

Action: ICES conference co-ordinator to provide an analysis of presentation and poster withdrawal rates at the 2019 ASC for the March 2020 SCICOM meeting.

Action: Ensure guidance issued to convenors (for ASC 2020 and thereafter) mentions that they should select presentation or poster abstracts that are strongly relevant to the theme of the session (Anna Davies).

Action: If there are major changes to sessions at the ASC then take immediate actions to inform participants of these changes through clear announcements or signage (Anna Davies).

Action: To reduce withdrawals from the ASC 2020 and thereafter, consider the introduction of approaches that link conference payment or deposit payment more closely to acceptance, but taking care to assess if they will negatively affect attendance before any adoption, ideally based on consideration of approaches taken at other conferences (Anna Davies).

19 Planning for ASC 2020 in Copenhagen

19.1 ICES ASC 2020

Anna Davies, Conference and Training Coordinator, informed SCICOM that the ASC 2020 will be taking place in Copenhagen. The venue is DGI Byen, but this time taking place in Øksne-hallen, where we will have 5 parallel theme session rooms and a four days conference. There is also space for exhibitors.

19.2 Theme session selection for ICES ASC 2020 reporting back from Theme and Network Session Group

Brian Mackenzie on behalf of the Annual Science Conference Group (ASCG), presented the proposal for the ASC 2020 Session package. Basing their work on the votes and rankings provided by SCICOM members and at the same time considering the distribution of selected sessions by ICES Science Priority, the ASCG had reviewed the 34 ASC Session proposals and proposed a package of 17 Theme Sessions (+ 1 contributed papers "theme" session for talks on any science topic related to ICES visions and mission) and 5 Network Sessions. Only one of the proposed sessions was based on a merger of the original submissions and convenors (16 and 22).

ASCG had selected five network sessions instead of the recommended four sessions, and it was suggested that the Pitch Pit (which received the highest ranking) could be arranged as an evening session.

SCICOM Chair thanked Brian Mackenzie for doing this job and it was a pleasure to see the approach of the group, with all sessions being so carefully examined.

Decision: The list of theme sessions (17) and network sessions (5) proposed by the Theme and Network Session Group Chair for ASC 2020 was approved by SCICOM.

Action: The decision on which of the five network sessions should be an evening session ("Pitch Pit" or "Zero emission") would be made at a later stage after exploring the possibilities.

ICES Report on Ocean Climate (IROC)

A suggestion was made to arrange a launch session for the IROC in connection with the ASC. It is high on the list of the Communication team to give IROC attention, but it was also noted that it can be tricky to get the IROC out in time for the ASC.

Action: Consider options for more effectively promoting the IROC at ASC both in terms of timing and emphasis, but taking account of the risks that may be introduced by requiring publication of these reports on set dates (Communications).

20 Review of ASC 2019 and recommendations for future ASC

20.1 Feedback from ASC Award Selection Group (on Best Paper, Poster, Early Career Scientist Awards)

Nils Olav Handegard, Chair, thanked the members of the ASC Award Selection Group for their good work and the Secretariat for excellent support. The ASC Award Selection Group found that although the guidelines were a great help in guiding their work, they were a little prescriptive, and thus the group had not followed all recommendations.

The following lessons learned were:

- Poster session is hard to judge, but there is enough time for that.
- It is very important to have two persons in each theme session; if one judge is hindered, it makes the selection process a bit difficult.
- One scoring list per session, rather than one per judge, helped the decision-making process run more smoothly.

Action: Edit guidance on judging theme sessions to emphasise the importance of having at least two judges in every session (SCICOM chair, for SCICOM meeting review March 2020).

Action: Edit guidance on judging theme and network sessions to emphasise that the recommended scoring approaches are to guide the decision-making and should not be taken as the only component of decision-making (SCICOM Chair, for SCICOM meeting review March 2020).

SCICOM Chair thanked Nils Olav Handegard for doing a great job chairing the group and the group members for their efforts. The group members also thanked Nils Olav for his leadership.

20.2 General observations on ASC content and character and lessons for the future

20.2.1 Keynote talks and panel

SCICOM chair opened the floor to comments and views on the panel discussion and keynote talks.

Panel discussion

- SCICOM was favourable towards the panel discussion format and having questions after the keynotes worked well, but it would be good to have more and more innovative interaction with the audience.
- Some panellists were a bit provocative (and more of that would be good). Inviting one or two controversial people on the panel will stimulate more discussion.

- A strategic opening session with other organisations (such as UN?) could be very useful in future.
- A panel debate on the second day of the conference might have been more engaging – the ASC opening was not very well attended.

Keynotes

- Giving a plenary to an Early Career Scientist could be interesting, although it could be a bit of a gamble in terms of attracting participation at the ASC.
- It could be considered to have the keynotes tying the meeting together, providing a thread through the meeting.

Action: SCICOM supports the concept of panel debates at future ICES ASC, provided they stimulate and challenge and are debating areas linked to our Strategic and Science Plan, but would ask convenors to consider methods to improve audience engagement (including e-voting tools and questions by remote or direct methods).

20.2.2 Theme sessions

The full reports from all theme sessions will be included in the SCICOM Progress Report 2019.

20.2.3 Network session feedback

The full reports from all network sessions will be included in the SCICOM Progress Report 2019.

20.2.4 Early career scientist activities

Anna Davies (Conference Coordinator) reported from the ASC Early Career Scientists Programme which included the following events:

- A very well attended COMPASS science communication workshop hosted by Gothenburg Business School,
- A breakfast meeting where Steering Group chairs introduced early career scientists to ICES. This was very positively received. Many had already met at COMPASS the night before, and lots of good networking took place.
- A mentor programme with 7-8 mentors who had volunteered to guide the early career scientists through the week,
- ‘Get Published’ Q&A with ICES Journal Editor-in-chief.

20.2.5 Side meetings

ICES CO₂ footprint discussion

Bill Karp led a productive side meeting regarding aspects of carbon usage in ICES work. SCICOM members suggested that these discussions and the work of the Bureau carbon footprint group should be communicated more broadly.

Action: SCICOM requests feedback on how ICES intends to handle communications around our analyses and decisions relating to carbon footprint (Bill Karp).

IPBES and ICES seminar

Jörn Schmidt reported from this seminar. Jake Rice gave a presentation about what ICES contributes to IPBES. One conclusion was that it would be nice to have tighter links between ICES and IPBES.

There is an opportunity for ICES to nominate experts into the process via a call for nominations. This is open until mid-October for the multidisciplinary panel. ICES could consider nominating experts. ICES has some expert groups that could feed into IPBES work. ICES would ideally do some more background work and check what the implications would be.

Action: Provide information on the potential IBPES-ICES relationship and the benefits of, and strategy for, ICES' nomination of experts (Jörn Schmidt).

20.3 Outcomes and actions from ACOM meeting

Mark Dickey-Collas (ACOM Chair) reported on a number of items that were discussed in ACOM and of relevance for SCICOM:

- ACOM has now formally agreed to have audit of all productivity and ecosystem variability information brought into stock assessments in ICES
- ACOM has agreed to look at the benchmark processes again, and consider a benchmark steering group. Hopefully this initiative will involve SIHD and IEA groups.
- The introduction to Advice has been rewritten: this iteration will include more on ecosystem-based management.
- ACOM is preparing for a Dialogue Meeting to be held in Brussels in the Natural History Museum in 2021. The meeting will discuss the framework for ecosystem and environmental advice for ICES, building on ECOFRAME 1 and 2.

20.4 Feedback from Awards Committee

SCICOM was informed that the next year's call for the Prix d'Excellence and Outstanding Achievement awards would be one month earlier than usual practice; i.e. in January 2020.

The feedback via this year's Awards Survey to the ICES' community was overall positive and supportive of the two awards presented by ICES. A majority of respondents felt that any negative impacts of presenting the awards were outweighed by the positive effects.

SCICOM members were encouraged to solicit nominations for Prix d'Excellence and Outstanding Achievement Awards.

21 SCICOM members' open forum and reflections on important topics and priorities for future SCICOM consideration**Discussion on oceanographic products and increasing oceanographic presence in ICES**

Pierre Petitgas (France) presented a proposal for a Workshop on Oceanography. Participants in Theme Session R at the 2019 ASC discussed different aspects of oceanography and the potential for a proposal for a workshop. There continues to be a gap between the producers and the users of oceanographic data, and a variety of needs associated with them. As more environmental data become accessible and the use of

oceanography increases, SCICOM needs to consider whether closing this gap is a high or low priority for ICES.

Pierre Petitgas reported that Diego Alvaraz, from the Balearic Islands Coastal Observing and Forecasting System, works on the effects of environmental variability on tunas with people from The International Commission for the Conservation of Atlantic Tunas (ICCAT). He has proposed a workshop with ICES, ICCAT, JRC and others. He is asking for guidelines on how to organise that and would welcome SCICOM feedback and suggestions. The idea is to design this event around what are the needs and bottlenecks of the users and to connect that to some of the communities to answer these needs. WGOOFE and Recruitment working groups are relevant.

- The following observations were made during the discussion: SCICOM members have had experiences with similar workshops and suggest that the scale of the workshop needs to be considered as there are different needs for oceanographers from different groups
- Those who attended Session R found it interesting and see that there is a compelling case for including more oceanography in ICES.
- Experience from OceanObs19 conference suggests that a targeted workshop might work.
- The ICES-PICES symposium held in Canada this year will include oceanographic sessions, which can help identify possible oceanographers to provide input to the workshop and to further discussion of oceanography in ICES.
- Aquaculture is seeing an increasing use of oceanographic models to describe and predict impacts of nutrients and disease and for marine forecasting. Thomas Dabrowski (Ireland) and co-convenor of Theme Session R can provide an aquaculture perspective on oceanographic models. Concern was expressed about how the workshop would differ from other oceanographic initiatives. An approach which identified situations where oceanographic work has become operational could help relieve this concern. For instance, if someone has a product that they could present and then others could bring relevant data and apply it in an exercise focused on operational use.

Discussion on oceanography at the next ASC and the state of oceanography in ICES more generally

SCICOM Chair presented the introduction to this discussion, referring to Theme Session R at the 2019 ASC, which was successful. There are a few options for how to further raise the profile of oceanography in ICES and increase the opportunities for oceanographers. Options include defining a specific oceanography session at the 2020 ASC or a rebooting exercise for oceanography in ICES- as successfully completed for aquaculture in 2017

In discussion, SCICOM concluded that a major rebooting exercise was not appropriate, but that oceanography did still need to be profiled strongly in ICES and was important to ICES. A short term option would be to encourage oceanographic presentations in the contributed papers session and to word the call in a way that highlights the desire for papers on topics of importance to ICES (oceanography in this context, but also technology and aquaculture for example). More widely, ICES also needs to clarify the

groups of oceanographers it is seeking to attract, as the field is very broad and has its own structures and conferences.

Decision: SCICOM supports proposal for continued development of oceanographic products workshop as introduced by Pierre Petitgas, subject to consideration of issues raised by SCICOM and especially the need to include case study examples of uses of these products in fisheries management.

Action: In call for contributed papers session for 2020 ASC, ICES should emphasise the particular topics where we are keen to receive papers to include (but not to be limited to) oceanography, technology and aquaculture (Anna Davies, guided by SCICOM).

Action: SCICOM members to suggest oceanographers as keynotes for 2020 ASC (SCICOM).

Decision/Action: SCICOM should seek to engage the oceanographic community in targeted areas rather than more broadly, SCICOM members need to contribute to a position paper on these target areas so that a strategy can be developed at the March 2020 SCICOM meeting (volunteers to be sought).

22 SCICOM Annual Report to Council

The SCICOM Chair, with reference to Document 44, outlined the structure of the annual progress report to Council and reminded the contributors of the 23 September 2019 deadline.

23 Dates of next meetings and close

SCICOM spring meeting 2020, Copenhagen, Denmark:

Tuesday, 17 March (13:00 to 18:00)

Wednesday, 18 March (09:00 to 18:00)

Thursday, 19 March (09:00 to 13:00)

SCICOM was informed that next year ACOM would meet in the week preceding SCICOM, which will allow better interaction between the two committees. On Monday, 16 March, a joint ACOM/SCICOM leadership meeting would be held involving all Steering Group chairs.

24 Closure

SCICOM Chair thanked all members and Secretariat for excellent preparations in terms of papers and presentations, and special thanks to SG Chairs for the vast amount of work, and for their engagement in the meeting.

Thank you to outgoing chairs

SCICOM Chair thanked the outgoing Chairs:

- SICCOME Chair, Myron Peck
- SICCOME Chair, John Pinnegar
- SIHD Chair, Jörn Schmidt (who would remain on SCICOM as national member for Germany)
- SIHD Chair, Eva-Lotta Sundblad

for their engagement in SCICOM work, which has been highly appreciated. A framed print was presented to all of them signed by all SCICOM members.

Annex 1: SCICOM list of participants, 8 and 13 September 2019

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