Compilation of Submissions to the Online Discussion Forums

Expert workshop on scientific and technical guidance on the use of biogeographic classification systems and identification of marine areas beyond national jurisdiction in need of protection

Ottawa, Canada, 29 September – 2 October 2009

To facilitate effective preparation for the above-mentioned expert workshop, the Secretariat organized this electronic forum, inviting Parties, other Governments, and relevant organizations as well as relevant experts, with the following specific purposes:

1. to clarify expectations for the outputs of the workshop;
2. to facilitate compiling and synthesizing background information as an input to the workshop
3. to facilitate brainstorming on anticipated scientific opportunities, uncertainties and challenges related to workshop discussion; and
4. to invite existing/potential users/regulatory agencies at regional and national levels, to articulate their specific needs, goals, and challenges in applying scientific criteria and biogeographic classification system

The submissions to the Electronic Forum were compiled below, in the format as they submitted, in the order of questions provided. Please note that no submissions were made for some questions. The Secretariat made a note regarding the attached document for easy reference.

Questions/Issues for the Electronic Forum

(1) Biogeographic classification systems of global open oceans an deep seabed (refer to paragraph 6, Decision IX/20)

Question 1.1

How do we envision scientific and technical guidance on the use and further development of biogeographic classification systems, in terms of its content, format, target users, relevance to policy and management, applicability, etc? Please provide any example documents, if available.

Question 1.2

Please submit information on sectoral, regional and national experiences with the use of the biogeographic classification system.

Question 1.3

How can policy makers use biogeographic classification systems in their efforts in identifying marine areas in need of protection? What other uses have they made of biogeographic classification systems?

Question 1.4

Describe any anticipated scientific opportunities, uncertainties and challenges related to the workshop discussion on biogeographic classification systems.

Question 1.5

Please provide any relevant documents, reports, scientific articles, and other information, which can be background information to the workshop discussion on biogeographic classification systems.

The Atlas of the Patagonian Sea. Species and Spaces *[#424]*

I would like to introduce you, a new relevant publication from Wildlife Conservation Society and BirdLife International: the Atlas of the Patagonian Sea. Species and Spaces. We consider this initiative as relevant information in the context of the CBD and the biogeographic classification system effort.

The Atlas is a document that identifies important marine environments for certain species of seabirds and marine mammals which forage in the Patagonian Sea. The main objective of the Atlas is to act as a tool in identifying those marine areas that must be the focus for immediate and very specific efforts in oceanic conservation.

It is a summary of information on how certain species, which form the top link in the food chain, use the habitats of this ecosystem. Following a systematic procedure, the Atlas combines and integrates more than 283,000 remotes recordings of the migratory movements, across different groups (albatrosses, petrels, penguins and pinnipeds) and presents maps for general and seasonal distribution of those 16 species of marine high predators in the Patagonian Sea.

The target area, the Patagonian Sea, constitutes a transnational oceanic area, that incorporates Exclusive Economic Zones (EEZ from Argentina, Uruguay, south of Chile and south of Brazil), and the High Seas.

The Atlas concentrates information that in the past was only available to specialists that read scientific literature. The Atlas integrates and synthesizes decades of scientific research and was design as a product for technicians and governmental representatives with responsibilities in the management and conservation of marine resources.

The Atlas is the result a highly participatory procedure between non-governmental organisations and the academic world. For two years, the editorial team (Valeria Falabella (WCS-S&S), Claudio Campagna (WCS-S&S) and John Croxall (BirdLife International) coordinated a participative process that engaged 25 scientists from five countries and more than a dozen institutions. This cooperative effort for the conservation of the region is unprecedented.

Submitted by Valeria Falabella, Wildlife Conservation Society

01 el mar patagónico_ii.pdf - 10371 KB (The attachment contains Spanish and English texts, with total of 305 pages-SCBD)

deep-sea ecosystems [#429]

I attach some papers from a recent Oceanography volume that was dedicated to deep-sea ecosystems resulting from the EU funded HERMES project. Here open slopes represent the largest ecosystems on earth. Nevertheless, there are significant changes in biodiversity with depth, with latitude and between regions. Canyons represent very complex systems with major variations in species with depth and between the many small habitats available within the canyon such as the canyon floor, rocky walls, muddy terraces etc. Cold seeps (small areas of seafloor where fluids containing methane escape) also represent unique ecosystems with the abundance and diversity of species being dependent on the availability of methane. Lastly cold-water corals form unique ecosystems with high biodiversity that are under threat due to bottom trawling, ocean warming and ocean acidification. In all cases our knowledge is limited both in terms of ecosystem function and also even in terms of what exists where.

Submitted by Prof Philip Weaver, National Oceanography Centre

22-1_danovaro.pdf - 716 KB (Exploring Benthic Biodiversity Patterns and Hotspots on European Margin Slopes. 10 pages. -SCBD)

22-1_freiwald.pdf - 1442 KB (The White Coral community in the Central Mediterranean Sea. 17 pages. –SCBD)

22-1_tyler.pdf - 1128 KB (Europe's Grand Canyon Nazaré Submarine Canyon. 12 pages. –BK)

22-1_vanreusel.pdf - 787 KB (Biodiversity of Cold Seep Ecosystems Along the European Margins. 18 pages. –SCBD)

(2) Scientific criteria for identifying ecologically or biologically significant marine areas in need of protection (refer to Annex I, Decision IX/20)

Question 2.1

How do we envision scientific and technical guidance on the identification of areas beyond the national jurisdiction, which meet the scientific criteria in annex I of decision IX/20, in terms of its content, format, target users, relevance to policy and management, applicability, etc? Please provide any example documents, if available.

Question 2.2

Please submit information on existing sectoral, regional and national progress on the identification of areas beyond national jurisdiction which meet the scientific criteria.

BirdLife International Important Bird Areas Programme [#398]

The function of the Important Bird Areas (IBAs) programme of BirdLife International is

"To identify and protect a network of sites, at a biogeographic scale, critical for the long-term

viability of naturally occurring bird populations, across the range of those bird species for which a sites-based approach is appropriate"

IBAs are chosen using quantitative, standardized, globally agreed criteria. The selection of IBAs has been a particularly effective way of identifying conservation priorities. IBAs are key sites for conservation – small enough to be conserved in their entirety and often part of a protected-area network. They do one (or more) of three things:

- Hold significant numbers of one or more globally threatened species
- Are one of a set of sites that together hold a suite of restricted-rage species or biome-restricted species
- Have a exceptionally large numbers of migratory or congregatory species

Following the success of the IBA programme in setting priorities and focusing conservation action in the terrestrial and freshwater realms, BirdLife is extending and adapting the IBA programme to the marine environment and has begun to identify marine IBAs (http://www.birdlife.org/action/science/sites/marine_ibas/index.html)

Work by a selection of BirdLife Partners has helped to determine the best methodologies for identifying and delimiting IBAs at sea. The pioneering work undertaken in Europe has been standardized to develop guidance on identification of at-sea sites, and this is now being applied across the wider BirdLife Partnership, from Asia to the Americas.

The BirdLife Secretariat is leading on the identification of high seas IBAs, applying the same standard methods used in territorial waters, and using the Tracking Ocean Wanderers (TOW) dataset to provide a first cut of seas sites. The TOW dataset included remote sensing tracks for 28 species of albatross and petrel, provided by 57 scientists from 11 countries, making it perhaps the most comprehensive dataset on marine top predators available. Having such a wide variety of species included, and a global coverage, provides a unique opportunity for analysis to identify a network of key sites for protection on the high seas. The TOW pdf can be accessed here (http://www.birdlife.org/action/science/species/seabirds/tracking_ocean_wanderers.pdf)

Submitted by Mr ben Lascelles, BirdLife International

blibas - cbd online forum doc 1.pdf - 42 KB (This document compares the CBD high seas criteria with the BirdLife International Bird Areas Programme (IBA) criteria. It is available in the table form of Annex I and II. Total 4 pages. –SCBD)

The Blue Whale, an endangered species thriving on the Costa Rica Dome, offers an example of a species/place-based study covering multiple criteria [#428]

Preliminary research regarding the blue whale's presence on the Costa Rica Dome indicates that this area likely fulfills several scientific criteria adopted by the Convention on Biological Diversity (CBD) to identify ecologically and biologically significant areas (EBSAs) — especially, importance for threatened, endangered or declining species and/or habitats.

Submitted by Erich Hoyt, Whale and Dolphin Conservation Society (WDCS)

costa rica dome illustration final.pdf - 7963 KB (11 pages. –SCBD)

Question 2.3

What lessons have been learned from the application of scientific criteria in marine waters within national jurisdiction?

BirdLife International Important Bird Areas Programme [#399]

The BirdLife marine IBA model is based on experiences gained in national waters of Spain, Portugal and the Baltic. These methods have been further tested in New Zealand, Mediterranean Europe ad Argentina and continue to be refined as the work is applied further across the globe.

A recent example of a completed marine IBA directory can be found here http://lifeibasmarinhas.spea.pt/y-book/STANDALONE/ which is the results of a 4 year project by SPEA (BirdLife Partner in Portugal) to identify Important Bird Areas for seabirds sea. The methodologies from this project are been adapted/tested to endure their applicability on the high seas.

Submitted by Mr ben Lascelles, BirdLife International

EBSA experience in British Columbia [#403]

In my experience, one of they key elements of a successful process is transparency. The systemic conservation planning approach, with its explicit goals and objectives, works well to ensure transparency (Margules & Pressey 2000).

I was a participant at a review meeting (2007) of the process to identify EBSAs in British Columbia, Canada. If my memory serves me right, Fisheries and Oceans Canada (DFO) used a delphic process (interviews with experts) to identify areas of importance for key species and their life histories. The result was that all of the British Columbia coast was identified as important. They called these Important Areas (IAs). To identify EBSAs from these, the focus shifted to identifying physical features: oceanographic features that concentrate marine productivity, bottleneck areas where congestion occurs, and unique places (i.e., the hexactinellid sponge reefs). Many of the experts (many DFO scientists amongst them) who were interviewed in the Delphic process were present at the review meeting. My recollection of the gist of the conversation was there was a general and strong discontent at the EBSA results, and process used to identify the,. The scientists at the meeting did not feel that the species-specific information was reflected sufficiently in the results, thought the physical features focused on were arbitrary, and did not think that the process was transparent. I do not believe any that the EBSA report changed to reflect these critiques. Please note that this meeting was held more than two years ago, that I was not involved in the EBSA process beyond attending the meeting, and hence my recollection of the even and critiques may not reflect the impression of others at the meeting.

Submitted by Dr Natalie Ban, James Cook University

Margules, C. R., and R. L. Pressey. 2000. Systematic conservation planning. Nature 405:243-253.

(Academic journal article from *Nature*. 11 pages. –SCBD)


Margules & Pressey (2000) Systemic cons

Question 2.4

How do we apply lessons learned from the application of scientific criteria in marine waters within national jurisdiction, to identification of areas beyond national jurisdiction which meet the scientific criteria?

BirdLife International Important Bird Areas Programme [#400]

The methods for identifying (and delimiting) IBAs in areas of national jurisdiction (both coastal and pelagic) are being tested to determine their utility on the high seas, and work so far shows that they are equally applicable here.

BirdLife is conducting further testing in this regard at a workshop to be held July 2009, that will bring together a number of experts working with tracking data obtained from seabirds to further refine the methods necessary to convert to IBA/MPAs on the high seas. Based on this BirdLife plans to conduct an analysis of the Tracking Ocean Wanderers dataset, which should result in a potential network of sites being identified across large areas of the worlds oceans.

Submitted by Mr ben Lascelles, BirdLife International

blibas - cbd online forum doc 2.pdf - 798 KB (Two maps are available; the tracking ocean wanderers dataset and candidate marine IBAs for seabirds identified up to Aug. 2008. Total 2 pages. –SCBD)

Need quantitative conservation targets [#404]

The scientific criteria, as outlined in the Azores document, are quite broad, and may result in a similar scenario to the British Columbia experience, where every part of every ocean qualifies under the EBSA criteria. Therefore translating the criteria into relevant conservation targets will be one of the challenges, albeit a very important one. A target is the amount of any aspect of the environment/ecosystem/biodiversity (i.e., the CBD criteria) to be included in the conservation designation. Targets can be any quantifiable measure, such as a percentage of a habitat to be protected, number of individuals, number of colonies, etc. Targets can be uniform (e.g., 20% of all features should be included), or can be specific to individual features. As such, targets can be set through policy recommendations (e.g., by the CBD), or the setting of targets

can be deferred to the advice of experts for specific biodiversity features. Without explicit conservation targets, achieving transparency in the selection process will be extremely difficult. The recent document outlining scientific principles for design of MPAs in Australia may be helpful:

http://www.uq.edu.au/ecology/index.html?page=102441&pid=108450
(The Ecology Centre, University of Queensland, 2009. Scientific principles for design of marine protected areas in Australia: a guidance statement. 29pp)

Submitted by Dr Natalie Ban, James Cook University

Question 2.5

Please describe any anticipated scientific opportunities, uncertainties and challenges related to the workshop discussion on the identification of areas beyond the national jurisdiction, which meet the scientific criteria.

Consider temporal and spatial dynamics [#405]

One key component that is missing from the Azores criteria is the consideration of spatial and temporal dynamics of the marine environment. The link here is the requirement for adequate and viable sites: "should have size and protection sufficient to ensure ecological viability and integrity of the feature(s) for which they were selected". Some identified features can and should be dynamic, and their viability will depend on understanding of those dynamics and the design of appropriate static and dynamic MPAs. We (Bob Pressey, myself and others) are working on approaches for incorporating such dynamics into conservation design, and would be delighted to have further conservations about this.

Submitted by Dr Natalie Ban, James Cook University

Exploring spatio-temporal restrictions (STRs) to mitigate the effects of noise on marine mammals: A consideration in the planning of EBSAs? [#426]

The problem of noise in the sea presents uncertainties and challenges related to the workshop discussion on the identification of areas beyond the national jurisdiction, which meet the scientific criteria. It may be that in areas important to marine mammals and other species either sensitive to noise or that use sound to navigate, hunt and communicate that much larger effective areas must be considered as EBSAs. While this is framed largely as a management issue, much depends on the initial identification of the area and its extent, as well as the design and type of EBSA to be planned.

In June 2007, 18 scientists from ten countries met in the Canary Islands to explore the possibility that “spatio-temporal restrictions” (STRs), including various types of protection zones, could be used or expanded to help protect marine mammals and other marine organisms from the damaging noises of low and high frequency Navy sonar, seismic air-gun arrays and the increasing worldwide drone of shipping noise. Background noise in the sea has been increasing by about 3-4 dB per decade since the 1950s, which is in effect a doubling of the noise level every decade. Marine mammals including whales and dolphins use sound to

navigate, hunt and communicate, but noise has in effect reduced their habitat by masking their own sounds. In some cases very loud noise has been documented to lead to stranding and death of animals, although it is uncertain how extensive these effects may be.

The group of scientists produced a consensus report with detailed recommendations for adapting exisitng protection zones and adopting a conceptual framework for using STRs to help reduce the ensonification of the world ocean. It is available in English, Spanish and French.

Agardy, T., Aguilar, N., Cañadas, A., Engel, M., Frantzis, A., Hatch, L., Hoyt, E., Kaschner, K., LaBrecque, E., Martin, V., Notarbartolo di Sciara, G., Pavan, G., Servidio, A., Smith, B., Wang, J., Weilgart, L., Wintle, B. and Wright, A. 2007. A Global Scientific Workshop on Spatio-Temporal Management of Noise. Report of the Scientific Workshop. 44pp.

Submitted by Erich Hoyt, Whale and Dolphin Conservation Society (WDCS)

dokumentedesmeeres_report_eng_final_amended_v2.pdf - 1884 KB (A Global Scientific Workshop on Spatio-Temporal Management of Noise; published in October 2007. 25 pages. –SCBD)

dokumentedesmeeres_report_french_v3.pdf - 807 KB (same document as above, translated in French. –SCBD)

dokumentedesmeeres_report_span.pdf - 1100 KB (same document as above, translated in Spanish. –SCBD)

Question 2.6

Please provide any relevant documents, reports, scientific articles, and other information, which can be background information to the workshop discussion on the identification of areas beyond the national jurisdiction, which meet the scientific criteria.

BirdLife International Important Bird Areas Programme [#401]

Please find attached a brief summary of some of the work BirdLife is doing to identify sites at sea using standardised criteria.

Submitted by Mr ben Lascelles, BirdLife International

blibas - cbd high seas online forum.pdf - 557 KB (Total of 8 pages, 2-page contents and same documents as shown in Question 2.2 and 2.4 are added. –SCBD)

Australian Government Submission [#425]

Australian Government Response to notification 2009-068 attached.

Submitted by jo.elphinstone@environment.gov.au

submission - australian govt comments on 2009-068.doc - 30 KB (1 page document. –SCBD)

Summary report from the International Conference on Marine Mammal Protected Areas (ICMMPA) 4/2009 [#427]

The attached is a general summary report from the first International Conference on Marine Mammal Protected Areas related to high seas work. A detailed report with various elements relevant to EBSAs will be available in late October. http://www.ICMMPA.org

Submitted by Erich Hoyt, Whale and Dolphin Conservation Society (WDCS)

int'l_conf_on_marine_mammal_protected_areas_4.09_summary.doc - 71 KB
(First International Conference on Marine Mammal Protected Areas (ICMMPA) Maui, Hawaii, USA. 8 pages. –SCBD)