



Our Oceans, Our Future

On 8 June 2017, millions of people across the world marked World Oceans Day, the theme this year being Our Oceans, Our Future. GOBI took the opportunity to mark and contribute to the occasion by launching its new website and Twitter account (www.gobi.org; @GOBIsecretariat) and co-hosting a side-event at the first United Nations Ocean Conference in New York. The conference – attended by more than 8,000 delegates – generated over 1,300 voluntary commitments to support the implementation of the ocean-specific Sustainable Development Goal 14 (SDG 14), and concluded with a call for action to make a meaningful difference to people and to the planet. A follow-up High-Level Political Forum on sustainable development (HLPF2017) was organised in July to review how the voluntary commitments will address relevant SDGs under the 2030 Agenda.

The UN Ocean Conference was not the only high-level event to take place this year. The third and fourth sessions of the Preparatory Committee for the development of an international legally binding instrument under the United Nations Convention on the Law of the Sea (UNCLOS) on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (BBNJ) took place in New York in April and July, respectively. Once again, GOBI was represented at both events, participating in various side events and discussions on how to promote the utility of EBSAs for ecosystem-based management in ABNJ, and evaluating critical considerations for incorporating the open ocean into the forthcoming negotiations to establish an implementing agreement to UNCLOS.

In addition to fulfilling a range of political engagements, GOBI partners were also getting their hands dirty in the field, tagging sharks and turtles and collecting water samples for

the detection of oceanic microplastics as part of a research expedition to the Costa Rica Thermal Dome. Concurrently, a workshop dedicated to the identification of Important Marine Mammal Areas (IMMAs) took place in Samoa, serendipitously yet fittingly celebrating the Year of the Whale. Its successful completion marked the start of an ambitious 5-workshop programme across the whole of the Pacific Ocean, supported by GOBI's funding from the International Climate Initiative (IKI).

Meanwhile, describing new candidate EBSAs was at the top of the agenda during the latest CBD Regional EBSA Workshop focusing on the Black and Caspian Seas, held in late April in Azerbaijan. This workshop brings us one step closer to achieving complete coverage of the oceans by the EBSA process. How EBSAs can inform regional and sectoral approaches to area-based management of marine biodiversity was, in turn, a topic of discussion during the IUCN workshop on marine protected areas in ABNJ, held in Switzerland. Nowhere is this need for recommendations on optimal environmental management approaches more pressing perhaps than in the Arctic, as evidenced from discussions at the last Arctic Council Ministerial Meeting held in Alaska.

On this basis we believe 2017 will be seen as a landmark year for oceans, seas and adjacent coastal areas - now recognised more than ever as an essential component of the global life-support system and an asset presenting important opportunities for sustainable development. GOBI is working with many multilateral environmental agreements and associated competent international organisations to support the CBD Strategic Plan for Biodiversity 2011-2020 and its Aichi Biodiversity Targets. Our oceans deserve the collective investment and the attention they are receiving; our future depends on them far more than we think.

BBNJ PrepCom process reaches conclusion

New York, 10-21 July 2017

By Guillermo Ortuño Crespo, Duke University

On 10-21 July 2017 the United Nations Preparatory Committee (PrepCom) for the development of the elements of a draft text of an international legally binding instrument (ILBI) on the conservation and sustainable use of marine biodiversity of areas beyond national jurisdiction (BBNJ) under the UN Convention on the Law of the Sea (UNCLOS) met in New York City for a fourth and most likely final time. The PrepCom fulfilled its mandate, as directed by the UN General Assembly (UNGA) resolution 69/292 in 2015, by reporting on possible elements for the ILBI after “...*exhaust[ing] every effort to reach agreement on substantive matters by consensus*”. On its final day, the PrepCom found consensus and approved the elements of a draft text for an ILBI under UNCLOS, drafted by the Chair of the PrepCom, H.E. Ambassador Carlos Duarte. In its recommendations, the PrepCom urges the UNGA to take a decision, as soon as possible, on the convening of a UN intergovernmental conference (IGC) for the negotiating and drafting of the new ILBI.

As in previous PrepCom meetings, the lunch breaks between the morning and afternoon sessions were used by different States, industry bodies, NGOs, IGOs, researchers and academia to organize informative side events relevant to the elements of the draft ILBI. During PrepCom4 these events covered a wide range of topics, including: access and benefit sharing

of genetic resources; capacity building for Least Developed Countries; relationships with existing regional bodies; and on the dynamics and ecology of high seas ecosystems. The side events continued until Tuesday 18 July, when the delegates to PrepCom began an informal, closed-door process of bilateral and multilateral negotiations, which culminated in the consensus reached at 9pm on Friday 21 July.

As set out in Resolution 69/292, the final recommendations by the PrepCom recognised the pivotal role of UNCLOS in setting the legal boundaries of the instrument and reiterated the need to not undermine the role of existing relevant legal instruments and frameworks and relevant global, regional and sectoral bodies, but also encouraged further coordination and cooperation of these instruments to better conserve and sustainably manage BBNJ.

The recommendations by the PrepCom are prefaced by language indicating that the list of elements to be considered are non-exclusive, non-binding, and non-prejudicial to future negotiations. The list is divided into two sections: those elements of a draft ILBI that generated convergence among most delegates, and those on which there remained diverging views. The elements address four main categories: marine genetic resources (MGRs), including questions on benefit

Crocheted mascots became something of a theme during PrepCom. Photo by IISD/Francis Dejon (enb. iisd.org/oceans/bbnj/prepcom4/17jul.html)



sharing; area-based management tools (ABMTs), including marine protected areas (MPAs); environmental impact assessments (EIAs); and capacity building and technology transfer (CB and TT). Cross-cutting issues addressed included possible institutional arrangements; the role and legal status of non-State actors; the definition of many of the elements such as MGRs or ABMTs; establishment of clearinghouse and financial mechanisms; monitoring and compliance strategies; and dispute settlement.

The President of the UN General Assembly, H.E. Mr Peter Thomson joined the delegates in delivering closing remarks, commending the excellent job by Chair Duarte, his team and the UN Division for Ocean Affairs and the Law of the Sea, and highlighting the significance of the consensus reached as a “solid step” towards protecting “the oceans that unite us”, and further expressing his hope that an IGC will be convened soon to maintain the momentum.

PrepCom4: Dynamic ecosystems in the open ocean

By Guillermo Ortuño Crespo, Duke University

During PrepCom4, the Nippon Foundation Nereus Program together with the International Union for Conservation of Nature (IUCN) and the Permanent Mission of Costa Rica to the United Nations co-organised a side event on the dynamics and ecology of high seas ecosystems: *“Deep, distant and dynamic: critical considerations for incorporating the open-ocean into a new BBNJ treaty”*. The four panellists - from Duke University, IUCN, MarViva Foundation and the Sargasso Sea Commission - provided diverse perspectives on the topics of open-ocean ecology, area-based management tools for ABNJ and regional approaches for the conservation of high seas biodiversity.

The principal objectives of the side event were to convey to attendees the content of two documents: the IUCN report on area-based management tools (ABMTs) for ABNJ, and a policy brief on dynamic pelagic areas in ABNJ developed by Duke University, the Nereus Program, IUCN, the Ocean Foundation, MarViva Foundation, the Sargasso Sea Commission, Antarctic and Southern Ocean Coalition and GOBI.

After a welcome by host Daniel Dunn (Duke University), the opening remarks were provided by H.E. Ambassador Rolando Castro Cordoba, Deputy Permanent Representative of Costa Rica at the United Nations, who eloquently explained the significance of the BBNJ process, not only for his country and region, but for the entire world. He described the new treaty as the single most important step towards ocean conservation since the establishment of UNCLOS in 1982.

Pat Halpin (Duke University) brought attendees up to speed on pelagic ecology with his talk on open-ocean ecosystem dynamics. He explained how wide-ranging pelagic species use this environment and how their movement patterns can lead to transboundary and straddling behaviours, which are relevant for addressing transboundary environmental impact assessments and the concept of adjacency.

Kristina Gjerde, on behalf of the Sargasso Sea Commission, gave a presentation on the importance of and threats to the Sargasso Sea ecosystem and how the international community had organised itself to begin to provide protection to the species of this dynamic and transboundary ecosystem.

Jorge Jimenez (MarViva Foundation) shared his experience with the conservation and management of the Costa Rica Thermal Dome in the Eastern Tropical Pacific. This upwelling oceanographic feature expands and contract across jurisdictional boundaries in the region and aggregates vast amounts of pelagic biodiversity. Its monitoring and management in ABNJ is crucial for coastal States and industries in the region (see feature article on p10-11).

Hiroko Muraki Gottlieb (IUCN) gave the closing talk on area-based management tools in ABNJ, focusing on the importance of establishing them in a coherent and integrated way at the appropriate spatial and temporal scales, and extensively discussing the expertise and competencies necessary for their establishment.

The policy brief is available from the Nereus Programme website at www.nereusprogram.org/category/policy-briefs.



GOBI at the UN Ocean conference

New York, 5-9 June 2017

By David Johnson, GOBI Coordinator

The first ever UN Ocean Conference used the convening power of the UN to bring together more than 8000 delegates in New York and generate over 1300 voluntary commitments. The press release issued at the end of the conference stressed the achievement of universal agreement on the need for measures to reverse ocean deterioration. In its concluding 'Call for Action' the conference agreed *'to act decisively and urgently, convinced that our collective action will make a meaningful difference to our people, to our planet and to our prosperity'*.



Organised around seven high-level Partnership Dialogues focused on scaling up solutions was an ambitious programme of side events, receptions, media events, interviews and exhibition stands. A packed schedule of parallel events was organised at the nearby Permanent Mission of Germany, in addition to many other associated activities. The result was a celebration of ocean topics: science, fisheries, financing, heritage, governance, climate change, pollution, capacity building, MPAs, SIDS and more. The conference significantly raised the profile of ocean issues and placed a spotlight on urgency for ocean stewardship, reiterating existing commitments and deadlines. It also worked hard to make information accessible through live TV, webcasts, hard-hitting statements, presentations, interviews and insights.

GOBI was represented at the Ocean Conference by David Johnson (GOBI Coordinator) and several GOBI partners. GOBI made its own voluntary commitment to the UN Ocean Conference Registry of Commitments, based on the ongoing

work funded under GOBI's grant from the International Climate Initiative and entitled *'New tools to support the conservation and sustainable management of marine biodiversity'* (see oceanconference.un.org/commitments/?id=19844 for details).

A daily selection of GOBI-relevant conference activities is set out below to give a flavour of this hectic and productive week.

Monday 5 June

- **Deep-Sea Science for Sustainable Development:** Organised by the Deep Ocean Stewardship Initiative (DOSI) in partnership with the Permanent Mission of the Kingdom of Tonga, UNESCO-IOC and IUCN, this was the first side event to focus on specific deep-sea issues. Kristina Gjerde (IUCN) stressed the importance of building on the Census of Marine Life and other speakers emphasised the need to expand deep-sea observations and international collaboration efforts.
- **Mobilising efforts to tackle marine debris:** hosted by the Government of Costa Rica with support from UN Environment, Monterey Bay Aquarium and the Zoological Society of London, this session was one of several concentrating on marine litter and plastic pollution.
- **Espresso presentations:** At the EBSA espresso, hosted by Christian Neumann (GRID-Arendal), this very short briefing opportunity allowed Henning von Nordheim (BfN) and David Johnson (GOBI) to share the latest EBSA developments. The ATLANTOS espresso, delivered by Martin Visbeck (GEOMAR) explained the cost-effective monitoring capability of Argo floats and technology transfer innovations in marine sensors.
- **Ocean acidification – what can we do about it?:** A side event hosted by UK in partnership with Plymouth Marine Laboratory, CBD, UNESCO-IOC, the International Atomic Energy Agency and the Global Ocean Acidification Observing Network sent a strong message that ocean acidification is affecting key foodweb components (e.g. impairing reef growth) with uncertain economic consequences.





Thursday 8 June (World Ocean Day 2017)

- **World Ocean Day celebration – Our Oceans, Our Future:** A spectacular 3-hour show to raise awareness of the beauty and fragility of the oceans, highlighting the most promising initiatives to reverse their decline, focusing especially on the power of creative collaboration and eco-innovation in the successful realisation of SDG 14. The line-up included talks from world-renowned ocean experts and explorers, representatives from coastal communities and voices from current and future generations.
- **EBSAs – special places to accelerate implementation towards SDG 14:** Hosted by CBD Secretariat and GOBI this popular event related the EBSA process to the 2030 Agenda and SDGs with insights provided by representatives of CSIRO Australia, JAMSTEC, IUCN-FEG, UNESCO-IOC and FAO (see separate report at gobi.org/news)



- **Blue Solutions market place:** A showcase for projects brokered and promoted by the Blue Solutions team at GIZ, this event fostered exchange of information and ideas for sustainable coastal and marine development.
- **Mission Blue interview:** David Johnson and Ana Tejador (European Environment Agency) spoke to Mission Blue about topics of particular significance and their impressions of the Conference.

Friday 9 June

- **Voluntary commitments:** Over 1300 voluntary commitments that aim to contribute to the implementation of SDG 14 were registered at the close of the Ocean Conference. These commitments are available to view via The Ocean Conference Registry of Commitments at oceanconference.un.org/commitments
- **Arctic Ocean Resilience – can critical tipping points be avoided?:** Hosted by the Government of Sweden and Stockholm Environment Institute and Stockholm Resilience Centre this side event highlighted the Arctic region as a bellwether of global change. Presenters illustrated how resilience is being undermined by a diverse range of changes detailed in the Arctic Resilience Report 2016.

Tuesday 6 June

- **Oceans in the 2030 Agenda – the role of regional Governance:** Hosted by Germany, Sweden and UN Environment together with the Institute for Advanced Sustainability Studies, Institute for Sustainable Development and International Relations and Germany's Think Tank for Sustainability (TMG). Active discussions at this full-day event were held on regional cooperation and recommendations formulated on regional cooperation, including capacity development and financing, as a means to strengthen regional ocean governance for SDG delivery.
- **Sustainable Ocean Night: Biodiversity for the Future We Want:** hosted by the CBD, the Government of the Republic of Korea (Ministry of Oceans and Fisheries) and the Government of Costa Rica (Ministry of Environment and Energy). This was a gathering of high-level policy makers from States and UN/international organisations to share insights and celebrate achievements of the Sustainable Oceans Initiative.

Wednesday 7 June

- **Partnership Dialogue 4: Making Fisheries Sustainable:** Co-chaired by Canada and Senegal, this dialogue particularly highlighted economics and livelihoods linked to the ocean. More than 3 billion people rely on fish as an important source of animal protein and 300 million people rely on marine fisheries for their livelihoods. In developing and developed countries alike the consumption of fish is increasing both per capita and in absolute terms. Mainstreaming biodiversity conservation into fisheries is a key challenge.
- **SDGs and the Blue Economy – Investing in marine ecosystem services for poverty alleviation:** Hosted by the Permanent Mission of Eritrea, this side event considered the importance of ecosystem services and showcased a series of projects demonstrating ocean values and realisation of marine benefits.

Regional EBSA workshop for the Black Sea and Caspian Sea

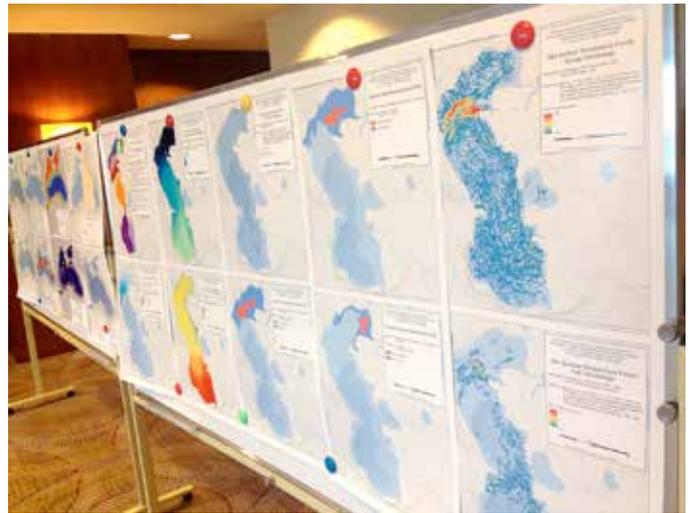
Baku, Azerbaijan, 24-29 April 2017

By Ahmet Erkan Kideys, Middle East Technical University

Following a UN call to intensify efforts in area-based planning for the better management of biodiversity and natural resources, the Parties to the CBD, since 2011, have facilitated the identification and description of EBSAs through a series of regional workshops.

The most recent of these regional workshops, hosted by the Government of Azerbaijan, was convened for the Black Sea and Caspian Sea in Baku on 24 -29 April, 2017. The workshop was organized in collaboration with the Commission on the Protection of the Black Sea against Pollution (BSC), the Tehran Convention Interim Secretariat (TCIS), the General Fisheries Commission for the Mediterranean (GFCM) and the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS). Scientific and technical support for this workshop was provided by Duke University and GOBI. Financial support was provided by the Government of Japan (through the Japan Biodiversity Fund) and the European Union.

In addition to the organisations mentioned above, the governments of the riparian countries of the Black and Caspian Seas (i.e. Azerbaijan, Bulgaria, Georgia, Iran, Kazakhstan, Romania, the Russian Federation, Turkey, Turkmenistan and Ukraine) also provided expertise for the workshop along with the UN's Food and Agriculture Organization (FAO), IOC-UNESCO's Ocean Biogeographic Information System (OBIS), BirdLife International and the Centre for Sustainable Development/ICCA Consortium for West and Central Asia. For experts not familiar with the EBSA description process, training was provided prior to the meeting via a webinar on 13 April 2017, where the CBD's seven scientific criteria for EBSAs were thoroughly explained.



Despite their relatively small areas (compared to the oceans), both the Black Sea and Caspian Sea are important for their specific biodiversity, each with a high ratio of endemic species. One of the main reasons for the high endemism is their very limited or total lack of connection to the world oceans (Black Sea only through the narrow Istanbul Strait whilst the Caspian Sea is completely enclosed). The most unique characteristic of the Black Sea is its permanent anoxia below 200 m to around 2200 m depth, where many species have adapted to lower oxygen levels at the boundary. In the ancient Caspian Sea which was once connected to the ocean, many new species evolved that over time have lost contact with populations in other seas.

The workshop highlighted the unique biodiversity of both seas and their subsequent vulnerability to adverse anthropogenic impacts. Unfortunately, in recent decades, the ecosystems of the Black and Caspian Seas are continually facing increasing pressure due to demographic and economic growth as well as the diversification and intensification of marine and maritime activities. Among the main threats to the environments of these seas are: (1) eutrophication through agriculture, industrial activity and inputs of insufficiently treated sewage; (2) different types of pollution and contamination through discharge of harmful substances, especially oil products; (3) introduction of alien species; (4) unsustainable fishing practices; and (5) climate change.

Left: Discussions amongst the workshop participants. Above: Maps of physical and biological data supplied by Duke's technical team.

Prior to this meeting, although there were a limited number of marine protected areas (MPAs), there were no EBSAs described for the Black or Caspian Seas. Therefore, the EBSA process was extremely important for paving ways to protecting the biodiversity and natural resources in these seas. After analysing the available information and following fruitful discussions, experts from governmental and intergovernmental organisations unanimously agreed that a total of 33 areas (17 from the Black Sea and 16 from the Caspian Sea) meeting the EBSA criteria should be proposed at CBD's Subsidiary Body on Technical and Technological Advice (SBSTTA). It is worth noting that every coastal State in the region now has several EBSAs described for its national waters, underlining the commitment of all countries to the EBSA process and the necessary future undertakings.



A report of the meeting will be available from the CBD website in due course.

Above: Ahmet Kideys (centre) in discussion with Duke University's Pat Halpin (right) and Jesse Cleary (left). Below: Group photo of participants in Baku.

Since 2011, the CBD Secretariat has convened 12 regional workshops to facilitate the description of areas meeting the EBSA criteria, subject to COP decisions. Prior to the Baku workshop, a total of 279 areas had been described as meeting the EBSA criteria and considered by the consecutive COPs, which was followed by their summary reports being submitted to the United Nations General Assembly and its relevant working groups. The 33 EBSAs described by this workshop for the Black and Caspian Seas hope to follow the same procedure.



GOBI's research activities gather pace

GOBI's ongoing research programme supported by Germany's International Climate Initiative (IKI) is gaining strong momentum one year into its five-year duration. Partner institutions leading each of the programme's six research themes have hit the ground running and are already showing promising results.

The team at CSIRO has made good headway in the development of bioregionalisations for the Indian and western South Pacific Oceans. Over the past year, relevant physical and biological datasets from the region have been identified, acquired and processed in preparation for analysis, and a postdoctoral researcher has been recruited to assist with the development and refinement of analytical methods. To ensure that resulting bioregionalisation outputs are optimised for their intended purpose, an international workshop was held to seek consensus on which options available within the analytical methods are most significant and important for quantifying broad-scale biogeography, with particular reference to its application in area-based environmental management and conservation. Ongoing work will now assimilate the workshop's conclusions into the analytical process, with preliminary results of a physical bioregionalisation of the region expected within the next few months.

Duke University's Marine Geospatial Ecology Lab (MGEL) has been exceptionally busy over the past 12 months. Following the appointment of several new team members, the search for records of migratory animals in the scientific and grey literature continues. The acquisition of such records, together with datasets acquired from established sources, provides the basis for the development of the Migratory Connectivity in the Ocean (MiCO) database, which is intended to plug the present

gap in knowledge of population connectivity for migratory species using the open ocean. This information will be of great use to the CBD, CMS, UNESCO, and global fisheries and deep-sea mining authorities, who are refining frameworks for spatial management of the high seas. Scientists at MGEL are engaged in the discussions within and amongst those organisations to ensure that the resultant management frameworks are both fit for purpose and provide the necessary protection for the natural environment.



Pacific white-sided dolphins. Image courtesy NOAA.

Also at Duke University, the Nicholas School of the Environment is at the forefront of expanding our understanding of the risks and potential impacts of deep-sea mining on biodiversity, especially around deep-sea hydrothermal vents. A position paper on the potential loss of biological diversity resulting from deep-sea mining has recently been published in *Nature Geoscience*,

attracting considerable attention in the mainstream media. A genetic connectivity model for hydrothermal vent organisms of the Mid-Atlantic Ridge in the North Atlantic is being developed. This information is in high demand by authorities responsible for devising spatial management design options and draft exploitation regulations for deep-sea mining. Dissemination of new knowledge and participation in key international working groups is a large component of this work.

Van Dover, C.L. et al. Biodiversity Loss from Deep-sea Mining. Nature Geoscience, June 26 2017. doi: 10.1038/ngeo2983



Vent shrimp (Rimicaris hybisae) at the orifice of a hydrothermal vent on the Mid-Cayman Rise. Image courtesy NOAA.

BirdLife International have recently celebrated the addition of the 10 millionth record to its Seabird Tracking Database. Through persistent negotiations with data holders worldwide BirdLife continues to attract more records to its database, which is an indispensable resource on which to base important decisions about where to place marine protected areas (MPAs) for maximum effectiveness. As an example, the latest proposed MPA site supported by seabird data is located around the Evlanov Seamount and Basin in the North Atlantic Ocean and is estimated to support 2.9 million seabirds from 24 species and 106 colonies, including some of the most threatened and declining seabirds in the Atlantic. Seabird species distribution modelling is also on course to extract as much value as possible out of the data holdings and to gain further insight into seabird behaviour and distribution. All this work, including the designation of important bird areas (IBA), contributes to the knowledge required to inform and strengthen the description of EBSAs.

Representatives from the MarViva Foundation have been busy on both the national and international stages. Promoting the Costa Rica Thermal Dome locally as an ecologically and economically important feature in the tropical East Pacific has involved the deployment of high-profile poster campaigns

in public spaces around Costa Rica’s capital city, San Jose, during spring 2017. Production of a comprehensive species atlas for the Dome region is ongoing, as is the production of a documentary film based on MarViva’s recent expedition to the Dome (see article on the following pages). Internationally, MarViva has been proactive in high-level negotiations with other Central and South American countries towards the creation of a UNEP Regional Seas Programme for the region adjacent to the Costa Rica Thermal Dome. Most recently, MarViva has been promoting the recognition and protection of ephemeral and dynamic features in the high seas for wildlife and for humans at BBNJ PrepCom4.

Marine mammals are the focus of work by the team at the Tethys Research Institute, who have successfully delivered the first workshop in the Pacific Ocean to identify Important Marine Mammal Areas (IMMAs). IMMAs are intended to be the first step in a process to better understand the global distribution and dynamics of populations of marine mammals, which will in turn enable the recognition and assessment of threats to their long-term survival. As this information becomes available, appropriate conservation and management tools can be devised to ensure that maritime activities have minimal impact these animals. The gathering of information on marine mammals at a regional scale is long overdue, and will support global efforts by the Convention on Migratory Species to protect and conserve these species as well as the environment they need to ensure populations stay connected.

For more information on GOBI’s research programme please visit www.gobi.org/projects.



Gannet in flight. Image courtesy James Youn.



Kip Evans films a thresher shark caught by scientists for tagging. Image courtesy David García/MarViva.

Expedition to the Costa Rica Thermal Dome

By Erick Ross Salazar, MarViva Foundation

The Costa Rica Thermal Dome (CRTD), a biodiverse and dynamic oceanographic feature located off the Pacific coast of Central America, has been sparsely studied due to its remoteness from the coast. Though it forms near the shore at the start of the year, as northerly winds lose strength and currents fluctuate it starts moving offshore, towards international waters.

In an effort to better understand this unique area, MarViva Foundation organised an expedition to the Costa Rica Thermal Dome in April 2017 as part of the GOBI programme funded by Germany's International Climate Initiative (IKI).

The expedition participants represented a wide range of professions and expertise. Erick Ross Salazar (MarViva's Science Manager) led the team of scientists and filmmakers. GOBI

Coordinator David Johnson took charge of collecting water samples to analyse the presence of microplastics; Kip Evans (Director of Photography and Expeditions) and Brett Garling (Director of Communications) from Mission Blue were tasked with documenting the expedition and wildlife; Andrés López from Misión Tiburón was the resident shark and manta expert in charge of tagging thresher and silky sharks; Yonat Swimmer (National Oceanographic and Atmospheric Administration), contributed her experience with sea turtles and their capture as bycatch in longline fisheries, and José David Palacios (Fundación Keto) was the lead cetacean expert.

The expedition team included young scientists Carolina Sheridan (University of Costa Rica), tasked with collecting zooplankton samples; Sergio Cambronero (National University), in charge of collecting oceanographic data and phytoplankton samples; and Gustavo Rojas (MarViva Foundation), collaborating in the collection of water and plankton samples. The team was completed by David García (Eco Divers Costa Rica) who provided photographic support, and Nico Gherinich (Sea Masters) in charge of analysing oceanographic conditions in order to increase the possibility of finding large marine animals.

Many important economic activities in the CRTD region depend on a healthy ecosystem in the area. One of the world's most important yellowfin tuna fisheries can be found around the Costa Rica Thermal Dome and its area of influence. The Eastern Tropical Pacific yellowfin tuna are closely linked to dolphin populations, which is why managing purse seine tuna fisheries is important to reduce negative interactions with



Above: Andrés López, Jose Moya and Yonat Swimmer take length measurements from one of the tagged olive Ridley turtles. Image Kip Evans, Mission Blue.

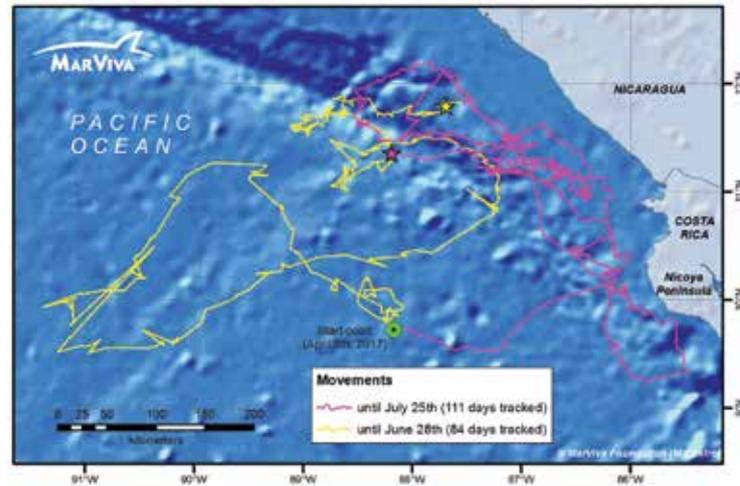
cetaceans. Guatemala, Costa Rica and Panama have important sport fishing industries that rely on sailfish and marlin that also visit the Dome's area of influence.

During the expedition, the team of scientists was able to document the presence of Olive Ridley sea turtles, silky and thresher sharks, manta rays, swordfish, sailfish, beaked whales, and bottled and pan-tropical spotted dolphins.

Two satellite tags donated by NOAA were placed on Olive Ridley turtles and have been transmitting since. Named Iker and Miah, in honour of one of the crewmembers' children, they have stayed in the CRTD region, with Iker heading temporarily towards the Costa Rican coast.

The scientists from the University of Costa Rica and the National University took plankton samples to study the composition of the cold upwelling water. They collected samples at over 14 stations, deploying a zooplankton net to 80 meters and pulled up samples in several locations. They also collected additional samples using a device that can be deployed at any depth to capture a sample from that specific part of the water column.

David Johnson, looking for the presence of microplastics in the region, was successful in his mission; samples taken in various stations documented the presence of microplastics. Hopefully his research will allow countries in the region to establish policies to reduce the presence of marine litter through better waste management on land.



Above: Map showing Olive Ridley turtles Iker (pink track) and Miah (yellow track) have remained in the Costa Rica Thermal Dome region after being tagged and released.

Mission Blue is currently editing a short documentary on the importance for the region of the Costa Rica Thermal Dome and the connection between coastal ecosystems and the high seas. The film will be presented to decision makers and the public in order to generate awareness about this incredible region.

The aim of MarViva Foundation's work under the GOBI umbrella in the Costa Rica Thermal Dome is to establish a regional governance scheme where countries can collaborate in resource management and conservation.



Above: During the expedition, a longline vessel collaborated with scientists and allowed them to tag and release two silky sharks and a thresher shark. Image courtesy David García, EcoDivers/MarViva. Right: Thresher shark (image courtesy Kip Evans, Mission Blue).



IMMA workshop takes place in Samoa

By Eric Hoyt, Tethys Institute



*Humpback whale.
Image courtesy Mike Tetley*

In March 2017, the IUCN Marine Mammal Protected Areas (MMPA) Task Force invited experts from all over the South Pacific to Apia, Samoa, to attend the second Important Marine Mammal Area (IMMA) workshop. This followed the successful first IMMA workshop in the Mediterranean in October 2016 sponsored by the MAVA Foundation.

The South Pacific IMMA workshop, supported by GOBI in partnership with Germany's International Climate Initiative (IKI), brought together 23 marine mammal researchers and other experts from 14 countries to examine a set of areas of interest and agree upon which of these could be proposed as candidate IMMAs (cIMMAs). The workshop was hosted and facilitated by the Pacific Regional Environment Programme (SPREP).

Following the workshop, a preliminary total of 29 cIMMAs are to be submitted for consideration to an independent review panel. Candidate IMMAs that are not accepted by the reviewers will remain as areas of interest in the region.

The results of the Samoa workshop were announced by MMPA

Task Force members attending the Whales in a Changing Ocean conference that followed in Tonga on 4-6 April. This conference, as well as the IMMA workshop in Samoa, formed part of the Year of the Whale celebrations in the South Pacific.

The region covered by the IMMA workshop was vast, stretching from the Hawaiian archipelago in the northern hemisphere to the network of island states in the south, including Papua New Guinea, the Solomon Islands, New Caledonia, Niue, Tonga, Fiji, the Cook Islands and French Polynesia, among others. Various cIMMAs were mapped for breeding humpback whales, sperm whales, dugong and resting spinner dolphins, as well as lesser known marine mammal species in offshore waters such as pygmy and dwarf sperm whales, Risso's dolphins, Cuvier's beaked whales and rough-toothed dolphins.

IMMAs are defined as discrete portions of habitat, important to marine mammal species, that have the potential to be delineated and managed for conservation. IMMAs are intended to flag important areas for marine mammals, which may lead to marine protected areas (MPAs), ship or noise directives, and other conservation outcomes. IMMAs also function as valuable

indicators of health in the marine environment. They point to the location of umbrella species for protecting biodiversity, and may be important for monitoring effects of climate change on marine life.

While the IMMA workshop process will select areas that are important for the 130 species of marine mammals, it also integrates existing conservation measures and will help in the selection of EBSAs as devised by the CBD, as well as IUCN's Key Biodiversity Areas (KBAs).

The MMPA Task Force co-chairs intend to select one of the cIMMAs identified during the Samoa workshop for implementation as a protected zone. The follow-up work will include preparation of a draft management plan with a small team of experts in marine planning.

Between 2018 and 2021, the IMMA process plans to conduct expert workshops in the Northeast Indian Ocean, the Northwest Indian Ocean, the Southeast Pacific and the waters of Australia-New Zealand and adjacent Oceania waters. In each region, information about each marine mammal species along with oceanographic and environmental data will be gathered in advance of a workshop to identify and propose further cIMMAs.

Other sponsors of the worldwide IMMA project include the Tethys Research Institute, Whale and Dolphin Conservation and the International Committee on Marine Mammal Protected Areas. Defining IMMAs and the preparation of criteria and the



search for longer-term support was funded by Animal Welfare Institute, Eulabor Institute, Tethys and WDC among others.

For more information about the IUCN Marine Mammal Protected Areas Task Force and to download the most recent marine mammal poster map, go to marinemammalhabitat.org. You can contact the Task Force through Michael J. Tetley (immacoordinator@gmail.com), Erich Hoyt (erich.hoyt@mac.com), Giuseppe Notarbartolo di Sciara (disciara@gmail.com), and Simone Panigada (panigada69@gmail.com).

Above: Workshop participants discussing datasets. Below: The workshop group included experts from all over the South Pacific region. Photos courtesy Erich Hoyt, IUCN WCPA-SSC Marine Mammal Protected Areas Task Force and WDC.



10th Arctic Council Ministerial Meeting

Fairbanks, Alaska 10-11 May 2017

By David Johnson, GOBI Secretariat

The USA marked the conclusion of its 2-year chairmanship of the Arctic Council with a week of activities in Fairbanks and Anchorage, Alaska. A trio of 'Arctic Interchange', 'International Arctic Assembly' and 'North by North' events framed contributions on science, co-production, diplomacy, research, education and cultural exchange. A broad range of perspectives provided essential background to the Arctic Council Ministerial activities and aspirations.

In the words of the International Arctic Assembly: *"The Arctic is no longer an emerging region of interest; rather it is a dynamic landscape of change and dialogue. With the Arctic continuing to warm, and evidence of rapid social, political and economic change, the Arctic is now a region of global interest, challenge and opportunity"*.

Ministers representing the eight Arctic States, joined by representatives of the six Permanent Participant organisations, agreed the Fairbanks Declaration on 11 May 2017 (see www.state.gov/e/oes/rls/other/2017/270802.htm). The preambular text of this Declaration notes the preeminent intergovernmental

role of the Arctic Council for the Arctic Region and reiterates a commitment to peace, stability and constructive cooperation including engagement with Arctic indigenous peoples. It also recalls climate change commitments and the 2030 Agenda of the Sustainable Development Goals. The substantive part of the Declaration is then presented in four sections: Arctic Ocean safety, security and stewardship; Improving economic and living conditions; Addressing the impacts of climate change; and Strengthening the Arctic Council.

A number of Arctic Council products and initiatives of specific interest to GOBI were recognised by Ministers as follows:

- The Circumpolar Biodiversity Monitoring Program's State of the Arctic Marine Biodiversity Report: includes key findings for Arctic species and marine environments, summary snapshots for biota (divided into sub-regions), and advice for monitoring [oaarchive.arctic-council.org/handle/11374/1945].
- The Arctic Protected Area Indicator Report and Protected Area Network Toolbox to support the implementation



*Aerial view of southern Greenland.
Photo courtesy David Johnson*

of the Framework for a Pan-Arctic Network of Marine Protected Areas: provides an overview of the status and trends of protected areas in the Arctic using IUCN MPA categories and related to Aichi Targets [pame.is/index.php/projects/marine-protected-areas].

- A second Arctic Biodiversity Congress to be held in 2018 and an updated assessment of Snow, Water, Ice and Permafrost in the Arctic [www.arcticbiodiversity.is/congress#].

Ministers also announced the Agreement on Enhancing International Arctic Scientific Cooperation, the third legally binding agreement negotiated under the auspices of the Arctic Council, which will help increase effectiveness and efficiency in the development of scientific knowledge about the region as well as strengthen scientific cooperation in the Arctic region.

Additional inputs of note included:

- Arctic Council Working Group on Conservation of Arctic Flora and fauna report on 'Arctic Traditional Knowledge and Wisdom: Changes in the North American Arctic' CAFF Assessment Series Report No. 14, April 2017;
- IUCN report of an expert workshop and review process on Natural Marine World Heritage in the Arctic Ocean [portals.iucn.org/library/sites/library/files/documents/2017-006.pdf]; and

- WWF Arctic Council Conservation Scorecard Assessment Report 2017 [wwf-ap.org/apps/acscorecard/]

Finally, the Arctic Council welcomed seven new Observer organisations, namely the International Council for the Exploration of the Sea, Oceana; the National Geographic Society, the OSPAR Commission, Switzerland, the West Nordic Council, and the World Meteorological Organization.

Finland will now chair the Arctic Council for the period 2017-2019 and will host the eleventh Ministerial meeting in 2019.

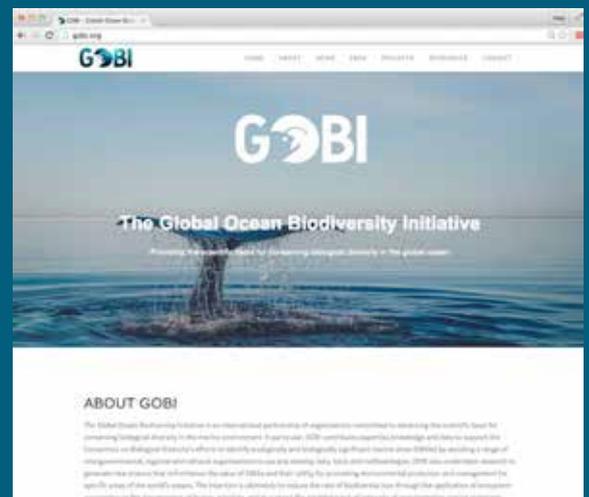


GOBI undergoes an image makeover

After many years of faithful service, the GOBI website has undergone a facelift. With a new look and updated content to reflect the exciting new activities that GOBI partners are involved in, the new website went online on World Ocean Day on 8 June 2017.

In parallel, the GOBI Secretariat also launched its Twitter account, so please look out for us at @GOBIsecretariat.

And finally, the GOBI brochure is also undergoing a re-style. The new brochure will be in circulation at IMPAC4 in Chile in early September. If you would like a copy or are in a position to distribute it at events please get in touch: secretariat@gobi.org



 Follow us @GOBIsecretariat

Tubbataha Reefs Particularly Sensitive Sea Area is formally designated at IMO MEPC 71

By David Johnson, GOBI Coordinator



TRNP ranger station. Image courtesy D. Johnson

In July 2107, Tubbataha Reefs Natural Park (TRNP) in the Philippines became the latest Particularly Sensitive Sea Area (PSSA) to be officially recognised by the International Maritime Organization. The area was identified as worthy of designation by the Sub-Committee on Navigation, Communication and Search and Rescue, who approved the establishment of it as an area to be avoided (ATBA). The ATBA is bounded by the Palawan Island, Sulu Archipelago, Cagayancillo Island and Cagayan de Sulu Island in the Philippine Archipelago. The ATBA applies to vessels, greater than 150 gross tonnes, shipping goods through the Sulu Sea.

TRNP lies at the intersection of north-south and east-west shipping routes that traverse the Sulu Sea, connecting the South China Sea to the Celebes Sea and to the Pacific Ocean. More than 900 ships of all types pass through the Sulu Sea and within 40 nautical miles of the TRNP annually, most of which pass astride the TRNP on north-south tracks carrying goods between China and Oceania. There are also considerable numbers that pass south of the TRNP on west-east tracks. A significant number of ships intrude well inside the TRNP boundaries.

The objective of the PSSA designation is to reduce the risk of ship groundings in the TRNP including the resulting marine pollution, to prevent damage to the fragile coral reef ecosystem and to ensure the sustainability of local artisanal fisheries. The PSSA should be implemented six months after adoption by the Committee, i.e. on 1 January 2018 at 00:00 hours UTC.

Designation of the TRNP as a PSSA marks the culmination of a lengthy process for David Johnson (GOBI Coordinator), as he set out the process, requirements and merits of a PSSA for Tubbataha Reefs at a UNESCO World Heritage Workshop

in Puerto Princesa on 20-24 May 2013. The World Heritage Committee had expressed concerns about shipping impacts at TRNP for several years, but the need for protection became particularly clear in January 2013, when the minesweeper USS *Guardian* ran aground on the South Atoll and had to be completely dismantled in order to be removed. Shortly after its removal, the Chinese fishing vessel *Min Ying Pu* ran aground on the North Atoll, and was salvaged. Subsequently the Norwegian Agency for Development Cooperation (Norad) has supported the IMO's efforts to promote the concept of PSSAs through the provision of funding for IMO's technical cooperation programme, with a focus on marine environment protection activities. An IMO/Norad Cooperation Programme provided assistance to countries within the South East Asia region including the Philippines for the development of proposals for the designation of PSSAs (MEPC 67/15).

Located some 150 km from land, TRNP consists of the two Tubbataha atoll reefs and the submerged Jessie Beasley Reef to the north. The park, which is a no-take area, covers



Marine park ranger vessel on the crystal-clear waters of the Sulu-Sulawesi Marine Ecosystem. Image courtesy D. Johnson.

970 km² and is surrounded by a 10 nautical mile wide buffer zone, bringing the total area that is protected to 3,565 km². It includes an estimated 100 km² of coral reef, all within the no-take zone. Initially protected as an MPA in 1988, and declared a World Heritage Site in 1993, the more recent TRNP Act of 2009 lays out the governance arrangements for the park. Surveys suggest the coral is generally in good health.

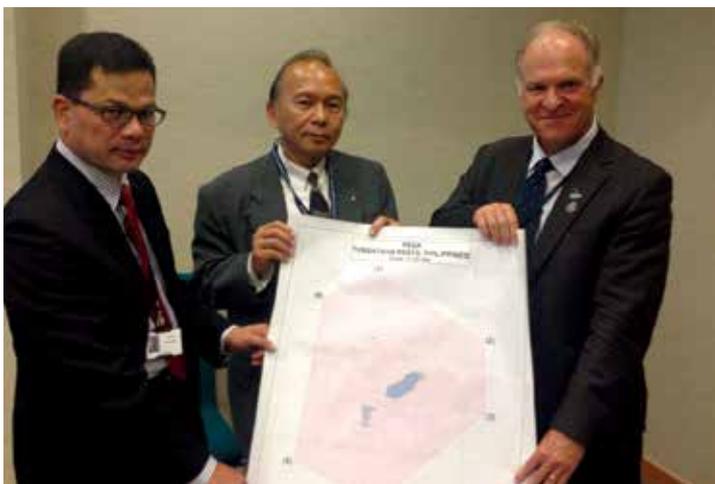
The significance of the TRNP was set out in MEPC 67-INF 25 as follows:

“Tubbataha Reefs contains roughly 10,000 hectares of coral reef, and is a major component of the Coral Triangle – the global centre of marine biodiversity. Since the 1980s, marine scientific research has revealed that the TRNP hosts no less than 360 species of corals representing 80 out of the 111 genera known in the world, over 600 species of fish, 12 species of sharks, 13 species of dolphins and whales, and 100 species of birds. Six seabird species have breeding grounds on two islets in the park. Its sandbanks are also nesting grounds of endangered hawksbill and green sea turtles. The TRNP also hosts the Reef Manta Ray (Manta alfredi), a species listed as “vulnerable” in the IUCN Red List. In total, 181 species of marine organisms found in the park are listed as threatened or near threatened by the IUCN. The Tubbataha Reefs are considered part of Cagayancillo, a remote small island municipality some 130 km north-east and inhabited by fisherfolk. The reef ecosystem underpins the productivity of the marine resources of the Sulu Sea, upon which depend the survival of the inhabitants of Cagayancillo, as well as adjacent island provinces of the Philippines. Studies have shown that the larvae and young

of many marine species produced at Tubbataha propagate throughout the Sulu Sea and adjacent waters, including the South China Sea, the Celebes, and the inter-island waters of the Philippines. It directly contributes to the regeneration and replenishment of majority of the stocks of marine species that are presently caught by Philippine fishers.”

The Sulu-Sulawesi Marine Ecoregion was described as an EBSA by the CBD East Asia Seas Regional EBSA Workshop (UNEP/CBD/EBSA/WS/2015/3/4) and identified as an EBSA by CBD COP13. This much more extensive area (approximately 1 million km²), which forms a Large Marine Ecosystem, encompasses the TRNP. All EBSA criteria were scored as ‘High’, with the exception of naturalness (the coastline areas are densely populated), however the TRNP is recognised as a pristine area within the EBSA. TRNP is one of seven outstanding reef areas within the EBSA where >75% of coral cover is alive. TRNP PSSA is an excellent example of where a competent international organisation (i.e. the IMO¹) has taken action to implement SDG 14, noting the special significance to biodiversity of the Sulu-Sulawesi Marine Ecoregion EBSA.

¹IMO is the specialised agency of the United Nations with responsibility for ensuring lives at sea are not put at risk and that the environment is not polluted by international shipping. IMO’s 171 member States use IMO to develop an maintain a comprehensive regulatory framework for shipping.



Above left (L-R): Commodore Joselito de la Cruz (Philippine Coast Guard), H.E. Attorney Gilberto Asuque (Permanent Representative of the Philippines to the IMO) and David Johnson at MEPC71. Above right: The impounded Chinese fishing vessel Min Ying Pu in Puerto Princesa in 2013. Images D. Johnson.

IUCN workshop: Biodiversity Beyond National Jurisdictions – Area-based Management Tools, including MPAs

By David Johnson, GOBI Coordinator

Twenty invited experts attended this workshop at IUCN Headquarters in Gland, Switzerland on 16-17 May 2017. Recalling discussions during the Preparatory Committee (PrepCom) for the development of an implementing agreement on the conservation and sustainable use of biodiversity in areas beyond national jurisdiction (BBNJ) as a point of departure, the workshop highlighted a number of questions needing further reflection and discussion. In particular, regional approaches to Area-based Management Tools (ABMTs) were considered key.

The workshop aimed to provide leading scientific, legal and policy considerations for informing UNGA discussions, with detailed consideration of the development of networks and mechanisms for institutional cooperation and implementation of ABMTs. With respect to sectoral ABMTs, the workshop sought to explore the role of existing bodies, the value of common criteria and guidelines and the value of overarching objectives, principles and targets. Particular attention was given to regional approaches in the South-west Indian Ocean and the North-east Atlantic Ocean to highlight possible mechanisms for marine spatial planning.

At the outset, attention was given to definitions, with a key distinction being drawn between ABMTs, which may only address one type of pressure (such as fishing or deep-sea mining) and Marine Protected Areas, which address a combination of pressures that are likely to be multisectoral/trans-sectoral, leading to a management plan dealing with many sectors. These discussions provided an insight on 'Other Effective Conservation Measures' as expressed in Aichi

Biodiversity Target 11. There was expert consensus that *in situ* conservation of nature involves dealing with long-term conservation of values and in that sense ABMTs act as a 'catch all' to promote conservation by sectors using different criteria and/or interpreting similar criteria in specific ways.

It was noted that the EBSA criteria can help inform ABMTs and their priorities. Whilst EBSA descriptions do not fit as ABMTs, EBSAs can provide the knowledge to inform and establish ABMTs. However, while EBSA descriptions have taken into account biogeographic classifications, the process has not set out to achieve a representative network at this stage. Sessions within the workshop covered identification of potential ABMTs; validation, designation and declaration processes for ABMTs; ABMT implementation and management; and ABMT control, surveillance and compliance. In this context it was noted that sectorally-based ABMTs do not necessarily provide comprehensive protection for the full range of features in an area. Conservation objectives requiring strict levels of protection, including scientific reference areas, therefore need to be articulated where appropriate.

The outcome of this workshop is a report, enriched by the workshop discussions and a broader stakeholder consultation. The main findings were presented at PrepCom4 and a final report is to be presented at the Political High-level Segment of the 4th International Marine Protected Areas Congress (IMPAC4) in Chile in September 2017.

Reference: Muraki Gottlieb, H., Laffoley, D. & Gjerde, K. (editors). 2017. Report of the workshop on Marine Protected Areas in Areas Beyond National Jurisdiction, 16-17 2017 May, IUCN Headquarters, Gland, Switzerland: IUCN. 22pp.



Left: In between discussions: Informal networking in Fechy. Image D. Johnson.

Connectivity calling: Drafting a resolution to enhance the conservation of migratory species

by Christopher Barrio Froján, GOBI Secretariat

For most of us, the only time we're likely to be adversely affected by a disruption in connectivity is when we're out of range of a telephone signal. Frustrating though this might be, it's unlikely to impinge on our ability to persist as a species. Spare a thought then for the thousands of animals that depend on continued good connectivity to complete their lifecycle, or for thousands of other species that depend on the influx of migratory animals to feed their young or spread their seeds as migrants leave. All along the route of a migratory species' journey, issues such as habitat degradation, resource depletion, the introduction of obstacles and barriers, excessive harvesting, and erratic misalignment of migratory cues with resource availability (often climate-driven and likely to increase as climate changes) all pose a threat to its connectivity and ultimate survival.

Connectivity in the context of migration is a two-pronged concept: on one hand spatial and represented by the physical pathways that connect places where migratory species dwell during breeding and feeding cycles, and on the other hand more abstract, as the mechanism by which metapopulations of migratory species remain genetically connected through time. Disrupting either aspect can have detrimental effects on the long-term viability of all the species affected, including those that rely on the predictable passage of migrants.

At a recent workshop held in the Veneto Po Delta Regional Park, south of Venice, members of the Scientific Council of the Convention on Migratory Species (CMS) convened with other experts on animal migration – including representatives of GOBI – to finalise the text of a draft Resolution to be presented for consideration at the 12th CMS COP in Manila in October 2017. The proposed Resolution has been drafted in response to the earlier adoption by the CMS of Resolution 11.25 on Advancing ecological networks to address the needs of migratory species, which expresses concern at the increasing fragmentation of habitats for migratory species, and urges Parties to promote connectivity through the development of site networks that are appropriately defined, coordinated and managed, as well as other measures which cater for the entire migratory range and migratory lifecycle requirements of the animals concerned. Furthermore, Resolution 11.25 urges that consideration be given to ways in which connectivity can contribute to the elimination of obstacles to migration, while also taking care to assess any risks of potential unwanted consequences of increased connectivity (such as the spread of diseases or of

predators). The resultant draft Resolution is intended to join a family of similar Resolutions that contribute towards the CMS's Strategic Plan for Migratory Species 2015-2023, which emphasises that the conservation of migratory species at population level demands the application of a migration systems approach, involving conservation strategies that give holistic attention to populations, species and habitats as well as the entire span of migration routes and the functioning of the migration process.

In addition to drafting the proposed Resolution, workshop participants agreed the text for an accompanying background document and draft Decision document, the latter recommending specific actions to ensure the feasibility of the draft Resolution. All three documents will be submitted to CMS COP12 for consideration.

Finally, workshop participants agreed to compile a set of expert case-study accounts highlighting concerns that affect migratory species worldwide, with the intention that these will form the basis for producing education and dissemination material for the Veneto Po Delta Regional Park, which is due to host UNESCO's 2017 Man and the Biosphere (MAB) Youth Forum in September.

For more information on the CMS and its upcoming COP, visit www.cms.int/en/cop12. Further information on the UNESCO MAB Youth Forum can be found at <http://en.unesco.org/events/2017-mab-youth-forum>.

Below: Fernando Spina (Institute for Environmental Protection and Research; ISPRA) addresses workshop participants. Image courtesy C. Barrio Froján.



STRONG-High Seas project: Strengthening Regional Ocean Governance for the High Seas

By Carole Durussel, IASS

Green sea turtle (Chelonia mydas) in Monkey Mia, Western Australia. Image IASS/Carole Durussel

Marine Areas Beyond National Jurisdiction (ABNJ) cover about half of the planet's surface, host high biodiversity and deliver important ecosystem services. While there is a growing interest in marine resources exploitation in ABNJ, so far there is no comprehensive legal regime for the conservation and sustainable use of marine biodiversity in these areas. Governance of ABNJ is rather pursued through a fragmented legal and institutional system, failing to ensure the long-term sustainability of marine resources. Despite these challenges, several initiatives for the conservation and sustainable use of marine biodiversity in ABNJ are underway at the regional level. In parallel, the international community agreed in 2015 to develop a global, legally binding agreement on the conservation and sustainable use of marine biodiversity in ABNJ under UNCLOS. The BBNJ PrepCom recommended in July 2017 the establishment of an intergovernmental conference to start negotiating this future agreement under UNCLOS (see article on p2). Such a global instrument will not supplant the various existing ocean governance mechanisms but will instead depend in many ways on improved and well-coordinated action of competent management bodies at the regional level for its implementation. Hence strong regional ocean governance mechanisms will be essential.

Launched at the UN Ocean Conference in June 2017, STRONG High Seas - Strengthening Regional Ocean Governance for the High Seas - is a new project funded by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) through the International Climate Initiative (IKI) and delivered under the framework of the Partnership for Regional Ocean Governance (PROG; www.prog-ocean.org).

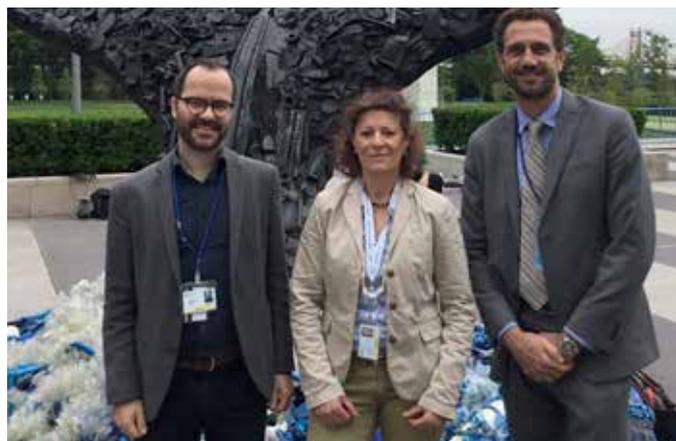
The STRONG High Seas project focuses on the Southeast Pacific and Southeast Atlantic, two regions characterised by

Right: STRONG High Seas Project Partner Sebastian Unger (IASS), Nicola Breier (BMUB), and Adnan Awad (IOI) at the UN Ocean Conference. Image IASS.

unique oceanographic and ecological features contributing to high marine and coastal productivity and attracting a high diversity of species of great commercial and ecological value.

Working with the Secretariat of the Comisión Permanente del Pacífico Sur (CPPS) and the Secretariat of the Abidjan Convention, this project will develop and propose targeted measures to support the coordinated development of integrated and ecosystem-based approaches for ocean governance in ABNJ and the development of capacities within the two regions. During the course of the project, the emphasis will be placed on building scientific, socio-economic, and legal cases for the conservation and sustainable use of marine biodiversity in ABNJ as well as identifying tools and mechanisms for monitoring, control, and surveillance. The ongoing findings of this project, supplemented by studies on best practices in other regions, will provide a community of practice to promote processes in other regions and the negotiation and subsequent implementation of a new legal instrument under UNCLOS. The STRONG High Seas project will also support a stronger role of regional organisations in the implementation of the future legal instrument under UNCLOS.

The Institute for Advanced Sustainability Studies (IASS) will



coordinate the project and implement it together with six partners based in Europe, South America and Africa: the Institute for Sustainable Development and International Relations (IDDRI), BirdLife International, the International Ocean Institute (IOI) Southern Africa, the Universidad Católica del Norte (UCN), WWF Colombia, and WWF Germany. STRONG High Seas will also have close links to the GOBI community.

For more information about the STRONG High Seas project, please contact:

Mr Sebastian Unger, Leader Ocean Governance Research, IASS:
sebastian.unger@iass-potsdam.de

Dr Carole Durussel, Co-lead STRONG High Seas project: carole.durussel@iass-potsdam.de

Testing area-based planning in ABNJ

By Hannah Thomas, Ruth Fletcher & Juliette Martin (UNEP-WCMC)

As a consequence of our expanding use of the oceans, there is international concern that current sector-based resource management approaches are insufficient to prevent long-term impacts on marine ecosystems. This issue is particularly pressing in ABNJ where no single nation has regulatory control. To improve the sustainability of marine resource use in ABNJ, cross-sectoral area-based planning – the collective process of establishing ecosystem-based management of marine space – is a potential solution being explored by UNEP-WCMC within the GEF ABNJ Deep Seas Project jointly implemented by the Food and Agriculture Organization (FAO) and UN Environment (United Nations Environment Programme, UNEP).

In collaboration with the Comisión Permanente del Pacífico Sur (CPPS) (Secretariat for the Lima Convention), the Nairobi Convention Secretariat, management authorities and technical partners (including Seascope Consultants, Duke University, GRID Arendal, and NCEAS), UNEP-WCMC is developing and testing a methodology for area-based planning in the Western Indian Ocean and the South East Pacific. The area-based planning component of the project has three stages:

Stage 1: Information gathering and analysis – understanding governance frameworks and capacity, identifying ABNJ-applicable area-based planning tools, gathering other regional experiences, and collating relevant data.

Stage 2: Synthesis and planning – facilitating collaboration between ABNJ stakeholders, developing options for testing area-based planning approaches.

Stage 3: Developing capacity – developing area-based planning tools and scenarios, providing policy-relevant advice, sharing lessons learned.

In 2016, regional workshops were held to explore area-based planning concepts and assess regional capacity. Inventories of global data of biodiversity importance in ABNJ have been produced, and will now be refined to regional scales. Work will begin on demonstrating the connectivity between national and international waters, by highlighting migratory routes of

marine megafauna, distributions of economically important fisheries and seasonal primary productivity patterns.

Hot off the press is our study of the institutional arrangements and cross-sectoral cooperation in the two pilot regions, which represents an examination of legal instruments and interviews with management institutions and ABNJ-related organizations.

We are currently working on a review of regional area-based planning experiences in ABNJ, examining case studies from the Mediterranean, Southern Ocean, North East Atlantic and Central East Pacific to compare their challenges and contributing factors for success. In the coming months, a workshop and review will be completed to assess the applicability of area-based planning tools to ABNJ. In October 2017, we will be supporting the organization of a regional workshop on Marine Spatial Planning for Nairobi Convention Member States, highlighting various approaches, including area-based planning in ABNJ.

From 2018, we will focus on synthesizing Stage 1 information to support the selection of area-based planning options for each region to develop and test, based upon the governance in place, the lessons from similar regional experiences and effective area-based planning tools. Exciting future activities include the assessment of regional-scale cumulative impacts on deep sea and ABNJ ecosystems.

The project aims strengthen area-based planning capacity, both in national waters and in ABNJ, and will support national engagement in international forums (e.g. the BBNJ process), as well as national and regional efforts to meet Sustainable Development Goals.

For more information on the area-based planning component of the ABNJ Deep Seas Project, please contact Hannah Thomas at hannah.thomas@unep-wcmc.org.

GEF ABNJ Deep Seas Project website: www.fao.org/in-action/commonoceans/projects/deep-seas-biodiversity/en/

Hot off the press

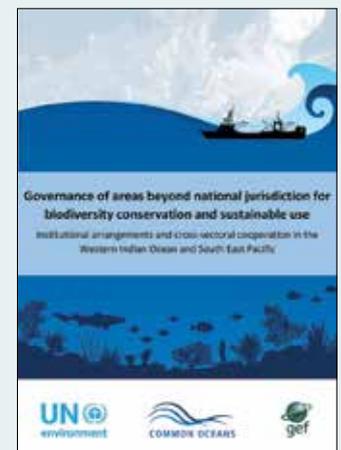


Global Ocean Science Report: The Current Status of Ocean Science around the World: Executive Summary

UNESCO's Global Ocean Science Report provides a status report on ocean science, with the intention to facilitate international cooperation and collaboration. It identifies gaps in science organisation and capacity, allowing for the development of options to optimise the use of available scientific resources or the creation of new ones to fill those gaps. By knowing how best to share expertise and facilities to promote capacity building and marine technology transfer, significant advances in ocean science and technology can be achieved. As the first consolidated assessment of global ocean science, the report draws attention to the interface between managers, policymakers, governments and donors, as well as scientists within and beyond the ocean community. In doing so, it harnesses the potential of all stakeholders with an itemised call to action to collaborate and meet societal needs, address global challenges and drive sustainable development for all.

Governance of ABNJ for biodiversity conservation and sustainable use

To fully understand and manage sustainably the biodiversity and resources in areas beyond national jurisdiction (ABNJ), it is necessary to have a comprehensive picture of all the stakeholders that are active in any given region. To this end, this report describes the governance landscape in ABNJ within the Western Indian Ocean and the South East Pacific Ocean, with a view to understanding what progress has been made towards a collaborative and integrated cross-sectoral approach to area-based planning in ABNJ. It also presents potential challenges and opportunities that exist when compiling all relevant information within a region. Well-documented findings are presented that highlight the many substantial challenges to cross-sectoral area-based planning in ABNJ, but it also presents concrete options that build upon the region's willingness strengthening mutually beneficial collaboration through broadened mandates, integrated working practices and the more widespread application of the ecosystem approach to resource management.

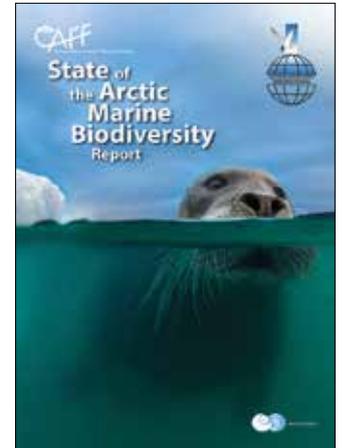


Partnering for a Sustainable Ocean: the Role of Regional Ocean Governance in Implementing SDG14

The transboundary and interconnected nature of marine resources and their threats present unique challenges that cannot be effectively tackled by individual States or industries working in isolation. Effective conservation and sustainable use of the ocean requires an integrated and coherent ecosystem-based approach that takes into consideration the interconnected nature of marine ecosystems and the cumulative impacts of human activities affecting them. In this context, this report highlights how regional ocean governance (ROG) can instigate the transition to ecosystem-based management and in turn support the implementation of the 2030 Agenda and the achievement of SDG14. The roles and mandates of different regional approaches and frameworks are reviewed, showcasing some pragmatic and practical examples of ROG efforts. Case studies selected to highlight a variety of regions and a range of ROG types provide a detailed exploration of the contribution that regional approaches to ocean sustainability can make.

State of the Arctic Marine Biodiversity Report

The Conservation of Arctic Flora and Fauna (CAFF) working group of the Arctic Council has recently published this comprehensive compendium of the biological diversity of the Arctic, spanning the entire range of organisms, from unicellular microbes embedded within the ice to giant marine mammals that prowl the floes. The report is the first in a series undertaken by the Circumpolar Biodiversity Monitoring Program (CBMP), which aims to identify the status and trends in key biotic elements of the Arctic marine environment. CBMP's goal is to facilitate more rapid detection, communication and response to significant biodiversity-related trends and pressures affecting the circumpolar world while also establishing links to global biodiversity initiatives. It is anticipated that the findings of this and subsequent reports in the series will help to measure progress towards CBD's Aichi Biodiversity Targets, and will ensure that reliable information on Arctic biodiversity informs relevant regional and global processes.



Impacts of Climate Change on World Heritage Coral Reefs: a First Global Scientific Assessment

Coral reefs are ecologically and economically important ecosystems found across the world's tropical and sub-tropical oceans. Despite their importance and value, most coral reefs are under enormous pressure from a range of different and often indirect human activities. Globally, increased ocean temperature brought about by rising atmospheric CO₂ has caused the death of corals around the world in recent years. This report makes available the most current knowledge regarding the impacts of climate change on World Heritage coral reefs by providing a first scientific assessment of past impacts coral reefs and the risks to them under different scenarios in coming decades. The report states that local management is no longer sufficient to ensure the future of coral reefs and proposes that protecting coral reefs requires complementary national and global efforts to limit the underlying drivers of global warming.

Scientific publications of interest

In the past few months, two noteworthy articles have been published in the scientific press that include some of GOBI's members as co-authors and that are of relevance to the wider GOBI community. Sutton et al. (2017) describes the outcomes of a novel global biogeographic classification of the mesopelagic zone. Results of the classification are 33 distinct global pelagic regions, each driven by a complex interaction of factors. It is anticipated that they will be a useful and timely input to policy planning and management for conservation of deep-pelagic marine resources.

Sutton T. et al. A global biogeographic classification of the mesopelagic zone. Deep-Sea Research Part I (2017), doi:10.1016/j.dsr.2017.05.006

The second article is equally wide-ranging in its ambition and reviews the impacts of fisheries on open-ocean ecosystems. While fishing effort globally continues to increase, fish catches do not appear to follow a similar trend. The review has highlighted how over-fishing can reduce fish abundance, alter the physiology and life history traits of fish and affect the functional role of fish species within the broader oceanic community. Ultimately, over-fishing can reduce biodiversity and resilience in open-ocean ecosystems.

Ortuño Crespo G. & Dunn, D.C. A review of the impacts of fisheries on open-ocean ecosystems. ICES Journal of Marine Science (2017), doi:10.1093/icesjms/fxx084



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.

The GOBI partnership and activities are coordinated by a Secretariat team, provided by Seascope Consultants Ltd. GOBI is funded by the International Climate Initiative (IKI). The German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) supports this initiative on the basis of a decision adopted by the German Bundestag.

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

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