The role of research in informing area-based management and environmental impact assessments in ABNJ, particularly through technology transfer & capacity building.

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**IMCC4 Focus Group (July 28-29, St. John’s, Canada)**

Conservation & sustainable use of the other 50% of the planet: status and opportunities in areas beyond national jurisdiction

**Objectives**

1. Synthesize existing scientific research into policy briefs that may inform the BBNJ negotiations;
2. Develop the capacity of the research community and local and indigenous knowledge holders to contribute to the BBNJ negotiations;
3. Develop a network of researchers and knowledge holders interested in informing the BBNJ negotiations;

**Organizers**

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- Dr. Steve Fletcher – UNEP-WCMC, Plymouth University
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1. Data for EIAs and area-based management of ABNJ:
   - EBSA templates
   - Important Bird Areas (Birdlife International)
   - Important Marine Mammal Areas (WDCS & IUCN Joint WCPA/SSC MMPATF)
   - OBIS & subnodes
   - New biogeographic classifications

2. New directions for technology transfer & capacity building
   - Role of the IOC
     - And, in particular, the Global Ocean Observing System
     - And, in particular the Deep Ocean Observing System
   - Role of industry partnerships in instrumenting the deep
   - Open satellite tracking tools to monitor & improve transparency in ABNJ fisheries
   - The potential of Open Science to deliver on tech transfer
Data for area-base planning

- Lots of available data. Particularly via IOC-OBIS and remotely sensed data.
- Data are already being used in international marine policy processes.
- Those processes have involved capacity building.
- Open-access data is tech transfer.
- But data density is very low.
- Large geographic and thematic gaps.
Data gaps in the development of EIAs & ABMTs

all sampling locations
47,000,000
Data gaps in the development of EIAs & ABMTs

no depth information: 18,000,000

> 200 m
3,200,000
Data gaps in the development of EIAs & ABMTs

no depth information: 18,000,000

> 1000 m
600,000

c/o Pieter Provoost, UNESCO-IOC
Data gaps in the development of EIAs & ABMTs

no depth information: 18,000,000

> 4000 m
25,000

c/o Pieter Provoost, UNESCO-IOC
Important Bird Areas & Important Marine Mammal Areas
New benthic biodiversity maps

Wooley et al. 2016

New map of benthic biodiversity based on brittlestar distribution
New mesopelagic classifications
Modeling migratory species in ABNJ

Density of Kogia spp (individuals/100 km²)

Uncertainty (Coefficient of Variation)

Kogia spp. (dwarf & pygmy sperm whales)
From planning to monitoring: Satellite tracking of activity in ABNJ

1. Monitor fishing effort
2. Monitoring activity in ABMTs
3. Monitoring activities related to deep sea mining
Monitoring ABMTs with satellites

1. Monitor fishing effort, including in ABMTs
2. Understand governance gaps
3. Assist cooperation between RFMOs

July – December 2014

January – June 2015
Monitoring non-fishing activities in ABNJ

1. Identified exploration activity
2. Together with remotely sensed environmental data, it could be used to monitor impacts of deep sea mining
The Nereus Scientific & Technical Briefs on ABNJ Series:

http://www.nereusprogram.org/briefs

PrepCom2:
1. Area-based management (including EBSAs)
2. Climate Change in Oceans Beyond National Jurisdictions
3. Impacts of fisheries on open ocean systems
4. Satellite tracking to monitor area-based management tools & identify governance gaps in fisheries beyond national jurisdiction
5. Open Data: enabling conservation and sustainable use of biodiversity in areas beyond national jurisdiction
6. Technology transfer

See also the MIDAS briefs on Mineral resources, biological communities associated with the deep sea minerals, and impacts of deep sea mining

PrepCom3:
1. Marine Spatial Planning
2. Connections between coastal communities and the High Seas
3. The role of open science in capacity development and tech transfer
4. +++
Examples of data systems that could have a role in providing data relevant to conserving biodiversity in ABNJ:

- Ocean Biogeographic Information System (OBIS): [www.iobis.org](http://www.iobis.org) – global repository for marine data
- World Register of Marine Species (WoRMS): [www.marinespecies.org](http://www.marinespecies.org) – global database supporting consistent species identification
- Encyclopedia of Life (EOL): [www.eol.org](http://www.eol.org) – online collaborative bio-encyclopedia
- IODE: [http://www.iode.org-UNESCO-IOC’s](http://www.iode.org) programme on oceanographic data and information exchange and network of 8o National Oceanographic Data Centres
- OceanDataPractices (ODPr): [http://www.oceandatapRACTICEs.net/](http://www.oceandatapRACTICEs.net/) - a repository containing a wide variety of “practices” such as manuals and guides related to oceanographic data and information management.
The role of research & researchers in the BBNJ Prep Com process

• What is our role in supporting the BBNJ process?
  • What data are available to help inform the negotiations over, and eventual management of, biodiversity beyond national jurisdiction?

• What is our place as a stakeholder and major user of ABNJ?
  • Who represents us?