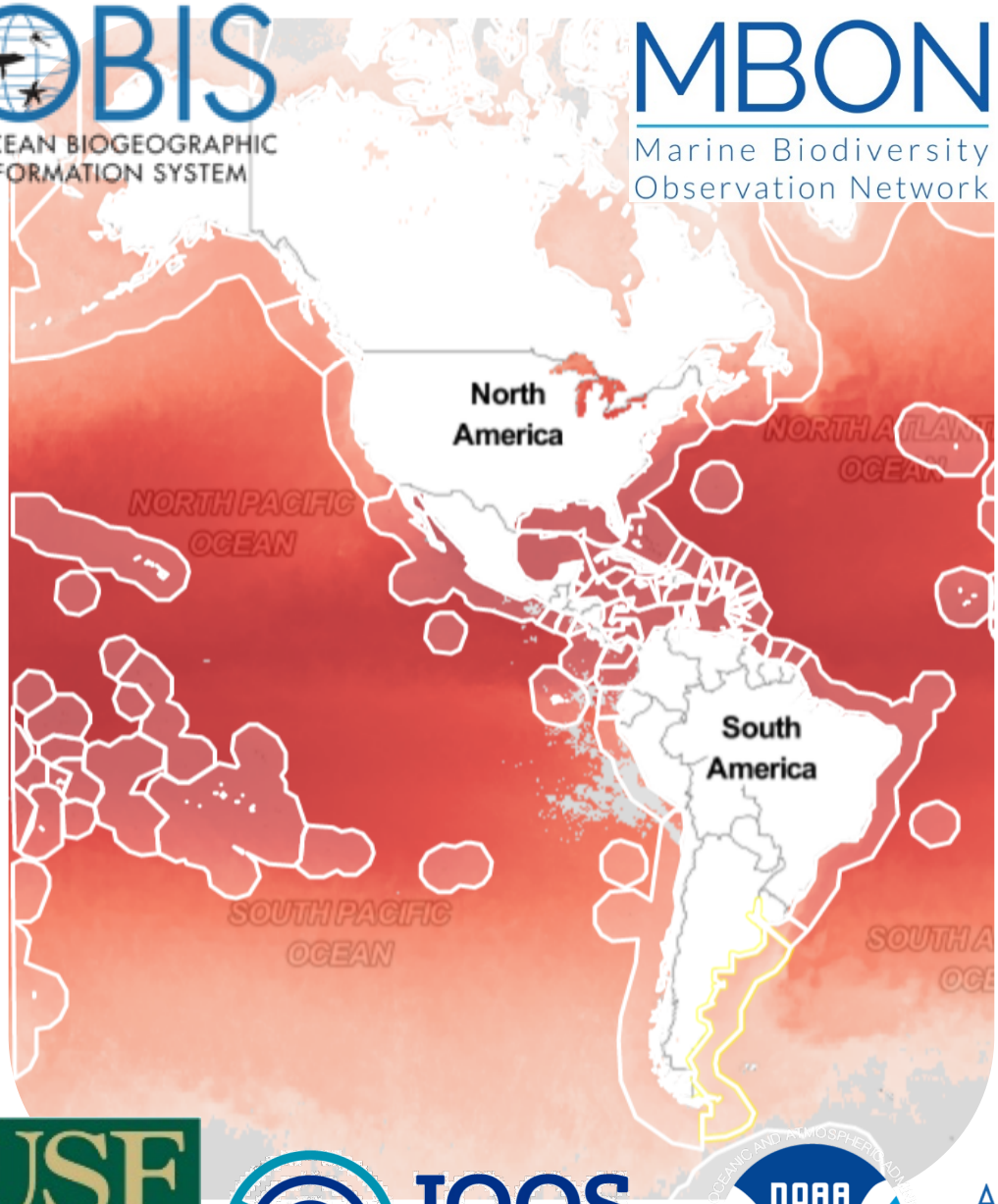
MBON All-Hands Meeting
Silver Spring, MD
April 27, 2018



Pole to Pole Marine Biodiversity Observation Network of the Americas

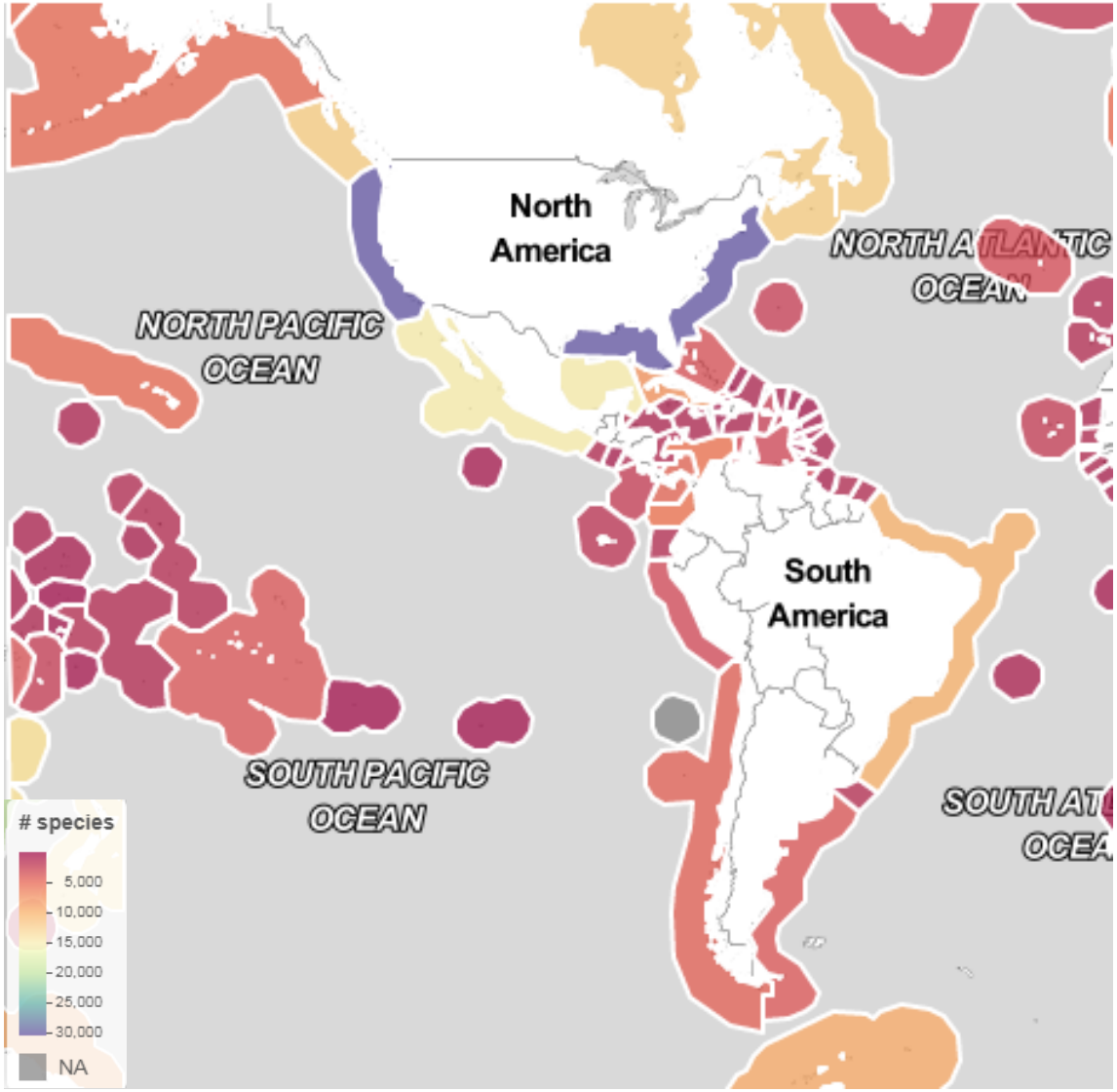
Enrique Montes, Patricia Miloslavich, Eduardo Klein, Antonio Marques, Benjamin Best, Maria Kavanaugh, Emmett Duffy, Gabrielle Canonico, Daniel Otis, Cara Estes, Gregorio Bigatti, Elva Escobar-Briones, Sennai Habtes, Iliana Chollett, Paul Seymour, Frank Muller-Karger

Kick-off: 26-30 September 2016, Puerto Morelos, Mexico

Founding the Pole to Pole MBON

AmeriGEOSS
CONABIO
Smithsonian TMON - MarineGEO
Universidade de São Paulo
Universidad Nacional Autónoma de México
fundación Charles Darwin foundation
Canada Department of Fisheries & Oceans
CONICET
invemar
MBON Marine Biodiversity Observation Network
IOOS Integrated Ocean Observing System
The Global Ocean Observing System GOOS

Geographic scope of the Pole to Pole MBON of the Americas

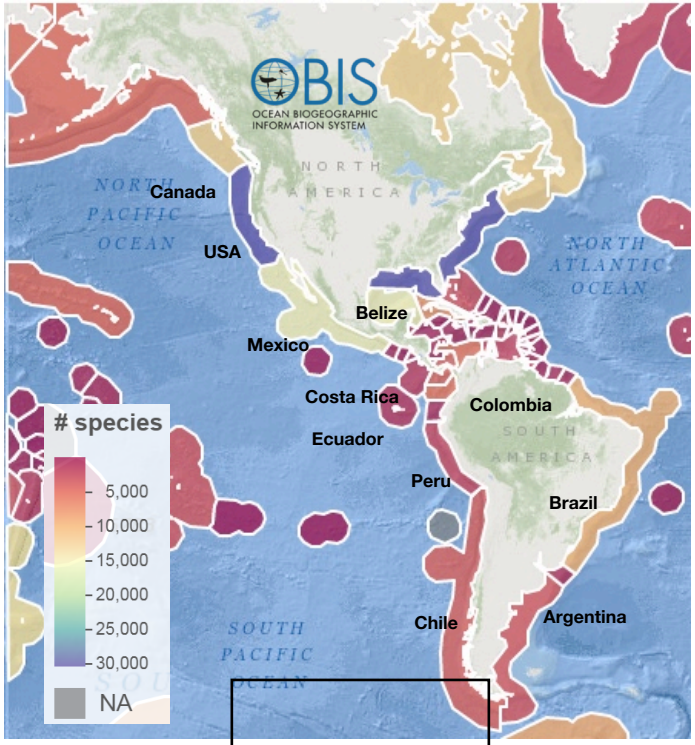


Americas Caucus Member countries:

… and all others that may want to join.

Goals of the Pole to Pole MBON of the Americas

Vision



Supports

The Global Ocean Observing System

GOOS

14 LIFE BELOW WATER

BON IN A BOX

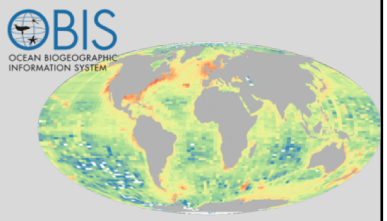
GEO BON

Objectives

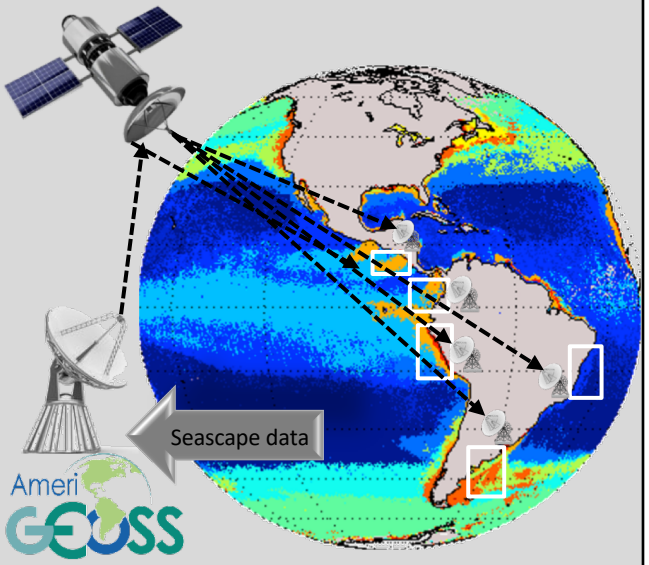
Capacity building

Enhanced access and use of NASA satellite products

Data schema
(e.g. Darwin Core; DwC)

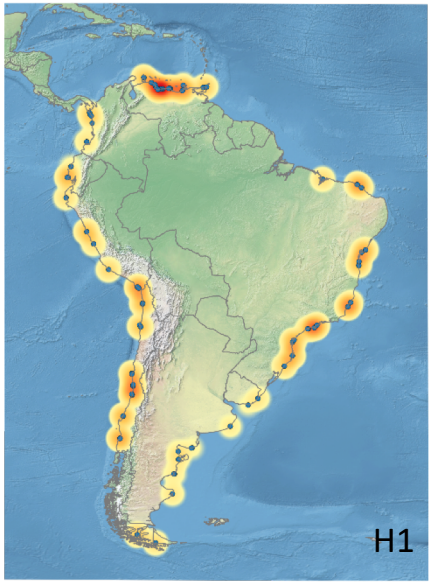


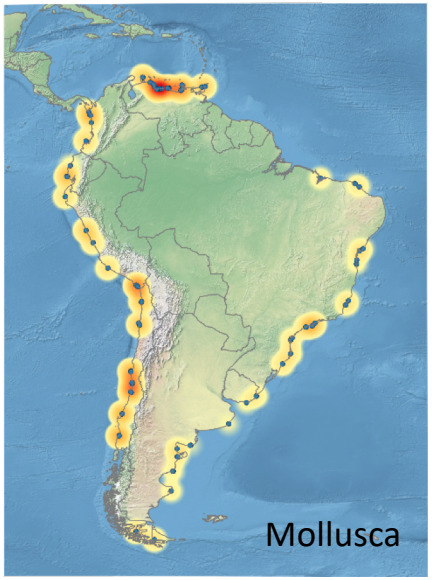
Access and use of OBIS records and tools

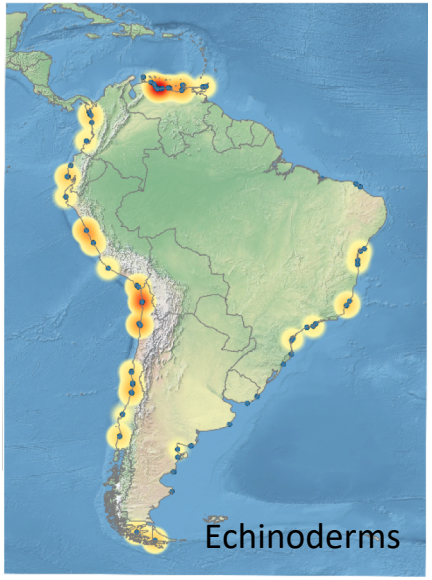


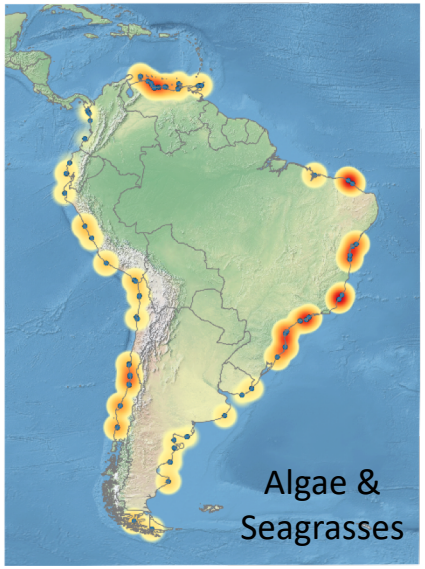
Seascapes
(Kavanaugh et al.).

South American Research Group on Coastal Ecosystems – SARCE (2010 – 2013)









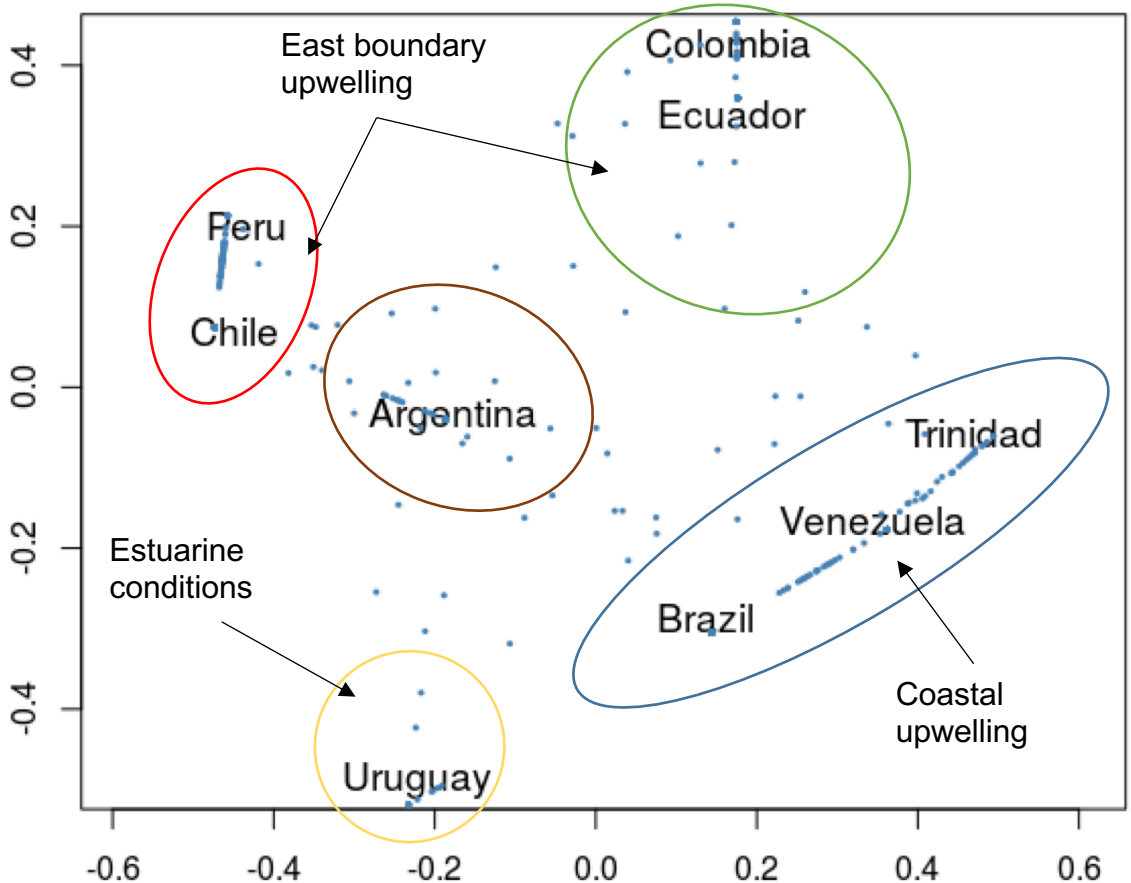
- Latitudinal gradients and patterns of biodiversity
- Relationship between biodiversity and ecosystem functioning
- Effects of natural and human pressures on biodiversity
- Capacity building
- Standardized field methodologies
- 30+ researchers from 9 coastal countries

Supported by TOTAL CORPORATE FOUNDATION

1. SARCE Group September 2012 // 2. Tubastrea coccinea // 3. Brazil Site // 4. San Juan Cayos - Venezuela
5. Ushuaia - Argentina // 6. El Espigón - Argentina // 7. Stenorhynchus debilis

South American Research Group on Coastal Ecosystems – SARCE (2010 – 2013)

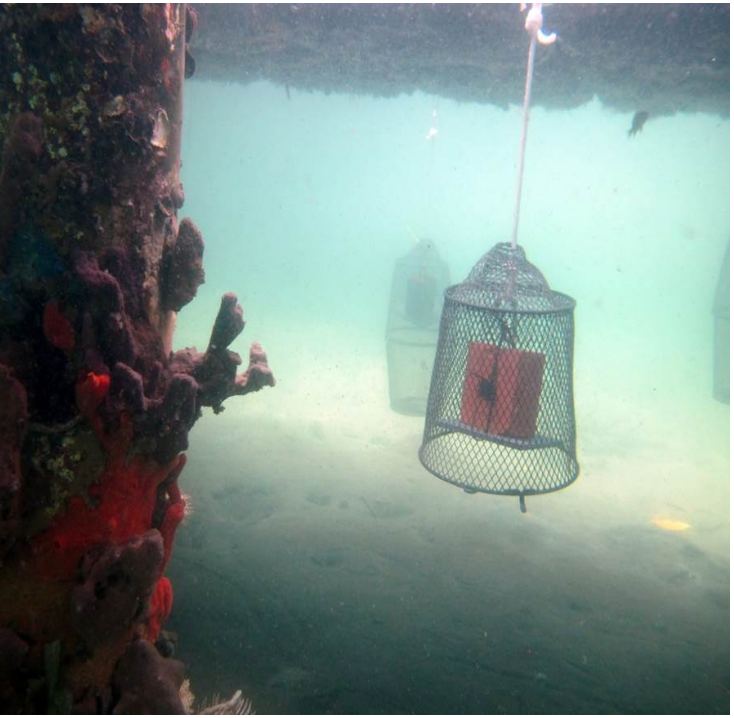
Multidimensional scaling of the countries based on species occurrences similarities (Bray-Curtis index, stress=0.136)

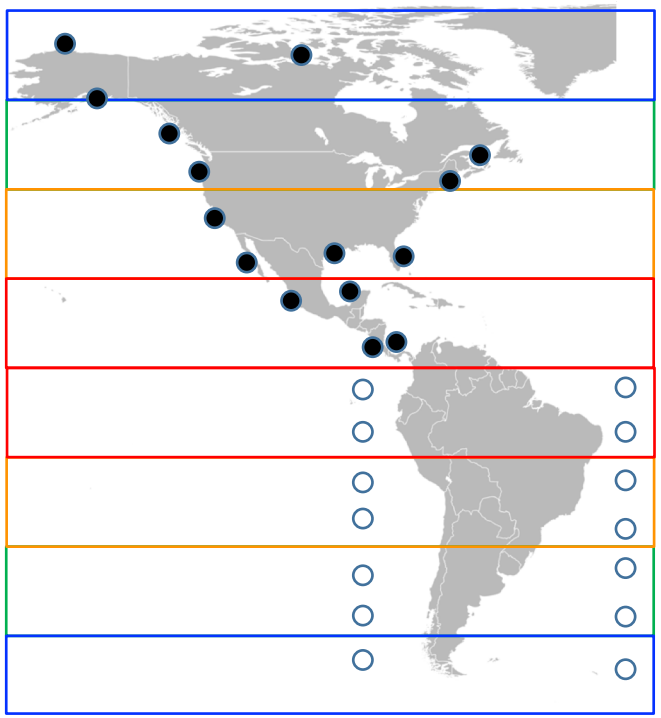


PanAmEx:
Pan-American ***Ex***periment

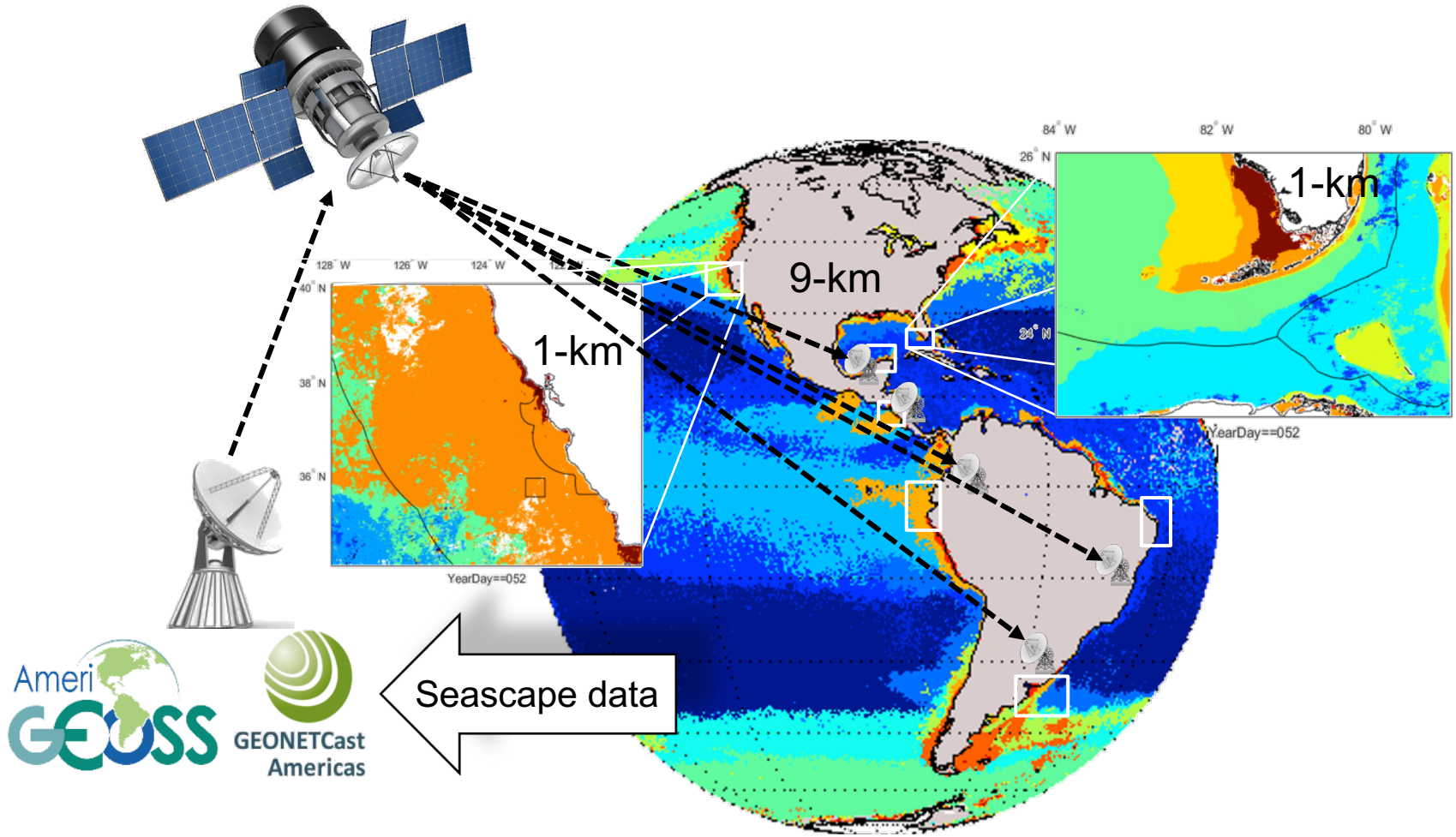
MarineGEO
THE TENNENBAUM
MARINE OBSERVATORIES NETWORK
Smithsonian Institution

Predation (fishing) impact on communities across latitudes and oceans



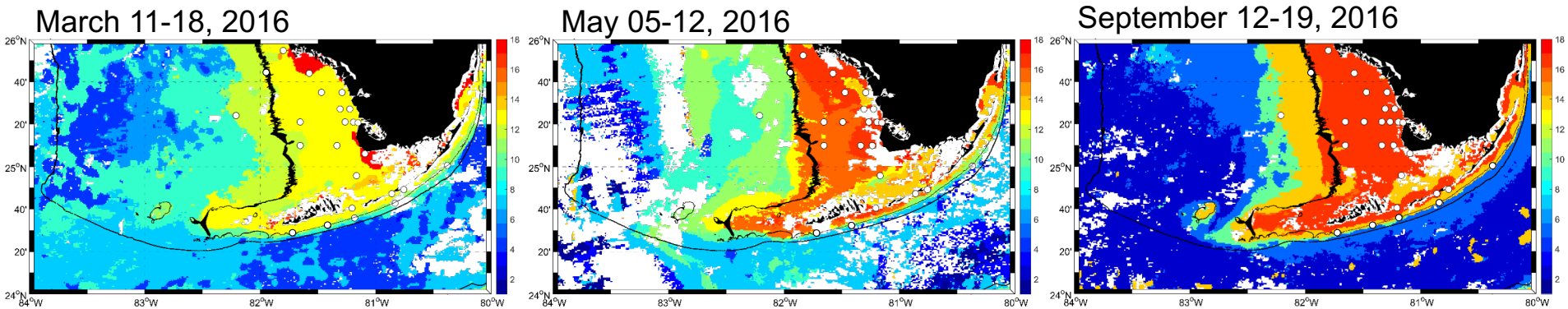


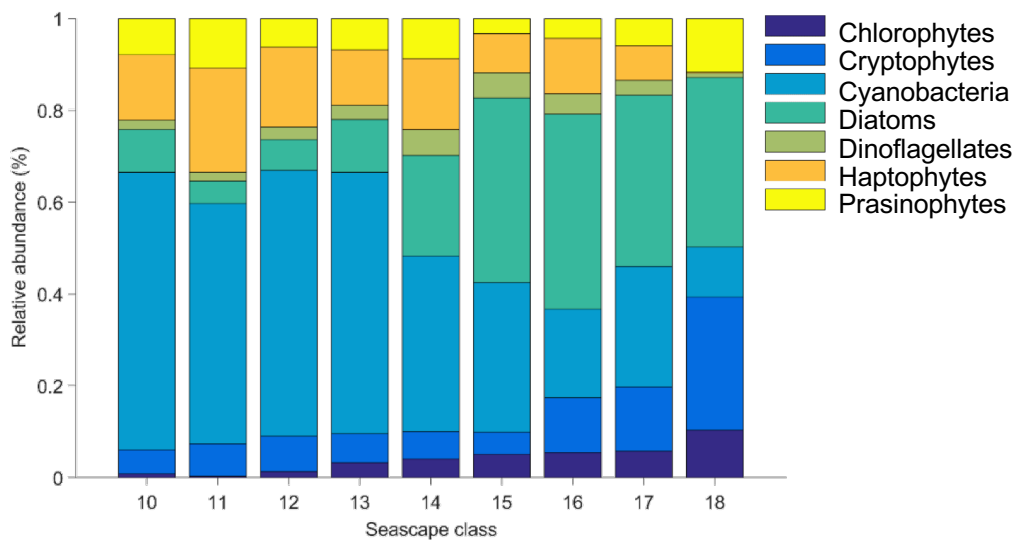
Delivery of satellite products: Biogeographic seascapes for biodiversity assessments



(http://www.geonetcastamericas.noaa.gov/)

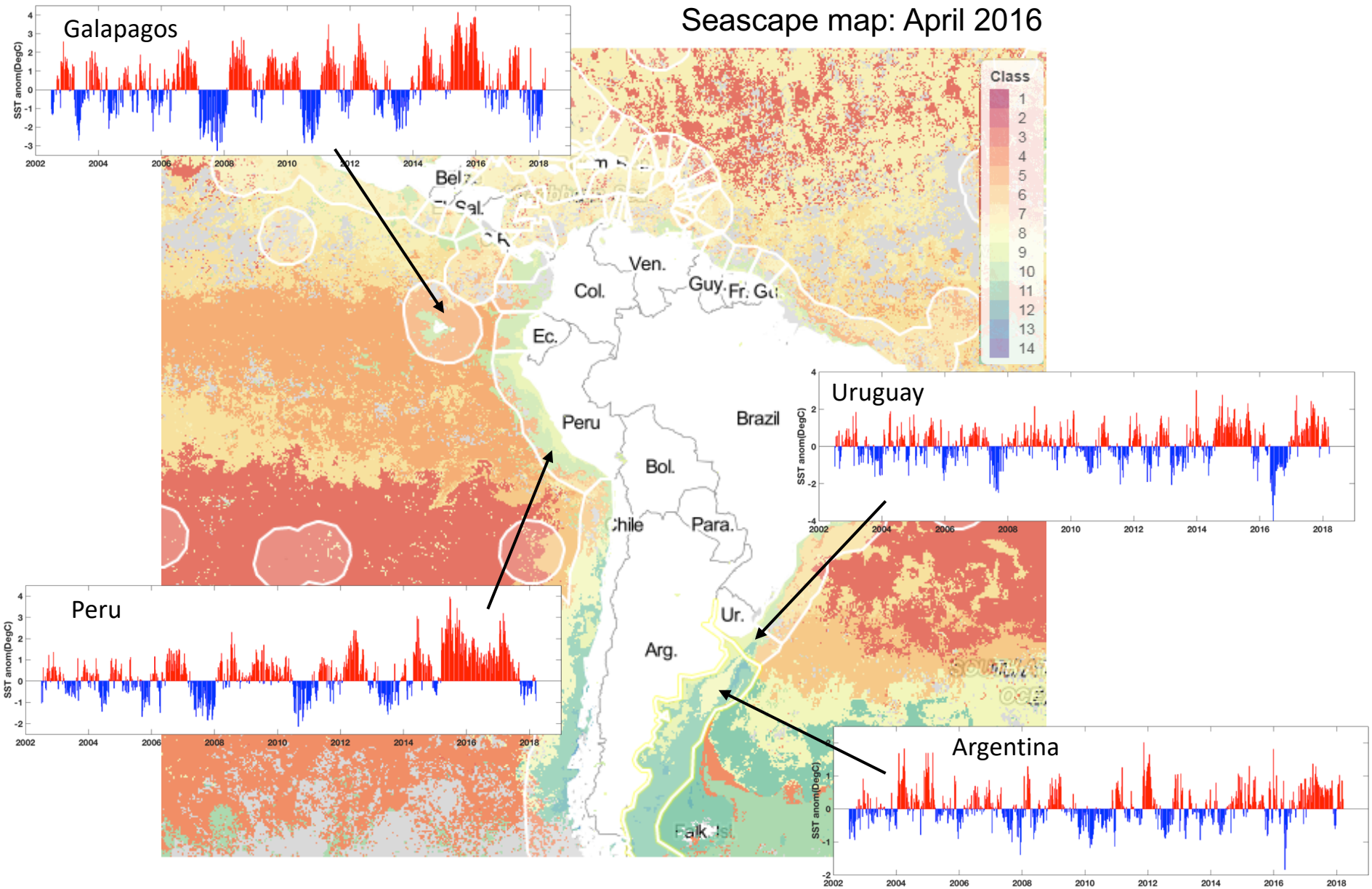
Seascape as predictors of phytoplankton communities





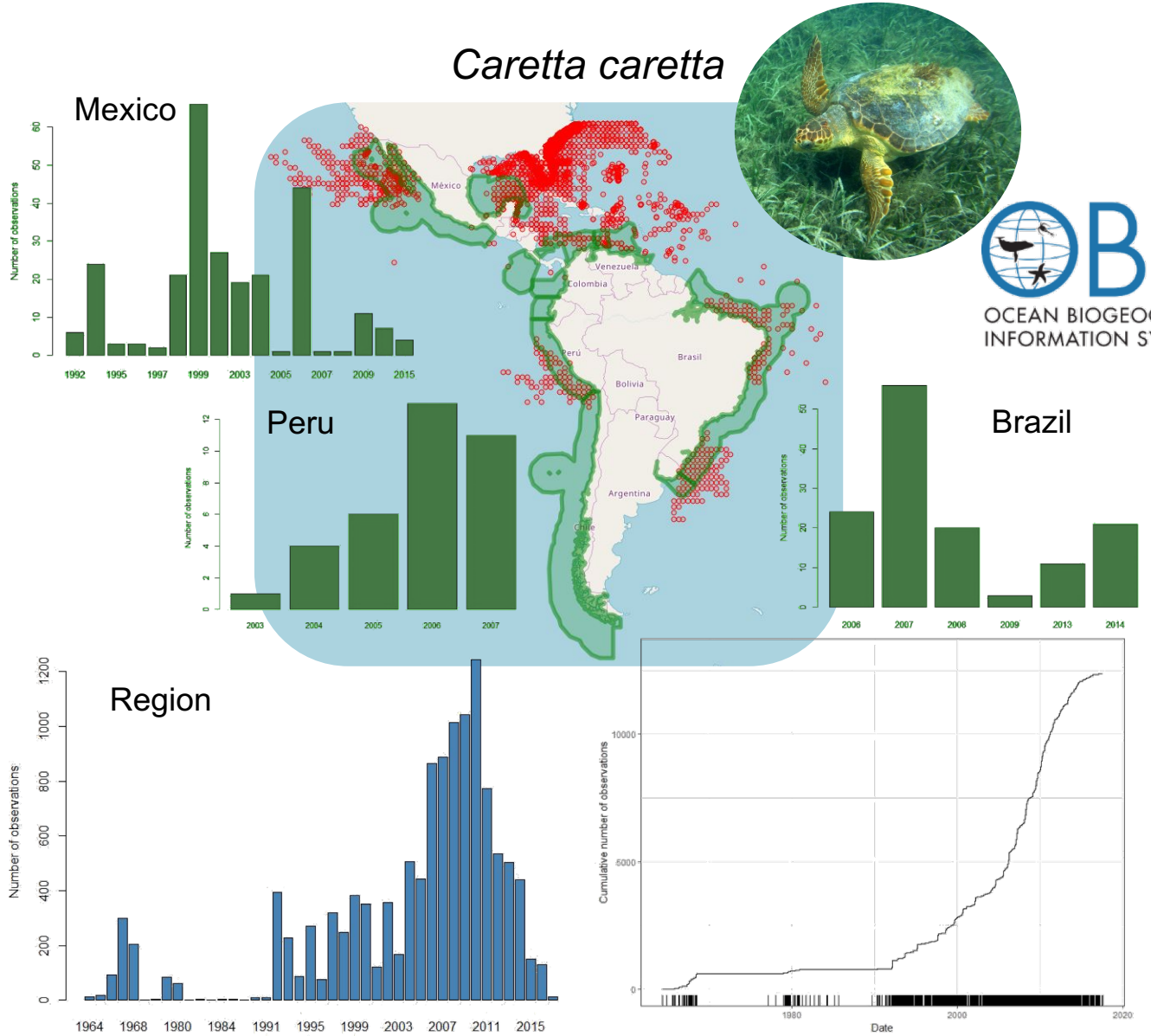
In prep: Dynamic satellite seascapes as predictors of seasonal shifts of phytoplankton assemblages in south Florida waters.
Enrique Montes, Anni Djurhuus, Christopher R. Kelble, Daniel Otis, Frank E. Muller-Karger, and Maria T. Kavanaugh

Regional satellite products: e.g. SST anomalies



Capacity Building and Training Workshops

- Data sharing via OBIS
- Open-source software for analysis and visualization of biological records



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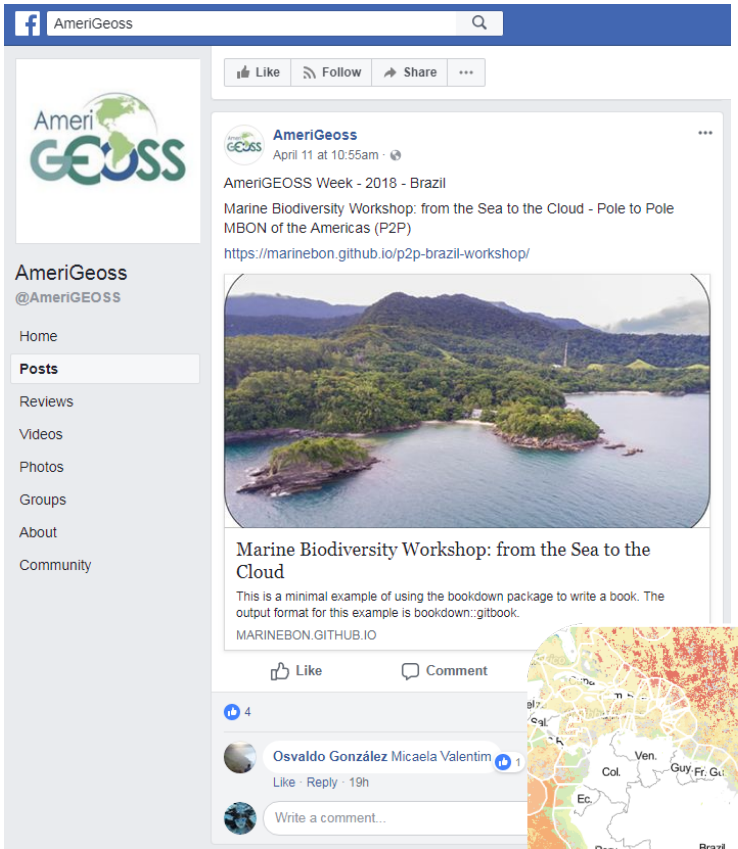
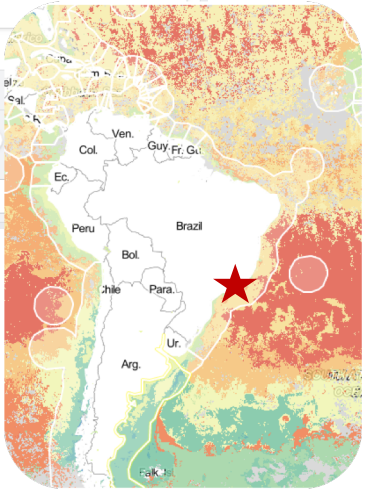
Capacity Building and Training Workshops: 2nd Pole-to-Pole MBON Workshop



- **Marine Biodiversity Workshop: from the Sea to the Cloud**
- AmeriGEOSS Week, August 6-10, 2018, São Sebastião, Brazil
- Biodiversity observations in rocky shores and sandy beaches



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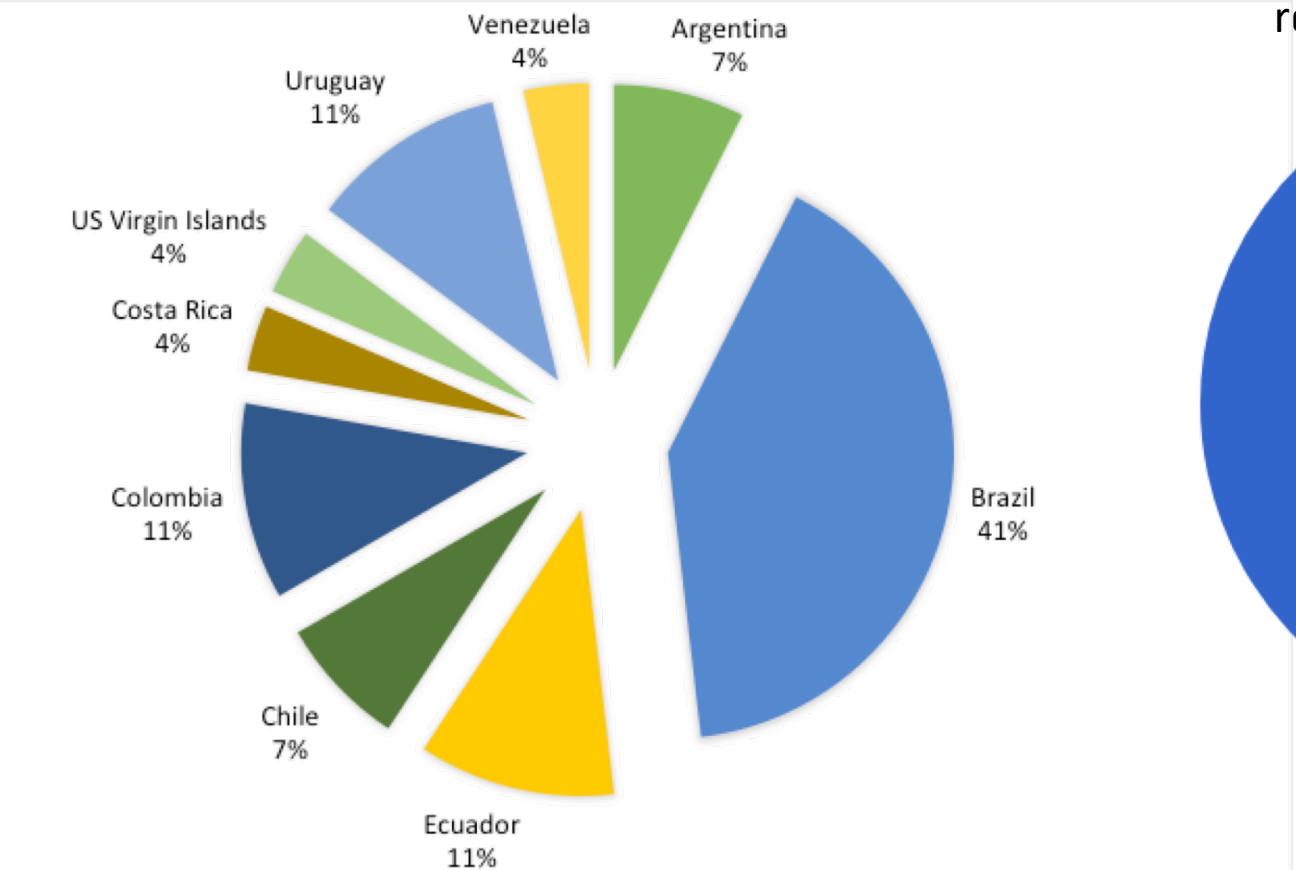
CENTRO DE BIOLOGIA MARINHA
UNIVERSIDADE DE SÃO PAULO
CEBIMar USP

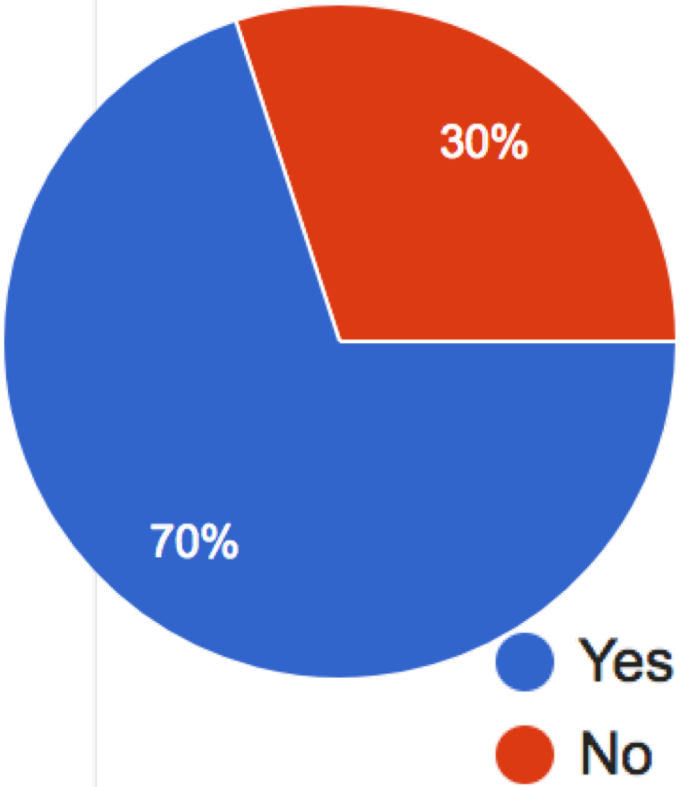
Marine Biodiversity Workshop: from the Sea to the Cloud

AmeriGEOSS Week, August 6-10, 2018, São Sebastião, Brazil

27 applicants (as of April 26)

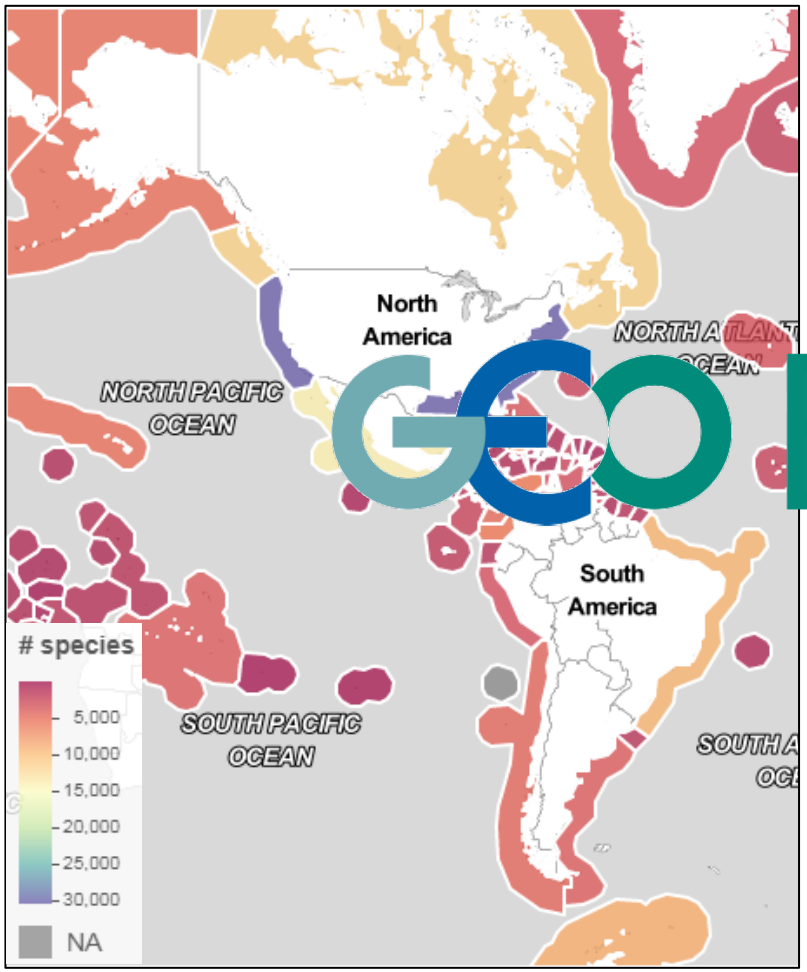


Participating in monitoring programs under a national, regional or global network?

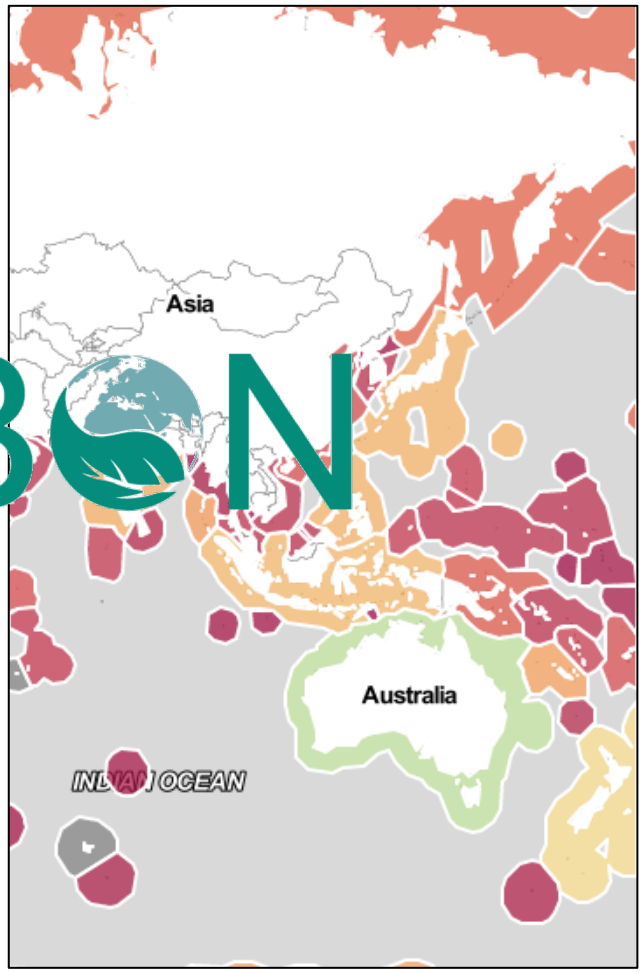


Pole-to-Pole Americas and Asia-Pacific

P2P Americas



P2P Asia-Pacific



Extra

50 million records (and growing) and tools fully available in OBIS

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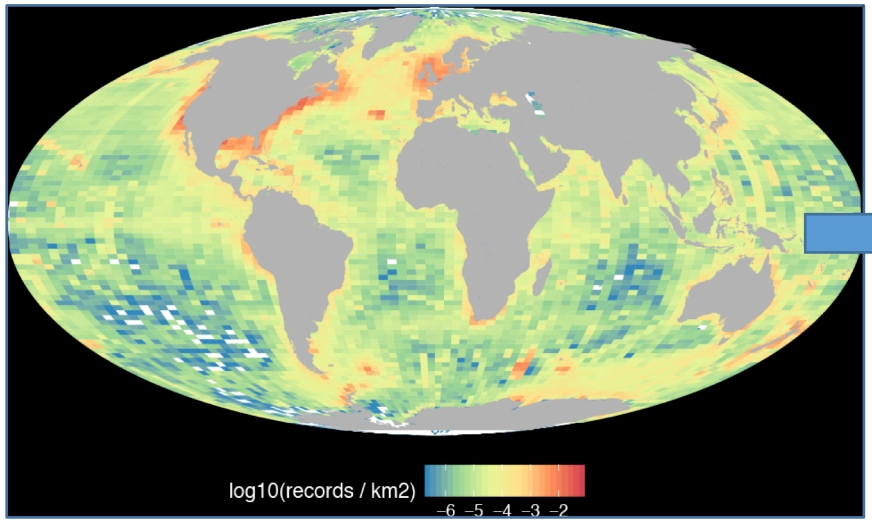
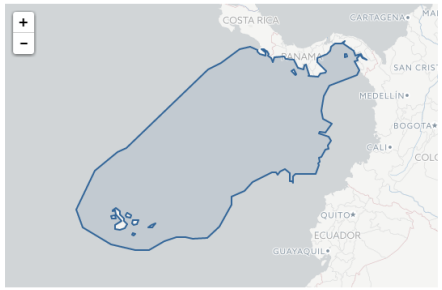
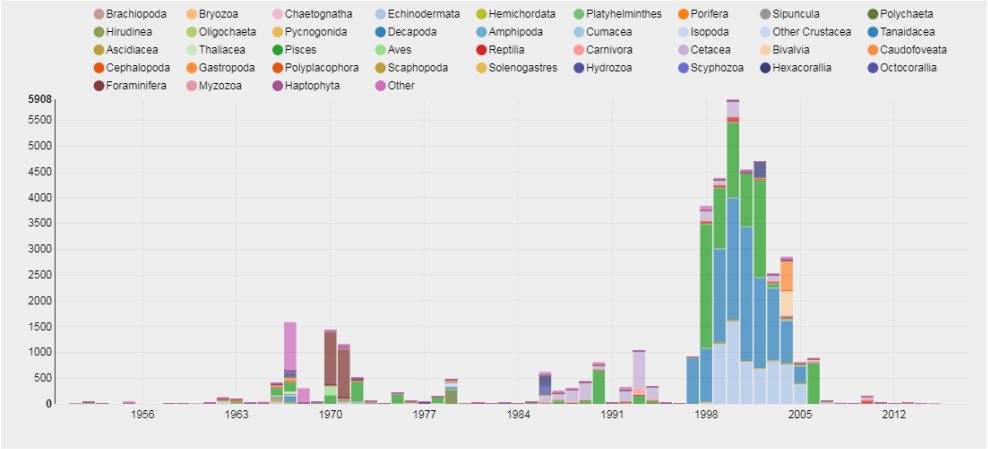


iobis.org

Corridor Marino

Overview

Records	64,118	Download as CSV
Datasets	91	
Contributing institutes	75	
Taxa	3,543	
Species	2,776	
Red List species	981	
Invasive species	3	
Harmful microalgae	1	
Only observed here	522	



Records per year and taxonomic group (1950 - present)