Workshop: “Essential Ocean Variables” for monitoring and assessment of marine biodiversity and ecosystem health

Thursday 30th June and Friday 1st July 2016, Kiel, Germany

Objective
The objectives of this workshop is to review observing and monitoring needs to assess the state of marine biodiversity, including ecosystems and fisheries, and to discuss the challenges in defining a minimal set of relevant variables.

Thursday, 30th June (joint sessions at AtlantOS GA)

10:30-11:30 Expert session
1 - A brief introduction to the challenges in biodiversity observations incl. EBV
   Gary Geller
2 - A brief introduction to the challenges in ecosystem and fisheries observations
   Mark Dickey-Collas
3 – Technology Bio & Fish Instrumentation and survey
   Matt Mowlem

11:30-12:30
Panel discussion on ‘Biodiversity & Fishery’
Involving the new BG1 projects ‘Atlas’ and ‘Sponges’

12:30-13:30 Lunch

13:30-15:30 Break-out groups
‘biodiversity & fishery within ocean observation’ reflection regarding AtlantOS

- Observation (e.g. strategies and instruments)
- Requirements (EBDV = EOV)
- Products (communication/feedback/societal benefit)
- Coordination of South Atlantic Activities (follow-up from 2015 workshop)

15.30 – 16.00 Coffee break

16:00-17:00
Presentation of the workshop results/ discussion

17:00-18:00
Final discussion, open question, synergies with associated Blue Growth projects - Next steps

18:00-18:30 Break with drinks

18:30-19:30 Workshop welcome (detached from GA)
Impulse lecture and poster espresso

19:30-22:00 Poster presentation
Icebreaker and dinner

**Friday, 1st July**

**08:30 Welcome**
Introduction of participants and objectives of workshop (Isabel Sousa Pinto)
Report from Expert session AtlantOS (Jörn Schmidt)

**09:00-10.15 Session 1**
Review global requirements for biodiversity and ecosystem observations (10 minutes each + 5 min questions)

1 - CBD Aichi Targets and GEO BON – Thinking of what is needed for global biodiversity understanding commitments (EBVs) (Gary Geller)
2 – EU regulatory framework - Common Fisheries Policy, MSFD and MSP (tbc)
3 - Existing data frameworks (Extended Darwin Core) VLIZ (Klaas Deneudt)
4 - Existing long-term biodiversity data (Amanda Bates)
15 minutes discussion

**10:15-11.00 Session 2** How to define a minimal set of Variables? (10 minutes each + 5 min questions)

1 - GOOS proposed Essential Ocean Variables (Patricia Miloslavich)
2 - GEO BON proposed EBV and related proposals (Mark Costello)
15 minutes discussion

**11.00 – 11.30 Coffee brake**

**11:30-13:00 Session 3**
Observing methods (survey – targeted versus opportunistic; integration in GOOS platforms; drifters, gliders) (10 minutes each + 5 min questions)

1 - USA mBON + Marine GEO (Francisco Chavez)
2 - ICES experience in fishing monitoring in Atlantic (tbc)
3 – EAF Nansen Survey Project - fish and ecosystem surveys in the South Atlantic (Marek Ostrowski – tbc)
4 – Example of CPR (Martin Edwards)
5 – Animal Tracking network (Fred Whoriskey)
15 minute Discussion - synthesis of lessons in field and theoretical proposals

**13.00-14.00 - Lunch**

**14:00-16:00 Working groups**

Summarising:
- policy needs (Capabilities versus reality)
- data management structures (Data acquisition)
- proposed variables and field experiences (EOVs – spec sheets?)
- prioritizing observations/variables (What to measure first?)

**16:00-16:30 Coffee break – summary compiled by rapporteurs**
16:30-17.30
- Summary of Working groups
- Recommendations regarding the way to move forward in developing “EOV for biodiversity and ecosystem health”

**Expected outcome**
White paper on EBV as the connection from requirements. Summary drafted by drafting team and circulated for comments between all participants after the meeting. Final document circulated

**Audience**
Participants involved in biodiversity and fisheries observations and operational product generation. This include sensor development, NGOs – WWF, IUCB, CBD, IPBES, Cluster of Excellence member (with registration)

**WS Organizers**
Isabel Sousa Pinto, Jörn Schmidt

**Local organizers**
Anke Schneider (WS), Anja Reitz (AtlantOS), Johannes Karstensen

**Location**
Steigenberger Hotel, Kiel