



fust
OCEAN

OCEAN SCIENCE
FOR A SUSTAINABLE DEVELOPMENT AGENDA

Flanders
State of the Art
20th Anniversary of
UNESCO-Flanders
Cooperation Agreement



OBIS

a Global Ocean Biodiversity Information System

hosted in Flanders

Mr Ward Appeltans
IOC-UNESCO



United Nations
Educational, Scientific and
Cultural Organization



Intergovernmental
Oceanographic
Commission



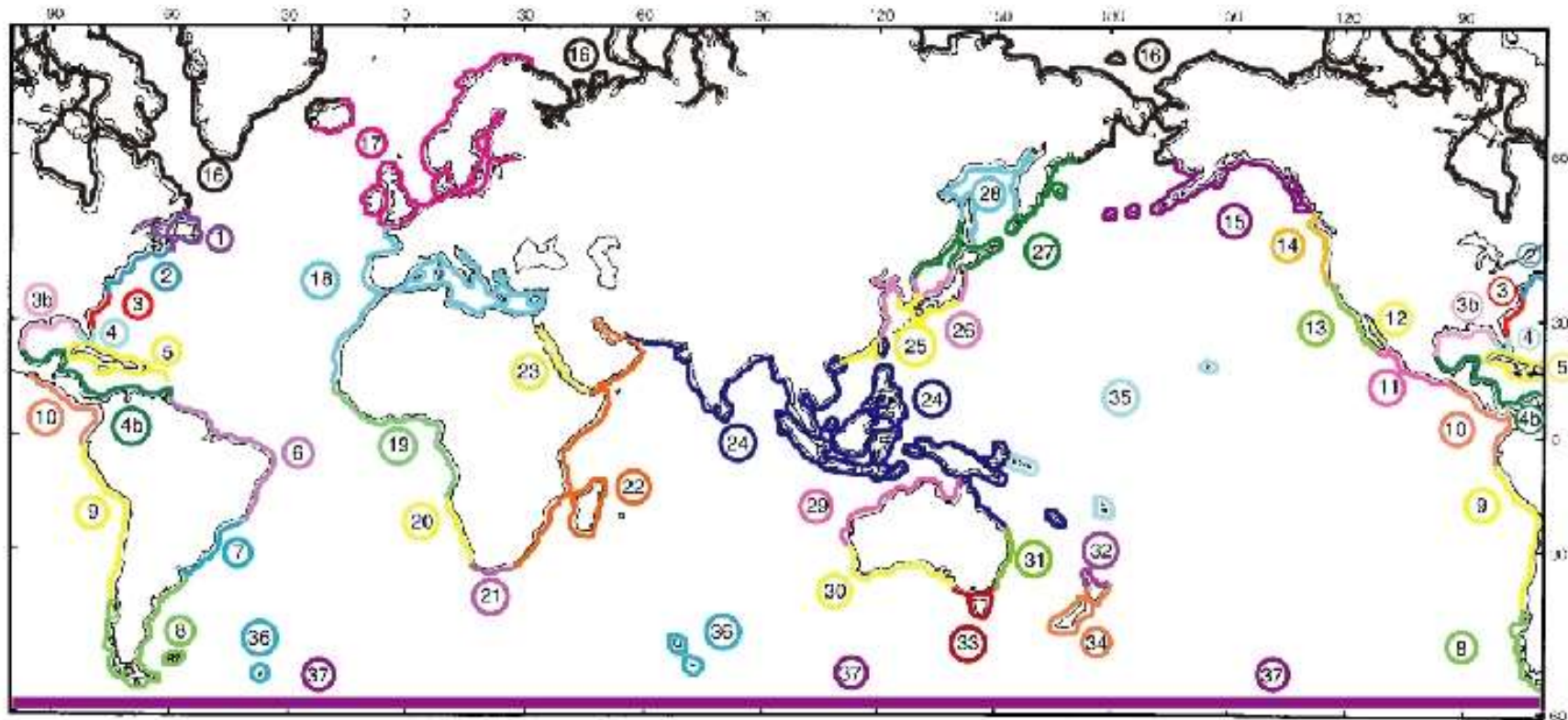
20 years ago

1998

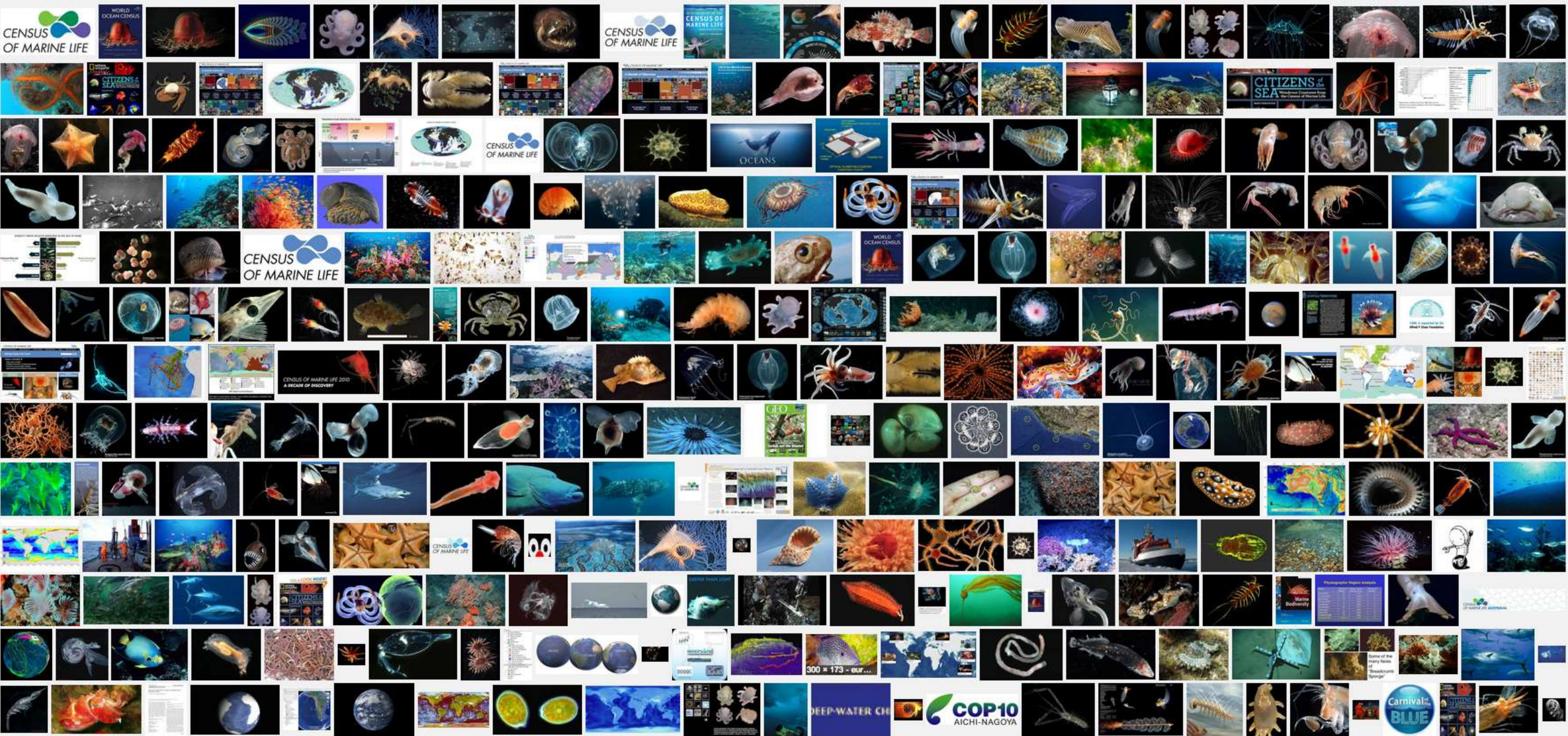
2009

2017

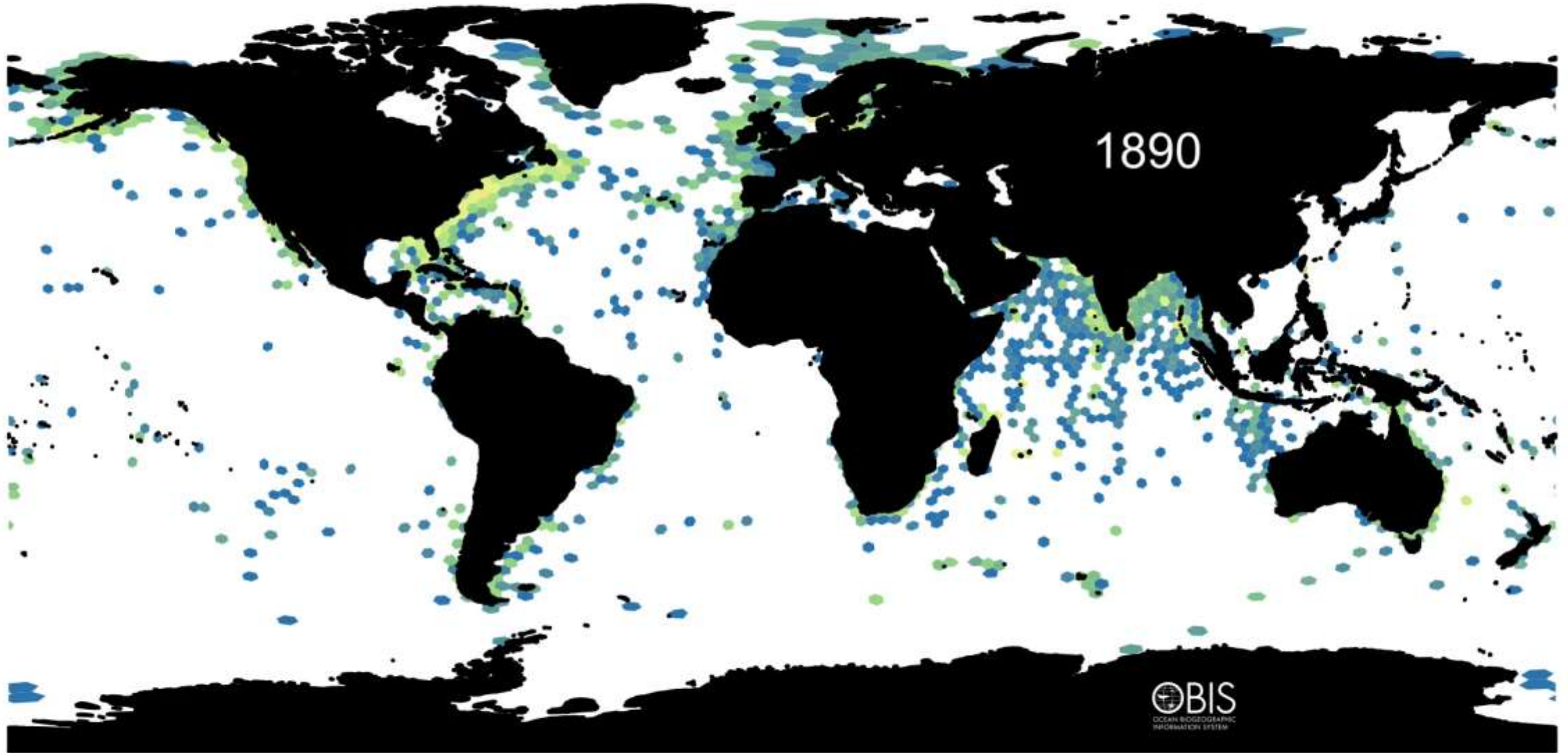
Coastal Marine Bioregions Map
Produced by Les Watling and Sarah Gerken
Modelled after Briggs (1995) and Springer (1982)



Census of Marine Life (2000-2010)



A journey of 50,000,000 records in time and space



1998

2009

2017

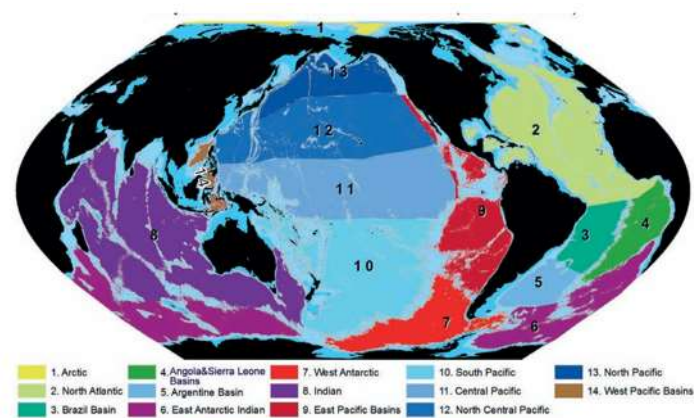


FIGURE 8: Abyssal provinces. Depth range 3500 to 6500 m.

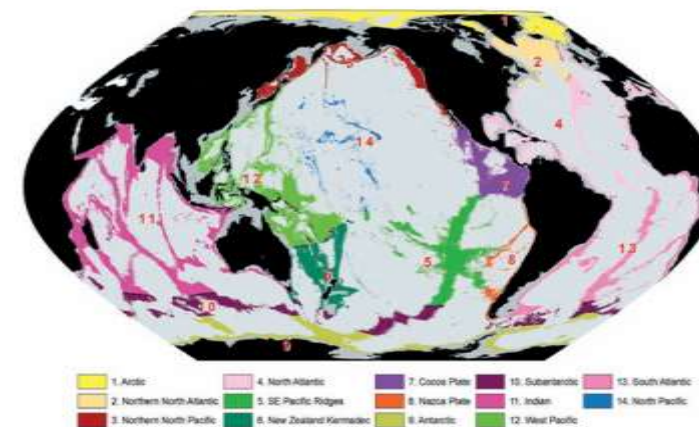


FIGURE 7: Lower bathyal provinces. Depth range 800 to 3000m.

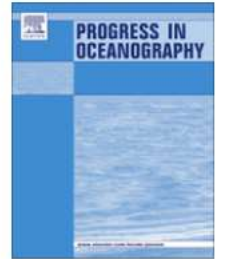
2013



Contents lists available at SciVerse ScienceDirect

Progress in Oceanography

journal homepage: www.elsevier.com/locate/pocean



A proposed biogeography of the deep ocean floor

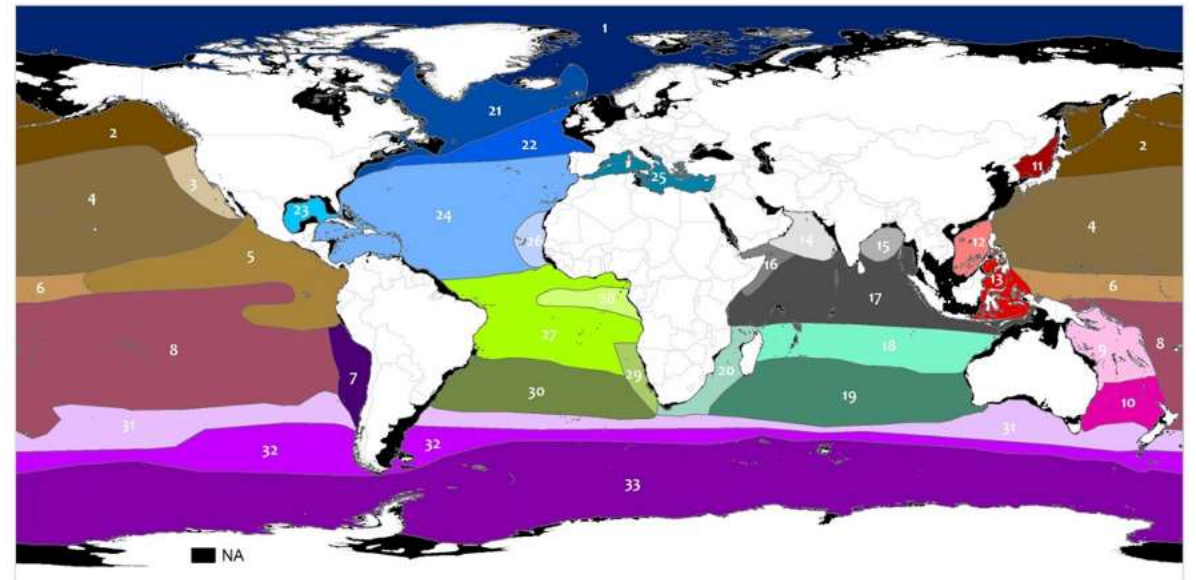
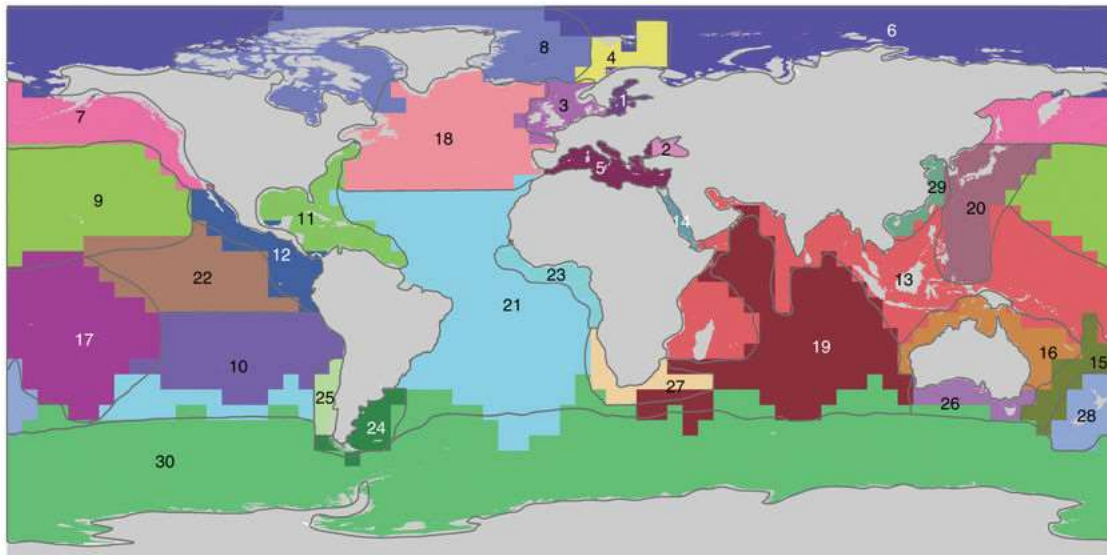
Les Watling^{a,*}, John Guinotte^b, Malcolm R. Clark^c, Craig R. Smith^d

With the advent of global biogeographic databases, such as the Ocean Biogeographic Information System (OBIS, www.obis.org), detailed global biogeographic analyses, based on species distributions, should eventually become possible as species descriptions and distributional data are published.

1998

2009

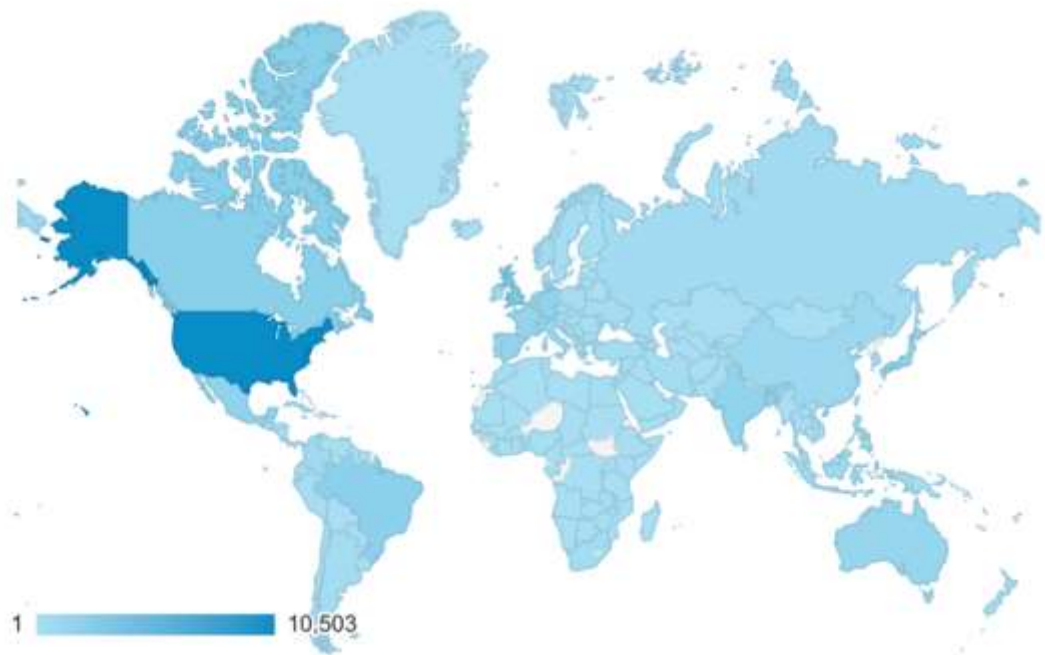
2017



Marine biogeographic realms and species endemismA global biogeographic classification of the mesopelagic zone

**Open-access to research data
supports equitable access and benefit sharing and
enhances international collaboration**

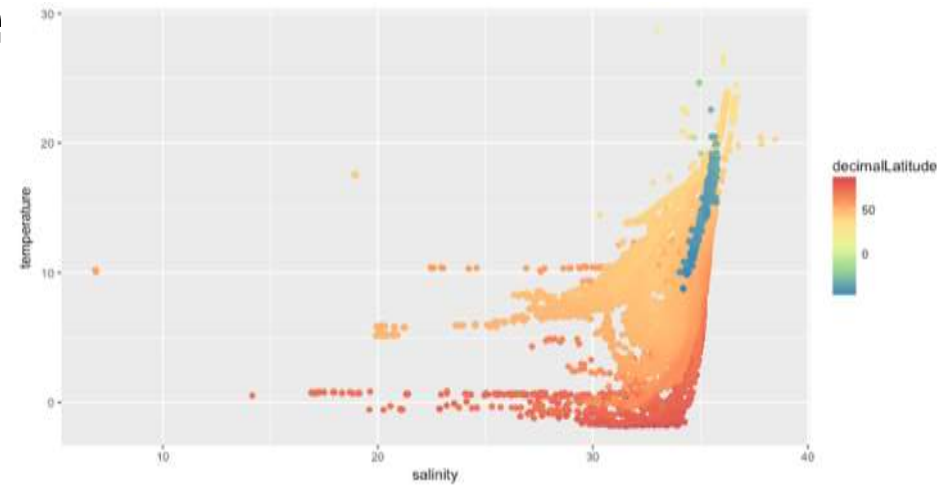
Reaching out to the world



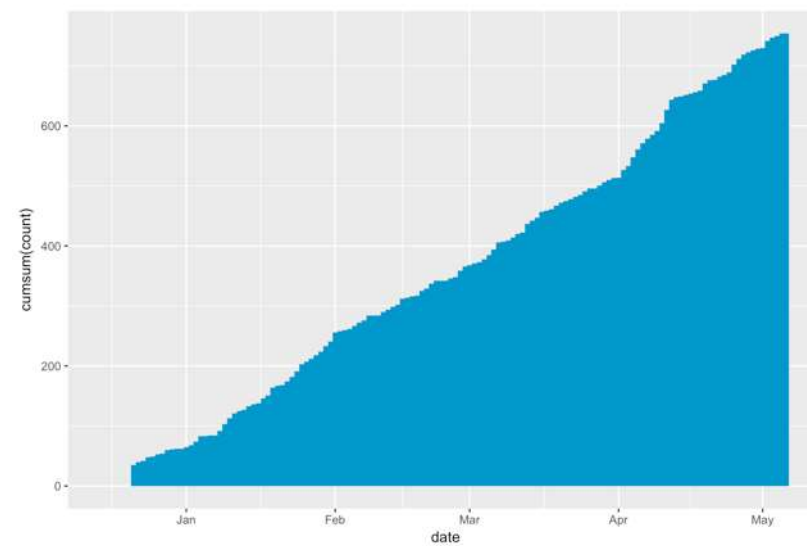
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	44,847 % of Total: 100.00% (44,847)
1. United States	10,503
2. United Kingdom	2,957
3. Canada	1,986
4. Brazil	1,767
5. Germany	1,621
6. India	1,551
7. Japan	1,538
8. Spain	1,536
9. Mexico	1,520
10. France	1,358
11. Australia	1,166
12. Italy	952
13. Belgium	950
14. China	847
15. Philippines	724



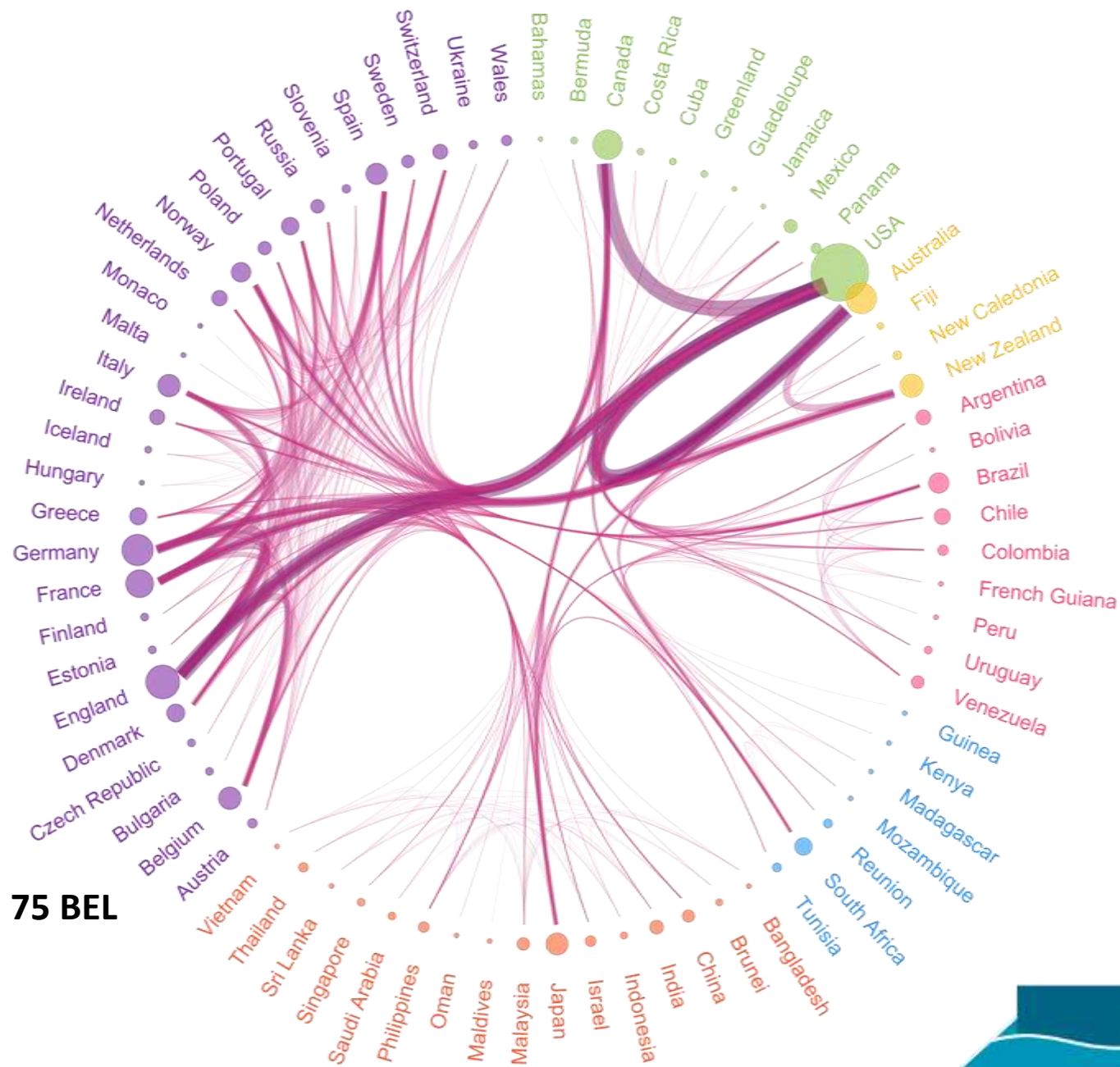
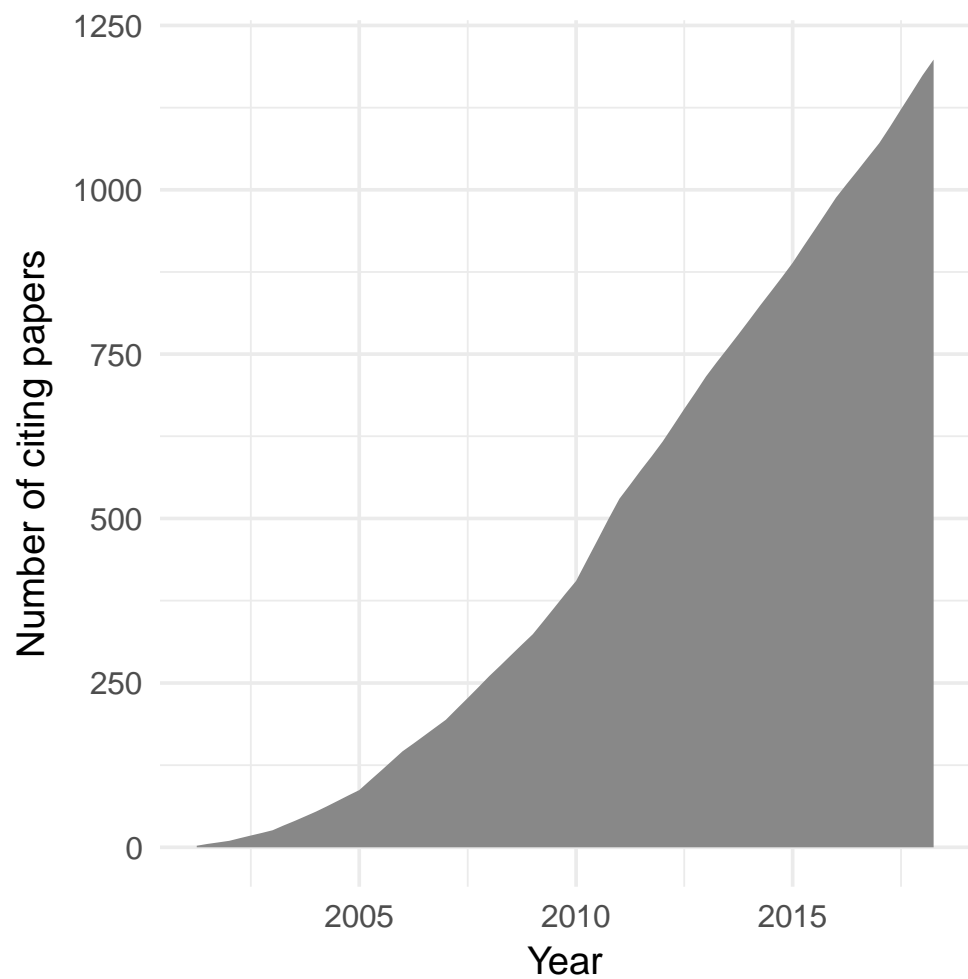
**xylookup
service**

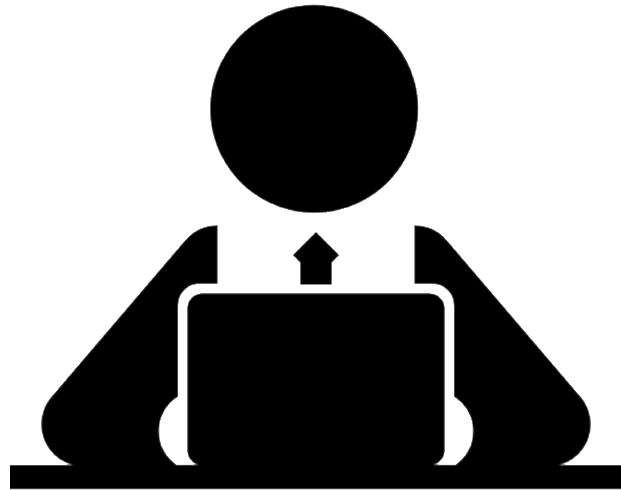
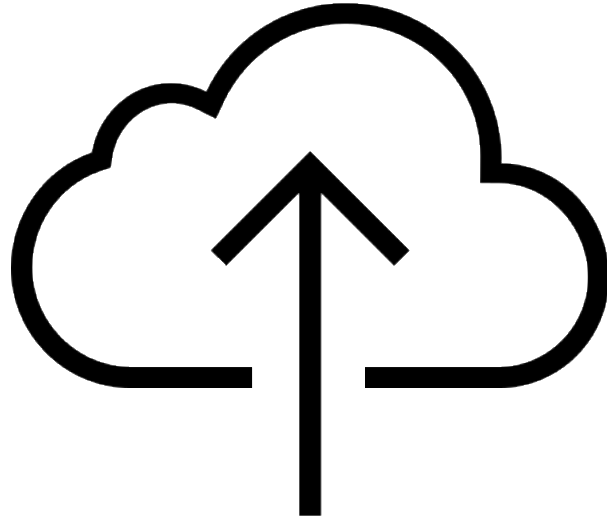



ROBIS



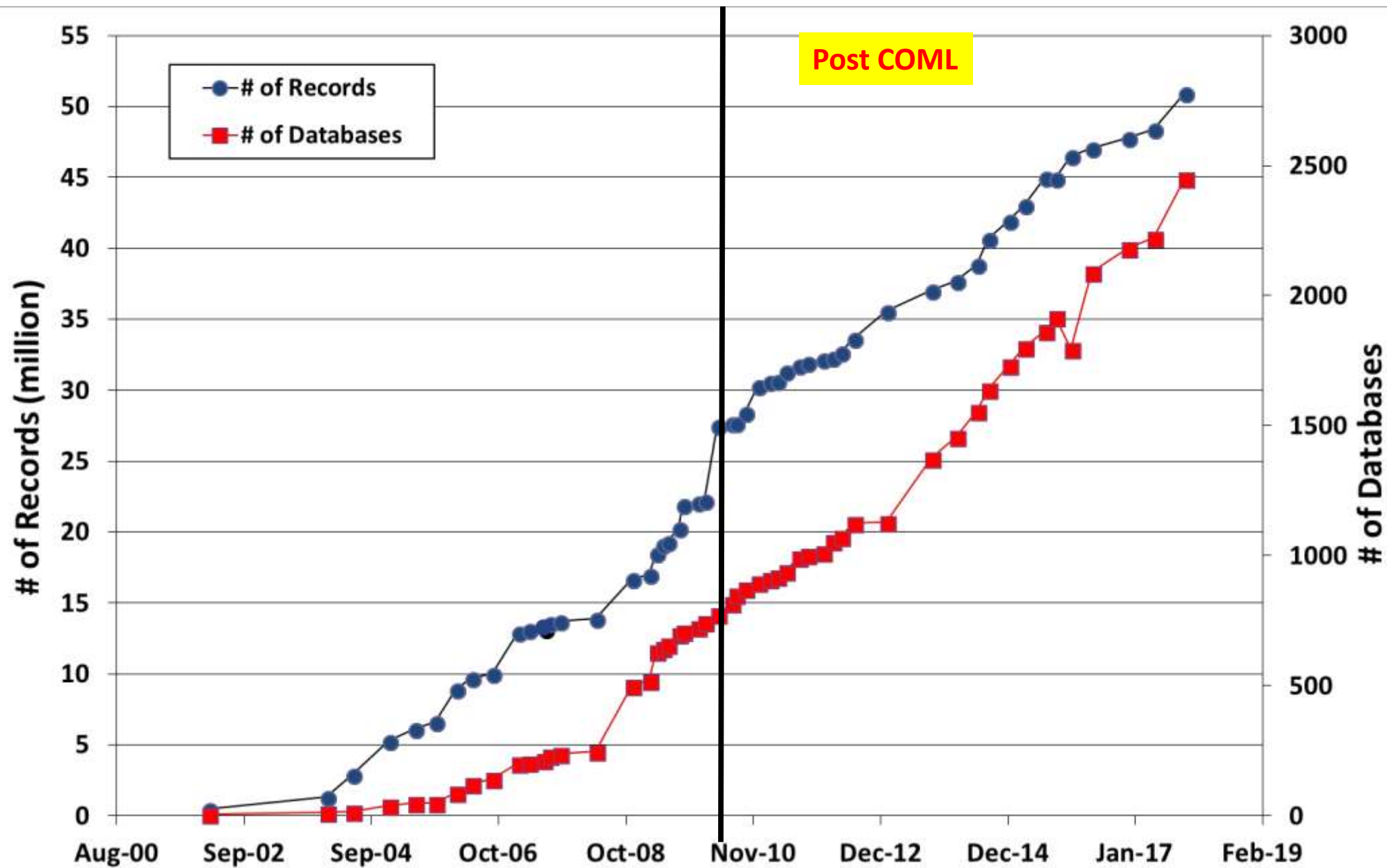
- 1200 papers
- 2700 authors
- 72 countries



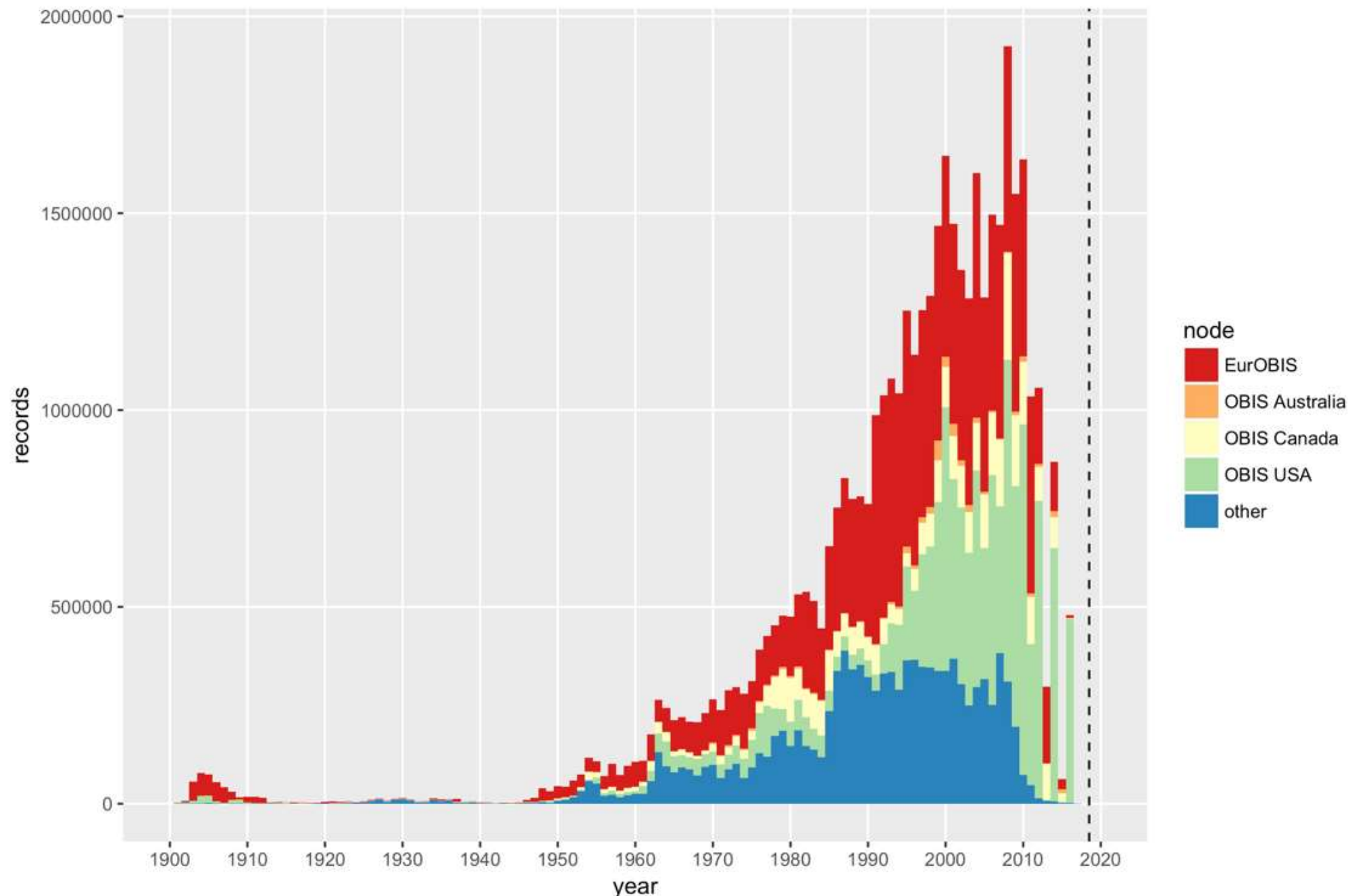


VISION

To be the most comprehensive gateway to the world's ocean biodiversity and biogeographic data and information required to address pressing coastal and world ocean concerns.

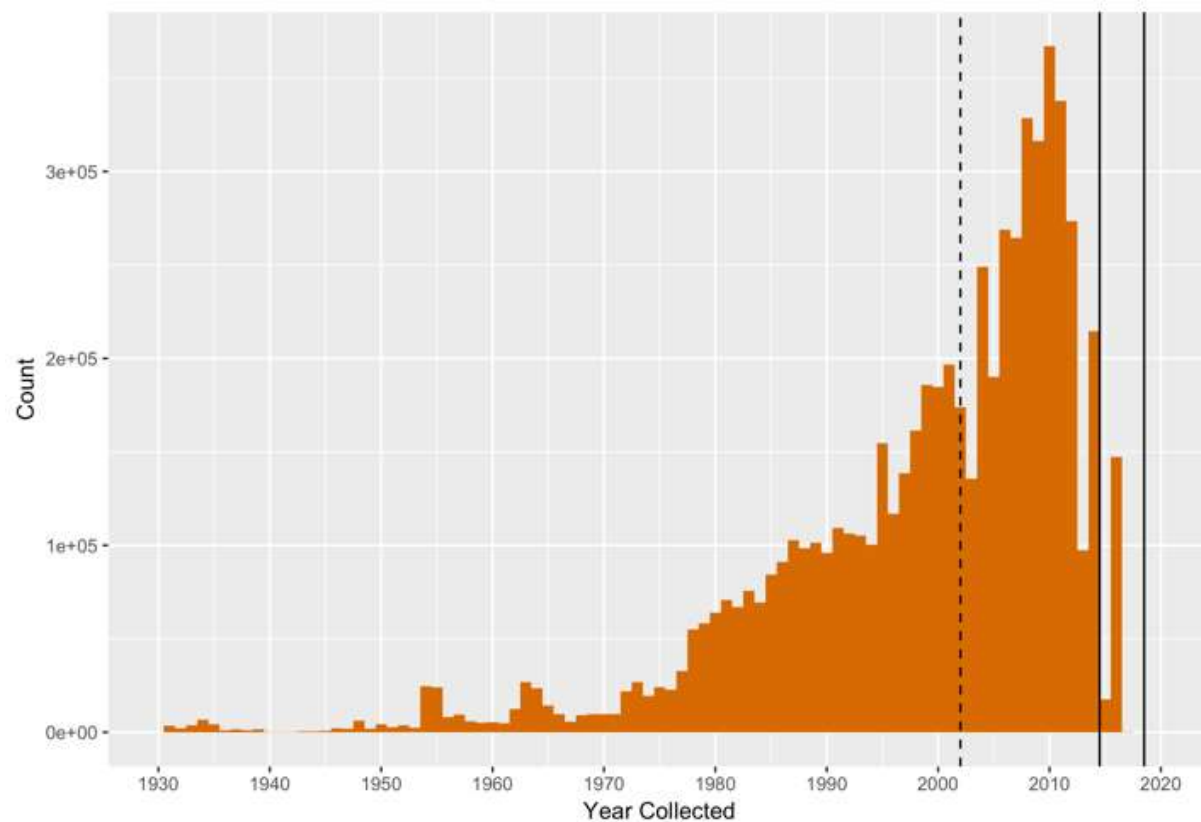


Data latency

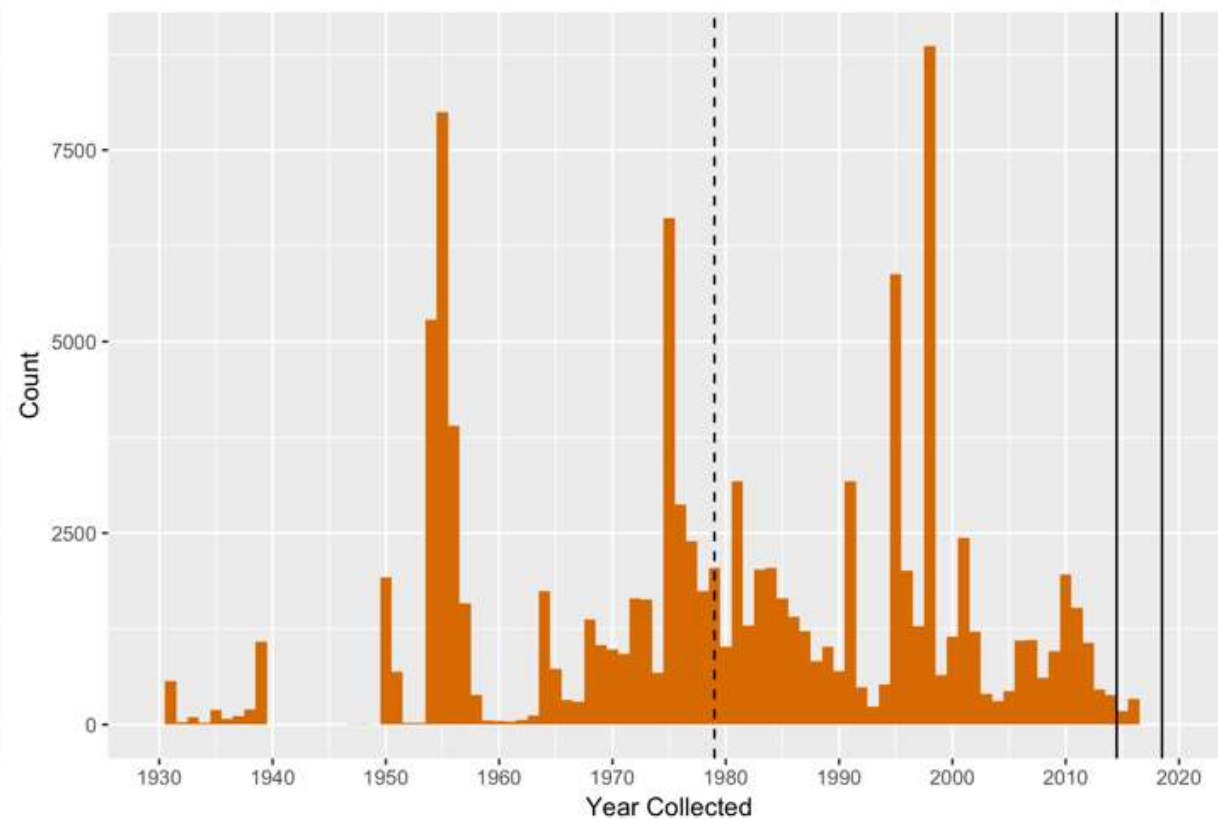


Still a lot of data archeology – Building the baseline

occurrence data provided 2015 onwards



Global: median 2002



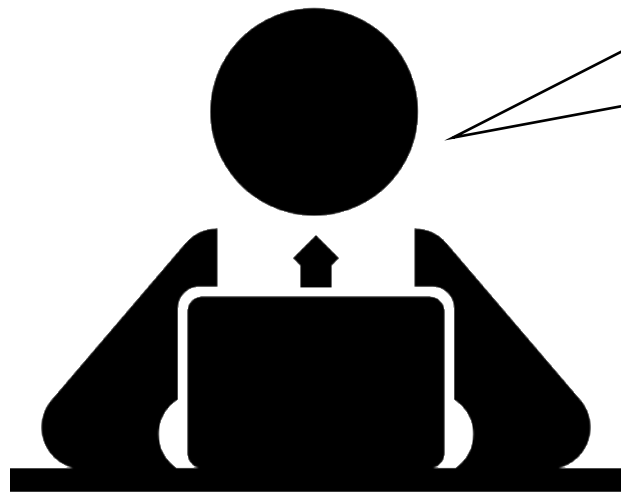
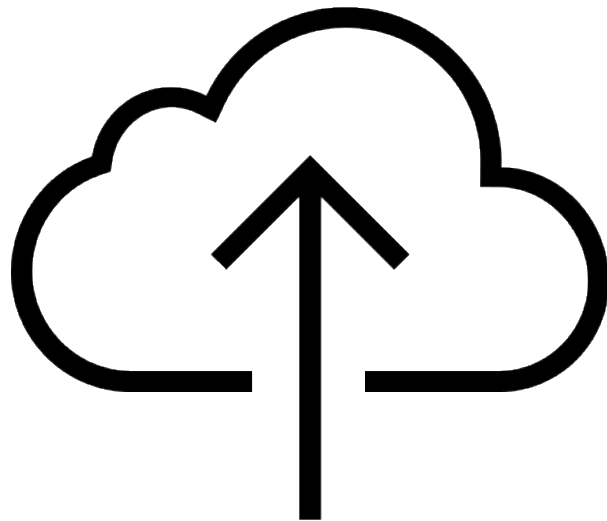
ABNJ only: median 1979



Advice to a Young Investigator (1897)

“A scholar's positive contribution is measured by the sum of the original data that he contributes. Hypotheses come and go but data remain.”

Santiago Ramón y



It is too much
work!



obistools R package

<https://github.com/iobis/obistools>

README.md

obistools: Tools for data enhancement and quality control.

build **passing** coverage **89%**

Installation

Taxon matching

Check required fields

Plot points on a map

Identify points on a map

Check points on land

Check depth

Check outliers

Check eventID and parentEventID

Check eventID in an extension

Flatten event records

Flatten occurrence and event records

Calculate centroid and radius for WKT geometries

Map column names to Darwin Core terms

Check eventDate

Dataset structure

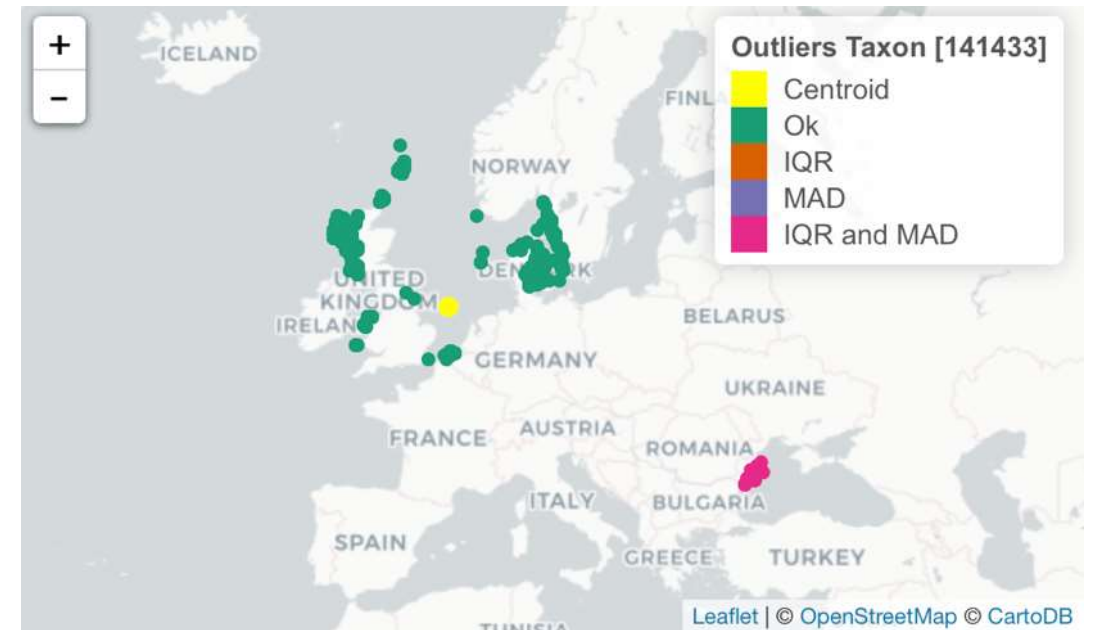
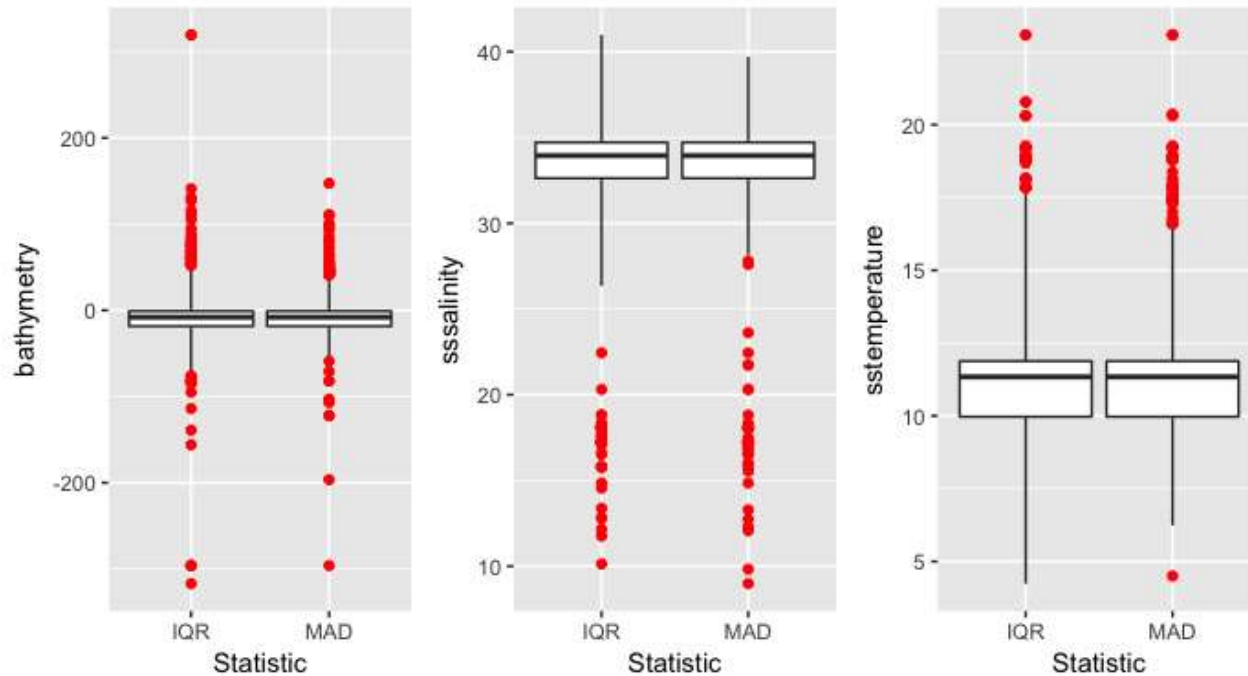
Data quality report

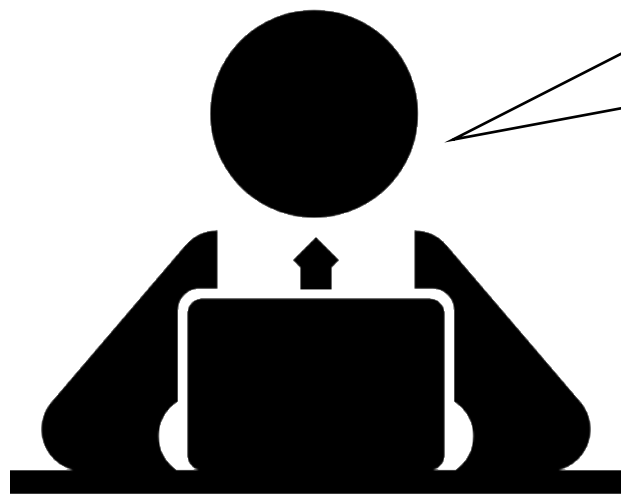
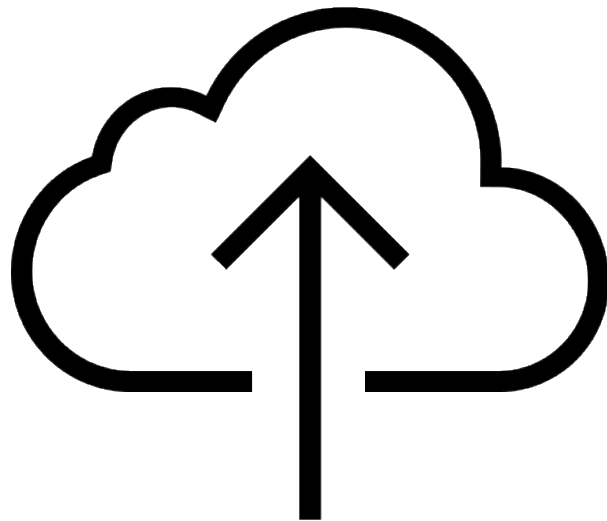
Lookup XY



obistools R package

Outliers Taxon [141433]

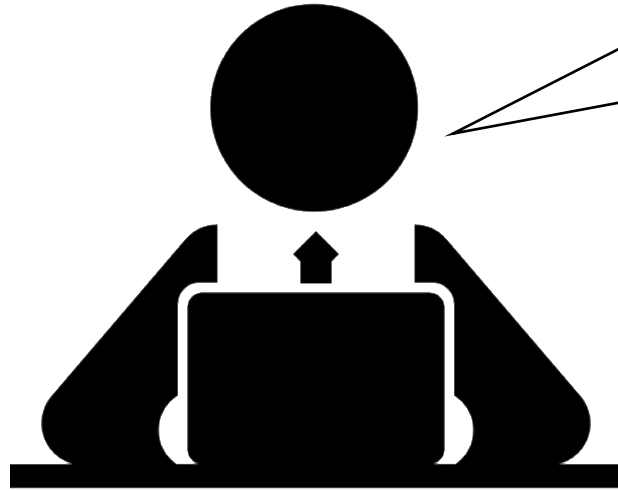
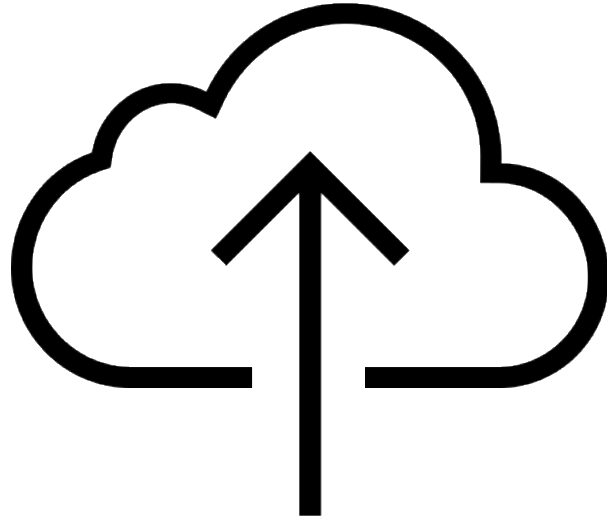




I need
training!


In 2017: 151 people involved in 7 OBIS training courses



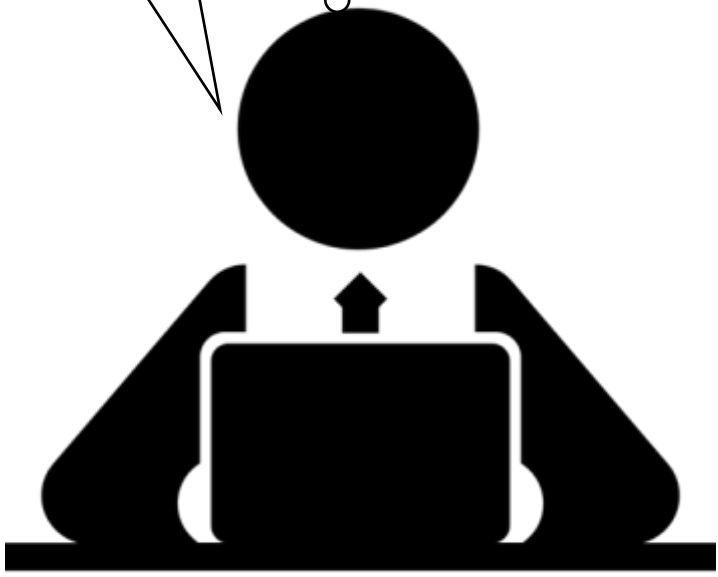


OK, but I want
to write
several papers
first

5 years later



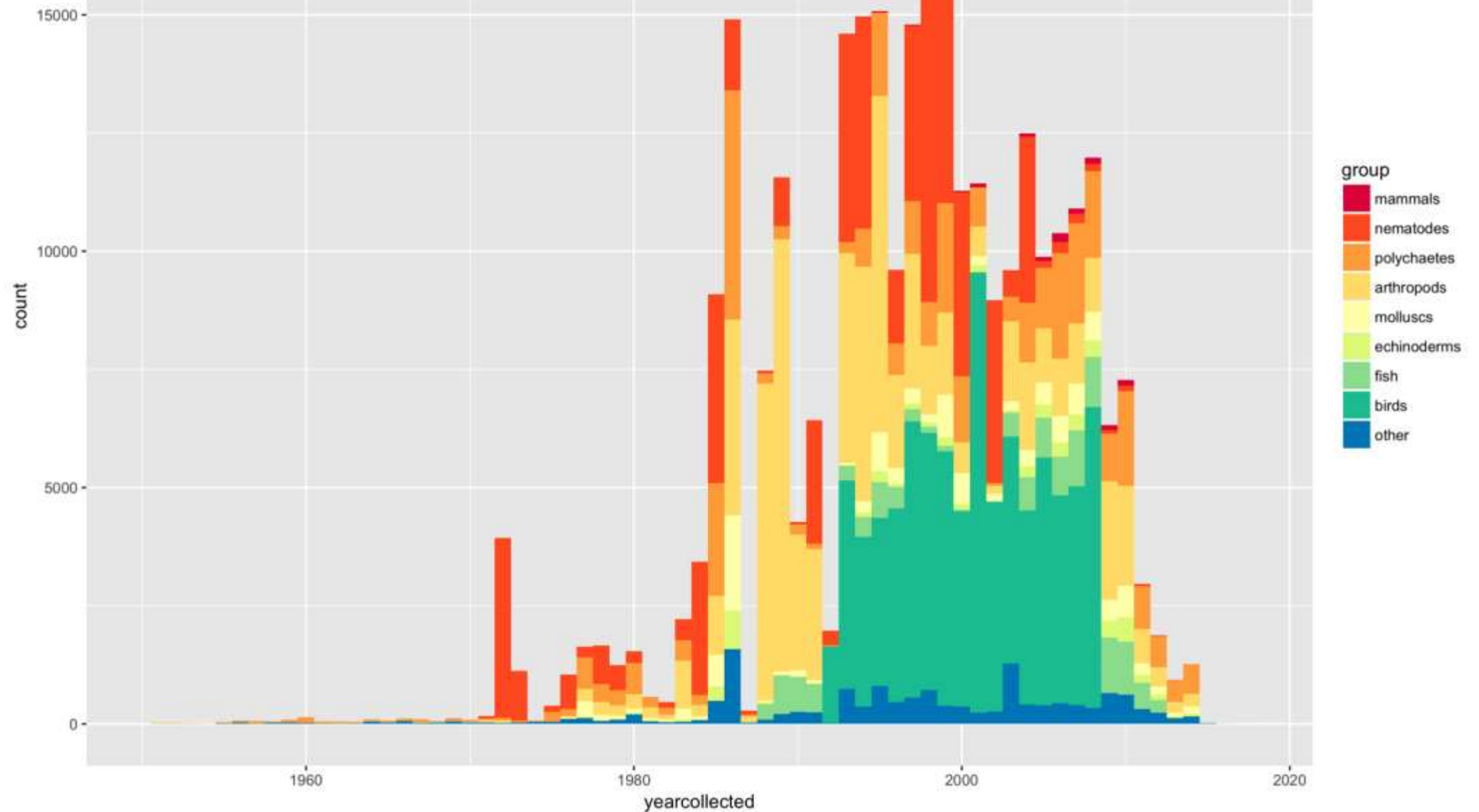
OBIS is so great, do you want to collaborate and write a paper together?



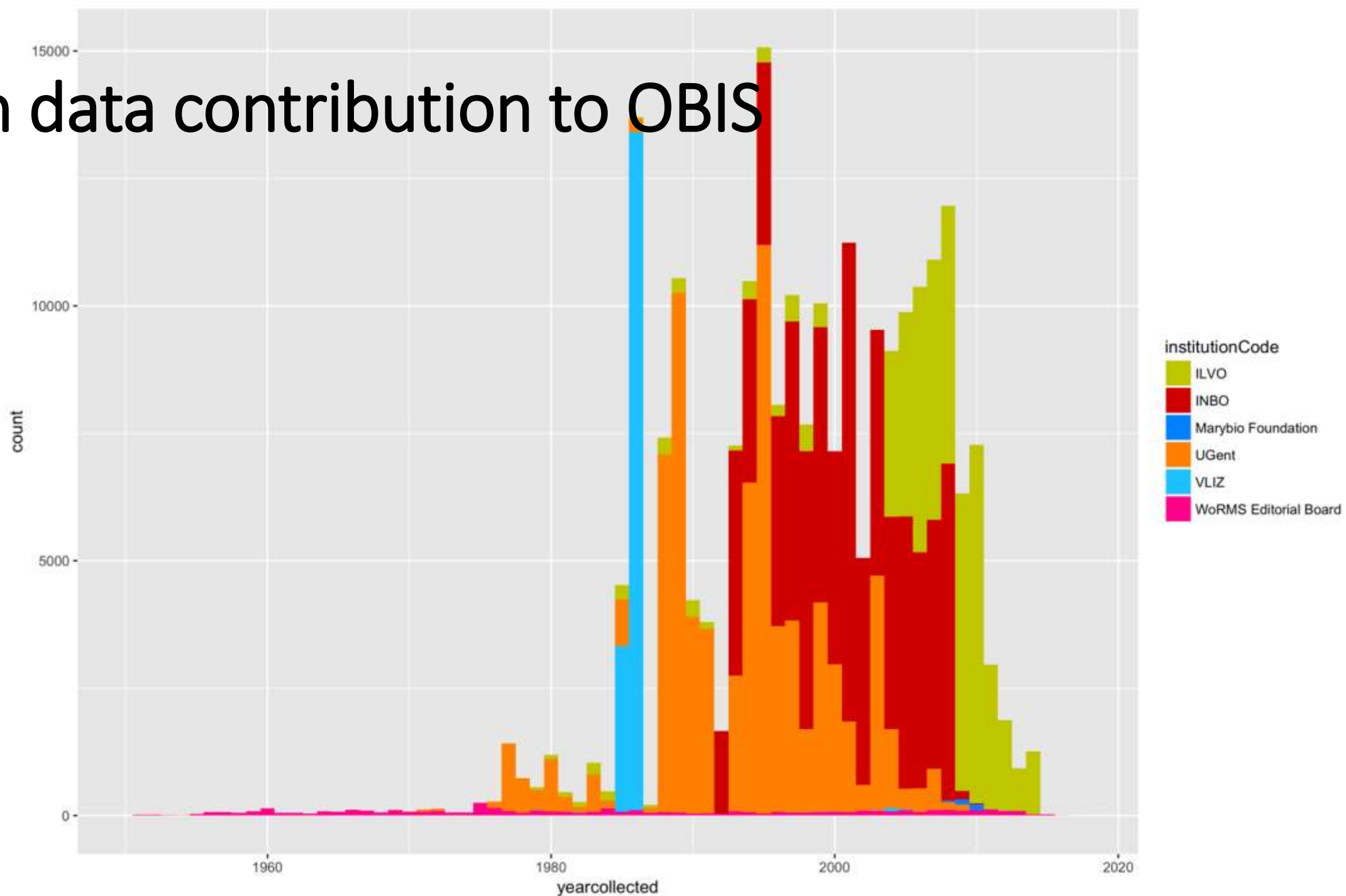
OBIS is so incomplete .. I have a lot more data...

Where the heck are those data ?
??!!\$#?!

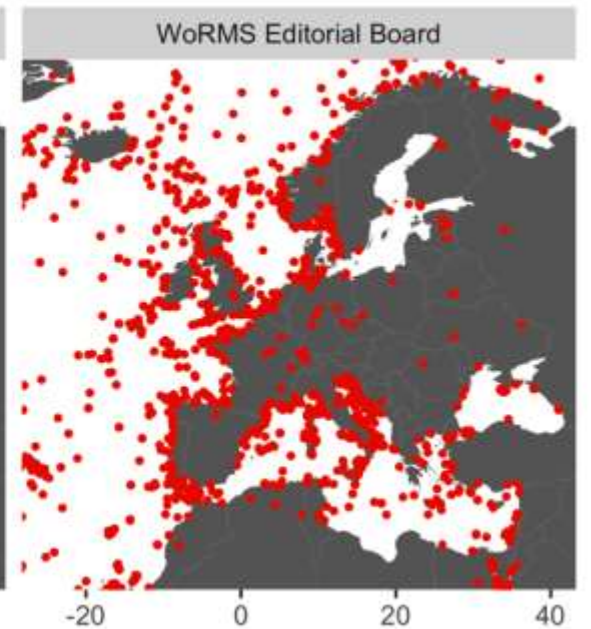
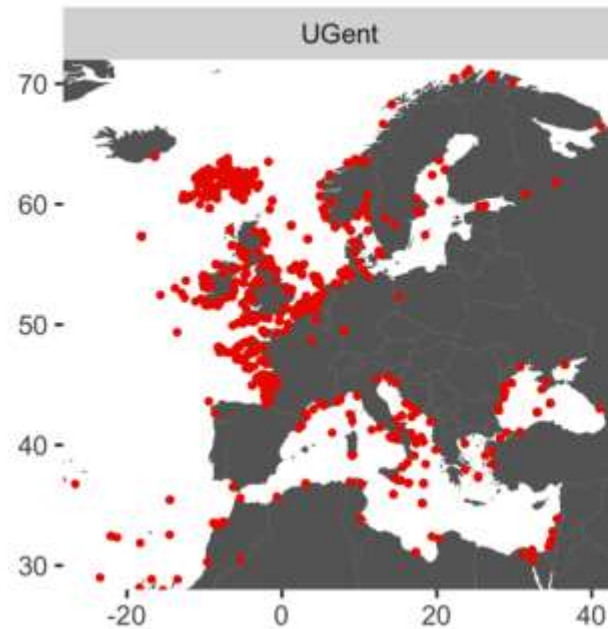
Flemish data contribution to OBIS



Flemish data contribution to OBIS



Flemish data contribution to OBIS





NEWS FEATURE • 09 MAY 2018

How to save the high seas

As the United Nations prepares a historic treaty to protect the oceans, scientists highlight what's needed for success.

Olive Heffernan



Once protected ocean areas have been agreed on, it's crucial to gather baseline data. A 2000–10 project called the Census of Marine Life provided much of what researchers know about life in the high seas, but the oceans have become warmer, more acidic and more heavily fished since then. This need for new data could stimulate a fresh period of discovery. “A new treaty could focus international attention on the critical need to explore, understand and monitor these common ocean areas,” says Patrick Halpin, a marine ecologist at Duke University in Durham, North Carolina.

UN Decade of Ocean Science for Sustainable Development (2021-2030)





Time's up!



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