

# CBD COP13: A new chapter for EBSAs



*Satellite image of the Tyuleniy Archipelago in the Caspian Sea, the focus of the next CBD EBSA Regional Workshop. Image courtesy NASA*

*By David Johnson, GOBI Coordinator*

The principal theme of CBD COP13 in Cancun, Mexico (14-17 Dec 2016) was mainstreaming biodiversity for well-being, generating a series of agreements to integrate biodiversity into forestry, fisheries, agriculture and tourism sectors.

Working Group II addressed the four marine and coastal topics and associated Recommendations put forward by SBSTTA 20 namely: marine debris and underwater noise, marine spatial planning, a workplan on biodiversity in cold-water areas, and Ecologically or Biologically Significant Marine Areas (EBSAs).

## **Key points of discussion on EBSAs**

Voluntary practical options for further enhancing scientific methodologies and approaches for the description of EBSAs were the focus of intense debate now that Regional Workshops have been held in most of the world's oceans and seas.

Sovereignty of coastal States and their sovereign rights and jurisdiction was also a major issue during negotiations

resulting in the insertion of a 'sans prejudice' clause in the final Decision. National exercises to describe EBSAs were welcomed and those Parties who have undertaken such exercises were invited to consider making such information available through the EBSA repository or information-sharing mechanism.

## **Outcome**

Decision XIII/12 identified 77 more EBSAs making a new total of 278 from the 12 Regional EBSA Workshops held to date. Summary reports from the three Regional Workshops held in 2015 will now be submitted to the United Nations General Assembly as well as Parties, other Governments and relevant international organisations in line with previous CBD Decisions.

Azerbaijan announced its intention to host a further Regional EBSA Workshop for the Black Sea and Caspian Sea on 24-29 April 2017. Once again Parties in the North-East Atlantic Region were encouraged to finalise the ongoing process for description of EBSAs in that region.

With respect to future scientific and technical refinement of EBSAs, Parties:

- a. Welcomed voluntary practical options intended to strengthen and enhance scientific methodologies and approaches (as at Annex I to the Decision);
- b. Requested an expert workshop to consider options for modification and peer review of EBSA descriptions (to be held before CBD COP14); and
- c. Requested establishment of an Informal Advisory Group for EBSAs (with terms of reference at Annex II to the Decision).

The EBSA Decision also welcomed a training manual on the use of traditional knowledge in the application of EBSA criteria, invited sharing of experience of EBSA processes, further encouraged the application of EBSA descriptions by States and competent international organisations taking measures to conserve marine biodiversity, and invited consideration by Parties of the idea of designating national focal points for work on marine and coastal biodiversity.

### GOBI-specific implications

On 12 December 2016, GOBI convened a side event entitled 'Enhancing EBSA scientific methodologies and approaches: the GOBI contribution'. This event was very well attended with 55 participants from 43 different States and organisations. The main message was to introduce participants to the GOBI-IKI project and raise awareness and expectation of the types of information to be generated, and highlight links to other processes. The event was co-chaired by Prof. David Johnson (GOBI Coordinator) and Prof. Giuseppe Notarbartolo di Sciara (Tethys Research Institute) and context was provided by Dr Janos Hennis on behalf of the German government (BMUB). Detailed inputs on behalf of each of the GOBI-IKI work packages were given by Prof. Nic Bax (CSIRO), Prof. Pat Halpin (Duke University), Dr Erick Ross (MarViva Foundation), Ms Carolina Hazin (BirdLife International) and Prof. Guiseppe Notarbartolo di Sciara (Tethys Research Institute). Concluding remarks were made by Dr Jake Rice (Emeritus DFO Canada) and Ms Jihyun Lee (CBD Secretariat). This side event informed negotiations on the EBSA Decision.



Above: Dr Deepak Apte (Bombay Natural History Society) and Prof. David Johnson (GOBI Coordinator) at the BNHS side event

As an outcome of the EBSA Decision GOBI will continue to support States, regional and global organisations to use and develop data, tools and methodologies to describe EBSAs. GOBI is specifically mentioned in Annex I (Section 2g) to Decision XIII/12 as an organisation that can facilitate relevant training to enhance opportunities for incorporating new information and new considerations of existing information in future descriptions of areas meeting EBSA criteria including both scientific and traditional knowledge.

### Other side events

CBD COP is a major international meeting with multiple inter-related activities taking place, many in parallel, to inform and involve delegates. The following selection of activities highlights a few events considered of particular relevance to GOBI and in several cases these featured inputs from GOBI partners.

**Sustainable Ocean Initiative (SOI) side events and sustainable ocean night** (5 and 8 December 2016): A first SOI side event informed COP on the background and outcome of the Global Dialogue with Regional Seas Organizations and Regional Fisheries Bodies (September 2016, Republic of Korea, see GOBI Newsletter Autumn 2016) and a panel of experts reflected on the challenges and opportunities for strengthening cross-sectoral cooperation at regional scale to support national implementation of the Strategic Plan for Biodiversity 2011-2020. The Ocean Night celebration included a call for action and commitments to achieve Aichi Biodiversity Targets and Sustainable Development Goals, supported by the launch of video messages and personal reflections from ocean leaders. The second SOI side event focused on what has been achieved to date through SOI capacity building, illustrating ways of sharing best practices. The event was informed by a panel discussing ways and means to assess long-term outcomes and impacts of capacity building activities and the development of online mechanisms to share experiences and lessons learned.

Left: CBD Secretariat team (from left): Jacqueline Grekin, Johnany Martinez, Joe Appiott and Jihyun Lee

**Presentation on the yellowfin tuna fishery in the Eastern Pacific Ocean** (6 December 2016): Dr Pablo Arenas Fuentes, Director General of National Fisheries in Mexico, set out a success story for this fishery. His rationale covered technological development, design and management measures to address dolphin by-catch, international agreements including measures taken by the Inter-American Tropical Tuna Commission (IATTC, [www.iattc.org](http://www.iattc.org)), fisheries science, and accountability including the power of consumers. Discussion addressed opportunities for regional data flows and potential future measures to control Fish Aggregation Devices (more a feature of the Ecuadorian fishery).

**Aichi Biodiversity Target 6 on Sustainable Fisheries: Improving reporting and working towards implementation** (9 December 2016): Coordinated by the IUCN Fisheries Expert Group this side event presented how multiple Aichi Targets are embedded in the Ecosystem Approach to Fisheries. Building on previous and ongoing collaboration among the Biodiversity Indicators Partnership, work to progress Aichi Target 6 is being directed at driving investment where it is needed, adopting pragmatic indicators and utilizing the FAO Code of Conduct questionnaire to evidence trends. The intention is to provide advice for States on indicators that enable comparative national assessments and to share data with and across Regional Fisheries Management Organisations.

**Ecologically Important Marine and Coastal Biodiversity Areas of Maharashtra, India** (9 December 2016): Dr Deepak Apte of the Bombay Natural History Society (BNHS) presented results of an exercise undertaken by BNHS to assess the entire coast of Maharashtra State using the CBD EBSA criteria. Seven sub-regional national EBSAs have been described aiming to assist the Indian government to make judicious judgment while considering development projects in and around these sites with reference to national legislation already in place (i.e. Environmental Protection Act 1980 and Biodiversity Act 2000).

**2nd CBD Technical Workshop on Monitoring of Marine and Coastal Biodiversity: Building on the network of EBSAs** (10 December 2016): Co-Chaired by Prof. Nic Bax (CSIRO/Australia) and Prof. Moustafa Fouda (Egypt), this technical workshop concentrated on implications for marine biodiversity monitoring, building on the work on EBSAs and engaging partners to support national needs. Assessing the overlap between values and pressures was proposed as one way to focus research and monitoring. The workshop recalled the suite of different management measures available and started to consider how to define best general approaches for different types of EBSAs.

A summary of the COP13 outcomes can be downloaded at [www.cbd.int/doc/press/2016/pr-2016-12-18-un-bidov-conf-en.pdf](http://www.cbd.int/doc/press/2016/pr-2016-12-18-un-bidov-conf-en.pdf)



# SOI Regional Capacity Building Workshop for the Wider Caribbean and Central America

Costa Rica: 20-24 February 2017

*David Johnson, GOBI Coordinator*

This workshop was co-chaired by HE Fernando Mora Rodriguez (Vice Minister of Oceans, Coasts and Wetlands of Costa Rica) and representatives of UNEP (Ms Lorna Innes, Coordinator of the Caribbean Environment Programme and Mr Alberto Pacheco, Regional Coordinator for the Regional Office for Latin America and the Caribbean). On behalf of the CBD Executive Secretary, Ms Jihyun Lee recalled the CBD's Strategic Plan 2011-2020 and noted that CBD have set a vision until 2050, placing an emphasis on valued conserved restored and wisely used, maintaining ecosystem services, and sustaining a healthy planet. She stressed that the Aichi Biodiversity Targets are reflected in the Sustainable Development Goals (SDGs) and that all 20 Aichi Targets relevant to coastal and marine efforts are also reflected in SDG 14.

The objective of this regional capacity building workshop was to explore different levels of technical approaches and tools to achieve governance, and to support national and sub-regional implementation of EBSA data using marine spatial planning. A series of interesting country presentations set the scene and highlighted the variety of this region as well as economic, social, environmental and political challenges. Regional experiences were provided by the Caribbean Environment Programme, the Western Central Atlantic Fisheries Committee, the Central American Fisheries and Aquaculture Organization, the French Biodiversity Agency, CLME+ Project, MarViva Foundation, an IUCN regional perspective and the Inter-American Convention for the Protection and Conservation of Sea Turtles.

Participants undertook a rapid informal self-assessment at a sub-regional scale focusing on perceptions of progress against key marine and marine-related Aichi Targets. Broad conclusions from this exercise for the region as a whole were that:

- Only on-ground implementation will achieve the Aichi Targets;
- Individual targets cannot be achieved in isolation;
- Actions to achieve Aichi Targets will also help achieve SDGs
- Cross-sectoral vision and approach is needed as the Targets are inter-related; and
- Pathways and opportunities can be identified at the regional scale based on long-term goals, agreed solutions, means and capacities.

Sustainable Development Goal 14	
SDG 14: Conserve and sustainably use the oceans, seas and marine resources	
SDG 14 Targets	Highly Relevant Aichi Biodiversity Targets
14.1: "By 2025, prevent and reduce marine pollution."	Aichi Target 8
14.2: "By 2020, sustainably manage and protect marine and coastal ecosystems including by strengthening their resilience, and take action for their restoration."	Aichi Target 10, Aichi Target 15
14.3: "Minimize and address the impacts of ocean acidification."	Aichi Target 10
14.4: "By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing."	Aichi Target 6
14.5: "By 2020, conserve at least 10 per cent of coastal and marine areas."	Aichi Target 11
14.6: "By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing."	Aichi Target 6, Aichi Target 3
14.7: "By 2030, increase the economic benefits to Small Island developing States and least developed countries from the sustainable use of marine resources."	Strategic Goal D, Targets 14, 15 and 16
14.8: "Increase scientific knowledge, develop research capacity and transfer marine technology."	Aichi Target 19
14.9: "Provide access for small-scale artisanal fishers to marine resources and markets."	Aichi Target 18
14.a: "Enhance the conservation and sustainable use of oceans and their resources by implementing international law."	Aichi Target 17

EBSA descriptions now cover 19% of the ocean and CBD COP13 adopted guidance on Marine Spatial Planning as a participatory tool for implementing the Ecosystem-Based Approach, and as a means of mainstreaming biodiversity objectives, linked to human and institutional capacity. To this end EBSAs provide a starting point to a more systematic planning process. The ecologically or biologically significant marine areas identified then need to be considered by States and competent international organisations in terms of the interaction of their ecological or biological values with human activities using sector based and integrated planning tools.

*Right: Workshop participants work on the MSP simulation exercise*



This exercise was linked to published work on the State of Biodiversity in Latin America and the Caribbean, in particular opportunities and recommendations for the future.

EBSA updates were provided by Prof. David Johnson (GOBI Coordinator) and Prof. Eduardo Klein (UNESCO-IOC/IODE-OBIS). OBIS data relating to Caribbean EBSAs provided a focus for consideration (e.g. examples of invasive species) and the opportunity to use CaribNode and develop 'essential ocean variables' datasets was discussed. Ms Vivenne Solis Rivera (International Collective in Support of Fishworkers) facilitated a series of panel speakers with different perspectives on incorporating traditional ecological knowledge and socio-cultural knowledge of coastal communities to support marine spatial planning.

An important input to the workshop was an introduction to Strategic Environmental Assessment (SEA). The main purpose of SEA is to change the discussion from a focus on environmental impacts created by individual project developments to wider setting considerations including international sub-regional development priorities (creating a sustainable context, shifting from project impact to strategic thinking), taking a broad participative cross-sectoral approach, promoting integrated decision making, and considering cumulative processes. SEA requires being comfortable with uncertainty, taking long-term perspectives, and understanding ecosystem value chains – i.e., taking advantage of ecosystem services without putting them at risk from future potential activities. The workshop considered a critical decision factors methodology (Partidario, 2012) and case study examples.



Above: Prof Eduardo Klein (right) discusses strategic directions with colleagues from the Northern Caribbean sub-regional group

A simulation exercise highlighted common barriers and challenges, common success factors, different capacity building needs, opportunities, and the value of regional/sub-regional approaches linking global agendas to national implementation and national approaches for integrated management. As a final exercise, participants divided into seven sub-regional and national groups to produce and present strategies and action plans for initiating and enhancing the application of marine spatial planning at different scales.

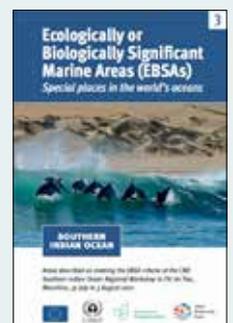
For more information about the Sustainable Ocean Initiative, please visit [www.cbd.int/soi](http://www.cbd.int/soi)

## New CBD films promoting marine conservation

Progress towards the achievement of the Aichi Biodiversity Targets under the Strategic Plan for Biodiversity 2011-2020 and the UN's 2030 agenda for sustainable development has been given an extra boost with the recent release of two short but stimulating films by the CBD: one on EBSAs, the other on the Sustainable Ocean Initiative.

The first film, titled EBSAs Southern Indian Ocean, shows how areas with high biodiversity, rich in rare species and unique communities are special and worthy of preservation. It goes on to introduce the concept of EBSAs and how these can be used to identify such areas, thereby providing tangible entities that can be used in management or conservation efforts. The film highlights the outputs of the Southern Indian Ocean regional workshop, which generated 39 new EBSA descriptions, and serves as the perfect launchpad for introducing the newly-published EBSA brochure for the region. Both film and booklet can be found at [www.cbd.int/ebsa/](http://www.cbd.int/ebsa/)

The second film introduces the Sustainable Ocean Initiative (SOI) as a framework and catalyst for the progression of the conservation and sustainable use of marine biodiversity. The reality of humanity's reliance and dependence on the ocean is presented, as well as the fact that the dependability of the oceans, to both humans and wildlife, is becoming compromised as we neglect to exploit them sustainably. SOI's mission is to provide a global platform on which to build partnerships, promote cooperation and exchange of knowledge, and enhance capacity to conserve and sustainably use marine and coastal biodiversity in a holistic manner. The film can be viewed at [www.cbd.int/soi](http://www.cbd.int/soi)



# More than just joining the dots

GOBI-IKI workshop on Marine Migratory Connectivity

Durham, USA: 9-10 February 2017

By Christopher Barrio Frojan, GOBI Secretariat



Who doesn't remember the joy of seeing a recognisable image emerge out of a jumbled constellation of miniscule dotted numbers after connecting them in sequence in a childhood game of dot-to-dot? For most of us, this game lost its appeal with the second onset of teething, yet for some that joy has never waned and they have turned the game into an extreme sport of mind-bending agility. Enter the Marine Geospatial Ecology Laboratory (MGEL) at Duke University, a team on the ascendant to become dot-to-dot world champions, with the help of a range of partners around the world. The dots to be joined in their version of

the game are not merely ink on paper, but represent points on the spherical surface of Earth – specifically, the recorded locations of marine animals that display migratory behaviour throughout their lifetime. Migratory animals, due to their movement across the jurisdictions of several nations, are potentially vulnerable as no authority observes what happens to them over the whole of their range. Connecting the dots and knowing what each connection represents (e.g., migration or foraging) is not as straightforward as it may seem, yet it is the accumulation of the right connections that will ultimately reveal the hidden image across the surface of the globe on which important decisions on how to manage our use of the ocean and its inhabitants will be made.



Above: MGEL's Guillermo Ortuño Crespo explaining what different sampling methods can tell us about migratory connectivity.

Welcome to the world of connectivity! On the surface, it's a world like any other, made of dots and connections, sites and routes, nodes and corridors, roundabouts, one-way systems and super-highways, all defined by the behaviour of the data that populate it. Unfortunately, much of this world is yet to be mapped, and to do so requires the acquisition and compilation of those all-important data. In addition, the storage, manipulation and assimilation of those data requires a robust yet responsive database - an ideal challenge for the MGEL team and their collaborators. Sprung out of work for the Conventions on Migratory Species (CMS) and Biological Diversity (CBD), and now supported by the GOBI-IKI project, MGEL's Daniel Dunn and Pat Halpin and their team have

begun to develop a Marine Migratory Connectivity Database to investigate migratory connectivity and its applications to area-based management of the marine environment. In February this year, an early-stage prototype of this database - ground-breaking in its intended geographic and taxonomic scope - was presented to a select audience during a two-day Marine Migratory Connectivity workshop held at Duke University. Participants included data holders and connectivity researchers (e.g., BirdLife International, NOAA, Smithsonian Institution, The Nature Conservancy and several North American universities) as well as likely users and promoters of the summary information that the database will produce (e.g., Tethys Research Institute, MarViva Foundation, Monterey Bay Aquarium). The dual aim of the workshop was to showcase MGEL's ambitions for the capabilities of the database, and to bring together an initial set of partners and advisors to participate in the co-development of the tool.

Having demonstrated the capabilities and potential for the Marine Migratory Species Database using simulated data, MGEL's efforts over the next year and a half are focussed on reaching out to potential partners and undertaking a massive review of migratory species connectivity from the published scientific literature. The team has mobilised a small army of researchers to search systematically for any record of connectivity for marine migratory species using areas beyond national jurisdiction, and has developed an approach to digitise information across many sampling methods when the data are not available. Partnerships are also already developing with Birdlife International, the Smithsonian Institute, Tethys Research Institute and The Nature Conservancy. Between this data-entry point and the user interface of the database, the team is developing a dizzying array of filters, connections, query boxes and visualisation effects to ensure a smooth, logical and intuitive interaction with the user; no small feat of digital engineering and dynamic infographic design.

Eventually, the database will enable the user to see what areas of the ocean are important for particular migratory species at any point of their life stage. Areas important for foraging, breeding, or overwintering will be the nodes connected by corridors through which that species migrates to reach and spend time in each area. Nodes and corridors will capture the degree of spatial variability in such movements. The spatial overlap of such nodes and corridors between different migratory species should serve to help identify areas that may be more significant than others and could highlight a previously unknown interdependency between species. The potential effects of a catastrophic disruption to a node or corridor (e.g., the loss of Arctic sea ice or of a unique turtle nesting site) could be explored across the connectivity network to see which species would be affected and whether they have the potential to overcome the disruption. Lastly, the effectiveness of existing areas recognised as important for the conservation of marine biodiversity (e.g., EBSAs, Important Bird Areas, Important Marine Mammal Areas, Marine Protected Areas) could be assessed in terms of how well or not they cater for the protection of migratory species. Depending on the outcomes of such assessments, the most effective conservation strategy for certain migratory species may entail future protected areas with dynamic boundaries to reflect predictable changes in the distribution of those species.

It's time to pick up a pencil, embrace your inner five-year-old and join those dots with glee – who knows where it might lead? The future of marine spatial management is bright... the future of marine spatial management is connected!

To get involved and help connect the dots for migratory species, please email [daniel dot dunn at duke dot edu](mailto:daniel.dunn@duke.edu)



*MMCD workshop participants at Duke University*

# Promoting the Costa Rica Thermal Dome

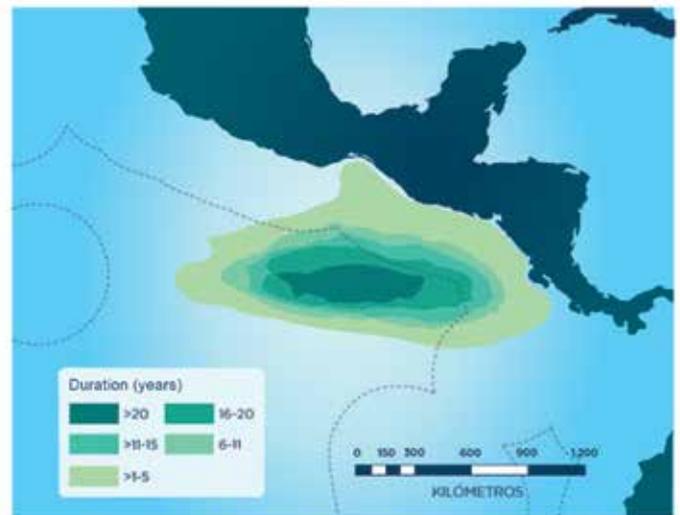
*Dr Erick Ross Salazar, MarViva Foundation*

The Costa Rica Thermal Dome is an oceanographic feature located on the Pacific coast of Central America. Its location and size fluctuate during the year depending on the strength of currents and winds; at the start of the year it is closer to shore with an average size of 100-200 nautical miles, but as the year advances it moves further offshore and can increase in size up to 400 miles or more.

This unique and dynamic feature is highly biodiverse: blue whales from California and México visit during winter, billfish from the Central American region visit its borders to feed on baitfish, and yellowfin tuna concentrate here in high densities in the Eastern Tropical Pacific. These migrating giants fuel coastal economies around whale-watching activities, generating millions of dollars in the region and beyond, and yet few people know about the Costa Rica Thermal Dome.

In an effort to generate awareness among the public and relevant authorities, MarViva Foundation has initiated an outreach campaign aimed at explaining and promoting the importance of the Thermal Dome for coastal communities and regional economies.

TEDx Pura Vida is the Costa Rican edition of the popular TED Conferences, which provides a stage for national, regional and international personalities to spread knowledge and motivate audiences about important and interesting issues. This year, Dr Jorge A. Jiménez, Director of MarViva Foundation,



Costa Rica Thermal Dome, October 1980-2009

Concentric contours represent the persistence in years of the 20°C isotherm at a depth of 35 m (average values calculated from the re-analysis of oceanographic data from SODA, GODAS, GECCO, ECMWF and ECOM).

featured in the conference with an important goal in mind: to get the audience, especially young attendees, hooked on the Costa Rica Thermal Dome. His presentation told the story of migratory species that come together in this important region, showing how oceanic currents, the trade winds and the upwelling of deep, nutrient-rich water can generate an oasis of life, and exposing how regional and coastal economies are fuelled by these swirling waters, whilst emphasising the importance of managing this rich area.

To reach a broader audience, MarViva Foundation was able to leverage support from the advertising company JCDecaux, which manages publicity at bus stops around Costa Rica's capital, San José. The advertising spaces on bus stops are locally known as 'muppies'. Four different posters were designed to tell the story of the Costa Rica Thermal Dome through this donation of over 150 poster spaces. The first in the series is aimed at generating word of mouth about the Dome and its importance. A subsequent series of posters will showcase the importance of this oceanographic feature for fisheries, for the conservation of blue whales and the need to manage human activities in this area.

These two activities mark the start of a campaign designed to place the Costa Rica Thermal Dome on the agenda of regional governments and in the minds of the public. In the upcoming months, there will be more surprises. The next step of this



Above: Dr Jorge Jiménez presenting at TEDx Pura Vida (image TEDx Pura Vida)

campaign will start in April, when MarViva Foundation will lead an expedition to the Costa Rica Thermal Dome within the framework of the GOBI-IKI Project. The main objective of the expedition is the filming of a documentary about the biodiversity of the area in direct collaboration with Mission Blue. Kip Evans, Director of Photography and Expeditions, and Brett Garling, Director of Communications for Mission Blue will head this effort.

The expedition will include researchers from the National Oceanographic and Atmospheric Administration, Misión Tiburón and The Leatherback Trust who will collaborate with renowned fisherman Donald McGuinness and the team of Sea Masters Costa Rica in order to catch, tag and release sharks and marine turtles. Additionally, scientists from the University of Costa Rica, the National University of Costa Rica and the Global Ocean Biodiversity Initiative will take part. These researchers will lead efforts to collect oceanographic data, zooplankton and phytoplankton samples, and document marine debris.

We hope people will become inspired and hooked on this little known but important region of the ocean.



Above: Costa Rica is an important area for hatching Leatherback turtles

For more information, please visit [www.marviva.net](http://www.marviva.net)

Below: The four posters (“muppies”) to be displayed at bus stops around San José, and examples of them in action.



# Geospatial genetics to identify IMMAs

*Francine Kershaw, Natural Resources Defense Council*

Genetic data provide unique information and tools useful for marine protection in a way that complements other approaches, such as satellite telemetry, habitat mapping and expert opinion. In particular, genetic data provide insights into evolutionary processes, which are essential for the long-term survival of species in the face of environmental change.

Research suggests that genetic data are considered to be valuable for planners and policy makers, however, to date, genetic information has often been overlooked in efforts to protect the marine environment. Gaps in communication and knowledge appear to be the primary cause, with genetic data generally considered to be dispersed, inaccessible and misunderstood.

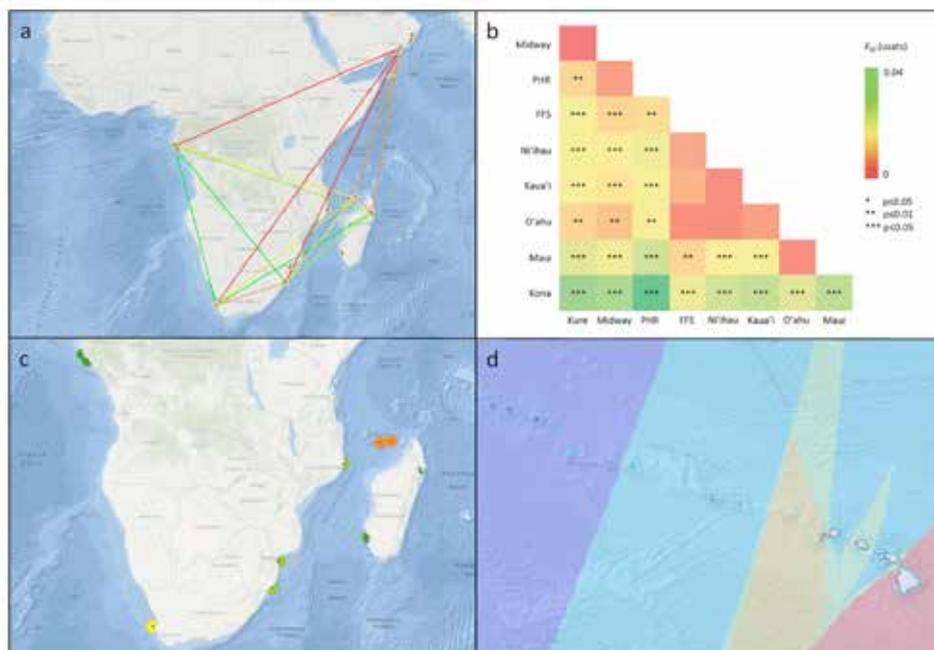
Fortunately, this is a problem we can solve. The Natural Resources Defense Council (NRDC), Wildlife Conservation Society (WCS), and University of California - Santa Barbara have teamed up with the IUCN Joint SSC/WCPA Marine Mammal Protected Area Task Force in an effort to bridge these gaps. The Geospatial Genetics project is empowering geneticists with the tools they need to be more actively engaged in the identification of Important Marine Mammal Areas (IMMAs), a knowledge tool to guide marine mammal conservation and management efforts.

The Geospatial Genetics project helps geneticists to mobilise their data by transforming them into geospatial maps and then visualizing these in SeaSketch, a web-based marine mapping

and spatial planning programme. Maps are deeply intuitive and little specialist knowledge is required to interpret them. Genetic data in map-form, therefore, will be much easier to communicate and consider, especially during the forthcoming IMMA regional workshops. Guidance on how to identify IMMAs was released in October 2016 and a chapter on genetics was included within it, helping to mainstream genetics into the policy conversation.

Looking towards the future, the Geospatial Genetics project is actively seeking funds to assist geneticists in each of the IMMA regions to mobilise their data using SeaSketch and participate in the regional workshops being organised by the Task Force to identify IMMAs. The project also plans to support geneticists engaged in the IMMA process to make their contributions available through open access communication channels. These continuing efforts will ensure that IMMAs are identified based on the most robust and scientifically defensible information.

The SeaSketch website provides two relevant examples of pilot Geospatial Genetics SeaSketch projects for humpback whales off Africa and spinner dolphins in Hawaii. The examples were developed as part of a 2015 Focus Group aimed at better understanding how genetic data can be mapped to inform the identification of IMMAs and are currently undergoing expert review. More general information, including a summary of publications, presentations, and workshops can be found at [www.francinekershaw.site/genetics-msp](http://www.francinekershaw.site/genetics-msp)



Left: Four examples of geospatial genetic data layers and graphical analytics from case studies developed in SeaSketch: Genetic connectivity (a) and genetic diversity (c) of humpback whales off Africa; and pairwise (b) and interpolated (d) population differentiation of spinner dolphins in Hawaii. Adapted from IUCN-MMPATF (2016).

# Dugongs and seagrass in the spotlight

*Secretariat for the Convention on Migratory Species*

In March 2017, delegates from 25 countries, along with the world's leading dugong and seagrass experts, meet in Abu Dhabi to advance international policies regarding dugong and seagrass conservation. The meeting is held under the auspices of the Convention on Migratory Species (CMS), and is the third Meeting of Signatories to the Dugong Memorandum of Understanding (MOU), whose aim is to promote internationally coordinated actions to ensure the long-term survival of dugongs and seagrass habitats throughout their range.

Dugongs (*Dugong dugon*) are migratory marine mammals – they are almost exclusively herbivorous and rely on seagrass and algae for food. Dugongs are also long-lived and slow breeding animals, making them particularly sensitive to stresses from expanding and intensifying human impacts. Over recent decades, their numbers have declined significantly through loss of habitat, caught as bycatch by fisheries, and through targeted hunting. Classified globally as Vulnerable on the IUCN Red List of Threatened Species, the injury or death of just a few adults within a population can spark a significant drop in numbers with very slow recovery rates. With a range extending over 40 countries from East Africa to Vanuatu in the Pacific, dugongs are central to many coastal communities' cultural heritage.

As part of the concerted global effort to conserve dugongs, scientists have called for greater attention to be paid to seagrasses and the animals that are part of the same ecosystem. Seagrass meadows are one of the richest marine habitats on Earth, harbouring as many as 600 species of marine life and providing nursery grounds for fisheries that people

depend upon; this makes them of fundamental importance to the environment and the economy as a whole. It is reported that declines in the extend seagrass habitat are greater in percentage terms than for coral reefs, mangroves and even tropical rainforests, making seagrass meadows one of the most threatened habitats on Earth.

As with other migratory species that move across international boundaries, the protection of dugongs requires all countries where they reside to work together in a coordinated manner – a primary aim of the CMS Dugong MOU. To this end, one of the principal outcomes of the Abu Dhabi meeting is to launch the Dugong and Seagrass Research Toolkit, developed by a team of technical experts to help users assess and understand in a globally coherent way the interactions between dugongs, seagrasses and human communities. It is an easily accessible online decision-support tool that will help scientists, environmental managers and governing authorities to identify the most appropriate research tools and techniques for their circumstances.

Ultimately, the meeting outcomes, together with the toolkit, aim to encourage communities throughout the dugong's range to adopt practices that don't destroy seagrass and accidentally catch dugongs. Achieving this will help secure the future of dugongs and seagrass meadows for generations to come. Their protection and long-term survival, together with the conservation of seagrass meadows, will continue to benefit marine biodiversity and to contribute to human well-being.

For more information, visit [www.cms.int/dugong/](http://www.cms.int/dugong/)



# A victory for conservation in the regulation of deep-sea fishing

*Matt Gianni, Deep Sea Conservation Coalition*

Hot on the heels of the adoption by the United Nations General Assembly of a new resolution calling for the protection of deep-sea ecosystems from the destructive impacts of fishing, the European Union adopted a new regulation that marks a victory for the conservation of vulnerable deep-sea habitats. The regulation requires a ban on bottom trawling below 800m in European Union waters and an obligation to close deep-sea areas to bottom fishing to protect vulnerable marine ecosystems. The regulation entered into force on 12 January 2017.

The European Union (EU) has one of the largest fishing fleets in the world. As coastal and continental shelf fisheries have become fully or over-exploited, those fleets have ventured into ever deeper water, both in the northeast Atlantic Ocean and around the world. The most common method of bottom fishing in the deep sea is bottom trawling, which consists of dragging large, weighted and unselective fishing gears along the seafloor, disturbing everything in their path.

The deep ocean is one of the most biologically diverse areas of the planet. Where conditions are favourable, dense aggregations of fragile, slow growing and long-lived species of sponges, corals and other structure-forming animals can flourish, creating a habitat which attracts and supports a wide variety of organisms, including commercially targeted fish.



*Above: Cold water corals in the Logachev Mound Province. Image courtesy JM Roberts, Changing Oceans Expedition 2012*

By targeting these fish with bottom trawls, the collateral damage to the underlying living habitat that has become established over thousands of years is extensive and irreversible on a manageable time-scale. A decline in the catch of many fish species has already been observed, not only of those targeted by the fisheries but also of the many more caught as by-catch that have little or no commercial value. Deep-sea trawling has therefore become the greatest threat to vulnerable deep-water habitats and to the recovery and sustainable management of the fish and fisheries they support. Furthermore, the large-scale destruction of such productive habitats has knock-on effects on the entire ecosystem, as important links in nutrient and chemical cycles are broken, including the capacity of these ecosystems to act as carbon sinks.

The UN General Assembly (UNGA), building upon a landmark resolution adopted in 2006, has called on high seas fishing nations to take a series of 'urgent' actions consistent with sustainability obligations under international law to manage deep-sea fisheries with a view to protect biodiversity and prevent damage to vulnerable deep-sea areas and habitats such as cold-water coral reefs, coral gardens, hydrothermal vents, xenophyophore beds and deep-sea sponge grounds. In November 2016, the UNGA reviewed the implementation of the 2006 and subsequent resolutions, and adopted a further resolution in December 2016, calling on countries to redouble their efforts to protect species, habitats and ecosystems from the destructive impacts of deep-sea fishing. In this new resolution, the UNGA reiterates its call to prohibit bottom fishing in areas where vulnerable deep-sea habitats are known or likely to occur. The new resolution also emphasises the importance of conducting comprehensive prior environmental impact assessments and, for the first time, calls on countries to factor the impact of climate change and ocean acidification into protecting deep-sea habitats. It further calls on countries to be particularly precautionary with regard to the catch or bycatch of vulnerable, threatened and endangered species such as deep-sea sharks.

Acting on the UNGA's early resolutions on the regulation of deep-sea fishing, the European Commission reviewed the regulation of the EU's deep-sea fisheries in the northeast Atlantic in 2007 and concluded that the EU had failed to maintain most deep-sea fisheries within safe biological limits or to protect vulnerable deep-sea marine ecosystems from highly destructive fishing practices. As a consequence, in July

2012, the Commission proposed a new regulation for the management of the EU’s deep-sea fisheries in the northeast Atlantic, including a phase-out of the bottom trawling to target deep-sea fish stocks. The process to agree the proposal with the European Parliament and Council of the EU’s 28 fisheries ministers started slowly and was beset with delays. In December 2013, the European Parliament voted to add many positive provisions for protecting vulnerable marine ecosystems (VMEs) but rejected any phase-out or depth limit for deep-sea bottom trawling. With the ball back in the court of the Council, delays continued until, after intensive campaigning, ministers adopted a position in November 2015 which included a ban of bottom trawling below 800 m; this was a compromise between those rejecting any depth limit on bottom trawling in the deep-sea and scientific evidence supporting a shallower 600 m limit. A political agreement along these lines was finally reached by negotiators from Council and Parliament at the end of June 2016, subsequently endorsed by the Council Ministers, and finally approved by the vote of the Parliament on 13 December 2016.

The measures adopted in the new regulation are a major improvement over the previous EU deep-sea fisheries regulation, and represent a decisive step towards meeting the commitments made by the EU at the UNGA. These include:

- A prohibition of bottom trawling below 800 m;
- A rigorous process for identifying and closing areas to bottom fishing below 400 m where VMEs are known or likely to occur;
- A freeze of the deep-sea bottom-fishing footprint for vessels targeting deep-sea species, and a requirement to carry out an impact assessment prior to deep-sea bottom fishing by such vessels outside of the footprint;
- Observer coverage on at least 20% of vessels using bottom trawls or bottom set gillnets to target deep-sea species, and on at least 10% of all other vessels authorised to catch deep-sea species.

The regulation applies to all fishing activities in EU waters of the North Sea and northeast Atlantic Ocean. Of this, an area of approximately 932,000 km<sup>2</sup> lies below 800 m – an area larger than the size of Spain and Germany combined. Within it, an area approximately 143,000 km<sup>2</sup> consists of the European continental slope and adjacent seamounts which lie between 800 and 1,500 m deep, the deeper limit being the maximum depth at which bottom trawling is known to occur in this region. These areas, with a high diversity of fish species and rich in habitat-forming organisms such as sponges and corals, are now protected from bottom trawling. In the international waters of the central east Atlantic Ocean off west Africa, EU vessels are prohibited from bottom trawling on approximately 70 of the 100 seamounts whose peaks are shallower than 1,500 m deep.

Effective implementation of both the UNGA resolutions and the EU regulation will be critical to their success. In the EU, several fishery-specific management and monitoring measures are already in place to support this, but new mechanisms as required in the regulation will have to be effectively operationalised, in particular the so-called “implementing acts” by which the Commission, on the basis of scientific advice and in consultation with EU Member States, is required to designate deep-areas in EU waters closed to bottom fishing to protect VMEs. In addition, to complement the new regulation and to assist other high-seas fishing nations fulfil their commitments and obligations under the new resolution, the EU, which has played a constructive role in the negotiation of the UNGA resolutions on deep-sea fisheries, including the resolution adopted in 2016, will continue to work with other countries within regional fisheries management organisations regulating high seas fisheries in the Atlantic, Pacific and Indian Oceans to adopt stronger regulations which enhance the protection of the deep-ocean commons for the benefit of everyone.

More information and updates on the regulation of deep-sea fisheries, including the most recent report of the Deep Sea Conservation Coalition on the implementation of the UNGA resolutions, can be found at [www.savethehighseas.org](http://www.savethehighseas.org)



# International workshop on area-based management, regional coordination and cross-sectoral cooperation for delivery of ocean-related SDGs

Brussels: 9-10 February 2017



The United Nations Environment Programme (UNEP) is mandated to coordinate regional seas conventions and action plans and administer seven of them (Caribbean Region, East Asian Seas, East Africa region, Mediterranean region, North-West Pacific region, West Africa region). UNEP assists the regional seas programmes and their member countries in applying and take-up of the area-based management measures and tools, and in pursuing cross-sectoral cooperation with other regional mechanisms. To further advance these mechanisms, UN Environment and the European Commission (EC) are implementing the project *Integrated Management and Governance Strategies for Delivery of Ocean-related Sustainable Development Goals*, and duly convened a two-day workshop to set out the project's objectives. GOBI was represented at this workshop by its Coordinator, Prof. David Johnson.

The workshop focused on the delivery of Sustainable Development Goal (SDG) 14 and other ocean-related SDGs through application of area-based management tools and via regional cross-sectoral cooperation to coherently implement marine, maritime, fisheries and other relevant policies. The principal context is the 2030 Agenda, which brings new impetus towards ocean sustainability by placing resource use and conservation into a wider sustainable development framework. A common position expressed by UN Environment and the EC is that in order to address the linkages between

and instil substance and concrete actions toward coordinated management strategies and policies, political will needs to be mobilised.

The workshop was also set in the context of UN BBNJ PrepCom discussions, acknowledging that the PrepCom meetings have moved from conceptual considerations into a critique of existing measures and will now encompass more detailed discussions. Several Parties have now articulated their views in response to a request from the Chair and for PrepCom3 a Chair's non-paper is intended to capture these. The dynamic between regional organisations and any future biodiversity Implementing Agreement is a key consideration, with some very detailed views already expressed.

In the discussion a particular emphasis was that *"partnerships, in their various dimensions, are recognised as the basis for delivery of SDG 14 and other ocean-related targets. This includes vertical (across e.g. regional-global scales), horizontal (across sectors) and multi-stakeholder partnerships (including civil society, private sector and others)".* In this respect *"cooperation between Regional Seas programmes and Regional Fisheries Bodies are exemplified through, inter alia, memoranda of understanding and similar formal agreements, such as in the cases of GFCM and UNEP-MAP or OSPAR and the Northeast Atlantic Fisheries Commission"*. An important first step is to understand the different mandates of these organisations through dialogues.

Furthermore, the workshop *“noted existing sustainable development strategies adopted at the regional level to accelerate progress towards the implementation of SDG 14, for example, the Mediterranean Strategy for Sustainable Development (MSSD) and the mid-term strategy (2017-2020) towards the sustainability of Mediterranean and Black Sea Fisheries adopted by the GFCM”*. The workshop also *“acknowledged a number of existing regional governance frameworks and processes, in particular, regional ministerial fora for the environment, which address marine and coastal issues. This includes, for example, the decision of the African Ministerial Conference on Environment (AMCEN) of March 2015 underlining the role of the regional seas conventions and to develop an “African Ocean Governance Strategy”*. Other examples are the Forum of Ministers of Environment of Latin America and the Caribbean with a decision on ocean in March 2016. The Forum of Ministers and Environment Authorities in Asia and the Pacific is also expected to address this topic in its next session”. Some developments at the sub-regional level were also recognised.

The workshop advocated continued dialogue between key stakeholders and sought to exemplify how *“area-based management tools (ABMTs) can help operationalise the Ecosystem Approach and thereby contribute to achievement of many ocean-related SDGs and targets, including food security, poverty eradication and coastal resilience, at regional, national and local levels. There is an opportunity to consider ABMTs from a systemic perspective; to identify the connectors between different tools, to map specific pathways on how ABMTs can contribute to SDGs, and to develop frameworks combining ABMTs to achieve multiple management objectives and a range of ocean-related SDGs. Further, capacity-building at regional and national levels to support implementation of ocean-related SDGs is considered necessary, particularly on ABMTs concepts, on application and possible combination of ABMTs and on ensuring coherence between terrestrial ABMTs and marine ABMTs”*.

A presentation by IOC-UNESCO highlighted examples of marine spatial planning worldwide. For many States, marine spatial planning has started but will take time to mature. Development of the Blue Economy requires ocean planning and future opportunities could consider taking forward scientific work on Large Marine Ecosystems to inform sub-regional governance models. The work and role of FAO was also comprehensively

reiterated with a series of management measures – time-area closures for specific fisheries, area-based limits for fish aggregation devices, gear restrictions, precautionary/exploratory bottom fishing, distribution of fishing effort – informed by clearly articulated guidance documents and action plans.

The workshop concluded by noting a series of action points, including: the need to achieve mechanisms for more formal cross-sector cooperation; strategic partnerships between global and regional governance structures and strategies including public-private partnerships; data and information sharing based on better understanding of complimentary mandates; use of performance and effectiveness reviews of governing bodies; policy interactions between, for example EU Directives and Protocols adopted by Regional Seas Conventions; and more coordinated application of different single-sector and multi-sectoral ABMTs within comprehensive ocean management initiatives.

Acknowledgement: This account by David Johnson has drawn extensively from the draft report of the meeting compiled by UN Environment and EU colleagues. Text presented within quotation marks and in italics has been copied directly from the draft report.



Above: Ms Iryna Makarenko of the Black Sea Commission presents experiences of cross-sector cooperation

# Mami Wata project kick-off workshop



Libreville, Gabon: 14-17 February 2017

By David Johnson, GOBI Coordinator

A meeting of experts was convened in Gabon to kick off the Mami Wata project, which aims to enhance integrated ocean management in West Africa, specifically for the countries signed up to the Abidjan Convention. As ever for a kick-off meeting, it was important to involve participants, in this case by sharing experiences (national, regional and global), exploring what an integrated ocean management framework might look like for West Africa, and agreeing how to guide the project (i.e., capacity building exercises, pilot project areas, centres of expertise). This is a 3-year development project funded by the German International Climate Initiative (IKI) and executed by UNEP/GRID-Arendal. The meeting was facilitated by Miles Macmillan-Lawler (UNEP/GRID-Arendal) and Richard Dacosta (Abidjan Convention). Political will is needed to move from a culture where maritime activities are managed by sectoral Ministries, which may not always have the same objectives for their respective management decisions, to integrated management, for which there are significant capacity building needs.



Above: Mr Louis Léandre Ebobola, DG Environnement du Gabon (centre), prepares to start the opening addresses at the Mami Wata kickoff meeting.

The host country set out details of 'Gabon Bleu', a Presidential initiative that has established a National Council of the Seas recognising that Gabonese waters encompass rich natural resources. The government is seeking to address marine governance issues including migration, piracy, over-fishing and pollution. Measures to tackle by-catch of whale sharks and other charismatic species are long overdue and well-reasoned fishery reforms seem set to secure real benefits for Gabon. Gabon Bleu is a vehicle to put in place strengthened surveillance measures, vessel monitoring and license systems, a national pollution plan and regulations for different competing uses,

such as sand mining, nascent tourism interests, and the needs of the petroleum industry and commercial fisheries.

To support deliberations, inputs were made by David Johnson (GOBI Coordinator) and Malle Diagana (IUCN) on the potential use of EBSA information for integrated management in West Africa. A focus was placed on OBIS data as well as working with surrogates and different data layers. As an example of how this has been done previously, the EBSA process facilitated by GOBI has enhanced scientific collaboration and provided a starting point for future long-term continuous and systematic assessments. For the area covered by the Regional Partnership for Coastal and Marine Conservation in West Africa (PRCM), effectively a region of the North Equatorial Current and the Canary Current, the initiatives of RAMPAO/WWF to use EBSA information were highlighted, with examples from Mauritania, Senegal and Guinea. Equivalent sessions on marine spatial planning were led by Juliette Martin (UNEP-WCMC), on State of the Marine Environment reporting with a focus on Sierra Leone by Wouter Rommens and Morten Sorensen (UNEP/GRID-Arendal), and on data needs and capacity assessments by Lucy Scott.

An important external expert contribution was drawn from Belize, where the authorities have developed scenarios for different resource use activities on the basis of a natural capital project using an INVEST framework (Integrated valuation of ecosystem services and trade-offs). The Belize model sets out a national plan of sustainable use and integrated planning and complementary guidelines for sub-national regions driven by a generic implementation and monitoring structure. Within the region, the nearest equivalent is probably South Africa, where Operation Phakisa has sought to operationalise the country's Ocean Policy and detailed multiple use zoning and planning at a local level (e.g., Saldanha Bay) has made best use of Environmental Impact Assessment studies.



# Poles apart



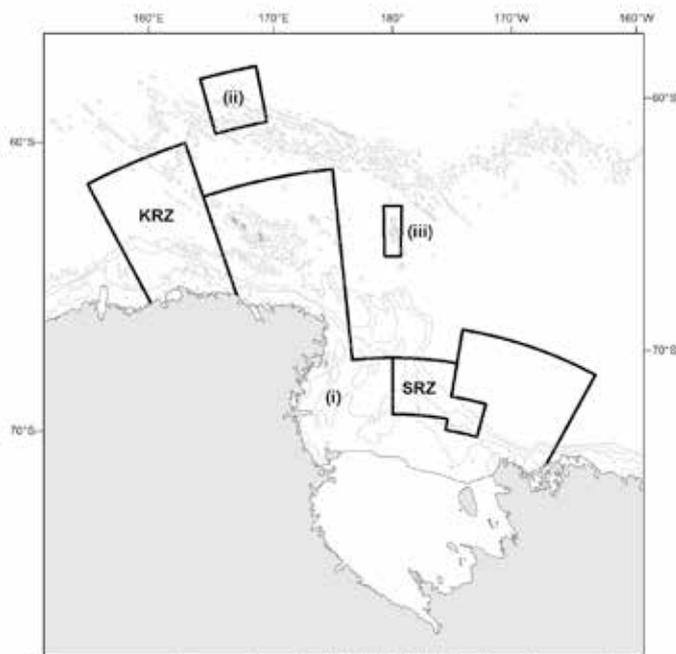
William Ibsen

The fate of Arctic and Antarctic biodiversity appeared to take opposing turns during 2016. The UK All-Party Parliamentary Group (APPG) for Polar Regions' recent newsletters have reported that the extent of Arctic sea ice in summer 2016 reached its second lowest since satellite records began in 1979; the lowest was recorded in 2012. According to scientific reports, the long-term trend in decreasing ice extent is associated with substantial changes to vegetation cover and fish migration that are being observed, with as yet uncertain consequences for biodiversity in marine and terrestrial ecosystems. In contrast, 2016 saw the announcement of an agreement reached at the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) to establish a

marine protected area (MPA) covering Antarctica's Ross Sea region (see map below). The MPA extends over an area of 1.55 million km<sup>2</sup>, making it the world's largest designated area for marine protection. It will come into force on 1 December 2017.

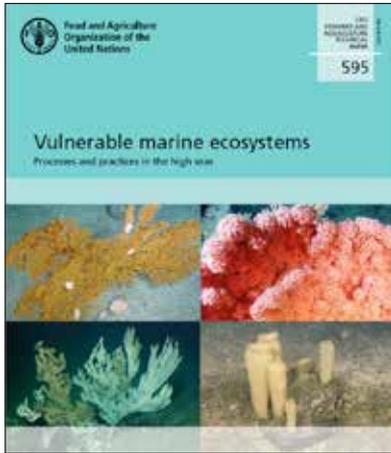
Both scenarios have implications for the spread or displacement of human activities which may further reinforce the predicted trends in biodiversity. In the Arctic, thinner and more fragile ice is more easily fragmented by storms and ships, opening up the possibility of increased shipping activity across the Arctic. Conversely, 72% of the area covered by the Ross Sea MPA in the Antarctic will be closed to all commercial fishing, with reductions to current fishing limits imposed on other areas. Whilst the total fishing effort is not reduced, its displacement ensures that the bulk of fishing activity takes place away from the highly biodiverse areas of the Ross Sea shelf and slope.

There is little consensus amongst the international scientific community about what will happen next in the Arctic. Some predict that it will not be consistently ice-free during the summer before 2020. However, some also argue that focussing on such predictions is arbitrary and distracts attention from the relentless downward trend, and the fact that the Arctic environment is already changing in potentially irrevocable ways. In the Antarctic, the recent announcement has set an important precedent for what can be achieved by international collaborations in support of MPA proposals, and there are already pending ones for the East Antarctic and the Weddell Sea. The poles have never seemed so far apart.



*Left: The Ross Sea region marine protected area, including the boundaries of the General Protection Zone, composed of areas (i), (ii), and (iii), the Special Research Zone (SRZ), and the Krill Research Zone (KRZ). Depth contours are at 500, 1 500 and 2 500 m*

# Hot off the press

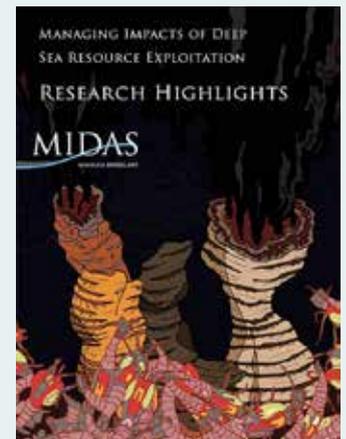


## Vulnerable Marine Ecosystems: Processes and Practices in the High Seas

The latest title in the series of the FAO's technical papers is *Vulnerable Marine Ecosystems: Processes and Practices in the High Seas*. The report catalogues the achievements that have been made since 2006 on the identification and protection of vulnerable marine ecosystems (VMEs) from significant adverse impacts caused by fishing with bottom contact gears in the high seas. After setting the scene by describing the global framework for managing certain fisheries to safeguard VMEs, it summarises the actions taken in ten regions that approximate to the areas covered by RFMO/As, but also include regions where there are no regional management bodies. The functions and responsibilities of each RFMO/As are described, as well as the measures adopted and implemented by them to protect VMEs from fisheries using bottom contact gears. It ends by synthesising the regional measures to safeguard VMEs into a global summary. More information can be found at [www.fao.org/in-action/vulnerable-marine-ecosystems/en](http://www.fao.org/in-action/vulnerable-marine-ecosystems/en)

## MIDAS Project Research Highlights

The end of 2016 saw the completion of the three-year EU Framework-7 research project MIDAS, which focused on increasing the understanding of potential impacts of mining on deep-sea ecosystems. As well as working with industry to identify the likely scale of planned mining operations, a consortium of scientists identified the likely impacts of those operations on deep-sea ecosystems and developed workable best practices to ensure responsible exploitation of the mineral resource and recovery of the ecosystem. Since areas targeted for mining may also be of scientific and conservation interest – given their remoteness, inaccessibility and likelihood of harbouring specialised organisms and unique communities – the outcomes of the MIDAS project have relevance for the EBSA process. The MIDAS Research Highlights document summarises the outcomes of the project, providing a comprehensive backdrop for the more specialist scientific and policy publications that the project has generated. An accompanying report on policy recommendations is also available. Download from [www.eu-midas.net](http://www.eu-midas.net)



## The Future of World Heritage Convention for Marine Conservation

The UNESCO-World Heritage Centre has marked the 10th anniversary of its World Heritage Marine Programme by dedicating the 45th edition of its World Heritage Papers to the celebration. However, instead of indulging in a retrospective view of its many significant achievements over the past decade, it sets forth its ambitious agenda for meeting the challenges of the next 10 years and beyond. Taking precedence is the challenge of anticipating and mitigating the effects of climate change on the marine environment and its inhabitants, and the existing network of 49 World Heritage marine sites are already helping to document and understand the regional and local dynamics of that change. Other areas of progress include the utility of satellite technology to support marine resource management, the importance of connectivity in the oceans and the interconnectivity and representativity among marine World Heritage sites, identification of gaps in the coverage of sites, especially in the Arctic and high seas, and the balancing economic development with conservation.

# GOBI welcomes new partners

GOBI grows stronger and is better placed to perform its remit with every new partner as it expands its collective knowledge and sphere of influence. Recently, the Ocean Genome Legacy of New England Biolabs at Northeastern University and the Romberg Tiburon Center for Environmental Studies at San Francisco State University joined the GOBI ranks. Together, the GOBI community covers a diverse range of competencies both locally and across the globe.



The Ocean Genome Legacy (OGL) is a non-profit marine research centre and genome bank dedicated to exploring and preserving the threatened biological diversity of the sea. Its mission is to collect, describe, and preserve the DNA from the vast diversity of marine species and to make these materials widely available for scientific research. The ultimate purpose of that research is to support the understanding and protection of our planet's greatest ecosystem. [www.northeastern.edu](http://www.northeastern.edu)

The Romberg Tiburon Center (RTC) for Environmental Studies is San Francisco State University's bayside and estuarine research facility. Its overarching mission is to illuminate the vital connections between science, society and the sea, while fostering the next generation of marine research scientists. RTC's research focuses on understanding the natural forces at work in the San Francisco Bay, along California's coastline and beyond into the open ocean. It then applies its gained knowledge to assist in decision making and the stewardship of the oceans. <http://rtc.sfsu.edu>



GOBI's objectives are threefold: (i) to support an international scientific collaboration to assist States and relevant regional and global organisations to describe EBSAs using the best available scientific data, tools, and methods; (ii) to provide guidance on how the CBD's scientific criteria and United Nations resolutions can be interpreted and applied towards management, including representative networks of marine protected areas; and (iii) to assist in regional capacity building and developing regional analyses with relevant organisations and stakeholders. Any organisation with a shared interest in achieving these objectives in unison with GOBI partners is welcome to express its interest and request further details of the Initiative to the GOBI Secretariat.

## Forthcoming events

2017 is a very busy year for the GOBI community. As well as the multitude of technical workshops on the horizon as part of the GOBI-IKI programme, there are a range of international events that are key dates in the GOBI diary...

- PrepCom3 (27 March - 7 April 2017) and PrepCom4 (10-21 July 2017), New York, USA
- Black Sea and Caspian Sea EBSA Workshop, Baku, Azerbaijan, 24-28 April 2017
- Arctic Council Ministerial Meeting, Fairbanks, Alaska, 11 May 2017
- UN Conference on Oceans and Seas, New York, USA, 5-9 June 2017
- IMPAC4 (and next GOBI Annual Meeting), La Serena, Chile, 4-8 September 2017
- EU Our Oceans Conference, Valletta, Malta, 5-6 October 2017,
- CMS COP, Manila, 22-28 October 2017
- UNEA-3, 4-6 December 2017
- SBSTTA 21, Montreal (dates TBC)
- World Conference on Marine Biodiversity, Montreal, 13-16 May 2018
- SBSTTA 22, Montreal (dates TBC)



# Global Ocean Biodiversity Initiative

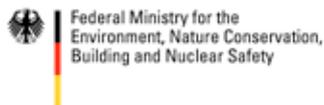
## Working towards high seas conservation

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 and 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](http://www.gobi.org)

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