IWC/J15/ALL/5

IWC/66/4(2015). Cooperation with other organisations

International Whaling Commission

INTERNATIONAL
WHALING COMMISSION

COOPERATION WITH OTHER ORGANISATIONS

The reports of observers representing the Commission at the following meetings are attached as the Appendices indicated:

Appendix	Meeting	IWC Observer
A	Report from the 2014 activities in ICE	*Tore Haug (Norway)*
B	23rd Annual Council Meeting of the North Atlantic Marine Mammal Commission (NAMMCO), 3-5 February 2015 Reykjavik, Iceland.	*Takaaki Sakamoto (Japan)*
C	33rd Meeting of the Scientific Committee for the Conservation of Antarctic Marine Living Resources (SC-CAMLR), Hobart, Australia, 20 – 24 October 2014	*Rohan Currey (New Zealand)*
D	CBD North West Indian Ocean Region Ecologically or Biologically Significant Areas (EBSA) Workshop, Dubai, 19-24 April 2015	*Giuseppe Notarbartolo di Sciara*
E	Convention for Migratory Species, 11th Conference of the Parties, Quito, Ecuador, 4-9 November 2014	*Simon Brockington (IWC)*
F	2014 Annual Meeting of PICES, Yeosu, Korea 16-26 October 2014	*Tsutomu Tamura and Hidehiro Kato (Japan)*
G	29th and 30th Meetings of the Parties to the Agreement on the International Dolphin Conservation Program (AIDCP), Lima, Peru on 8 July 2014 and La Jolla, CA on 26 October 2014 and 87th and 88th Meetings of the Inter-American Tropical Tuna Commission (IATTC), Lima, Peru during 14-18 July 2014 and La Jolla, CA, during 31 October-1 November 2014	*Jeremy Rusin (USA)*
H	Cooperative work between the IWC and the Secretariat of the Pacific Regional Environment Programme (SPREP)	*David Mattila (IWC)*
I	Report on Cooperative work between the IWC and the Permanent Commission of the South Pacific (CPPS, Comisión Permanente Del Pacífico Sur)	*David Mattila (IWC)*
J	Cooperation with International Maritime Organisation	*Russell Leaper (UK)*
K	Work of the Protocol Concerning Specially Protected Areas and Wildlife in the Wider Caribbean (SPAW) of the Cartagena Convention, June 2015	*Carole Carlson (USA)*
L	21st Meeting of the Advisory Committee (AC) to the Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS), Gothenburg, Sweden, 29 September to October 1 2014	*Meike Scheidat (The Netherlands)*

M	1st meeting of NAMMCO Scientific Committee, Bergen, Norway, 3 – 6 November 2014	*Lars Walløe (Norway)*
N	International Committee on Marine Mammal Protected Areas (ICMMPA) and IUCN Marine Mammal Protected Areas Task Force	*Lorenzo Rojas-Bracho (Mexico)*
O	Report from IUCN 2014-15	*Justin Cooke*

Appendix A

Report from the 2014 activities in ICES

Observer: Tore Haug (Norway)

ICES WGMME

The ICES Working Group on Marine Mammal Ecology (WGMME) met at Woods Hole, Massachusetts, USA from 10–13 March. A satellite meeting was held in Oban, Scotland, UK simultaneously (from 11-13 March), and during plenary, the two meetings were linked through video skype. Eight ToRs were address, two of which were special requests from OSPAR.

- The first reviewed new information on population sizes and population/stock structure for marine mammals in European waters.
- The second reviewed similar information as well as work on the incidental capture of marine mammals in the western North Atlantic (the latter specifically covering North Atlantic right whale, harbour porpoise and white-sided dolphin).
- The third ToR reviewed the further development of the Bycatch Limit Algorithm framework for determining safe bycatch limits and included a comparison with approaches used to assess bycatch in USA.
- The fourth ToR, to review the applicability of the Joint Cetacean Protocol (JCP) for European reporting requirements such as the Marine Strategy Framework Directive (MSFD) and the Habitats Directive, could not be fully addressed due to continuing delays in the publication of the JCP.
- The fifth ToR reviewed the development of database for seals and its potential contribution to the operationalization of MSFD indicators.
- The sixth ToR reviewed approaches to marine mammal survey design used during pre-consent data gathering and post-consent monitoring in the offshore marine renewables (wind, wave, tide) industry.
- The seventh and eighth ToRs addressed two special requests from OSPAR. The first on interactions between aquaculture and marine mammals, including the identification of the pressures and impacts which have sufficient documentation to necessitate the implement of relevant monitoring, and to outline examples of effective management and mitigation solutions. The second special request was for the provision of technical and scientific advice on options for ways of setting targets for the OSPAR common MSFD indicators for marine mammals and to provide examples of the application of these options. The advice also considered target setting options, the consequences that these may have for the monitoring programme (including spatial and temporal implications) and also the precision necessary in target setting and monitoring.

Building on earlier requests from the European Commission and OSPAR on the development of indicators and targets for determining Good Environmental Status (GES) and work undertaken in 2012 and 2013, management units were further re-viewed and delineated for cetaceans and seals. Boundaries were specified so that the management units can be populated with abundance and bycatch estimates, where appropriate. As previously agreed, these boundaries coincide with ICES Area/Division boundaries and/or OSPAR boundaries where possible. Much of the current surveillance and monitoring of marine mammals in Europe will potentially contribute to MSFD monitoring programmes/indicator assessments. However, to be successful, monitoring programmes require clearly defined objectives, good design (based on power analysis) and well-articulated reference points/targets and indicators. In addition, there should be a well-defined mechanism to translate results into management actions to meet and policy objectives and a feedback mechanism to evaluate the success of the process. Targets need to be set in relation to reference levels and conservation objectives, while recognising the limits of statistical power to detect change based on logistically feasible monitoring.

ICES WGBYC

The ICES Working Group on Bycatch of Protected Species (WGBYC) met in Copenhagen at ICES headquarters between 4-7 February 2014. One significant aim of WGBYC continues to be the collation and review of recent annual information on the bycatch of protected species under the requirements of EC Regulation 812/2004. This is in addition to the continued coordination of bycatch monitoring and mitigation trial data, and the review and dissemination of information on methodologies associated with these broad topics.

As WGBYC continues to compile and assess data from Member State reports under Regulation 812/2004 and/or from the DCF, information available to identify fisheries with incidental catches of cetaceans and where further mitigation measures are needed is currently still limited. Furthermore, it does not necessarily allow any accurate or precise assessment of the impact of incidental catch on most cetacean populations. However, there are some data that have proven useful for a preliminary evaluation of the potential impact fisheries bycatch may be having on certain cetacean and protected fish populations. In addition, changes to the design of the DCF are expected to be adopted in 2015. Changes will stipulate minimum requirements for monitoring of target and non-target species (including protected species) with greater plasticity at the regional level for tailoring monitoring to meet the needs of Member States, national and wider European obligations. The extent to which these new developments will impact future quantity and quality of data available to WGBYC for evaluating levels of bycatch for various protected species is unknown.

A preliminary evaluation of estimated bycatch rates for North Sea Harbour Porpoise was conducted where expected bycatch rates were compared to four different thresholds to evaluate possible risk to this management unit. Without any measure of uncertainty, preliminary results of the bycatch risk approach (BRA) show that North Sea Harbour Porpoise may be near or above sustainable removal levels. WGBYC is still awaiting guidance from the EC on setting target removal levels for protected species so impacts from fisheries interactions can be fully evaluated. WGBYC agreed to continue with the BRA focusing on how to incorporate uncertainty into the assessment where possible.

ICES WGHARP

The ICES Working Group on Harp and Hooded Seals (WGHARP) met during 17-21 November 2014 Quebec City, QC Canada, to consider recent research and to assess the status and harvest potential of harp seal stocks in the White Sea/Barents Sea and in the Northwest Atlantic. The WG received presentations related to catch (mortality) estimates, abundance estimates, and biological parameters of all the stocks in question. Additionally, the WG examined different management options and subsequent scenarios of reductions of the Northwest Atlantic harp seal stock.

ICES ASC

The 2014 ICES Annual Science Conference (ASC) was held in A Coruña, Spain, 15-19 September. This conference included relevant titles such as: "The science and tools for the management of networks of Marine Protected Areas", "One size does not fit all – what does an integrated ecosystem assessment mean to YOU?", "Fish tales from the past: Using subfossil, fossil, and prehistoric structures to describe past marine populations and oceans" and "Arctic biodiversity under climate change and other stressors". One session, theme session J ("Climate change: Back to the future for marine predators"), was particularly devoted to top predators including mammals.

Session J had been suggested by the ICES Working Group on Harp and Hooded Seals (WGHARP) who had made observations of possible effects of climate change on the populations of harp and hooded seals in the North Atlantic. In recent years we have seen expert reviews from the Intergovernmental Panel on Climate Change (IPCC) showing that climate change will induce temperature changes and associated adjustments in ocean circulation, ice coverage and sea level. Such changes will affect life-history parameters of marine top predators (mammals, birds, large pelagic fish) via changes in habitat features, e.g., ice cover and availability of food resources (bottom–up effects), or will alter the role that predators play in marine ecosystems (top-down effects). Theme session J intended to focus on presentations that show how environmental change has affected life-history strategies

among large marine predators in the past, or how environmental change may affect the role that these species play as top-level predators in marine ecosystems in the future. The session included 13 oral presentations and one poster.

One of the mammal studies, involving grey and harp seals, showed how predation on commercial, well-monitored fish species may be radically influenced by alterations in abundance of other important forage and non-commercial fishes where information about abundance may be sparse. Such changes may particularly impact predator condition, with potential implications for changes in life history and population dynamics. It is generally assumed that change in forage fish distribution will trigger change in predator distribution. Results from joint Norwegian-Russian ecosystem surveys confirms this in that both forage fishes and several whale species tend to be distributed further north in the Barents Sea now compared to only a few years ago. The ecosystem surveys and other surveys with combined marine mammal observations and resource mapping using acoustics and trawls have facilitated more sophisticated understanding of associations between prey and predators. Thus, in the Norwegian Sea killer whales have been observed to be closely associated with the now very abundant mackerel in the area. Baleen whales, such as fin and humpback whales which were previously associated with krill and pelagic fish species, now appear to be associated with high and dense concentrations of juvenile cod and haddock. As in the Barents Sea, also cetaceans in the Norwegian Sea appear to be distributed further to the north now than a decade ago, probably as a result of changes in zooplankton concentrations and more northerly distribution of relevant forage fishes.

Seal species dependent on sea ice for reproduction would be expected to be particularly sensitive to climatic change. One study of harp seals in Canada demonstrated that in addition to direct mortality of pups, due to unseasonal break-up of sea ice, fecundity has also been reduced by an increasing frequency of late-term abortions. Abortion frequency again was linked to both capelin abundance and the amount of first-year ice, but it was suggested that ice cover in this context acted as a proxy for prey availability. For another ice-associated species, the hooded seal, population size in the Greenland Sea has been reduced to a small fraction of historical levels due to past unsustainable harvest. This would be expected to lead to improved fecundity due to release from density dependence, but no decline has been observed in the age of primiparity. This lack of improvement could be due to deteriorating feeding conditions in the area.

More information is available at the ICES web side www.ices.dk.

Appendix B

Observer Report of the 23rd Annual Council Meeting of the North Atlantic Marine Mammal Commission (NAMMCO)

Observer: Takaaki Sakamoto (Japan)

The North Atlantic Marine Mammal Commission held its 23rd Annual Council Meeting from 3 to 5 February 2015, in Reykjavik, Iceland. All of the NAMMCO members (Faroe Islands, Greenland, Iceland and Norway) participated in the meeting. Canada, Denmark, Japan and the Russian Federation were represented as observers at the meeting.

Major items discussed at the Council meeting are follows;

(1) Marine Mammals and Food Security:
Following a ministerial meeting in 2012, NAMMCO decided to examine the use of marine mammal products in the context of global food security. A Planning Group established at NAMMCO 22 outlined two main goals 1) production of a background document reviewing and compiling existing material on the topic, and 2) ways to communicate the message.

(2) Manuals on Whale Hunting:
NAMMCO completed all three authoritative manuals: one dealing with large baleen whaling and the use of whaling cannon and the penthrite grenade, a second dealing specifically with the use of the spinal lance and hook in the pilot whale hunt, and the third and last one that is dealing with hunting of small cetaceans in Greenland. These provide details on use, maintenance, weaponry and ballistics information with a focus on safety for hunters and improved animal welfare. All are available online at www.nammco.no in English language. The manuals are also available in native languages as required for the hunting communities.

(3) NAMMCO Scientific Publications – free online:
The journal website (http://septentrio.uit.no/index.php/NAMMCOSP/index), as of 30 January 2015, had almost 4,000 visitors from 97 countries since its launch in August 2013. The Walrus of the North Atlantic volume 9 was published both online and in hard copy. The volume 10 on *Age estimation of marine mammals with a focus on monodontids* with 8 papers published online as "online early versions". All previous volumes 1-8 incl. are accessible on the journal website.

(4) Whale Surveys:
The series of North Atlantic Sightings Surveys (NASS) has been the flagship of NAMMCO and is of vital importance for the sustainable management of cetacean stocks in the NAMMCO area. Member nations planned the sixth North Atlantic cetacean Sightings Survey (NASS). NASS would be coordinated with other national surveys in the area in the summer of 2015, and the area to be covered would extend 1,740,000 square nautical miles including areas around West, Northeast and East Greenland, Jan Mayen Central Atlantic, north and south of Iceland and areas along and to the west of Norway encompassing the area around the Faroe Islands.

(5) Scientific Advice:
Scientific advice forms the basis of management advice in NAMMCO, and through the Scientific
Committee, many specialist topics are addressed through Working Groups. During 2015, topics to be addressed include stock assessments of walrus, narwhal and beluga, fin, common minke and humpback whales, and a special symposium on disturbance to marine mammals in their environment. In addition an expert working group on assessment of large whale killing methods would be held in 2015.

(6) New General Secretary:
The meeting acknowledged the 10 years of service by the present General Secretary, Dr. Christina Lockyer, who resigned 1 March 2015, and thanked her for her good work and long service. It was announced that the new General Secretary, Dr. Geneviève Desportes, who had a long affiliation with NAMMCO through her work in the Scientific Committee, commenced her appointment in April 2015.

Regarding Council, the present Chair, Ms. Ásta Einarsdóttir (Iceland) was re-elected for a further term of office, as was the vice-Chair, Ms. Amalie Jessen (Greenland).

Appendix C

Observer's Report from the 33rd Meeting of the Scientific Committee for the Conservation of Antarctic Marine Living Resources (SC-CAMLR), Hobart, Australia, 20 – 24 October 2014

Dr. Rohan Currey (New Zealand)

The 33rd Meeting of the Scientific Committee for the Conservation of Antarctic Marine Living Resources[1] (SC-CAMLR-XXXIII) took place at the CCAMLR Headquarters in Hobart, Tasmania, Australia, from 20 – 24 October 2014 and was chaired by Dr. Christopher Jones (USA). The meeting was preceded by the annual meeting of the Working Group on Fish Stock Assessment (WG-FSA-14) and was followed by the 33rd Meeting of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR-XXXIII).

The meeting was attended by representatives and delegations from all 24 member countries and the EU. The meeting was also attended by observers from three acceding states and the following international organisations: ACAP, ARK, ASOC, CCSBT, CEP, COLTO, IWC, SCAR (including SCOR) and SEAFO.

The meeting discussed 67 papers and reports[2], including the reports of the Subgroup on Acoustic Survey and Analysis Methods (SG-ASAM-14) and the Working Groups on Statistics, Assessments and Modelling (WG-SAM-14), Ecosystem Monitoring and Management (WG-EMM-14), and Fish Stock Assessment (WG-FSA-14).

The main topics discussed at the meeting were:

- Advances in statistics, assessments, modelling, acoustics and survey methods
- Harvested species (krill, toothfish and icefish)
- New and exploratory finfish fisheries
- Fish and invertebrate by-catch
- Incidental mortality of seabirds and marine mammals associated with fisheries
- Spatial management of impacts on the Antarctic ecosystem (MPAs and VMEs)
- IUU fishing in the Convention Area
- CCAMLR Scheme of International Scientific Observation
- Cooperation with other organisations (including IWC)

The remainder of this report will focus on aspects of the meeting relevant to the IWC Scientific Committee; including efforts to encourage collaboration between IWC and CCAMLR as well as information relating to whale interactions with fisheries in the Southern Ocean.

Collaboration between IWC and CCAMLR

Proposal for a joint IWC-CCAMLR workshop

The IWC SC held a joint workshop with CCAMLR in 2008 to review input data for Antarctic marine ecosystem models[3]. Since then, the IWC SC has identified significant knowledge gaps in aspects such as spatial variability and trends in prey species, on the relationships between predators and prey, and on the effects of environmental

[1] The report of the SC-CAMLR-XXXIII meeting is available here: https://www.ccamlr.org/en/sc-camlr-xxxiii.
[2] The documents discussed at SC-CAMLR-XXXIII are listed here: https://www.ccamlr.org/en/sc-camlr-xxxiii and can be accessed by contacting the CCAMLR Secretariat: ccamlr@ccamlr.org.
[3] International Whaling Commission and CCAMLR. 2010. Report of the Joint CCAMLR-IWC Workshop to Review Input Data for Antarctic Marine Ecosystem Models, 11-15 August 2008, Hobart, Australia. J. Cetacean Res. Manage. (Suppl.) 11(2):541-86.

variability on predators. The IWC SC, and in particular its Working Group on Ecosystem Modelling (EM), agreed to make closer collaboration between IWC SC and SC-CAMLR's its primary emphasis for 2015 and 2016. It formed an intersessional correspondence group to facilitate communications that IWC SC hopes will lead to a joint IWC-CCAMLR Workshop on the development and application of multi-species models to the Antarctic marine ecosystem. An aim of the workshop would be a set of specific and detailed proposals on the way forward in regard to both data collection and analysis to support the development of tactical multi-species/ecosystem models needed to provide scientific advice which addresses the objectives of both Commissions. IWC SC proposed that a 2-day Workshop be convened in advance of the 2016 IWC SC (SC66B) meeting. A budget requestwas put forward to cover the cost of attendance of IWC SC invited participant(s) and was approved at last year's meeting of the International Whaling Commission (IWC65).

The joint IWC–CCAMLR workshop proposal was discussed at WG-EMM. The Working Group agreed that a joint workshop between the two scientific committees, proposed by IWC SC for developing activities of mutual interest to the two bodies, was a good proposal and recommended the Scientific Committee consider how this might be achieved. It noted that a potential mechanism of interaction with WG-EMM could be through joint workshops. It suggested that the term of reference proposed by IWC SC might be modified to: 'To foster collaboration between IWC SC and SC-CAMLR, including the development and application of multispecies models to the Antarctic marine ecosystem, as well as other activities that would be of mutual interest.'

Following the discussion at WG-EMM, the joint workshop proposal was then discussed at SC-CAMLR. The Committee endorsed the formation of a steering group to progress the proposal. A preliminary list of SC-CAMLR members was drawn up consisting of Drs Ichii, Kawaguchi, Prof. Kovacs, Drs Trathan and Watters, and Dr. Kawaguchi volunteered as the convener of this steering group. It was suggested that the CCAMLR Secretariat could begin liaising with the IWC Secretariat, noting that the workshop was proposed to take place in advance of the IWC SC meeting in 2016; the IWC Secretariat would thus probably be primarily responsible for the arrangements for this workshop. Should subsequent workshops be proposed, the next could occur in advance of a CCAMLR meeting to share workshop organising responsibilities.

Earlier this year, an IWC SC intersessional correspondence group was convened to advance joint IWC SC/EM and SC-CAMLR WG-EMM facilitation and planning. The terms of reference were to (1) continue formalisation of a relationship between IWC and CCAMLR; and (2) commence planning of a joint workshop between IWC SC/EM and SC-CAMLR WG-EMM. The membership of the group was: Drs Currey (Convenor), Butterworth, de la Mare, Kitakado, Kock, Palacios, and Watters. It is anticipated that this group will meet at IWC SC66A to advance preparations for the 2016 joint workshop.

Coordination of photo identification libraries
WG-FSA discussed data availability from research relating to depredation and other opportunistic cetacean observations. It was suggested that the CCAMLR Scientific Observer Scheme Coordinator (SOSC) contact the Southern Ocean Research Programme (IWC SORP) coordinator to determine how best to coordinate photo libraries of Southern Ocean cetaceans used in CCAMLR and in the IWC.
Whale interactions with fisheries in the Southern Ocean

Incidental mortality
There were no reported incidental mortalities of marine mammals in CCAMLR fisheries in the 2013-14 season. The Working Group on Incidental Mortality Associated with Fishing did not meet in 2014 and has not met since 2011.

Depredation
WG-FSA and SC-CAMLR noted the results of analyses of depredation by killer whales (*Orcinus orca*) and sperm whales (*Physeter macrocephalus*) and its mitigation in Subarea 58.6 (near Crozet Islands). Fish losses (*Dissostichus* spp.) due to depredation were assessed by relative catch rate comparison and by examining differences in the proportion of by-catch (*Macrourus* spp.). The assessment methods gave consistent results and indicated very high levels of depredation (27%–29% of the total catch from 2003 to 2013) compared with estimates for other subareas. The Committee recommended that similar analyses on whale depredation using by-catch analyses be conducted in other areas.

WG-FSA and SC-CAMLR noted that killer whales can quickly become habituated to a proprietary acoustic harassment device (AHD) intended to deter depredation. In addition, it was suggested that this AHD could cause harmful hearing disturbance to killer whales. The use of alternative mitigation measures was therefore recommended.

Ecosystem interactions

WG-EMM discussed recent research on the ecology of Type C killer whales in the Ross Sea. On several occasions, killer whales were observed eating large *D. mawsoni* near sea ice in McMurdo Sound. An analysis of the energy content of the main fish prey species available in the area, relative to killer whale energetic requirements, suggested that toothfish are the only fish prey capable of meeting female killer whale energetic requirements during the calving and lactation period. A reduction in the availability of toothfish in preferred foraging locations during this time could reduce reproductive success of Type C killer whales in the Ross Sea. The Working Group noted that further research would be valuable to understand the nature and spatio–temporal extent of this apparent trophic dependence. SC-CAMLR noted that this research (and other predator research in the Ross Sea region) was consistent with the proposed draft research and monitoring plan for the proposed Ross Sea region MPA.

WG-EMM discussed data from at-sea observational studies available for understanding predator distributions. This included the results of at-sea monitoring of seabirds and cetaceans over five summer seasons, 2010 to 2014, near the South Orkney Islands. The authors reported that large aggregations of top predators (seabirds and cetaceans) were recorded mainly in two regions: west and south of the South Orkney Islands. Among cetaceans, fin whales (*Balaenoptera physalus*) had the highest mean encounter rate, followed by humpback whales (*Megaptera novaeangliae*). Similar observations were reported from the fourth in a series of acoustic trawl surveys conducted around the South Orkney Islands in January 2014. The survey series objectives were to describe the taxonomy of the macro-zooplankton community, demography and density of Antarctic krill in the region, as well as the occurrence and distribution of krill predators. A total of 19 species of marine predators were identified, including 87 fin whales and 42 humpback whales. The Working Group requested that spatial distribution maps of predator density related to the density of krill observed during surveys be collected more frequently to allow interactions to be monitored, and considered that this form of information would be extremely useful to the work of WG-EMM.

Appendix D

CBD North West Indian Ocean Region Ecologically or Biologically Significant Areas (EBSA) Workshop

Dubai, 19-24 April 2015

A Summary of the Meeting

Observer: Giuseppe Notarbartolo di Sciara

The Workshop was attended by 45 participants, including 14 from the region's nations (Djibouti, Egypt, Eritrea, India, Iran, Iraq, Kuwait, Oman, Pakistan, Qatar, Saudi Arabia, Sudan, United Arab Emirates). An expert from Yemen could not attend but was constantly in touch via telephone and email, which allowed the inclusion of the proposals of Yemeni templates. The meeting also included 6 observers, 18 representatives of as many organisations, 3 technical support persons from CSIRO, and 3 from the CBD Secretariat.

I participated in representation of GOBI and the IWC, and had the opportunity of expressing both organisations' great interest in the process at the beginning of the meeting, during the round of introductions, as well as in any further opportunity.

In total 32 EBSAs were described by the workshop (although area n. 31 is missing from the meeting notes – we should wait for the final report to be issued by the CBD Secretariat). Most templates involved areas in national waters, but there were also interesting transboundary and ABNJ proposals.

In the opinion of the CBD Secretariat this workshop was particularly successful, with the highest number of EBSAs proposed for any of the 11 regional workshops they have organized to date.

Marine mammals correlate strongly with most of the EBSAs proposed. These are:

1. Al Yasat (UAE; Bryde's whale, finless porpoise, Indian Ocean humpback dolphin, Indo-Pacific bottlenose dolphin; dugong).
2. Marawah Marine Biosphere Reserve (UAE; dugong, finless porpoise, Indian Ocean humpback dolphin, Indo-Pacific bottlenose dolphin).
3. Jabal Ali (UAE; dugong, finless porpoise, Indian Ocean humpback dolphin, Indo-Pacific bottlenose dolphin).
4. Khor Kalba (UAE).
5. Sir Bu Na'air Island (UAE).
6. Sulaibikhat Bay (Kuwait).
7. Qaro and Umm-Alaradem Islands (Kuwait).
8. Nayband Bay (Iran)
9. Qeshm Island and adjacent marine and coastal areas (Iran; finless porpoise, Indian Ocean humpback dolphin, Indo-Pacific bottlenose dolphin, long-beaked common dolphin).
10. Churna-Kaio Islands Complex, Balochistan Coast (Pakistan; blue whale, Bryde's whale, humpback whale, sperm whale, finless porpoise, Indian Ocean humpback dolphin, Indo-Pacific bottlenose dolphin).
11. Khori Great Bank, Sindh Coast (Pakistan; rough-toothed dolphin, striped dolphin, humpback whale, blue whale, plus a number of smaller dolphins).
12. Malan-Gwader Complex (Pakistan; humpback whale, Bryde's whale, blue whale, spinner dolphin, common bottlenose dolphin, Indo-Pacific bottlenose dolphin, striped dolphin, pantropical spotted dolphin).
13. Miani Hor (Pakistan; Indian Ocean humpback dolphin).
14. Arabian Sea Oxygen Minimum Zone (Largely in ABNJ, and India, Pakistan, Iran, Oman and Yemen).
15. Indus Estuarine Area and Associated Creeks (Pakistan; Indian Ocean humpback dolphin, finless porpoise).

16. Sandspit/Hawks Bay and Adjoining Backwaters (Pakistan).
17. Angria Bank (India; "whales, porpoise etc. have been observed … minimum 8 spp. of mammals").
18. Socotra Archipelago (Yemen; large number of cetacean species known to be present in the area).
19. The Great Whirl and Gulf of Aden Upwelling Ecosystem (Yemen, Somalia, Oman; large number of cetacean species known to be present in the area).
20. Iles des Sept Frères and Godorya (Djibouti; spinner, bottlenose, humpback dolphins, dugong).
21. Southern Red Sea Islands (Eritrea, Yemen; various coastal cetacean species, such as bottlenose and humpback dolphins, as well as short-finned pilot whale, false killer whales, Bryde's whales, long-beaked common dolphins).
22. Southern Red Sea Pelagic Ecosystem (Eritrea, Yemen; spinner dolphins, long-beaked common dolphins, pantropical spotted dolphins, Indian ocean humpback dolphins, false killer whales, and two bottlenose dolphin species).
23. Sanganeb Atoll and Sha'ab Rumi (Sudan; bottlenose dolphins, spinner dolphin, humpback dolphin).
24. Dungonab Bay/Mukawar Island Area (Sudan; bottlenose dolphins, common dolphin, dugong).
25. Suakin Archipelago and Sudanese Southern Red Sea (Sudan; bottlenose dolphins, common dolphin, spinner dolphin, false killer whale, dugong).
26. Wadi El Gemal/Gebel Elba (Egypt; pantropical spotted dolphin, spinner dolphin, 2 bottlenose dolphins, Risso's dolphin, false killer whale, Bryde's whale, Indian Ocean humpback dolphin, dugong).
27. Arabian Basin (International waters; blue, Bryde's, sperm, killer, false killer whales – and likely many other species).
28. Daymaniyat Islands (Oman; Indo-Pacific bottlenose dolphin, spinner dolphin, Bryde's whale).
29. Oman Arabian Sea (Oman; Arabian humpback whales and a large number of other cetacean species).
30. Musandam Peninsula (Oman; "at least eight species" of cetaceans).
31. [I have no area 31 in my notes]
32. Makran/Daran Jiwani Area (Iran, Pakistan).

A significant amount of post-meeting clean-up work remains to be done for a number of templates (most notably concerning area n. 31). Many templates will need some supplementary information and referencing, although their proposals were adopted by the meeting. This will be addressed shortly by the CBD Secretariat.

The report will be upwards of 400 pages when the templates that will accompany the report are finalized. I will ensure that the report will be made available to GOBI and IWC when ready.

The final report will be forwarded to the CBD SBSTTA for review and then to the CBD Conference of the Parties (Mexico, Nov 2016) for adoption. Finally, the report will be provided to the UN General Assembly.

Appendix E

Convention for Migratory Species
11th Conference of the Parties (2014): 'Time for Action'

Report of the IWC Observer (Simon Brockington)

The Parties to CMS meet on a three year cycle, and CoP 11 took place in Quito (Ecuador) from 4-9 November 2014. CMS has a membership of 120 Contracting Parties and it acts as a framework Convention. It does this by enabling the establishment of separate agreements and Memoranda of Understanding to work on conservation requirements of species listed on CMS Appendices I and II.

Those CMS agreements relevant to the work of the International Whaling Commission include ASCOBANS, ACCOBAMS, the Pacific Islands Cetaceans Agreement and the Memorandum of Understanding for West African aquatic mammals.

CoP 11 had a very full agenda which included proposals to list 18 species (or groups of species) on the CMS appendices. One of these proposals was for a cetacean – the Mediterranean population of Cuvier's beaked whale. The number of shark species proposed for listing on the appendices led a number of delegates to refer to CoP 11 as the 'Shark CoP'. Others suggested it had the potential to become the 'Synergies CoP' because of the potential for working with other IGOs, especially CITES and other Multilateral Environmental Agreements.

The CoP also adopted 33 Resolutions covering a diverse range of topics, several of which are relevant to the IWC and these are listed below. CMS's future work is described through a Strategic Plan for Migratory Species 2015-2023 which was adopted by the CoP. In addition, the CoP also received a report a report on CMS achievements over the last triennium.

Potential for synergy with the work of the IWC
At CoP 10 in 2011 the CMS adopted Resolution 10.15 which included a Global Programme of Work for Cetaceans. This year, at CoP 11 proposals adopted relevant to the work of the IWC included:

- The listing of the Mediterranean population of Cuvier's beaked whale on CMS appendix II
- The adoption of Resolution 11.10 on synergies and partnerships, and especially the reference to the International Whaling Commission
- The adoption of Resolution 11.29 on sustainable boat based wildlife watching, which included acknowledgement of the work undertaken through the IWC
- The adoption of Resolution 11.30 on marine debris, which also acknowledged the work undertaken through the IWC and many other inter-governmental organisations
- The adoption of Resolution 11.22 on live capture of small cetaceans which acknowledged the work of the IWC's Scientific Committee
- The adoption of Resolution 11.23 on Cetacean Culture – being the information or behaviours that are shared by a community and acquired through social learning from conspecifics.

The decisions adopted at CoP 11, and in particular the Cetacean Action Plan adopted at CoP 10 provide a significant opportunity for increased collaborative working between CMS and the IWC.

The full report of CoP 11 is available through the CMS website at:
http://www.cms.int/en/meeting/eleventh-meeting-conference-parties-cms

Appendix F

Observer Report on the 2014 PICES Annual Meeting

Observer: Hidehiro Kato, Tsutomu Tamura on behalf of Hidehiro Kato (Japan)

The PICES (North Pacific Marine Science Organization) is an inter-governmental organization among Canada, China, Japan, Korea, Russia and United States. It has four committees, Biological Oceanography Committee (*BIO*), Fisheries Science Committee (*FIS*), Marine Environmental Quality Committee (*MEQ*), Physical Oceanography and Climate Committee (*POC*), one technical committee for data exchange (*TCODE*) and one major research project *FUTURE* (Forecasting and Understanding Trends, Uncertainty and Responses of the North Pacific Ecosystems) which was started in 2008. PICES meets once a year and also has regular business meetings and associated symposium with over 500 participants. PICES had interests on marine birds and mammals since 1997 as ecosystem components from ecosystem and environment view points and has a special working group to assess feeding impact by marine birds and mammals upon ecosystems (WG11 chaired by Hunt, G. Kato, H.; 1997-99) and MBM (Marine birds and mammals) advisory panel (AP-MBM) to understanding coupled climate ecosystem fluctuations *etc.* in the North Pacific Ocean in collaboration with other study areas (Co-chaired by Sydeman, W. and Kato, H; 2000-2011) under auspices of BIO subcommittee. To incorporate the roles and characteristics of MBMs into ecosystem based management and meet objectives of FUTURE, the AP-MBM has proposed to focus on MBM spatial ecology and conservation from 2012-2014. In three years (2012-2014), MBM-AP will 1) synthesize distribution data of MBMs (boat based, tracking and terrestrial surveys) and its temporal change, 2) examine physical and biological factors that correspond to ecological/economic hot spots, and 3) provide information on important ecological areas in the PICES regions to facilitate sustainable use of marine resources.

The 2014 PICES was held at Yeosu, Korea from 16-26 October 2014. Tamura participated in the meeting associated working groups and symposia especially in the AP-MBM meeting as an IWC observer on behalf of Kato. Suryan, R. (USA), Ream, R. (USA), Sydeman, W. (USA) and Watanuki, Y. (Japan) were convenors in this workshop. This workshop was an important first step to compiling and integrating massive data sets in PICES region. It noted that the Spatial Ecology and Conservation project ends in 2014. Results of this workshop and subsequent activities will be published as a PICES scientific report at the end of AP-MBM 3-years focus period.

1. Reports from members parties

The following short presentations were made at MBM-AP Business meeting on 17 October 2014.

Tamura (Japan) on behalf of Kato presented the observer report of 2014 IWC/SC. The AP thanked Tamura for the presentation, and recommended some scientists would like to participate as observation researcher of sea birds for IWC/POWER research cruise. Tamura answered that this offer was difficult due to the logistical reasons such as capacity of the sighting vessel. The AP recommended to BIO that Dr. Tamura replace Dr. Kato as the PICES liaison to IWC in order to integrate PICES science in the IWC science-policy arena.

Elliot Hazen (USA) introduced the 1-day workshop entitled, "Top predators as indicators of climate change" (Hazen et al.) to be held at the *FUTURE* Open Science Meeting in Kona, Hawaii in April 2014. This workshop focused to the top predators as indicators of climate change. Dr. Hazen, Dr. Suryan, Dr. Bograd and Dr. Yamamoto were convenors of this workshop.

2. AP-MBM leadership

Rolf Ream (USA) and Yutaka Watanuki (Japan) have been co-chairs of the AP since 2012. In 2014 PICES, Dr. Watanuki led the AP-MBM meeting as a chair.

3. Future direction of AP-MBM

The remainder of the meeting was spent discussing and developing a proposal for a new AP-MBM Activity Plan, and outlining how this new Activity Plan will relate and contribute to the *FUTURE* Science Plan.

The goal of the Activity Plan, led by Dr. Trites (Canada) and titled "Climate and Trophic Ecology of Marine Birds and Mammals", is to examine the influence of climate variability and change on trophic linkages and the distribution and abundance of MBMs. To accomplish this, the AP-MBM will synthesize new dietary information and estimate food consumption using a new generation of bioenergetic models. The AP-MBM will also synthesize information of prey quantity, quality, composition and distribution to predict their impacts on MBMs.

These efforts will be useful to understanding 1) top-down pressures on fish communities and fisheries, 2) spatial shifts in lower trophic levels and, in turn, top predators, and 3) climate effects on top predators.

MBM-AP discussed next 3-5 years activity plan, 2015–2019. We have chosen this emphasis because birds and mammals can have substantial top-down effects on marine ecosystems and because birds and mammals respond to multiple scales of variability in the environment and their prey-base. This program will meet the goals of PICES-FUTURE by contributing to the understanding and forecasting of North Pacific ecosystem dynamics relative to climate change and anthropogenic influences (COVE and AICE), as well as contribute to PICES communications with stakeholders (SOFE).

We expect our study will take 5 years to complete. We have separated our activities into two phases. The first phase will focus on top-down effects (2015-2017), second phase on bottom-up effects (2018-2019). The AP-MBM will thus:

1) Examine influences of climate variability & change on trophic linkages and MBM distribution and abundance.
2) Synthesize diets and estimate consumption by MBMs (and perhaps other top predators) for use in ecosystem models, and
3) Synthesize information on prey quantity, quality, composition, and distribution to understand and predict impacts from climate variability & change on MBMs.

These efforts will be useful to understanding 1) top-down pressures on fish communities and fisheries, 2) spatial shifts in lower trophic levels and in turn top predators, and 3) climate effects on top predators - thereby contributing to FUTURE.

4. Other issue

This year annual meeting of the PICES will be held at Qingdao, China from 14-25 October 2015. The AP-MBM meeting will be held on 16 October 2015. We will discuss the implementing MBM-AP activity plan in 2015.

The detail is described in https://www.pices.int/meetings/annual/PICES-2015/2015-theme.aspx.

Appendix G

29th and 30th Meetings of the Parties to the Agreement on the International Dolphin Conservation Program (AIDCP), Lima, Peru on 8 July 2014 and La Jolla, CA on 26 October 2014 and 87th and 88th Meetings of the Inter-American Tropical Tuna Commission (IATTC), Lima, Peru during 14-18 July 2014 and La Jolla, CA, during 31 October-1 November 2014

Observer: Jeremy Rusin (United States)

Agreement on the International Dolphin Conservation Program (AIDCP)

The objectives of the AIDCP are:

1. To progressively reduce incidental dolphin mortalities in the tuna purse-seine fishery in the Agreement Area to levels approaching zero, through the setting of annual limits;
2. With the goal of eliminating dolphin mortality in this fishery, to seek ecologically sound means of capturing large yellowfin tunas not in association with dolphins; and
3. To ensure the long-term sustainability of the tuna stocks in the Agreement Area, as well as that of the marine resources related to this fishery, taking into consideration the interrelationship among species in the ecosystem, with special emphasis on, inter alia, avoiding, reducing and minimizing bycatch and discards of juvenile tunas and non-target species.

As of 2014, Belize, Colombia, Costa Rica, Ecuador, El Salvador, the European Union, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, United States, and Venezuela have ratified or acceded to the AIDCP; Bolivia and Vanuatu are applying the AIDCP provisionally.

On-board observer program – The AIDCP mandates 100% coverage by observers of fishing trips by purse seiners of carrying capacity greater than 363 metric tons (t) in the Agreement Area (i.e., the eastern Pacific Ocean (EPO)). In 2014, 100% of the trips by these vessels were sampled by independent observers, and 975 dolphins were reported killed. This reported dolphin mortality is the first since 2009 in which mortality did not decrease from the prior year. In addition to reporting on dolphin deaths in the fishery, the observer program provides other critical data on catch and bycatch of other species, as well as information on gear configuration and compliance with existing AIDCP and IATTC conservation and management measures. While overall compliance has improved substantially in recent years, making additional progress in this area has been a focus of the AIDCP Parties as part of an overarching effort to strengthen the implementation of the AIDCP. These efforts continued in 2014.

2014 dolphin mortality limits – The overall dolphin mortality limit (DML) for the international fleet in 2014 was 5,000 animals, and the unreserved portion of 4,900 was allocated to 83 qualified vessels that requested DMLs. In 2014, no vessel exceeded its DML. The average individual-vessel DML (ADML) in 2014, based on 83 DML requests for vessels deemed qualified to receive one, was 59. The number of sets on dolphin-associated schools of tuna made by vessels over 363 t has been variable in recent years, reaching its highest point of 11,645 in 2010. During 2011-2012 the number of dolphin-associated sets generally decreased; however, in 2014 dolphins sets rose again to 11,382. Reported dolphin deaths and mortality limits for 2014 are presented by species and stock in the table below.

Table 1. 2014 Reported mortality of dolphins by purse-seine vessels over 363 t in the eastern Pacific Ocean and the annual mortality limit for each species and stock.

Dolphin species and stock	**2014 reported incidental mortality (numbers of animals)**	**2014 stock-specific mortality limit (numbers of animals)**
Offshore spotted dolphin (*Stenella attenuata*)		
Northeastern	181	793
Western-southern	168	881
Spinner dolphin (*S. longirostris*)		
Eastern	356	655
Whitebelly	183	666
Common dolphin (*Delphinus delphis*)		
Northern	49	562
Central	13	207
Southern	9	1,845
Other dolphins[1]	16	NA
Total	**975**	

[1] "Other dolphins" includes the following species and stocks, whose reported mortalities were as follows: striped dolphin (*Stenella coeruleoalba*) 2, rough-toothed dolphin (*Steno bredanensis*) 1, bottlenose dolphin (*Tursiops truncatus*) 3, unidentified dolphins 10.

Current marine mammal conservation and management concerns – While the focus within the AIDCP has been on minimizing the reported dolphin mortalities in the fishery, some Parties continue to express concern over the unobserved impacts of the fishery on affected dolphin stocks, particularly in light of no clear demonstration that these stocks are recovering at a rate consistent with reported mortality and population depletion level. The increasing trend in sets made on tuna in association with dolphins 2008-2010 is cause for some concern at least among the Parties that believe this practice may have indirect negative effects on dolphin populations. While fewer dolphin sets are being made since 2010, this remains a frequent practice and the predominant method for catching yellowfin tuna by purse-seine in the EPO. In addition, the US National Marine Fisheries Service has had insufficient resources to conduct a dolphin and ecosystem assessment survey in the EPO since 2006, so it is unclear when updated abundance estimates for these cetaceans will be available. In addition, because estimates from these surveys form the basis for calculation of annual dolphin stock mortality limits continuing to monitor population abundance and trends is important to appropriately managing the fishery.

In 2014, Cleridy Lennert-Cody (IATTC Scientific Staff) and collaborators evaluated the feasibility of using tuna vessel observer sightings to develop an index of dolphin abundance. While the approach showed some initial promise, the initial results and non-random nature of these data have proven problematic. A manuscript describing the methods and results, as well as discussing alternatives for assessing dolphin population trends and status was submitted to the journal *Fisheries Research* in 2014.

The Parties to the AIDCP continued discussions on consideration of reducing observer coverage and on developing an "Ecosystem Friendly" certification scheme for tuna caught in association with dolphins. The possibility of reducing observer coverage on large purse-seine vessels to something less than 100% was largely raised due to budgetary constraints, but to a lesser degree because of the perception that efforts to reduce all sources of

incidental dolphin mortality in the fishery have achieved their objectives. However, practical questions such as how a dolphin-safe certification system for tuna could persist in the absence of 100% observer coverage remain unresolved. The proposal to implement an "Ecosystem Friendly" certification targeted at dolphin-caught tuna is based on the idea that dolphin sets are better for the ecosystem than "dolphin-safe" fishing methods because dolphin sets produce larger yellowfin tuna and less non-target catch besides dolphins. Due to the increasing sentiment among some Parties that the dolphin bycatch problem has been solved and that dolphin-fishing is better economically and environmentally than dolphin-safe methods, it is likely there will be continued discussion of these proposals and others that have the potential to incentivize fishing on dolphins and potentially increase the magnitude of associated direct and indirect effects of this practice.

Place and date of the next AIDCP meetings – 22-23 June 2015, Guayaquil, Ecuador

Inter-American Tropical Tuna Commission (IATTC)

The primary focus of the IATTC remains on managing fisheries for tuna and billfish in the Convention area (i.e., the EPO). However, the Antigua Convention also calls for an ecosystem approach to management including monitoring, management and conservation of non-target or associated or dependent species, and it mandates the application of the precautionary principle in managing under uncertainty. Since the entry into force of the Antigua Convention in 2010, the IATTC has greater responsibility to ensure management decisions do not adversely affect non-target and associated species, including cetaceans.

Ecosystem impacts of fisheries – During the 2014 IATTC Scientific Advisory Committee the IATTC scientific staff presented a summary of ongoing work describing what is known about the direct impact of EPO fisheries upon various species and species groups of the ecosystem, and reviewing what is known about the environment and about other species that are not directly impacted by fisheries. The results of this and similar work may help inform future directions of AIDCP and IATTC measures designed at managing fisheries and conserving dolphins (e.g., through balancing ecosystem impacts of different fishing practices). Further advancements in this area are anticipated in 2015 and beyond.

In addition, the IATTC continues to focus much of its attention on conservation and management of target tunas and sharks and other non-target species. Although assessment results suggest measures to reduce fishing mortality of bigeye and yellowfin tuna taken in 2013-2014 were successful in improving these stocks' status, there is ongoing concern over removals of juvenile bigeye and yellowfin tuna taken in sets on floating objects. Because there is interest in further reducing removals of juvenile bigeye, additional restrictions may be considered. Discussions of these and other tuna conservation measures have implications for dolphin conservation in the EPO. Fishing effort on dolphins may increase if, for example, future measures focus on further restricting the sector of the fishery that takes the greatest number of juveniles (vessels that set on floating objects). This could provide an incentive to fish on dolphins in order to remain active during closure periods for the floating object fishery and/or to not exceed bigeye catch limits. Striking a balance in the tradeoffs of various tuna fishing sectors and their respective environmental impacts, including impacts to dolphins, remains a difficult issue and one that will be the focus of discussions in 2015.

Place and date of next IATTC meeting – 24 June - 3 July 2015, Guayaquil, Ecuador

Appendix H

REPORT ON COOPERATIVE WORK BETWEEN THE IWC AND THE SECRETARIAT OF THE PACIFIC REGIONAL ENVIRONMENT PROGRAMME (SPREP)

Submitted by David Mattila (IWC)

After IWC65b (2014, Bled, Slovenia), the IWC Secretariat continued to be actively engaged with the SPREP Secretariat. Together they organized, raised funds for and carried out an IWC entanglement response training on 29-30, July, in Neiafu, Vava'u, Tonga. Fourteen participants were trained, including two Fisheries officers from Tongatapu and 3 participants from Vanuatu. In addition, SPREP was an active participant in the IWC's second workshop on marine debris, which was held 5-7 August, in Honolulu, Hawaii (IWC/65/CCrep04). Finally, IWC technical adviser Mattila, represented the IWC at SPREP's annual meeting, 29 September to 3 October, 2014 in Majuro, Marshall Islands, where the IWC and SPREP co-hosted a side event about the status of Oceania humpbacks, and the recent IWC-SPREP entanglement response training in Tonga. SPREP has declared 2016-2017 as the "year of the (humpback) whale", and the IWC will provide technical advice and participation as appropriate. The IWC plans to attend SPREP's upcoming (22-24, September, 2015) annual meeting in Apia, Samoa.

Appendix I

REPORT ON COOPERATIVE WORK BETWEEN THE IWC AND THE PERMANENT COMMISSION OF THE SOUTH PACIFIC (CPPS, COMISIÓN PERMANENTE DEL PACÍFICO SUR)

Submitted by David Mattila

At IWC65b in Bled, Solvenia, Mattila reported on the increased level of partnership between the IWC and CPPS. He mentioned that the IWC intended to invite a representative of CPPS to participate in the joint IWC-UNEP-SPAW ship strike workshop in Panama, June 18-20. In fact, CPPS representative, Fernando Felix, was able to attend the workshop and presented on current efforts to understand and mitigate ship strikes in Ecuador (item 5.2.3.2, IWC/65/CCrep01). In addition, Felix identified a regional database on cetaceans and turtles that included 26 cases of ship strikes with humpback, finback and Southern right whales, and indicated that these would be added to the IWC global ship strike database. In addition, the IWC ship strike workshop, inspired CPPS to plan a regional workshop on the issue, for the CPPS member nations (i.e. Chile, Peru, Ecuador, Colombia and Panama).

In addition to this joint work, CPPS invited the IWC to provide an expert on large whale bycatch to join a symposium panel on non-deliberate human impacts to whales, at the recent (1-5 December, 2015) joint meeting of SOLAMAC-SOMEMA (the Latin American and Mexican Societies on aquatic mammals). Technical Advisor, David Mattila, was able to attend and present an overview of the global large whale entanglement issue, and the IWC capacity building, data collection and mitigation initiative.

Appendix J

Cooperation with International Maritime Organization

Russell Leaper (UK)

The IWC has contributed to IMO discussions on addressing ship strikes and the impacts of underwater noise from shipping.

The IMO has established measures to reduce risks to humpback whales off the Pacific coast of Panama. A Traffic Separation Scheme to minimise overlap between shipping routes and humpback migration routes was adopted by IMO on 23/05/2014 and came into effect on 01/12/2014 (COLREG.2/Circ.65). The measures also include a reduction in vessel speed for four months a year during winter.

The IMO adopted 'Guidelines for the reduction of underwater noise from commercial shipping to address adverse impacts on marine life' (MEPC.1/Circ.833) in 2014. In May 2015, the IMO Marine Environment Protection Committee (MEPC) considered a proposal from the Russian Federation for further work to evaluate the contribution of merchant ships and other sources (land-based sources, drilling, breaking ice, etc.) to underwater noise levels. The MEPC decided that more information was needed before commencing such work and invited a revised proposal to a future session. The IWC would be in a good position to collaborate with IMO on any future work on underwater noise.

The IMO also adopted a draft International Code for Ships Operating in Polar Waters (Polar Code) at MEPC 68 in May 2015. The Polar Code will come into effect in 2017 for new ships and 2018 for existing vessels. The newly-adopted environmental provisions cover measures for the prevention of pollution by oil, noxious liquid substances, sewage, and garbage.

Appendix K

OBSERVER'S REPORT ON THE WORK OF THE PROTOCOL CONCERNING SPECIALLY PROTECTED AREAS AND WILDLIFE IN THE WIDER CARIBBEAN (SPAW) OF THE CARTAGENA CONVENTION JUNE 2015

Observer: Carole A. Carlson

MARINE MAMMAL ACTIVITIES UNDER THE FRAMEWORK OF THE UNEP'S CARIBBEAN ENVIRONMENT PROGRAMME AND SECRETARIAT TO THE CARTAGENA CONVENTION AND ITS SPAW PROTOCOL (JUNE 2014-2015)

1. Recommendations from the 6th Meeting of the Scientific and Technical Advisory (STAC6) to the Protocol Concerning Specially Protected Areas and Wildlife in the Wider Caribbean Region (SPAW),8th December 2014, Cartagena, Colombia.

Having reviewed the "Report on the Implementation of Activities in Support of the Action Plan for the Conservation of Marine Mammals (MMAP)" (UNEP (DEPI)/CAR WG.34/INF.6) , the meeting recommended that:

"The Secretariat emphasizes the activities in support of the Marine Mammal Action Plan, including follow-up to the work and recommendations emanated from implementation of the LifeWeb Project; and

The Secretariat continues to collaborate and to identify synergies, to the extent possible with relevant partners and MEAs and strengthens collaboration with the International Whaling Commission (IWC) through the possible conclusion of an Memorandum of Cooperation (MOC)."

The UNEP Caribbean Environment Programme, based in Kingston, Jamaica, as Secretariat to the Cartagena Convention, will follow-up with the Secretariat of the IWC to explore the possibility of concluding such a Memorandum of Cooperation which was not possible during the previous biennium.

2. Decisions from the 8th Conference of Parties (COP8) on the Protocol Concerning Specially Protected Areas and Wildlife in the Wider Caribbean (SPAW) under the Cartagena Convention, 9th December 2014, Cartagena, Colombia.

The Parties acknowledged the progress made with the implementation of the Marine Mammal Action Plan (MMAP) and requested that the Secretariat, in collaboration with the SPAW-RAC, continue to fundraise and develop strategic partnerships for its further implementation, in particular the development of activities proposed as follow-up to the LifeWeb Project on marine corridors and marine mammal conservation for the Wider Caribbean, and the implementation of key priorities of the Manatee Regional Management Plan.

3. Update on activities co-sponsored by UNEP Caribbean Environment Programme and the SPAW Regional Activity Centre and jointly implemented as partners with the IWC: In accordance with the recommendations of the IWC's working groups dealing with the science and mitigation of human impacts, and UNEP-CEP's Specially Protected Areas and Wildlife's (SPAW) Action Plan for the Conservation of Marine Mammals in the Wider Caribbean Region, since IWC 64 (Panama City, Panama, 2012), the IWC and CEP Secretariats have partnered in order to convene three workshops on the topics of entanglement and ship strike for the Wider Caribbean Region. It was recognized that the IWC has the international technical expertise in understanding and responding to these human impacts, and as such can provide the countries of the Wider Caribbean Region access to this expertise through capacity building training and workshops. The first two jointly sponsored entanglement trainings were reported previously at IWC SC65a and SC65b.:

Joint IWC and SPAW/UNEP Workshop to Address Collisions between Marine Mammals and Ships with a focus on the Wider Caribbean, Gamboa, Panama, 18-20 June 2014. This was the third joint IWC-UNEP-SPAW event.

The ship strike workshop was proposed to advance work on this topic within the Wider Caribbean along with similar work of the IWC, UNEP-SPAW, and the parties of the Sister Sanctuary Agreement. The proposing nations recognized there is likely much overlap and synergy between these interests.

The objectives of meeting were: 1) review current, relevant ship strike mitigation measures with experts from around the world, 2) identify data gaps and information needs in the region, 3) discuss management initiatives which are most likely to be effective in the region, and beyond, and 4) recommend concrete actions for the IWC, UNEP-SPAW and member countries.

Attendees included invited experts, members of regional intergovernmental organizations and representatives from 13 countries. The workshop was sponsored jointly by the IWC, the UN Environment Programme-Specially Protected Areas and Wildlife (SPAW) and the Netherlands, and graciously hosted by the Government of Panama.

The workshop focused on ship strikes with whales in the Wider Caribbean Region, but also placed the local issue in a broader global context. It reviewed current knowledge of shipping and whale distribution, and identified data gaps. It reviewed mitigation measures that are currently in place, discussed potential new mitigation measures, and made both regional and global recommendations for priority management actions. The report of the workshop was made available and its recommendations endorsed at IWC 65, Portoroz, Slovenia. It was presented in full as IWC/65/Ccrep01. The technical expertise provided by the IWC was greatly appreciated and further cooperation between the IWC and SPAW was encouraged.

4. Finalization of the Spain-UNEP LifeWeb project "Broad-scale Marine Spatial Planning of Mammal Corridors and Protected Areas in Wider Caribbean and Southeast & Northeast Pacific"

All the outputs are available as PDFs on the SPAW-RAC's website: http://www.car-spaw-rac.org/?-Maps-and-reports-.

This four year project was designed to assist countries in development and application Marine Spatial Planning as a cross-sectoral ecosystem approach for building scenarios for transboundary management of human threats to marine mammals. As a result of a Inter-regional Workshop held in Panama, 2012, two sub-regional areas have been selected for the future scenario work in the WCR, due to their importance as habitats for marine mammals and to existing work and on-going cooperation dynamics on marine mammals: the first sub-region proposed ranges from the Dominican Republic down to Trinidad and Tobago through the Lesser Antilles.

The second sub-region encompasses the continental coast of Latin America from Venezuela to the border between Brazil and French Guiana, together with the Dutch Caribbean islands of Aruba, Bonaire and Curaçao being included in the area.

The analysis of data sets, pertaining to: pollution, fisheries, protected areas and maritime traffic has been completed. The analysis focused on the existing overlap among marine mammal species distribution maps and key human uses, with priority species identified as: the humpback whale, the sperm whale, the short-finned pilot whale, the bottlenose dolphin and the Antillean manatee. The goal has been to identify particular areas of conflict among uses and these marine mammal species´ distribution.

Workshop on Transboundary Management of Marine Mammals in Northern South America, Paramaribo, Suriname, 18-20 March 2013

An opportunity arouse to foster further regional cooperation among countries of Northern South America (from the Amazon delta to Colombia, including Dutch Caribbean of Aruba, Bonaire and Curaçao), as a function of this geographic area being identified as a priority for transboundary marine mammal management by the Inter-regional Workshop held in Panama (May 2012) under the LifeWeb Project.

This workshop was designed to provide local support and accelerate regional and national marine protected areas establishment efforts, as well as promote regional collaboration among countries of Northern South America (participants from Aruba, Colombia, Venezuela, Trinidad and Tobago, French Guiana, Suriname, Guyana and Brazil). The workshop was also supported by the French Agency for Marine Protected Areas (AAMP), Green Heritage Fund Suriname (GFS) and WWF Guianas. (You can find the report here : http://www.car-spaw-rac.org/?Bibliography,457) The aim was to formulate an action plan for the effective management of marine areas and marine mammals in Northern South America to support the protection of the marine biological diversity in the region. The Regional Action Plan will encompass the area from Maranhao state in Brazil to Colombia and include the Economic Exclusive Zones for Brazil (Maranhao, Para and Amapa states), French Guiana, Surinam, Guyana, Venezuela, Colombia (Caribbean region), Trinidad and Tobago and the ABC Dutch Caribbean islands (Aruba, Bonaire and Curaçao). This area is in line with the relevant spatial scales of marine mammal populations living in the region, and with the geographical extent of current threats and pressures to which these species are exposed.

As a result of the Workshop, a Steering Committee from representatives of the region, (Mama Coco Sea) has been established with the SPAW-RAC office as a co-facilitator with the objective of promoting follow-up to the workshop and fostering the development of the Regional Action Plan for transboundary management of marine mammals.

Appendix L

OBSERVERS' REPORT ON THE 21ST MEETING OF THE ADVISORY COMMITTEE (AC) TO THE AGREEMENT ON THE CONSERVATION OF SMALL CETACEANS OF THE BALTIC, NORTH EAST ATLANTIC, IRISH AND NORTH SEAS (ASCOBANS)

Observer: Meike Scheidat (The Netherlands)

The 21st meeting of the AC to ASCOBANS, was held in Gothenburg, Sweden from 29 September to October 1 2014. The North Sea steering group for the Conservation Plan for the Harbour Porpoise in the North Sea held its 4th meeting on September 28th.

A selection of main topics covered at the AC:

- Currently three harbour porpoise action plans exist: the recovery plan for the Baltic Sea (Jastarnia Plan) and two conservation plans: the "gap" area (Western Baltic, Belt Sea and Kattegat) and the North Sea. Updates of the progress of these were given.
- For 2015 four workshops are planned, with the following aims:
    - Draft a position paper on monitoring and mitigation of bycatch required for effective conservation of small cetaceans, containing recommendations of requirements for revised or new legislation within the EU.
    - Provide input into the processes relating to the setting of 'bycatch limits' at European level, explore existing procedures for defining thresholds of mortality; define conservation objectives in relation to thresholds of anthropogenic mortality (specifically from bycatch); and provide an overview of available information and highlighting the gaps in our current knowledge.
    - Provide an overview of the implementation, potential and challenges of Remote Electronic Monitoring (REM) techniques on fishing vessels to monitor bycatch.
    - Updating of the necropsy protocol (during 2015 European Cetacean Society meeting)
- The importance of investigating the impact of PCB on small cetacean populations was highlighted. ASCOBANS parties were encouraged to support research on the effects of PCBs on small cetaceans in the Agreement Area.
- With regard to ship strikes the AC decided that ASCOBANS should seek to collaborate with the dedicated work streams at IWC.
- In the future the AC will have sessions dedicated to particular species. For the 22nd meeting this will be the Common Dolphin. Also, the AC invited the submission of a draft conservation plan for this species, covering both ACCOBAMS and ASCOBANS areas.
- In the future the links to other fora such as IWC, OSPAR, HELCOM, ACCOBAMS and CMS with regards work underway to address marine debris should be strengthened. At the next meeting the AC will investigate how it could best contribute to the body of work already under way on this issue, in particular through collaborative activities for addressing specific knowledge gaps and educational opportunities.
- The 22nd AC meeting will take place in Den Hague, The Netherlands.

The full report of the AC is available via: http://www.ascobans.org/.
The report of the North Sea group meeting is available via:
http://www.ascobans.org/sites/default/files/document/ASCOBANS_NSG4_Report.pdf

Appendix M

Report of the 21st meeting of NAMMCO Scientific Committee

Observer: Lars Walløe (Norway)

The 21st meeting of NAMMCO Scientific Committee (SC) was held in Bergen, Norway, 3 – 6 November 2014.

An important topic in the discussion in this year's scientific committee meeting was the lack of by-catch reporting from both the Icelandic and Norwegian fisheries. In both countries it is mandatory to report all by-catch of marine mammals, but very few reports are received by the authorities. . In Norway the IMR receives by-catch data via the research reference fleet, and extrapolation from these data indicate high by-catch numbers. A functioning by-catch recording system is of high priority. The SC recommends convening a By-catch Working Group.

Three ice-associated cetacean species reside year-round in the Arctic: the narwhal, the beluga and bowhead whale. Sites of oil and gas exploration and development and routes used for commercial shipping in the Arctic are being compared with the distribution patterns of the whales, with the aim of highlighting areas of special concern for conservation. Measures that should be considered to mitigate the impacts of human activities on these Arctic whales and the aboriginal people who depend on them for subsistence, are now being discussed.

The distribution of fin whale catches in Iceland in 2014 was very different from any previous whaling season since the resumption of whaling in 1948. Whale densities appeared to be very low on the traditional whaling grounds west of Iceland and the bulk of the total catch of 137 fin whales were taken south of Iceland. Preliminary analysis of stomach contents suggest that this changed distribution may be due to shortage of krill in the Irminger Sea. In 2013 a fin whale/blue whale hybrid was caught in the Irminger Sea west of Iceland. This is the fifth confirmed hybrid between these two species in Icelandic waters.

A wider distribution of minke whales, compared to previous surveys, was observed during the last Russian-Norwegian Ecosystem Survey and from other observations in the Barents Sea between August and October. Several animals were observed in the far north-eastern part of the Barents Sea on the border with the Kara Sea.

The Catch Allocation Sub-Group of the NAMMCO-Joint Commission on Narwhal & Beluga met in Copenhagen on 10–12 March 2014 with the main purpose of developing an allocation model that will provide a mechanism for assigning harvested animals (narwhals) to summer stocks. The sub-group will meet again in March 2015 to finalize the model and update the assessment of narwhal and belugas.

The traditional perception of prey species preference of killer whales in the Northeast Atlantic has been linked to herring. Recent Norwegian research on the ecology of killer whales in the Norwegian Sea during the two summer-season 2006 and 2007, quantified spatial overlap between killer whales and the three most common pelagic fish species. No spatial relationships were found with herring or blue whiting. However, there was a significant relationship and spatial overlap with mackerel.

A 3-year research project on feeding behaviour, movements and acoustics of killer whales in Icelandic waters conducted by the MRI will be finalized in 2015. Photo-identification has revealed several instances of movement of killer whales between the Shetland Islands and Iceland.

There has been a notable increase in the numbers of blue whales seen in Svalbard over the last 2–3 years. This year there were also many sighting during the Norwegian Sightings survey and the Arctic part of the Ecosystem survey.

The planning for a Global Review of Monodontids symposium has begun. Preliminary plans are to hold the meeting in conjunction with the Marine Mammals of the Holarctic meeting in the fall of 2016 in Russia. The Council of the Marine Mammals was agreeable to the proposal and will cooperate with NAMMCO on this event. An international Steering Committee has been set up.

Planning for a Disturbance Symposium that will deal with the impacts of human disturbance on narwhal, beluga and walrus is underway. Preliminary plans are to hold the meeting in early October 2015 in Copenhagen.

Plans for a new T-NASS survey for the summer 2015 were discussed in detail.

Appendix N

International Committee on Marine Mammal Protected Areas (ICMMPA) and IUCN Marine Mammal Protected Areas Task Force

Submitted by Lorenzo Rojas Bracho

The International Committee for Marine Mammal Protected Areas (ICMMPA) was formed as an international committee of experts in 2006 to address common issues and challenges faced by scientists and managers using spatial management tools to manage and conserve important cetacean habitats or populations. In 2008 at IWC SC60 the IWC endorsed and supported a proposal by ICMMPA to host the first international conference on marine mammal protected areas (Maui, 2009). Since that time, the ICMMPA has undertaken several initiatives and has co-hosted (with France) a second conference in Martinique, 2011, and (with Australia) a third conference in Adelaide, 2014. The third conference was held November 9-11, in Adelaide, Australia. The theme of ICMMPA 3 was: "Important Marine Mammal Areas – A Sense of Place, A Question of Size" and it focused on developing and refining criteria for the identification of important marine mammal areas, which is the priority initiative of ICMMPA's partner organization, the IUCN Marine Mammal Protected Areas Task Force. The IWC's technical advisor on Human Impact Reduction (Mattila), was invited to give the closing keynote address at the conference. Mattila highlighted that during his work building entanglement response capacity, he found Marine Mammal Protected Areas have frequently been the Government agencies taking the lead in requesting, organizing and hosting the IWC training. In particular he highlighted the trainings held in World Heritage sites: Peninsula Valdez (Argentina) and San Ignacio Lagoon (Mexico), as well as MMPA sites like: the Dominican Republic Whale Sanctuary and the AGOA Sanctuary in the French Caribbean. An executive summary of the ICMMPA 3 conference proceedings can be found as document SC/66a/O/1. Full proceedings will be available through: http://www.icmmpa.org/conference/thirdconference/. The Government of Mexico has announced its intention to host the next ICMMPA 4 in Mexico, in 2016.

As a part of the IWC's working relationship with ICMMPA and the IUCN Marine Mammal Protected Areas Task Force, and the latter's work developing criteria for determining Important Marine Mammal Areas, IUCN MMPA TF co-chair, Giuseppe Notarbartolo di Sciara was asked to represent the IWC at a recent CBD Workshop on Ecologically or Biologically Significant Areas (EBSAs) in the Northwest Indian Ocean Region (19-24 April, Dubai). His summary report of this meeting can be found as Appendix D of IWC/66/4(2015).

Appendix O

REPORT FROM IUCN 2014-15

Justin Cooke

Red List updates
The last comprehensive assessment of cetacean species for the Red List was completed in 2008, and most cetacean species are overdue for re-assessment. Because there has been no major revision to the listing criteria since the 2007 workshop, it has been decided not to hold another global workshop on the status of cetaceans, but to organise smaller meetings as needed on species of problematic status. A workshop on the genera *Sousa*, *Orcaella* and *Neophocaena* was held in San Diego just prior to SC/66a. A workshop on the river dolphins in conjunction with the biennial conference of the Society for Marine Mammalogy in is planned for 2015 in San Francisco. As they become ready, Red List assessments will be sent first for review by selected experts and then by the Cetacean Specialist Group.

The current list of all cetacean species and populations that have been assessed for the Red List, and their current Red List classification, is maintained on the Cetacean Specialist Group site at www.iucn-csg.org/index.php/status-of-the-worlds-cetaceans.

Western gray whales
The Western Gray Whale Advisory Panel (WGWAP) met in October 2014 on Sakhalin Island, where *inter alia* the population status, and mitigation plans for a proposed seismic survey in summer 2015 were reviewed. The next formal meeting of WGWAP is scheduled for November 2015, but a working session of IUCN, the Panel, Sakhalin Energy and other stakeholders was held in April 2015 at which revised plans for the seismic survey were presented, including scheduling changes to reduce mutual interference with other seismic surveys in the region. The Panel issued a statement calling for postponement of the surveys until certain mitigation issues had been resolved. A report of WGWAP activities, including the Panel statement, is appended to the report of the subcommittee on Bowhead Right and Gray whales (Annex F Appendix 2).

Vaquita
IUCN issued a statement at the 65th IWC meeting calling for the CIRVA recommendations to be implemented without delay. IUCN is encouraged by the announcement in May 2015 by the President of Mexico of a set of measures that follow, to a large degree, the CIRVA recommendations, but emphasizes that very strict enforcement of the new fishing regulations is needed if there is to be any hope of averting the extinction of the vaquita.

General
Updates of other projects in which Cetacean Specialist Group members are involved are posted on the Group's web site www.iucn-csg.org.

The next World Conservation Congress (IUCN's 4-yearly general meeting) will be held in Honolulu Sept 1-10 2016. The programme is yet to be finalised but the IWC Scientific Committee will be kept informed of plans for workshops or other events that relate to cetaceans.