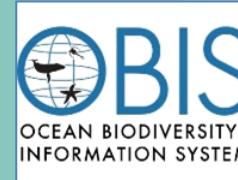
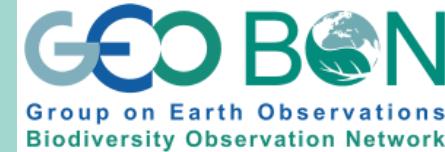


European Pavilion Digital Ocean

Nice | France
2 - 13 JUNE 2025



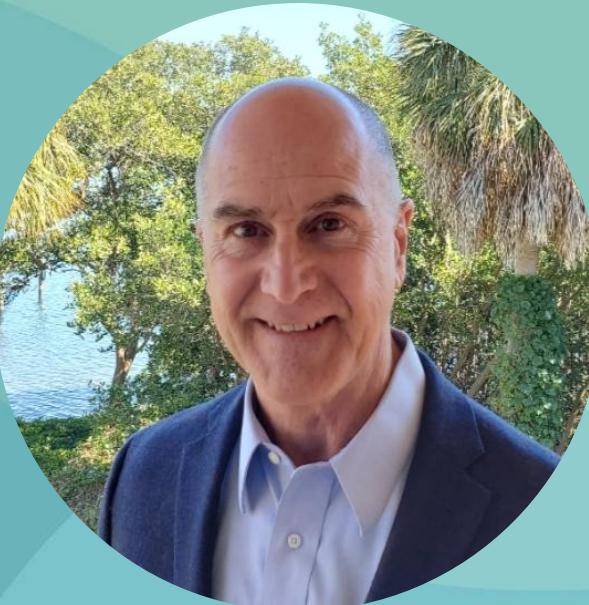
The Marine Biodiversity
Observation Network
(MBON)

<https://marinebon.org/>

9 June 2025

Inspire
marine biodiversity





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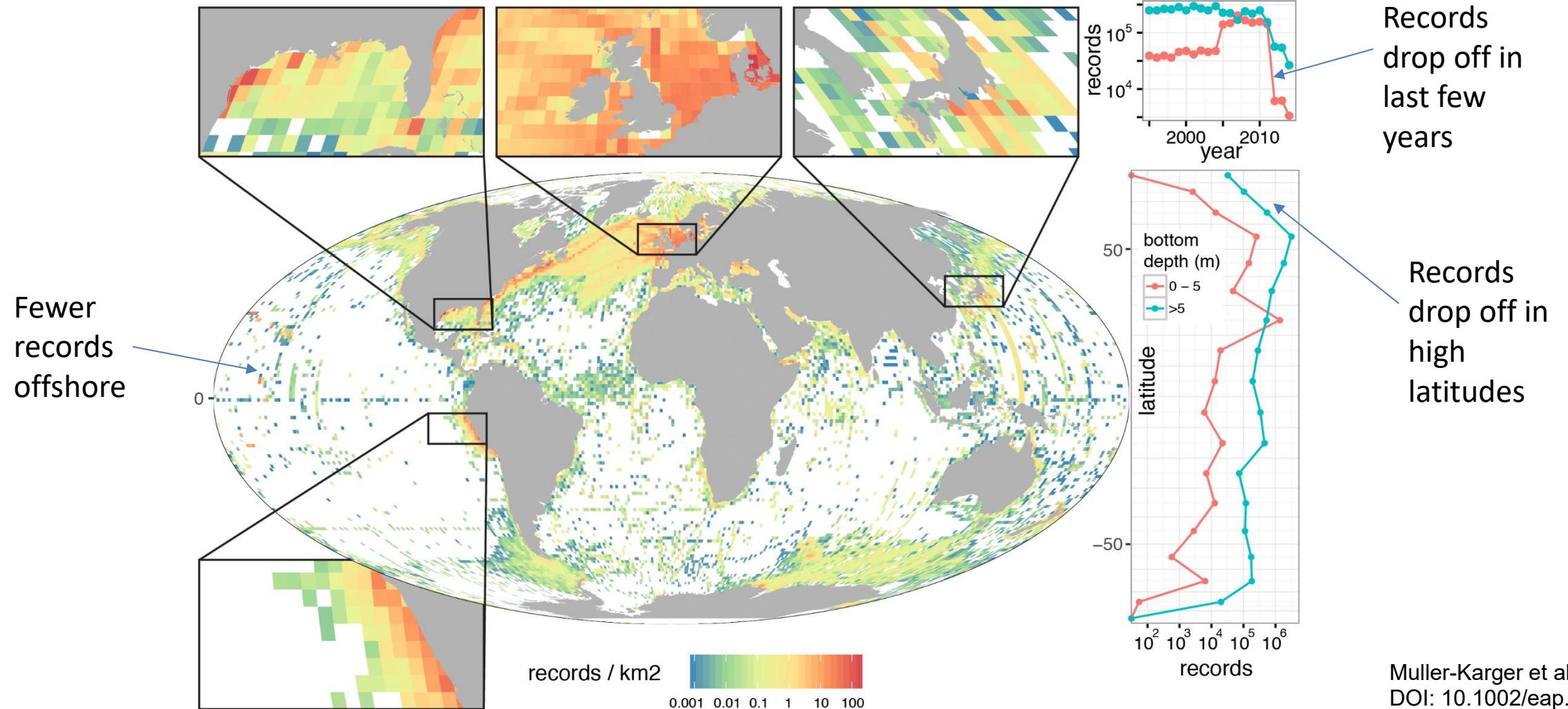


UNIVERSITY of
SOUTH FLORIDA
College of Marine Science



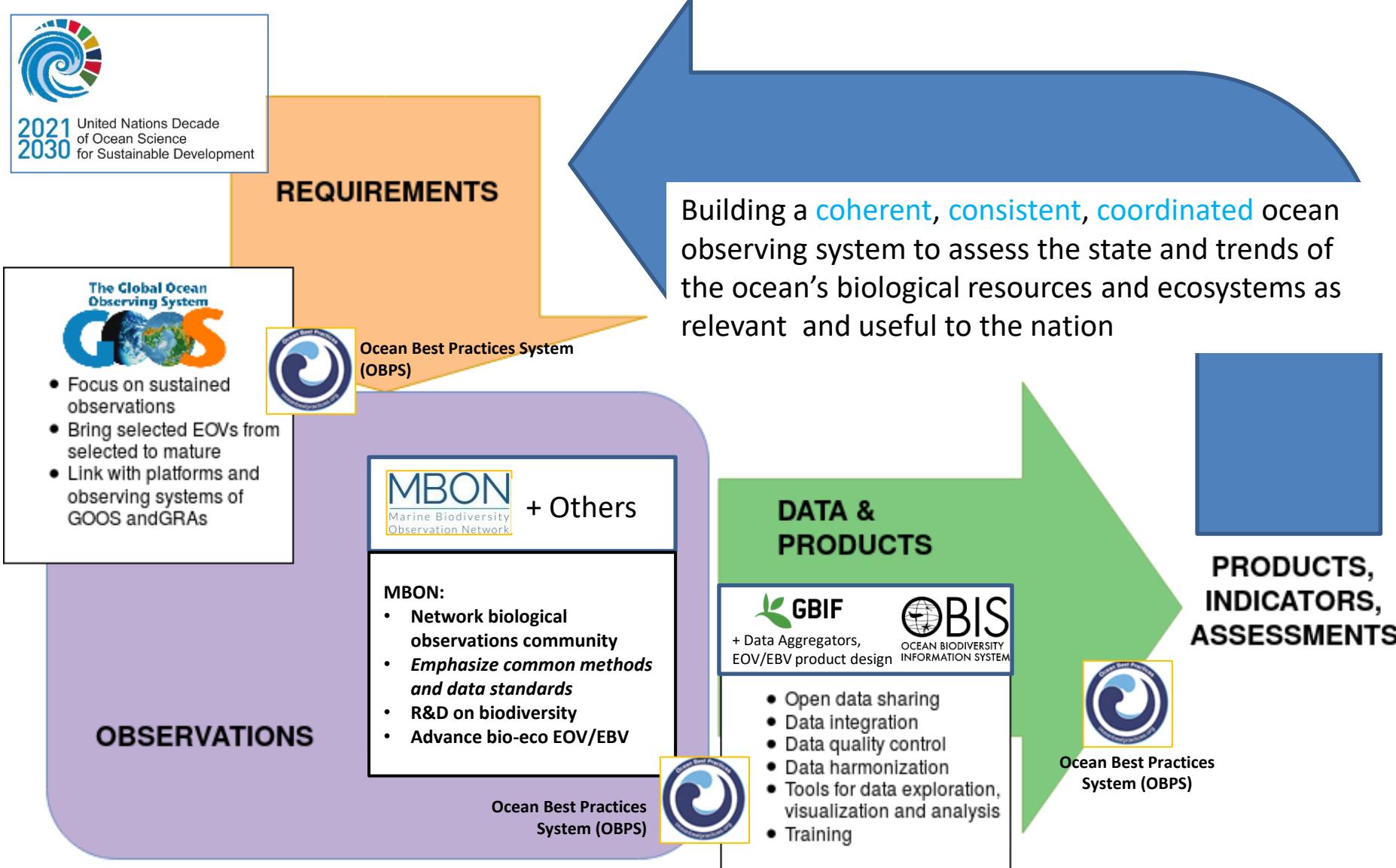
OBIS – The Ocean Biodiversity Information System

The reality: in situ surface ocean records of biodiversity in over 100 years



Biological Framework for Ocean Observing in the Ocean Decade

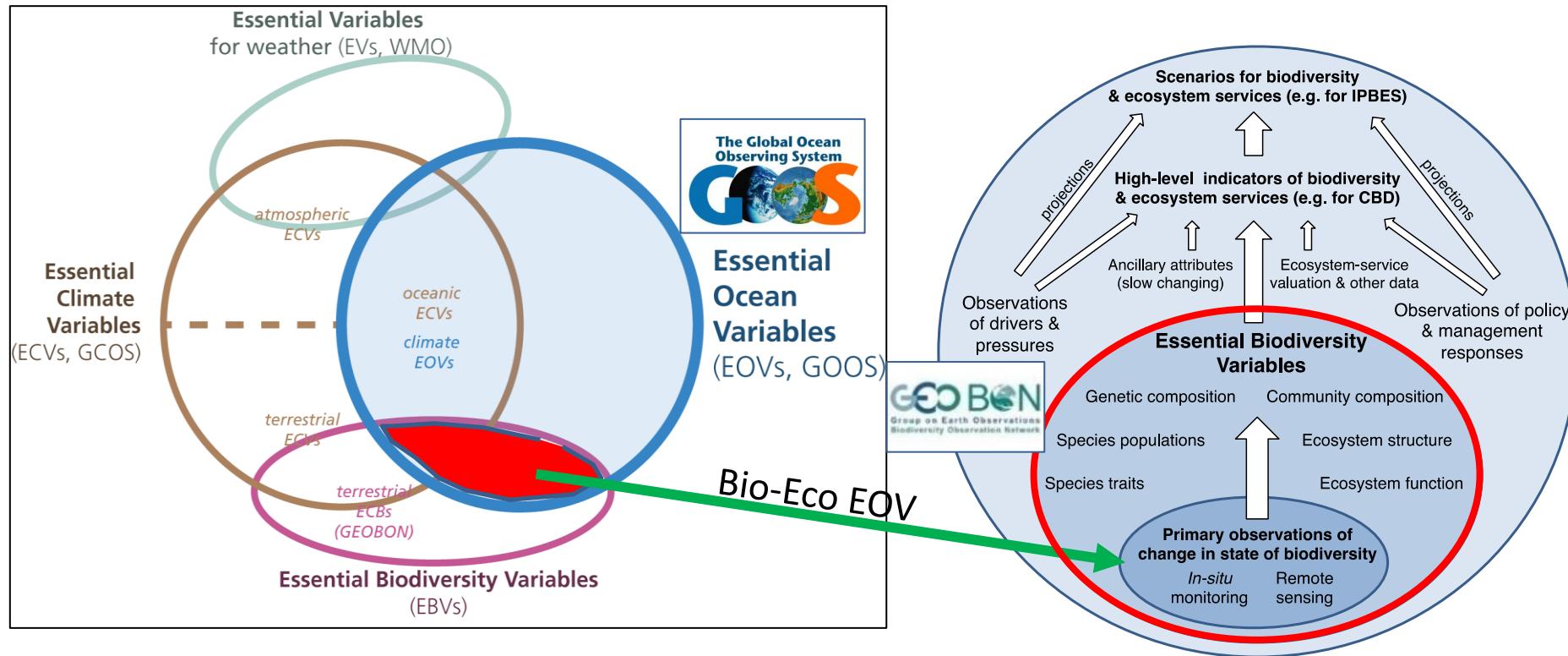
= Marine Life 2030



<http://iobis.org/2016/12/15/goosgeobonobis/>

https://marinebon.org/assets/Marine_Life_2030_UN_Ocean_Decade_request_for_endorsement_20210115.pdf

Essential Variables



Essential Ocean Variables (EOVs)

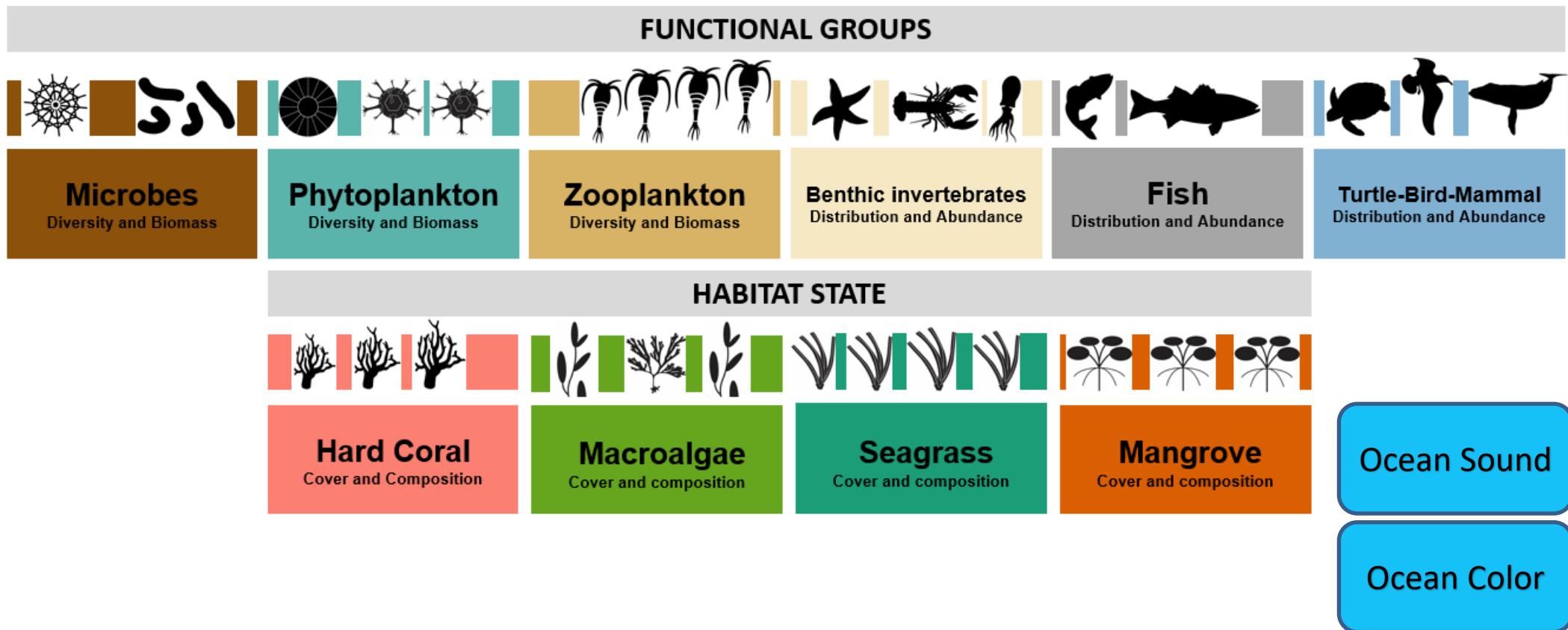
Framework for Ocean Observing (2012)
<http://www.oceanobs09.net/foo/>

Essential Biodiversity Variables (EBVs)

GEO BON EBVs
Pereira et al. (2013)



Biology and Ecosystem Essential Ocean Variables (EOVs)



Evolving technology matrix

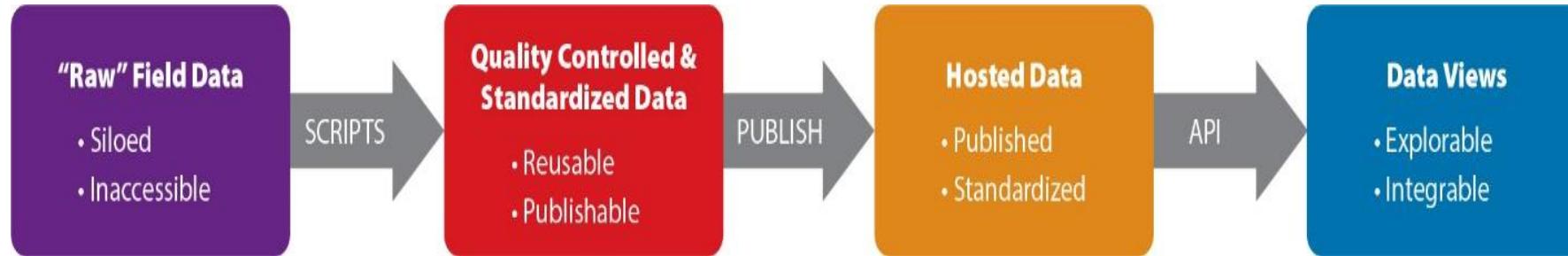
| | Microbes/ Phyto. | Zooplankton | Fish | Top Predators | Benthos, habitat forming |
|---|--|----------------|----------------------|-------------------------|-------------------------------|
| Optics/Imaging | X | X | X Benthic | | X |
| Animal tracking (satellite, underwater) | | | X | X | |
| Acoustics | | X active | X Active, passive | X Tags, passive | X Active, passive (noise) |
| Genomics | X | X | X | X | X |
| Platforms with samplers | AUVs, floats, moorings, satellites | AUVs, moorings | AUVs, moorings | AUVs, moorings, tags | AUVs, moorings, satellites |
| Models and forecasting | X | X | X | X | X |
| Data and visualization | X | X | X | X | X |



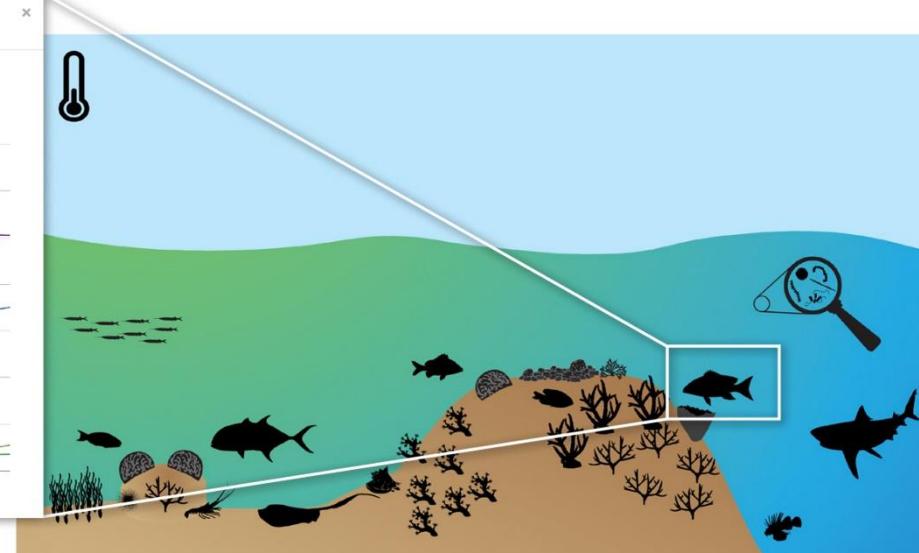
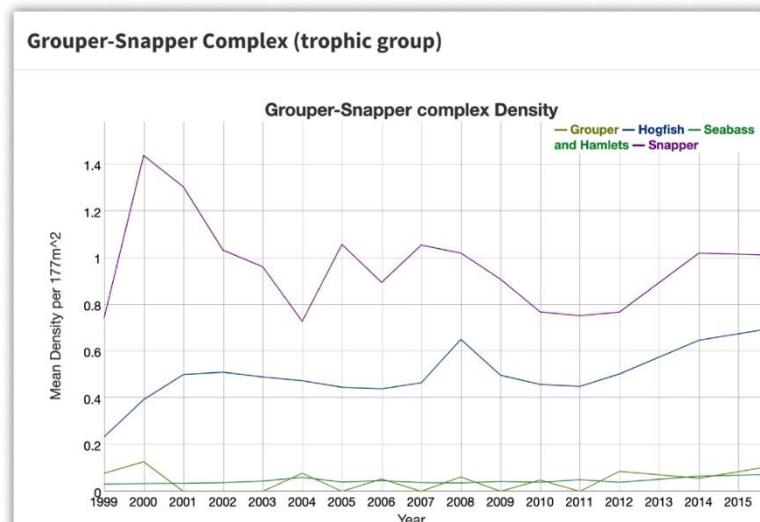
Working groups established among US MBON projects



Strategy for data management

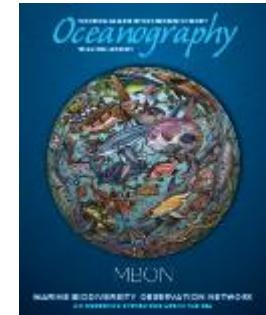


MBON Data Flow



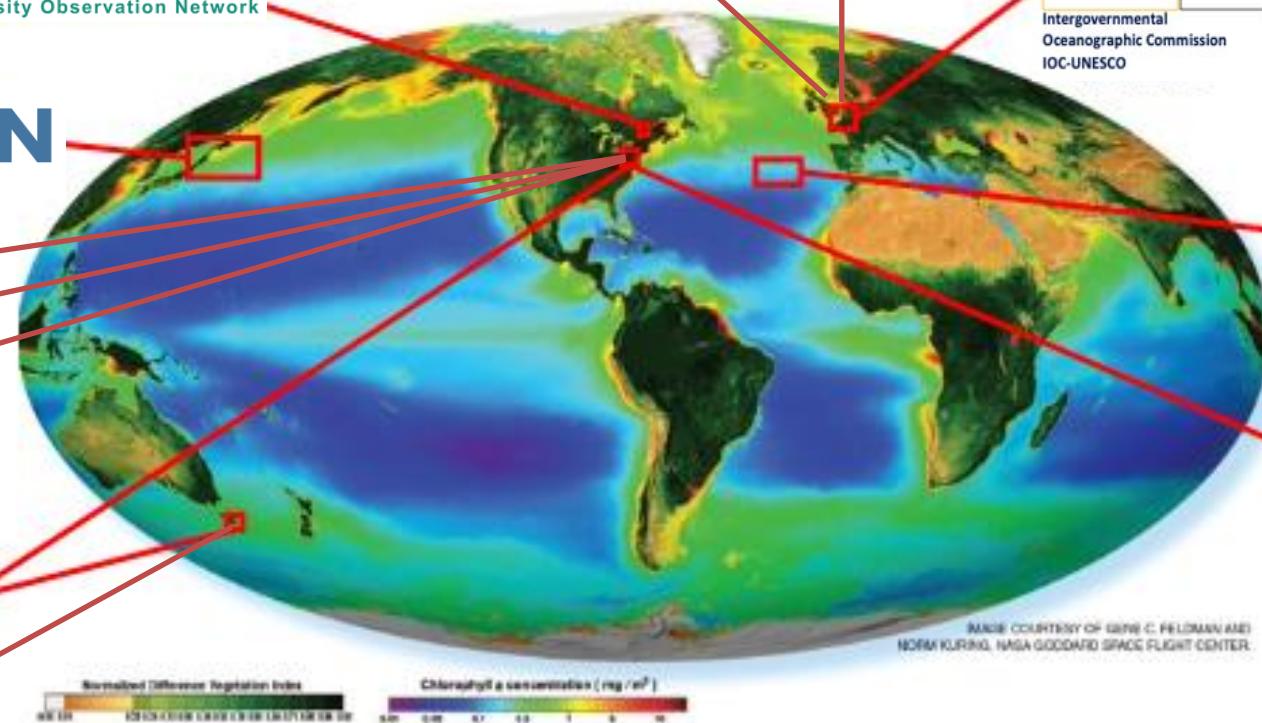
MBON infographic

Benson et al., 2021.
<https://doi.org/10.5670/oceanog.2021.220>





<http://marinebon.org>



2021-2030
United Nations Decade
of Ocean Science
for Sustainable Development

Satellite-derived
Chlorophyll distribution





Inspire marine biodiversity



MBON
Marine Biodiversity
Observation Network

GEOBON
Group on Earth Observations
Biodiversity Observation Network

Thank you



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Massa Nakaoka



MBON registration → <https://members.geobon.org/pages/index>



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