GOBI
Global Ocean Biodiversity Initiative

Newsletter
Summer 2015

BfN Federal Agency for Nature Conservation

UN resolution paves way for a new treaty to better conserve and manage marine biodiversity beyond national boundaries

A significant step towards improved protection and management of the high seas and international seabed Area (together termed "areas beyond national jurisdiction or "ABNJ") was achieved on 19 June 2015. On that day the United Nations General Assembly (UNGA) formally adopted a resolution for the development of a new legally binding international instrument for the conservation and sustainable use of marine biodiversity beyond national jurisdiction.

The resolution itself is largely procedural in nature, laying out a two year preparatory process to "develop substantive recommendations on the elements of a draft text" under the United Nations Convention on the Law of the Sea (UNCLOS) and a deadline for deciding when an intergovernmental negotiating conference will be convened. What is significant is that this is the first global treaty process related to the ocean in over two decades and the only one targeted specifically at marine biodiversity in ABNJ.

The preparatory process - a series of four 10-day meetings over the next two years - provides an important opportunity to address governance gaps and weaknesses hampering effective stewardship of nearly 50% of the planet. It is a chance to build on, elaborate and support the implementation of UNCLOS with respect to marine species, habitats and ecosystems. The focus will be on how to facilitate the establishment of a global system of marine protected areas and other area-based management tools and improve the effectiveness of environmental impact assessments to encompass both site-specific as well as cumulative impacts. The work of the Convention on Biological Diversity and GOBI in describing areas of ecological or biological significance may provide an important scientific underpinning on both fronts. The new instrument is also to address equitable issues such as capacity building, technology transfer and a system for sharing the benefits of marine genetic resources derived from ABNJ, which is not covered under existing protocols.

The resolution reflects the recommendations adopted In January 2015 by the UN Working Group on Biodiversity beyond National Jurisdiction, following more than 10 years of discussion and debate on how to better manage risks to marine biodiversity in ABNJ. Further progress is to be reported to the UN General Assembly by the end of 2017, when the General Assembly is due to take a decision on launching an intergovernmental negotiating conference to formally adopt the new instrument.

Kristina Gjerde, Senior High Seas Advisor
IUCN Global and Polar Marine Programme

Further reading: Rochette, J., Wright, G., Gjerde, K., Greiber, T., Unger, S. and Spadone, A. (2015) A new chapter for the high seas? IDDRI Issue Briefs N°02/2015. www.iddri.org/Publications/A-new-chapter-for-the-high-seas

The Convention on Biological Diversity's North-East Indian Ocean Regional EBSA Workshop

David Johnson, GOBI Secretariat

This 10th Regional EBSA Workshop, held in Colombo, Sri lanka, on 23-27 March 2015, started with the lighting of an auspicious oil lamp. This was the first time Sri Lanka had hosted a Convention on Biological Diversity (CBD) Workshop, and the Secretariat of the CBD was supported by collaboration with the South Asia Cooperative Environment Programme (SACEP) and the Bay of Bengal Large Marine Ecosystem (BOBLME) Project. Representatives of the Government of Sri Lanka emphasized the country's rich marine biodiversity within its EEZ. The Workshop was preceded by a training day involving GOBI representatives.

Scientific and technical support was provided by CSIRO, with funding provided by BOBLME. A novel aspect of this workshop was the availability of a comprehensive ecological characterisation. This provided a hierarchical and systematic regionalisation of biophysical systems for the BOBLME region, as well as descriptions of systems and 29 subsystems (Fig. 1).

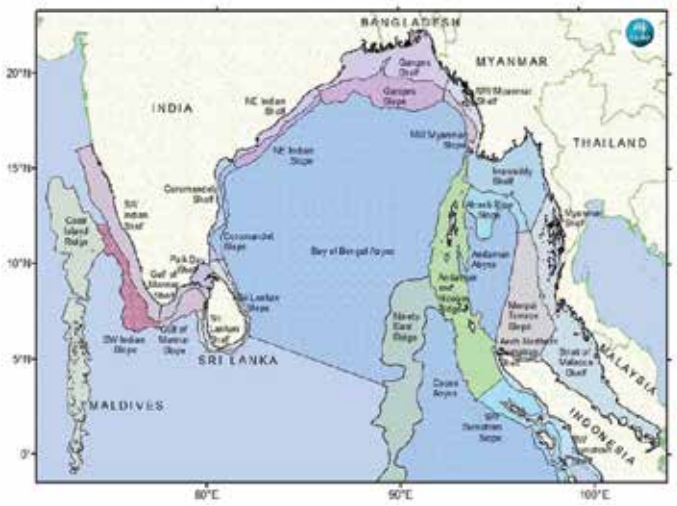


Figure 1: Map of Provincial Bioregions for the Bay of Bengal

The workshop described 10 EBSAs (one area, the Gulf of Mannar, was an enlargement of an area previously described within the Southern Indian Ocean Workshop). The 'Swatch of No Ground' submarine canyon and the estuarine waters of the Ganges-Brahmaputra-Meghna Delta within the Bangladesh EEZ, which are significant as priority habitats for threatened megafauna assemblages, were highlighted for further consideration as no representative from Bangladesh attended the Workshop. Particular thanks are due for information on marine turtles and dugongs that were provided remotely at short notice by CMS focal points.

The Workshop report will be presented to SBSTTA 20 in April 2016 and to COP 13 for consideration by CBD Parties.

During the Workshop, the GOBI Secretariat:

i. Provided input to the description of a large Olive Ridley marine turtle migration corridor in ABNJ, linking the huge nesting beaches in Orissa, India with Sri Lankan beaches to the south;
ii. Supported Maldivian descriptions of atolls significant for supporting life cycle stages of far ranging migratory species including hammerhead sharks, manta rays and whale sharks, and
iii. Summarised scientific and research gaps to be noted in the Workshop report.

In addition to Prof. David Johnson from the GOBI Secretariat, GOBI nominees in attendance were Dr Brian Smith (Director, Asian Freshwater and Coastal Cetacean Program, Wildlife Conservation Society) and Dr Asha de Vos (Founder, Sri Lankan Blue Whale Project). Dr Smith is an acknowledged regional expert and he developed the Swatch of No Ground description. Dr de Vos is an early career scientist and she drafted the template for the 'Southern Central and Offshore Waters of Sri Lanka between Galle and Yala National Park' EBSA for further consideration by national experts.

Follow-up to the Workshop has included discussion with SCBD Lifeweb regarding future protection of the entire Maldivian EEZ, drawing upon the information collated to describe EBSAs and recognising the importance of the Maldives as a coral province. Further discussion has also been held with representatives of Indonesia.

Above: Workshop participants in Colombo, Sri Lanka

The Convention on Biological Diversity's North-West Indian Ocean Regional EBSA Workshop

Giuseppe Notarbartolo di Sciara, Tethys Institute

A workshop to facilitate the description of EBSAs in the North West Indian Ocean and adjacent Gulf Areas was convened by the Secretariat of Convention on Biological Diversity in Dubai (19-26 April 2015) and hosted by the Ministry of Environment and Water of the Government of the United Arab Emirates. The workshop benefited from financial support from the Government of Japan, through the Japan Biodiversity Fund, in collaboration with the United Nations Environment Programme Regional Office for West Asia (UNEP-ROWA), Convention on Migratory Species Office – Abu Dhabi, the Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA), the Regional Organization for the Protection of the Marine Environment (ROPME), and the Abu Dhabi Global Environmental Data Initiative (AGEDI).

The Workshop was attended by 45 participants, including 15 from the region's nations (Djibouti, Egypt, Eritrea, India, Iran, Iraq, Kuwait, Oman, Pakistan, Qatar, Saudi Arabia, Sudan and United Arab Emirates). Somalia and Yemen particpated remotely. The meeting also included 6 observers, 18 representatives of as many organisations, 3 technical support persons from CSIRO, and 3 attendees from the CBD Secretariat. GOBI was represented by Giuseppe Notarbartolo di Sciara (Tethys Institute) and Ben Lascelles (BirdLife International).

The workshop attendees were generally well engaged. 31 EBSA were described and agreed with most located within Exclusive Economic Zones (United Arab Emirates (5), Kuwait (2), Iran (2), Pakistan (6), India (1), Yemen (1), Djibouti (1), Sudan (2), Egypt (1) and Oman(1)), though two areas covering Areas Beyond National Jurisdiction and a number of transboundary sites were also described. Transboundary EBSAs worth highlighting include: The Great Whirl and Gulf of Aden Upwelling Ecosystem (see article in this newsletter), the Arabian Sea Oxygen Minimum Zone, the Socotra Archipelago and the Southern Red Sea Pelagic Ecosystem.

Marine migratory species were well represented with extensive datasets available for marine mammals (cetaceans and dugong), sharks, turtles and seabirds. A good proportion of the key sites for these species were captured within the EBSAs described, though as always there are gaps in the overall network of sites. Discussions between representatives for these different species groups identified a number of ways that collaborations could occur into the future.

Plastic, fisheries bycatch, introduced species (particularly from ship ballast water) and pollution from the Tigris were all flagged as major threats to the regions marine biodiversity.

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 communicated to the UN General Assembly.

Reef resting areas for spinner dolphins, Stenella longirostris, *were one of the main features of the Wadi Gemal/Gebel Elba EBSA identified in the Red Sea off Egypt (Photo: Amina Cesario/HEPCA).*

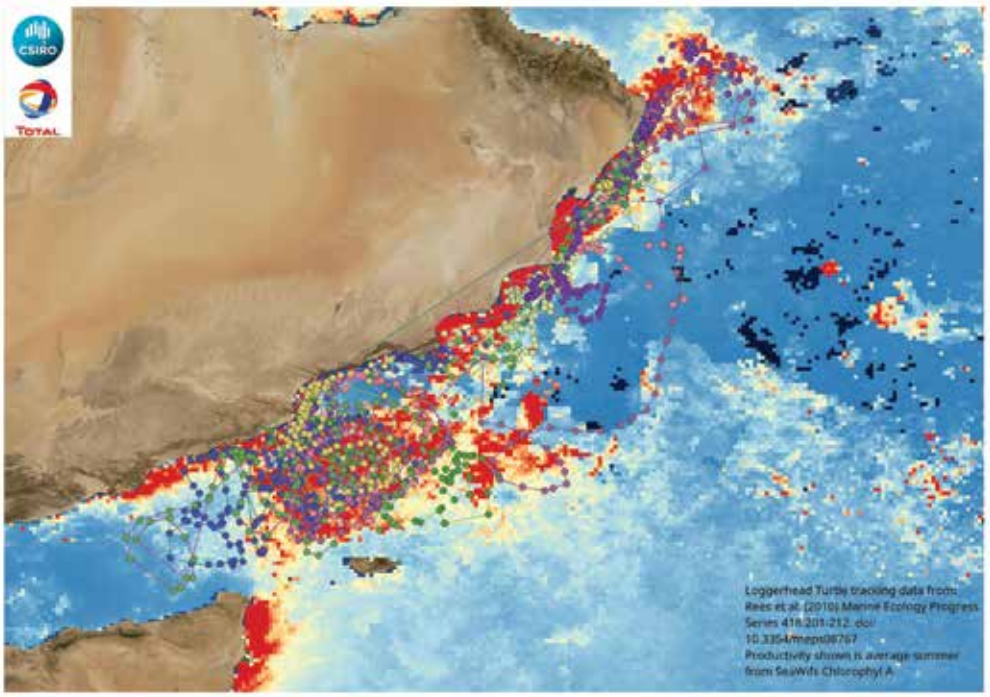
Close association between high productivity in the Great Whirl and Loggerhead Turtles

Piers Dunstan, CSIRO

The northwestern corner of the Indian Ocean is a highly dynamic and biodiverse region of the global oceans. Oceanic rossby waves and the seasonally reversing monsoonal winds drive an immense upwelling system during the summer months, known as the Great Whirl (GW). It is the only major upwelling that occurs on the western boundary of an ocean. The Somali-Arabian sea upwelling system resulting from the GW and associated eddies covers an area larger than that of Peru and increases planktonic productivity ten fold in comparison with the surrounding oligotrophic water. This unique and complex feature supports rich meso-pelagic and pelagic ecosystems hosting plankton, fish, species of megafauna, especially sharks, cetaceans and turtles. The extreme environmental conditions create a uniquely season-driven and transboundary pelagic ecosystem that has resulted in one of the most productive regions in the world.

The Great Whirl starts forming during the summer months when the Somali Current turns northwards along the mainland coast of Somalia. As the offshore winds begin to intensify, cooler nutrient-enriched waters are drawn to the surface, and carried offshore into the Indian Ocean. The whole upwelling system travels northwards, intensifying and growing as it goes until it reaches the shallower waters in the vicinity of the Socotra Archipelago. Here the system divides, spreading eastwards in a loop along the south coast of Socotra and northwards between the islands and the mainland and into the Gulf of Aden. A complex system of smaller eddies and gyres are then propagated and these spread throughout the Gulf of Aden. Situated at the centre of this hugely productive system is the Socotra Archipelago.

Turtles are abundant in the Arabian Sea with green (*Chelonia mydas*) and loggerhead (*Caretta caretta*) turtles being dominant. Additional species, include hawksbill (*Eretmochelys imbricata*), olive ridley (*Lepidochelys olivacea*) and leatherback (*Dermochelys coriacea*) turtles. Rees et al. (2010) have tracked 10 adult female loggerhead turtles Caretta caretta, and they mostly used pelagic habitats in the area, in addition to coastal neritic ones during the post-nesting phase. The overlap between the distribution of the loggerhead tracks and summer chlorophyll-A is remarkable (Figure 1). The turtles are closely associated with areas of maximum productivity showing preference for the upwelling associated with the Great Whirl and the Gulf of Aden. The turtles are also associated with the productivity that extends up the coast of Oman, and a large turtle nesting area at Marisa Island in Oman.



GOBI study spotlights the importance of the EBSA process for marine migratory species

Lyle Glowka, Executive Coordinator, Convention on Migratory Species Office – Abu Dhabi

In Resolution 10.23 (Role of Ecological Networks in the Conservation of Migratory Species; Bergen, 2010) the Conference of the Parties to the Convention on Migratory Species (CMS COP) indicated that processes within the Convention on Biological Diversity (CBD) could assist in identifying habitats important for the lifecycles of migratory species listed on the CMS Appendices.

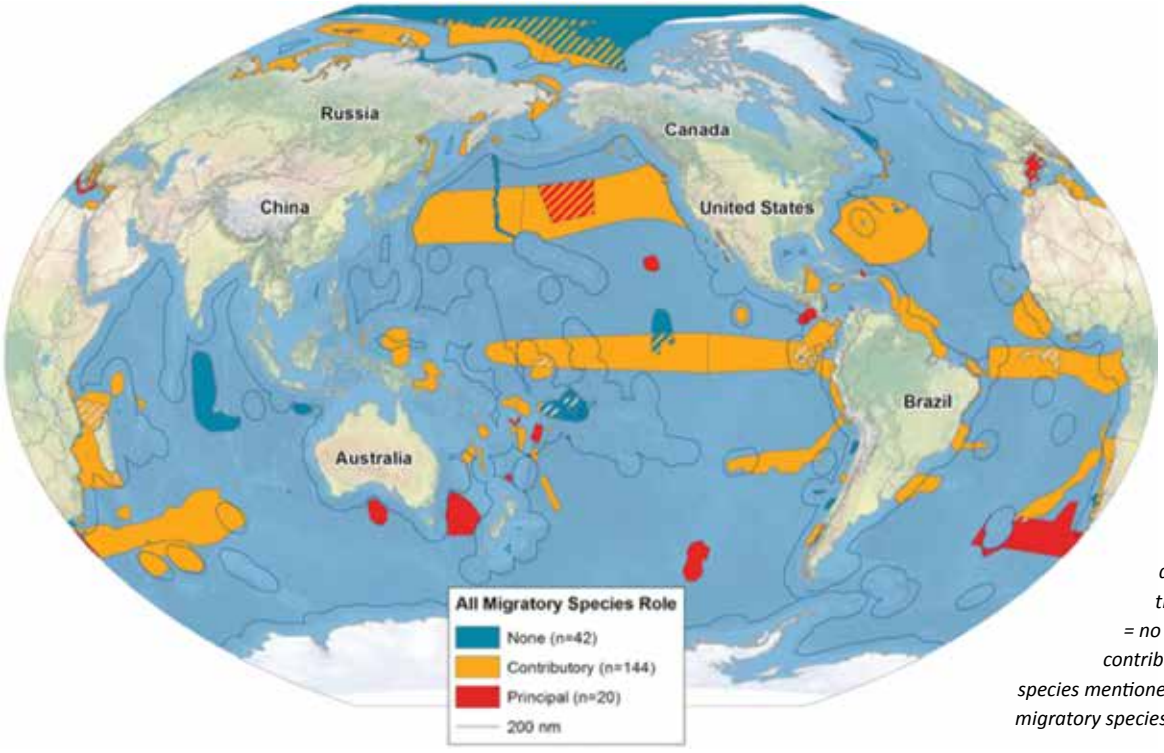
A GOBI review commissioned by CMS Office – Abu Dhabi, and undertaken by Duke University's Marine Geospatial Ecology Lab, evaluated with respect to CMS listed migratory species the >200 sites described as of mid-2014 meeting the EBSA criteria.

At least four of the seven CBD EBSA criteria correlate strongly with marine migratory species. The GOBI review indicated that migratory marine species have been either a principle or contributing factor for at least 80 per cent of the 204 EBSAs described to date under the CBD EBSA process, which has now reviewed more than 70 per cent of the Earth's total ocean surface. What is more, the review indicated that the information used to describe EBSAs may be useful in developing ecological networks that can contribute to the needs of migratory marine species and promote connectivity.

For these reasons CMS COP11 (Quito, 2014) recognised in Resolution 11.25 (Advancing Ecological Networks to Address the Needs of Migratory Species) the value and importance of the CBD EBSA process in supporting CMS's work. The COP also called for an expanded GOBI review looking at how the EBSA scientific and technical information can be used to develop ecological networks that meet needs of marine migratory species.

Finally, the COP called on Parties, other Range States, relevant organisations and individual experts in the research and conservation community to collaborate with and participate actively in the EBSA process and mobilise all available data and information related to migratory marine species, to ensure that the EBSA process has access to the best available science in relation to marine migratory species.

The CBD's Northwest Indian Ocean EBSA Workshop (Dubai, April 2015; see article on page 3) was the first opportunity to operationalise this last request, and CMS Office–Abu Dhabi worked closely with the CBD Secretariat to mobilise CMS's networks to support the workshop. Marine experts from 15 NW Indian Ocean countries participated, and 12 of the participating



The role of marine mammal, seabird, sea turtle, shark, and ray migratory species data in describing global EBSAs within the CBD regional reports (none = no migratory species mentioned; contributory = at least one migratory species mentioned; and principal = at least one migratory species mentioned as a main factor).

countries were either CMS Parties and/or signatories to one or more CMS agreements.

Marine migratory species – waterbirds and seabirds, sharks and rays, whales and dolphins, dugongs and marine turtles – represent the region's extraordinary marine biodiversity at its most visible and charismatic, and they connect the region's ecosystems, countries and cultures. Migratory species correlated strongly with 30 of the 31 areas described. Most proposals were for marine areas in national waters, but proposals also included transboundary areas as well as marine areas located beyond the limits of national jurisdiction. Cetaceans correlated with 25 of the areas, and important new information shared at the workshop could guide future work in India, Oman and Pakistan to survey the abundance and establish the migratory routes of the critically endangered Arabian Sea Humpback Whales.

The workshop's outcomes will be a rich resource that will support CMS's work globally, and will guide more focused activities to support implementation of the CMS Dugongs and Sharks Memoranda of Understanding (MOU), the CMS Indian Ocean and Southeast Asia Marine Turtle MOU.

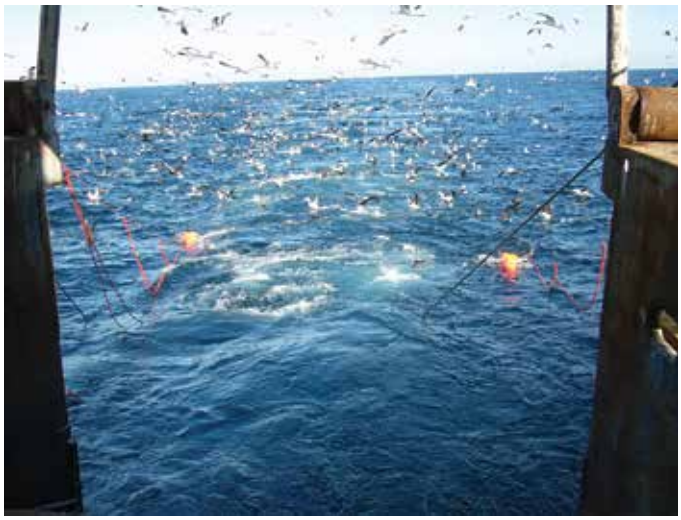
Further reading: Kot, C.Y., P. Halpin, J. Cleary, D. Dunn. (2014) "A Review Of Marine Migratory Species and the Information Used to Describe Ecologically or Biologically Significant Areas (EBSAS)". Information document prepared by Global Ocean Biodiversity Initiative (GOBI) for the Convention on Migratory Species. Assessment conducted by Marine Geospatial Ecology Lab, Duke University. UN Document: UNEP/CMS/COP11/Inf.23); Available at: www.cms.int/en/document/review-marine-migratory-species-and-information-used-describe-ecologically-or-biologically

Helping implement EBSAs: the Albatross and Petrel Agreement identifies priorities for addressing at-sea threats to seabirds on the High Seas

John Cooper, ACAP Information Officer; ACAP Secretariat, Hobart, Australia

The Agreement on the Conservation of Albatrosses and Petrels (ACAP) is established under the framework of the Convention on Migratory Species (CMS). ACAP operates independently of the CMS out of a small Secretariat based in Hobart, Australia as a multilateral body which seeks to conserve albatrosses and petrels by coordinating international activity to mitigate known threats to their populations. ACAP came into force in February 2004 and currently has 13 member countries and covers 31 species of albatrosses, petrels and shearwaters that occur in all the World's oceans.

Albatrosses and petrels feed at sea, only returning to land to breed and are thus fully marine species. ACAP's work may therefore be seen as complementary to and supportive of the work of GOBI. ACAP is also interested in EBSAs whose descriptions have been informed by the importance of an area to albatrosses, petrels and shearwaters. Since 2012, ACAP has been engaged in a global prioritisation exercise to identify threats that its listed species face, both on land and at sea, including in Areas Beyond National Jurisdiction (ABNJ). Whereas the exercise for land-based threats has concentrated on island populations, at-sea threats have been largely defined in terms of fisheries with which the birds interact.



Tori/bird scaring lines deployed behind fishing vessel. Photo: Barry Watkins, BirdLife Albatross Task Force, South Africa.

The approach taken to develop a framework uses a semi-quantitative assessment methodology to determine priorities. Scores are assigned to variables relating to the vulnerability of a particular seabird population, the severity of the threat faced by that population and the likelihood of success of taking management action, using a combination of expert judgement

and available data. Scores are then combined using a simple formula to give a total score for a particular conservation management action. Management actions with similar scores are then grouped together and assigned a rank accordingly such as "Highest priority".

The primary purpose of ACAP's at-sea prioritisation framework has been to prioritise conservation actions that are most likely to effectively reduce impacts that adversely influence the population status of ACAP-listed albatross and petrel species most at risk of extinction. An example of a conservation action is the introduction of mitigation measures (such as deploying bird-scaring lines) in a particular fishery to address threats to a particular seabird population. Following a scoring and weighting system the top 10% priorities were identified in terms of species and both ABNJ and within-national jurisdiction fisheries. ABNJ fisheries were categorised in terms of regional fishery management organisations (RFMOs) that manage them, including all the five tuna RFMOs.

An example of high-priority conservation actions required are for the pelagic longline fisheries that fall within the ambit of the Commission for the Conservation of Southern Bluefin Tuna (CCSBT). Twenty different populations of 14 species of albatrosses and petrels are adversely affected by these fisheries. These populations breed on islands belonging to four countries (France, New Zealand, South Africa and the United Kingdom) as well as within a disputed territory, showing the need for multilateral actions to address the threats faced. Analysis has also been undertaken by species, so that, for example the UK's population of Atlantic Yellow-nosed Albatrosses *Thalassarche chlororhynchos* is significantly at risk from five identified longline and trawl fisheries in the South Atlantic, of which one is managed by a high-seas tuna RFMO (International Commission for the Conservation of Atlantic Tunas).

In conjunction, at-sea tracking data are being used to identify specific geographical areas within the jurisdiction of RFMOs where the highest chances of interactions with fisheries are likely (or in some cases are known) to occur. ACAP works closely with BirdLife International which manages the "Tracking Ocean Wanderers" seabird database for albatrosses and petrels (www.seabirdtracking.org). A logical next step is to correlate the identified areas with EBSAs and VMEs. ACAP work would also inform a Regional EBSA Workshop for the Southern Ocean if and when this takes place.

ACAP's activities to help conserve many of the World's most iconic and majestic seabirds, such as the great albatrosses of the Southern Ocean, relating closely to the EBSA criterion of "Importance for threatened, endangered or declining species and/or habitats".

Read more on ACAP's at-sea prioritisation work at: ww.acap.aq/en/documents/advisory-committee/ac8/ac8-meeting-documents/2222-ac8-doc-14-rev-2-prioritising-acap-conservation-actions-update-and-report-to-mop5/file

Shy Albatross breeding site, Mewstone, Tasmania. Photo: Dr Rachael Alderman.

Saving seabirds on the High Seas: ACAP's Regional Fisheries Management Organisation Engagement Strategy

John Cooper, ACAP Information Officer; ACAP Secretariat, Hobart, Australia

An important part of the work carried out by the Agreement on the Conservation of Albatrosses and Petrels (ACAP) is to engage with, and so attempt to influence, those Regional Fisheries Management Organisations (RFMOs) responsible for the management of high seas fisheries that interact with seabirds, especially albatrosses and petrels. Pelagic longline fisheries in particular are known to interact with albatrosses and petrels, and without the implementation of effective mitigation measures longlining can lead to high levels of seabird mortality as birds become caught on the baited hooks and then drown, causing further pressure on vulnerable seabird populations.

ACAP's Seabird Bycatch Working Group has agreed on a suite of seabird mitigation measures which, based on the latest applied research, it considers to be best-practice and thus to offer the greatest chance of reducing at-sea mortality of albatrosses and petrels by pelagic longline fisheries. These measures are night setting, adequate line weighting of branch-lines and the deployment of bird-scaring lines, which when combined, keep the majority of birds away from the baited hooks.

There are five RFMOs that manage tuna stocks in regions where albatrosses and petrels forage and these organisations are key targets of ACAP's RFMO engagement strategy. These RFMOs are the Commission for the Conservation of Southern Bluefin Tuna (CCSBT), Indian Ocean Tuna Commission (IOTC), Inter-American Tropical Tuna Commission (IATTC), International Commission for the Conservation of Atlantic Tunas (ICCAT) and the Western and Central Pacific Fisheries Commission (WCPFC). In addition, ACAP attends meetings of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) which concentrates on the Southern Ocean, where IUU (Illegal, Unreported and Unregulated) longline fishing for toothfish is believed to have caused much seabird mortality in the past. ACAP has Memoranda of Understanding with many of these bodies to strengthen its relations with them.

ACAP's engagement strategy with RFMOs aims to assist fisheries managers to:

a) Understand the overlap in distributions of fisheries and albatrosses and petrels;

b) Identify and understand the degree of, or potential for, adverse interaction between ACAP species and these fisheries;

c) Devise and implement relevant and effective management measures for each fishery to reduce seabird bycatch;

d) Devise and implement relevant and effective monitoring programmes to assess seabird interactions, and,

e) As appropriate, refine and improve any measures relating to albatross and petrel bycatch in the light of experience gained over time.

An RFMO Coordinator (usually a Secretariat member or a Chief Officer of an ACAP body) is appointed by ACAP for each RFMO and this person is responsible for identifying the key issues to be addressed at specific RFMO meetings and for coordinating action on these issues. The Coordinators' roles include consulting with key stakeholders, such as ACAP Parties, Range States and relevant NGOs, preparing papers for submission to the RFMO meeting, drafting a brief for distribution to stakeholders that details ACAP's objectives/outcomes to be achieved and key issues to be addressed, attending the meeting to achieve these objectives, and finally, preparing a post-meeting report.

So far ACAP's engagement has led to four of the five RFMOs adopting seabird conservation measures that substantially reflect ACAP's best practice advice for pelagic longline fisheries. ACAP has also been active in providing input to the development of observer schemes and advising on data needs relevant to identifying and managing seabird bycatch. The effective implementation of seabird conservation measures remains a key challenge for ACAP.

Tori/bird scaring line deployed behind pelagic longline vessel. Photo: Luis Diaz, Instituto de Fomento Pesquero (IFOP), Chile.

Important places for penguins

BirdLife is working with penguin experts to find the most important at-sea places for these well-loved birds

While there have been many studies of penguins, including using miniaturised devices to track their movements, the results haven't been gathered all in one place. As such, the BirdLife International Marine Programme team has been working with the British Antarctic Survey and the Scientific Committee on Antarctic Research (SCAR) to compile a "penguin tracking database".

Penguins are almost entirely confined to the southern hemisphere, with strongholds in the Antarctic and sub-Antarctic islands. After albatrosses, penguins are the next most threatened group of seabirds. Of the 18 species, 15 are globally Threatened or Near Threatened. Despite their hardy nature, they struggle to cope with alterations to the environment brought about by commercial fishing, pollution, coastal development and climate change.

Some penguins now face the prospect of extinction, with 12 species having undergone declines in certain regions. Breeding and moulting sites on land are often poorly protected and work to conserve them at sea is hampered by insufficient data on where penguins go when away from their breeding grounds.

The project, which began in September 2013, has been funded by the UK Government's Darwin Initiative. It has brought together existing penguin tracking data in the Weddell and Scotia Seas of Antarctica, as well as the waters around South Georgia. More than 20 scientists and research institutes have contributed data amounting to nearly a million point locations for nine species of penguin.

The data are being used as part of ongoing discussions within the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR) to establish Marine Protected Areas and manage expanding krill fisheries within the Antarctic.

To explore the tracking data and view all the contributors, visit seabirdtracking.org

No penguin, indeed no other bird, breeds further south than the Near Threatened Adelié Penguin (Pygoscelis adeliae)*. They are highly gregarious on land and at sea. Their colonies, which have a circumpolar distribution, are occupied from October to February and range in size from a few dozen to half a million birds. Tracking data collected from a number of sites has been contributed to the new database. Photo: Ben Lascelles.*

International Seabed Authority's 21st Session

Kingston, Jamaica 13-24 July 2015

David Johnson, GOBI Secretariat

Key topics for discussion at the 21st Annual Session of the International Seabed Authority were the development of a regulatory framework for exploitation of polymetallic nodule resources in marine areas beyond the limits of national jurisdiction, and the procedures and criteria for the extension of exploration contracts. As at the end of May 2015, the ISA has approved 26 Plans of Work and has entered into 15-year contracts for exploration with 22 contractors. The implementation of the environmental management plan for the Clarion-Clipperton Fracture Zone in the Pacific Ocean and the development of similar plans for the Mid-Atlantic Ridge in the Atlantic Ocean and in the Indian Ocean were considered. The ISA envisages the convening of a workshop before its next session in 2016 to review the subject.

Peter Thomson (Fiji), President of the ISA Council, in his opening remarks stressed the UN Post-2015 Agenda and in particular Sustainable Development Goal 14 which calls for the 'conservation and sustainable use of the oceans, seas and marine resources for sustainable development', noting the emphasis placed on specific goals related to marine pollution, management of marine ecosystems and the conservation of marine protected areas.

A Convention on Biological Diversity side event was held on Tuesday 21 July, co-chaired by Kristina Gjerde and David Johnson, covering the relevant work of the CBD on EBSAs and Guidelines for Biodiversity-inclusive Environmental Impact Assessments and Strategic Environmental Assessments (as applied to deep seas). Kristina welcomed delegations and explained the intention to provide and insight to the EBSA process and other CBD work of relevance to ISA. David noted that in due course the ISA may wish to provide relevant environmental information (as reported to the Authority by Contractors) to the CBD Information Sharing Mechanism. He also suggested that ISA should be interested in any EBSAs coincident with mining licenses and in any EBSAs that might be subject to transboundary impacts of mining such as plumes.

The side event comprised four presentations. Firstly, Joe Appiott (CBD Secretariat) presented an overview of the CBD's relevant work on marine and coastal biodiversity. In addition to EBSAs, CBD is compiling information on impacts from selected pressures and threats, developing tools and guidelines, facilitating capacity building and partnerships and providing information sharing mechanisms. CBD Decisions relating to EBSAs were recalled and explained. It was reiterated that EBSA descriptions rely on expert scientific judgment to describe and map areas meeting agreed scientific criteria. EBSAs reflect the inherent value of biodiversity and are not MPAs, fisheries closures or jurisdictional demarcations. To date, nine summary reports have been submitted by CBD to UNGA and 265.7 million square kilometres of the ocean has been covered by Regional EBSA Workshops.

David Johnson (GOBI Secretariat) then presented on scientific aspects including a case study of the Hydrothermal Vent Fields EBSA, described by the North-West Atlantic Regional EBSA Workshop. Hydrothermal vents, supporting a limited number of endemic taxa, are unique habitats. 10 vent fields north of 23 degrees north (a subset of the 22 vent fields along the Mid-Atlantic Ridge between the Azores and 14 degrees north) are included in the North-West Atlantic EBSA description, including Trans-Atlantic Geotraverse (TAG) and Snake Pit vent fields that both fall within the French exploratory mining license area.

Alessandra Vanzella-Khouri (UNEP-Caribbean Environment Programme) set out implications of the CBD's work on EBSAs at the regional level. She explained the Caribbean experience and showed the balance of EBSA descriptions within and beyond national description in the Caribbean. Finally, Kristina Gjerde (IUCN) explained CBD's work on Voluntary Guidelines for the consideration of biodiversity in EIAs and SEAs (CBD Decision XI/18). This presentation recalled a workshop held in Manila, Philippines in 2009, where ecological, practical (operational) and governance differences had been scoped with regard to applying EIA and SEA in Area Beyond National Jurisdiction. Key elements of the CBD EIA Guidelines were explained.

The ISA Assembly in session. Image courtesy D. Johnson

Towards the development of a Strategic Environmental Management Plan for seabed mineral exploitation in the Atlantic basin of the Area

David Johnson, GOBI Secretariat

A scoping workshop to consider issues relevant to an Atlantic Strategic Evironmental Management Plan (SEMP) took place in Horta, Azores, Portugal from 1-3 June 2015. The workshop was attended by 39 participants, from 11 nationalities and was informed by two remote presentations. The workshop and its preparation were kindly sponsored by the Directorate-General for Maritime Affairs and Fisheries European Commission, the Government of the Azores, the Pew Charitable Trusts, the Deep Sea Conservation Coalition, the Kaplan Fund and Oceans5, and supported by the EU-funded MIDAS project.

At a strategic level, the challenge is to plan for environmentally sustainable exploitation at ocean basin scale, balancing economic benefits of mineral extraction with conservation of marine ecosystems, whilst taking appropriate account of other maritime activities. As its geographic scope, the workshop focused on the Area in the North and South Atlantic, in particular the Mid Atlantic Ridge (MAR) and the Rio Grande Rise (RGR). A Pre-Workshop Data report was compiled to support and inform the workshop. This report collated available information from available publications, biogeographic databases, experts, online libraries and habitat suitability models. Data was sourced from major repositories including OBIS, Pangaea, and EMODnet as well as other portals. Some data was not available yet and some further work to finalise the data report was envisaged. Data availability was skewed to the northern part of the MAR. The workshop agreed that extra effort to obtain data known to exist is desirable and a selection of sources and possible updates were highlighted.

To provide context for the workshop a series of plenary presentations encompassed complementary exercises, current understanding about the mining footprint and the state of knowledge of Atlantic ecosystems. These included an explanation of the process of setting up Areas of Particular Environmental Interest (APEIs) in the Clarion-Clipperton Fracture Zone and the 2010 Dinard Workshop deliberations and outcomes that developed guidelines for the conservation of vent and seep ecosystems (see ISA Technical Study No. 9). Whilst design principles for these ecosystems mirror those for the CCZ, specific natural management units based on genetic connectivity and specific taxa represent a key difference. A recent expert workshop in Norway had considered the balance of protection needed between active and inactive vents.

The workshop recognised the need for adaptive management, acknowledging that compared to the Atlantic the CCZ is a 'simpler system' and main ecological drivers for CCZ-EMP are surface productivity, bottom depth and seamount distribution. As for the CCZ, protection should be proportionate to anticipated mining activity and in line with persistence of direct and indirect adverse environmental impacts.

Above: Workshop particpants in Horta, Azores

The workshop:

- Reviewed existing science-based goals for the development of an Atlantic SEMP, building on those agreed for the CCZ-EMP and proposed by the DINARD Workshop. A preliminary set of conservation and management objectives as defined by the workshop were accepted as an initial list that could be evolved into a more hierarchical set of goals and objectives;
- Reviewed existing policy and regulations in the context of deep-sea mining including management measures already adopted by other competent international organisations;
- Identified the categories of information required for environmental management and adequacy of available baseline information;
- Proposed guidelines for APEIs/Preservation Reference Zones (PRZs) for sulfides and crusts giving particular attention to active and inactive vents, fracture zones and water column features. A key consideration was to formulate mineral

deposit and Atlantic-specific design principles to guide GIS-based optimisation in order to recommend best locations for and spacing between APEIs and/or PRZs;

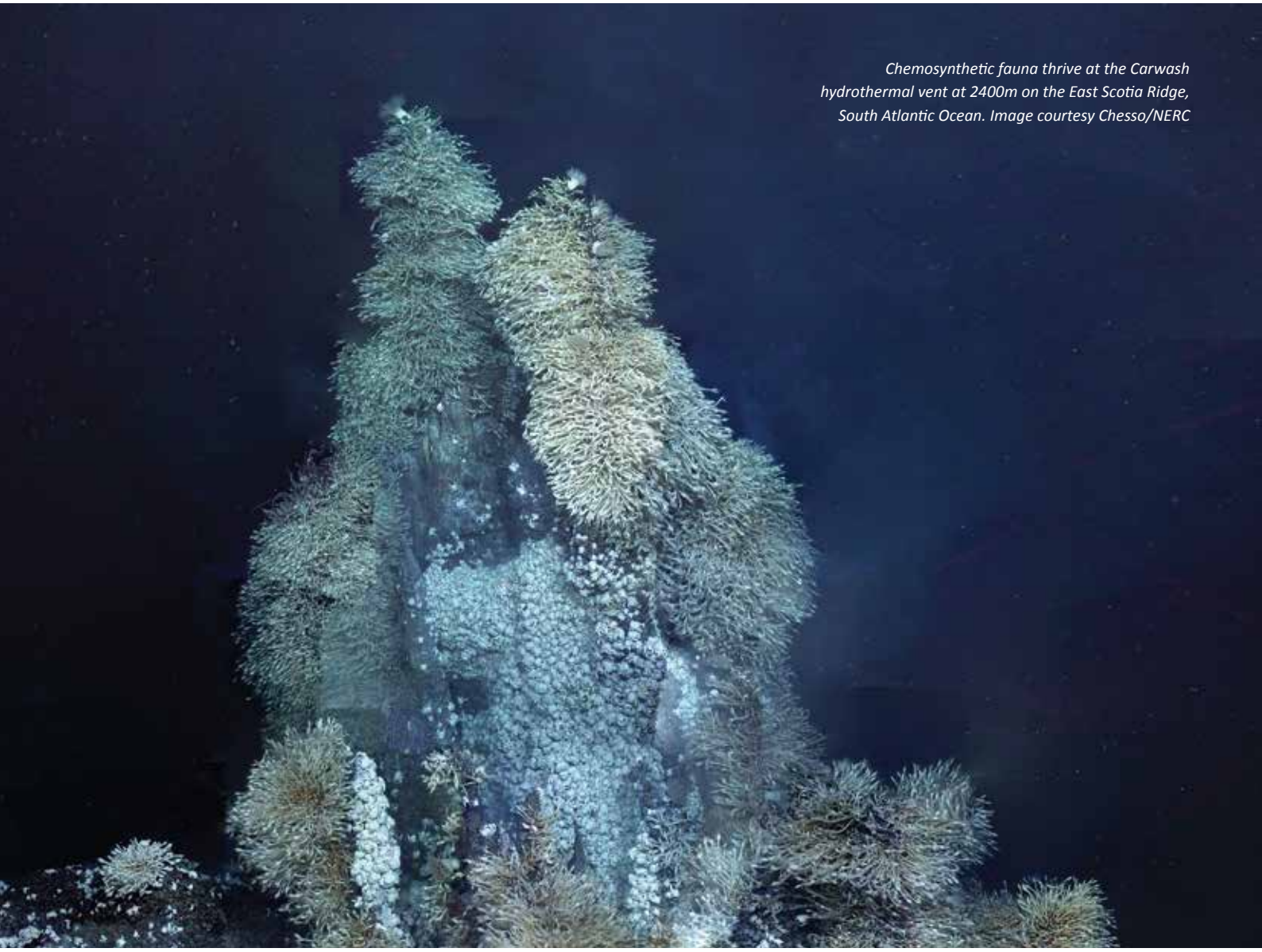
- Considered the nature, distribution and intensity of all human uses and likely interactions with mining; and
- Identified knowledge gaps and considered how to fill them in the context of a proposed roadmap.

High-level outcomes were presented to the ISA and the workshop agreed a further process is needed. To that end a roadmap was elaborated, proposing a series of further scientific meetings considered necessary to establish a more robust basis upon which to base an Atlantic SEMP.

The workshop also recognised that the ISA has exclusive competence for management of mining-related activities in the Area, and it would be for the ISA to further develop, recognise and adopt any SEMP. Thus the roadmap proposed also seeks to articulate with ISA meetings and any SEMP-related initiatives suggested by the Legal and Technical Commission of the ISA. Workshop participants wished to work with and alongside the ISA to achieve an Atlantic SEMP.

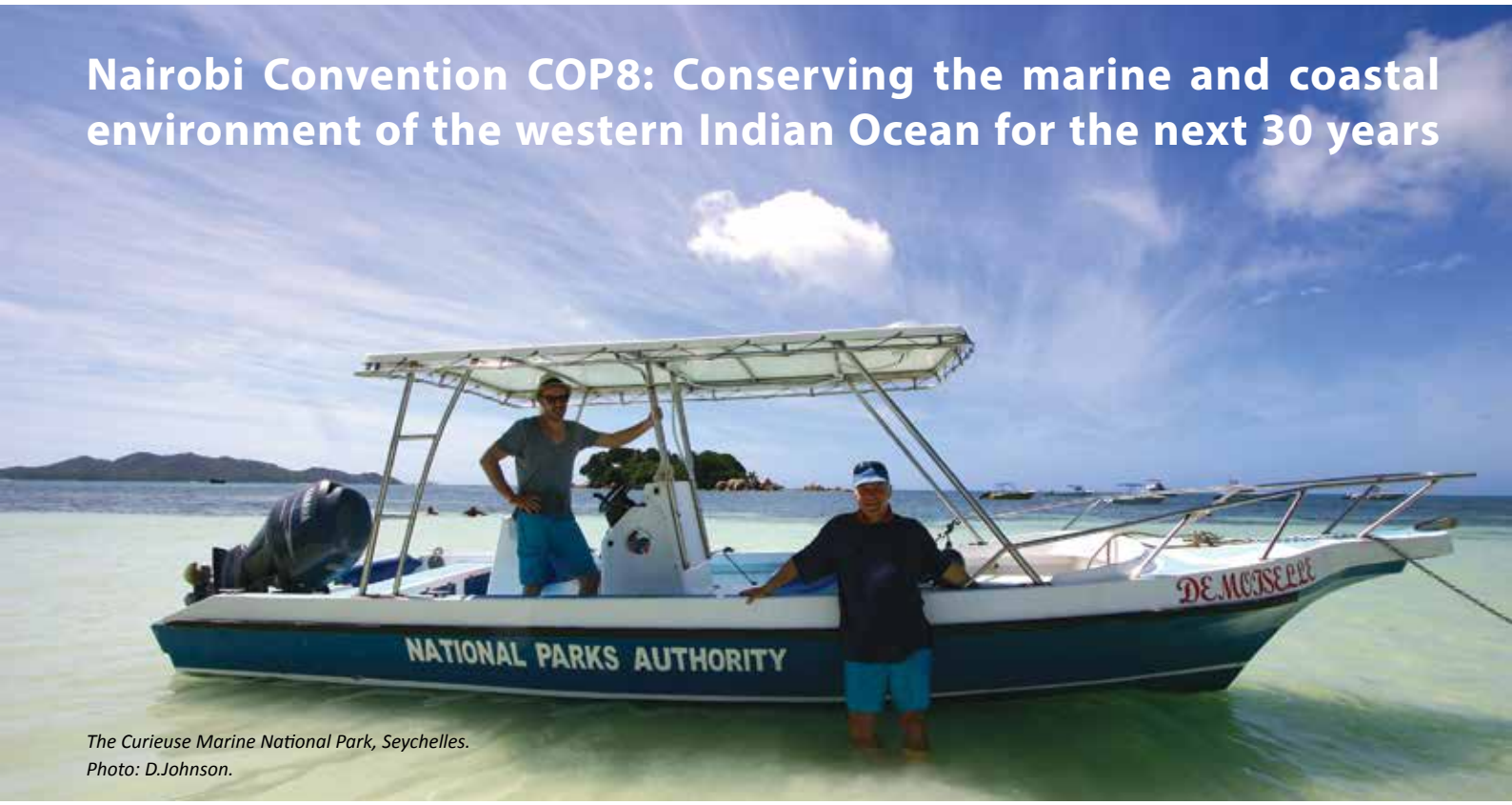
In July, at the 21st Session of the International Seabed Authority, the ISA Legal and Technical Commission (hereafter the Commission) '*supported the rationale for an environmental management plan for the Mid-Atlantic Ridge. It noted that a robust scientific case would be developed by the [SEMPIA] workshop participants over the coming years and it was expected that a report would be submitted for consideration and development by the Commission in 2017'.*

Furthermore, a subsequent Decision by the ISA Council *'Encourages the Commission and the Secretariat to make progress on the development of environmental management plans in other international seabed area zones, in particular where there are currently contracts for exploration, in line with the suggestion made by the United Nations General Assembly in paragraph 51 of its Resolution 69/245*'.



Chemosynthetic fauna thrive at the Carwash hydrothermal vent at 2400m on the East Scotia Ridge, South Atlantic Ocean. Image courtesy Chesso/NERC

Nairobi Convention COP8: Conserving the marine and coastal environment of the western Indian Ocean for the next 30 years



The Curieuse Marine National Park, Seychelles. Photo: D.Johnson.

The Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the West Indian Ocean Region (Nairobi Convention) met on 22-24 June 2015 in Mahe, Seychelles. Key agenda items for the meeting were a regional climate change strategy, value addition in the maritime economic sectors (blue economy) in the Western Indian Ocean region, and ocean governance including a first negotiated draft of a Protocol on Integrated Coastal Zone Management. The meeting was informed by a State of the Coast report and a regional synthesis of bird status. A report on sharks and ray is being finalised by the Wildlife Conservation Society. Preparatory workshops brought together experts to discuss ocean governance and blue economy, science/policy engagements and partnership consortia.

Great emphasis is now being given to income and jobs associated with ocean regions. The African Union, at its 50th Anniversary Celebration, conceived 2063 Vision and Priorities (a global strategy to optimise use of Africa's resources for the benefit of Africans), within which is the 2050 Africa Integrated Maritime Strategy. The Western Indian Ocean is a global biodiversity hotspot under pressure from a rapidly expanding coastal population (approximately 60 million people) and associated infrastructure developments.

Nairobi Convention Contracting Parties adopted a set of Decisions amongst which was Decision CP8/10 §3 which urges "*Contracting Parties to cooperate in improving the governance of areas beyond national jurisdiction, building on existing regional institutions including the Nairobi Convention and developing area based management tools such as marine spatial planning to promote the blue economy pathways in the Western Indian Ocean Region*".

Of particular interest to GOBI, also noted in the formal Decisions of the meeting, were a series of future projects with the potential to take forward EBSA descriptions from the Southern Indian Ocean Regional Workshop to facilitate the description of EBSAs, held in Mauritius 31 July – 3 August 2012. These are:

i) Saya de Malha Bank

Largest of the shallow banks forming the Mascarene Plateau (SOI.32), along the Mascarene Ridge that spans the distance between Seychelles and Mauritius. The Bank supports the largest seagrass beds in the world with associated species endemism and significant aggregations of marineon mammals and seabirds. In 2010 the Mascarene Plateau was the subject of a successful joint submission by Seychelles and Mauritius to the Commission on the Limits of the Continental Shelf, hence the seabed is jointly managed by those States whilst the water column remains in the High Seas. Both countries are currently developing a management strategy and regime for their extended continental shelf in this region on the basis of a Join Management Agreement.

ii) Northern Mozambique Channel initiative (NMCi)

This holistic initiative aims to secure sustainable integrated management of marine based activities. It will be informed by EBSA descriptions for the Mozambique Channel (SIO.19)

and Iles Eparses (SOI.20) and Northern Mozambique Channel (SIO.24), the latter two being largely nested within the first. EBSA templates highlight globally unique eddy and gyre dynamics together with upwelling on the Madagascar Plateau that contribute to highly connected and highly productive marine communities. The area is rated second in the world to the Coral Triangle for its outstanding biodiversity. The proposal is to develop a sub-regional integrated ocean management framework and to secure funded needed for its implementation as an exemplar for an integrated management approach.

iii) Trans-boundary MPA proposal between Kenya and the United Republic of Tanzania – this transboundary area encompasses two EBSAs, namely Pemba-Shimoni-Kisite in Kenya (SIO.13) and the Tanga Coelacanth Marine Park in Tanzania (SIO.12). The intention is to create a multi-zoned system incorporating three areas that are already marine parks, to achieve policy and management harmonisation, engaging the community and private sector as well as government agencies. All three projects are seeking GEF finance to enable implementation.

Future activities of relevance also include:

i. FAO/UNEP GEF ABNJ Component 4 – which takes Nairobi Convention area as one of its two case study regions
ii. SOI East Africa 16-20 November 2015, Madagascar
iii. FFEM/IUCN Project on sustainable exploitation of seamount and hydrothermal vent systems.

COP9 will be hosted by Kenya in Mombasa in 2017.

Right: Curieuse Marine National Park, Seychelles. Photo: D. Johnson.

IOC and CBD raise awareness of progress on EBSAs

The Intergovernmental Oceanographic Commission (IOC) and the Convention of Biological Diversity (CBD) have issued a joint letter to National Coordinating Bodies and Member States' Permanent Delegates and Observers to UNESCO in order to raise awareness of the progress made in the description of ecologically or biologically significant marine areas (EBSAs).

The letter draws attention to the 204 marine areas that meet the EBSA criteria, which have been described via a series of regional workshops convened by CBD over the past 4 years. Results from nine of these workshops were presented to the CBD Conference of the Parties in its 11th and 12th meetings, and results from the more recent workshops will be presented at the meetings of the CBD Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) and CBD COP in 2016. A series of reports summarising the outcomes of the regional EBSA workshops that have been considered by CBD COP to date are now available in six languages via the CBD website.

The letter also highlights the important collaboration between IOC and CBD in the drive for protection of marine ecosystems, and in particular the role of IOC's Ocean Biogeographic Information System (OBIS) as a primary data source for the regional EBSA workshops organised and implemented by the CBD. It is hoped that the scientific information on areas meeting the EBSA criteria will be helpful to supporting national efforts to achieve the Aichi Biodiversity Targets. The letter is accompanied by a short annex that outlines the CBD's work and processes involved in the description of EBSAs.

The regional EBSA summary reports can be accessed online via the CBD's website as follows:

English: www.cbd.int/doc/decisions/cop-12/cop-12-dec-22-en.pdf

Spanish: www.cbd.int/doc/decisions/cop-12/cop-12-dec-22-es.pdf

French: www.cbd.int/doc/decisions/cop-12/cop-12-dec-22-fr.pdf

Russian: www.cbd.int/doc/decisions/cop-12/cop-12-dec-22-ru.pdf

Arabic: www.cbd.int/doc/decisions/cop-12/cop-12-dec-22-ar.pdf

Chinese: www.cbd.int/doc/decisions/cop-12/cop-12-dec-22-zh.pdf

In other developments, the CBD Secretariat has recently announced that two further regional EBSA workshops will take place to cover the Seas of East Asia (14-18 December 2015, Xiamen, China) and the Black and Caspian Seas (dates and location to be confirmed in due course).

Scoping Workshop: Supporting the development of regional initiatives for ABNJ in the Abidjan Convention Region

The Convention for Cooperation in the Protection, Management and Development of the Marine and Coastal Environment of the Atlantic Coast of the West, Central and Southern African Region (Abidjan Convention) in association with the Partnership for Regional Ocean Governance (UNEP, IASS, IDDRI) held a technical workshop in Mahe, Seychelles, on 20-21 June 2015, in the margins of Nairobi Convention COP8.

The mandate to hold this workshop was from the Abidjan Convention COP11 where the Parties decided to '*set up a working group to study all aspects of the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction within the framework of the Abidjan Convention*' (Decision CP. 11.10). In January 2015 the PROG was formed as an informal platform with the purpose of fostering change at the regional level and promoting regional processes in ABNJ. Momentum for political attention to oceans in Africa, the decade of African seas and oceans 2015-2025 and the 2050 AIM Strategy were noted.

The aims of the workshop were to:

a) Provide an update on the negotiation process towards the elaboration of an international instrument dedicated to ABNJ;
b) Consider existing regional initiatives in ABNJ, and
c) Elaborate a draft terms of reference for the Working Group for consideration by the Abidjan Convention Parties.

It was timely that the workshop should reflect on progress in the context of the global position on an Implementing Agreement for biodiversity beyond national jurisdiction given that UNGA Resolution 69/292 was adopted on 19.6.15, formally confirming the agreement in January 2015 at the Ad Hoc WG BBNJ to embark on a two-step process (i.e. Preparatory Committee leading to an Intergovernmental Conference). Mr Dire Tladi (South Africa) recalled the root of the problem stems from an ambiguity of UNCLOS regarding ABNJ. Essentially Parts XI and VII of UNCLOS have very different philosophies and principles. Key issues in future negotiations are the relationship of any Implementing Agreement with existing regional mechanisms and its scope (e.g. should it include fisheries?). The so-called 'package' provides an accepted starting point. Dates set for the Prep Comm in 2016 provide impetus for the Abidjan Convention Working Group to make progress and contribute in a timely manner to negotiations.

Existing initiatives reviewed then included the EBSA process with a particular focus on the South-Eastern Atlantic Regional Workshop to facilitate the description of EBSAs held in Namibia 8-12 April 2013. Data layers used for EBSAs were highlighted and ongoing projects using the EBSA data. An overview of regional initiatives in ABNJ was made by IASS and IDDRI, augmented by lessons learned from the North-East Atlantic and the West African MPA network developed by the Regional MPA Network in West Africa (RAMPAO). The utility of the global geomorphological mapping tool developed by GRID-Arendal was also evaluated, together with possible knowledge transfer from the FAO/UNEP GEF ABNJ Project component on marine spatial planning.

The draft Terms of Reference refined by the meeting reflected elements of an initial programme of work including the identification of EBSA/VME gaps, and an analysis of connectivity between ecosystems located within and bridging EEZ and ABNJ. These are both elements of relevance to GOBI interests and also link explicitly with the GIZ Benguela Current Commission Project plans.

Above: Participants at the Mahe workshop

Global Ocean Biodiversity Initiative

Global Ocean Biodiversity Initiative

Working towards high seas conservation

The Global Ocean Biodiversity Initiative is an international partnership advancing the scientific basis for conserving biological diversity in the deep seas and open oceans. It aims to help countries, as well as regional and global organisations, to use and develop data, tools and methodologies to identify ecologically significant areas with an initial focus on the high seas and deep seabed beyond national jurisdiction.

This initiative began in late 2008 as a collaboration amongst the German Federal Agency for Nature Conservation (BfN), IUCN, UNEP World Conservation Monitoring Centre, Marine Conservation Institute, Census of Marine Life, Ocean Biogeographic Information System and the Marine Geospatial Ecology Lab of Duke University. The initiative continues to seek additional collaborators to help bring the best science and data to bear on the identification of ecologically significant areas beyond national jurisdiction.

The work under this initiative ultimately aims to help countries meet the goals adopted under the Convention on Biological Diversity (CBD), the United Nations General Assembly resolutions, and at the three Earth Summits (Rio 1992; Johannesburg 2002; Rio 2012). These global goals relate to reducing the rate of biodiversity loss, applying ecosystem approaches, determining areas of ecological and biological significance and vulnerable marine ecosystems as well as establishing representative marine protected area networks.

Objectives

- Establish and support International scientific collaboration to assist States and relevant regional and global organisations to identify ecologically significant areas using the best available scientific data, tools, and methods.
- Provide guidance on how the CBD's scientific criteria and UN resolutions can be interpreted and applied towards management, including representative networks of marine protected areas.
- Assist in regional capacity building and developing regional analyses with relevant organisations and stakeholders.

The GOBI partnership and activities are coordinated by a Secretariat team, provided by Seascape Consultants Ltd and funded by the German Federal Agency for Nature Conservation (BfN; www.bfn.de).

For more information about GOBI please visit our website at www.gobi.org

BfN Federal Agency for Nature Conservation

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