Atlas of Ocean MIcroplastics (AOMI) database:

Introduction and promotion activities

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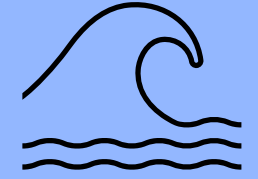Kyushu University, Japan

Japan's initiative

G7 → G20 → Guidelines → Expert meetings → AOMI (Atlas of Ocean Microplastics)

AOMI
Atlas of Ocean Microplastics

CONTACT

Terms of use

HOME   NEWS   MAP / DATA DOWNLOAD   DATA SUBMITTION   DATA POLICY   REFERENCES

Welcome to the Atlas of Ocean Microplastics

Global distribution map of marine plastic litter

COPS
Kyushu University

Atlas for Ocean Microplastics AOMI: 青海 *Blue Ocean*

- Aims to establish a global network hub for **sharing and compiling monitoring data** on ocean surface microplastics in collaboration with existing and future initiatives.
- Generates **added value** through **data harmonization**.
- Benefit **policymakers, researchers, and the general public** not only from the collected information but also from comparable data and user-friendly maps
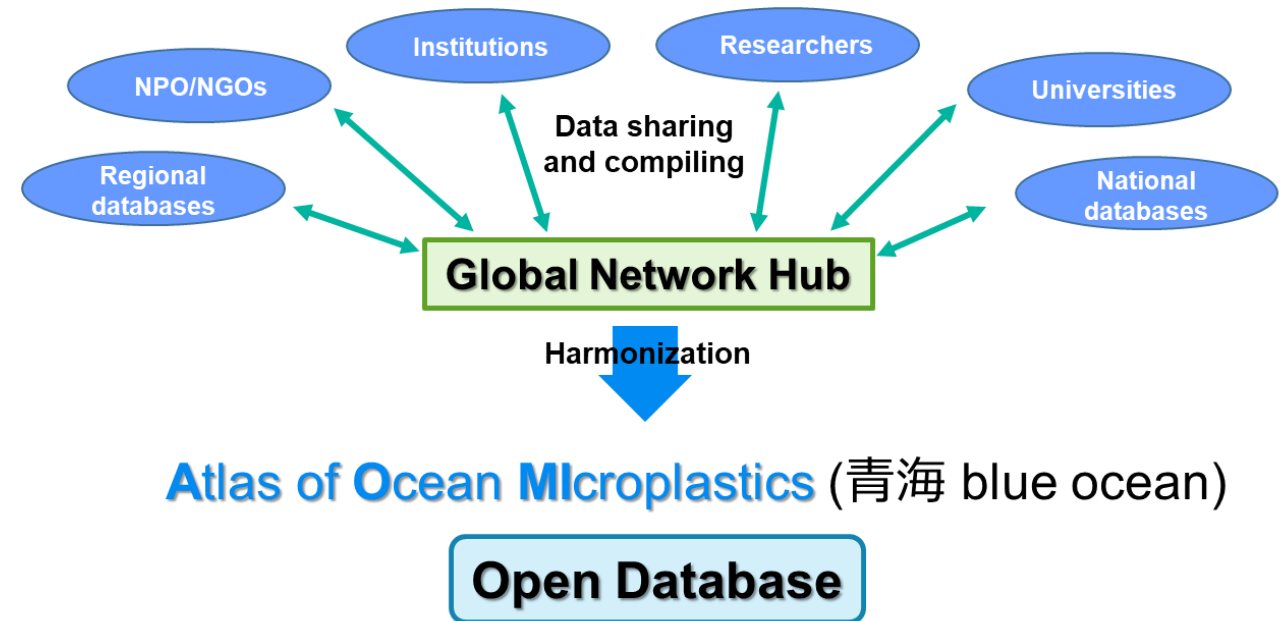
International Workshop on Marine Debris Data Harmonization

Draft **metadata and a data requirements** sheet (experts, MOEJ, EMODnet, NOAA)

Recommendations for the **UNEP GPML** Digital Platform data matrix.

Roadmap towards a **federated data management system for ocean surface microplastics** and selected global-scale marine debris indicators

https://geoblueplanet.org/international-marine-debris-data-harmonization-workshop/

Required Metadata for ocean surface microplastic

Excel file for data submission:

1. Data set info
2. Field survey
3. Laboratory analysis
4. Results
5. Remarks

Submit **before, simultaneously** or **after** paper publication

Excel file

	Item ID	Description of data item	Example	Category	Data entry field	
					All samples	Each samples
	0012	Name of voyage when the sample was taken.	Japanese off-shore			
Ship name	0053	Name of vessel used for sample collection.	Kiraku-maru			
Code	0055	Code of vessel used to collect the sample: either the vessel's re	XXXXXX			
Type of equipment	0056	Name of instrument used to collect the sample, including the na	Neuston net	E		
Model number and manufacturer (Equipment N	0058	Model of instrument used to collect the sample.	JMA Neuston net, No.5552			
Shape of water intake	0060	Shape of sample collection port.	Rectangular	E		
Width of water intake (Unit: m)	0062	Width of the sampling port, in meters.	0.75	FC / E		
Height of water intake (Unit: m)	0064	Height of sampling port, in meters. If the top of the sampling po	0.75	E		
Area of water intake (Unit: m2)	0066	Height of sampling port, in meters. If the shape of the sampling	0.5625	E		
Length of net (Unit: m)	0068	Length from the opening of the net to the very end of the net. If	3	E		
Mesh openings size (Unit: mm)	0070	Length of the open part of each stitch in the net. This does not	0.35	E		
Measurement point of 'Mesh openings size' (M	0072	Whether the length of the mesh eye opening (#0070) is the leng	One side	E		
Model number and manufacturer of mesh (Mes	0074	Net model number, standard, etc.	net fabric nip			
Sampling gear position	0094	Location of sampling device relative to the research vessel. The	Side	E		
Distance from vessel (Unit: m)	0096	Distance of sampling device from the research vessel, in meters	3	E		
	0029	Name of sample taken for monitoring, or its ID.	Towing No.99			
Time difference from GMT (h)	0031	Time difference from GMT (Greenwich Mean Time) of the tim	The above times - 9 h = GMT	E		
Start date (YYYY-MM-DD)	0033	Start date of sample collection.	2018-09-19	FA / E		
Ene date (YYYY-MM-DD)	0035	Date of completion of sample collection.	2018-09-19	E		
Start time (hh:mm:ss)	0037	Start time of sample collection. （24 hour notation）	3:00:00 PM	E		
End time (hh:mm:ss)	0039	End time of sample collection. （24 hour notation）	3:20:00 PM	E		
Season	0041	Season in which the sample was taken.	Summer	E		
Sampling Location Name	0043	Name of water body from which the sample was taken.	Toyama Bay	E		
Initial latitude (Latitude of start (decimal numbe	0045	Latitudinal coordinates at the start of the sample collection, wit	39.76722222	FA / E		
Initial longitude (Longitude of start (decimal nun	0047	Longitude coordinates at the start of the sample collection, with	8.043611111	FA / E		
Final latitude (Latitude of end (decimal number)	0049	Latitudinal coordinates at the end of the sampling, with positive	39.75638889	E		
Final longitude (Longitude of endt (decimal nun	0051	Longitude coordinates at the end of the sample collection, with	8.043055556	E		

info. | **Field Survey** | Laboratory analysis | Results | Remarks | List | Check(Macro programs) | Check(Manual)

Fundamental minimum requirements to identify the *abundance* of microplastics, sampling *time and location*, and microplastic *density* (particles/m³ or km² and weight/m³ or km²)

Essential minimum requirements to make the survey results *comparable*.

Optional (no color) data items obtained optionally (specific purpose or instrument availability).
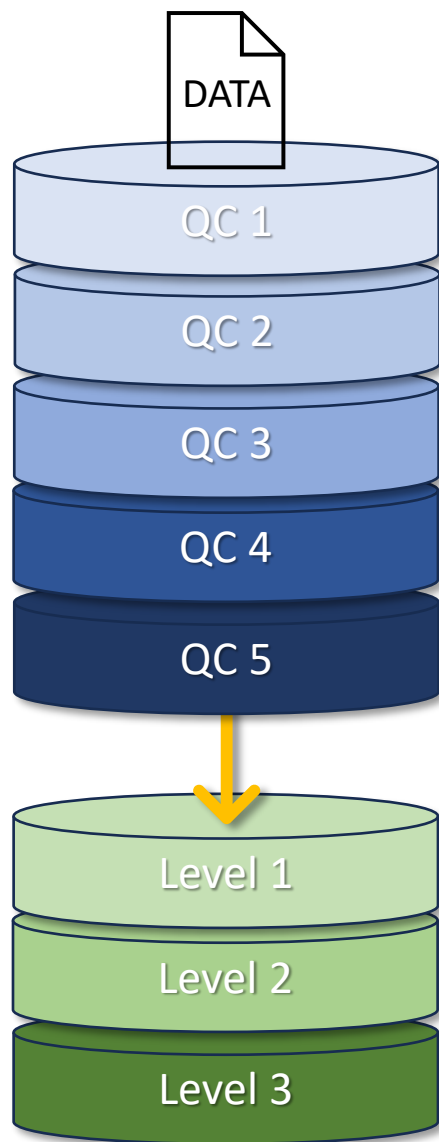
Fundamental

Essential

Optional
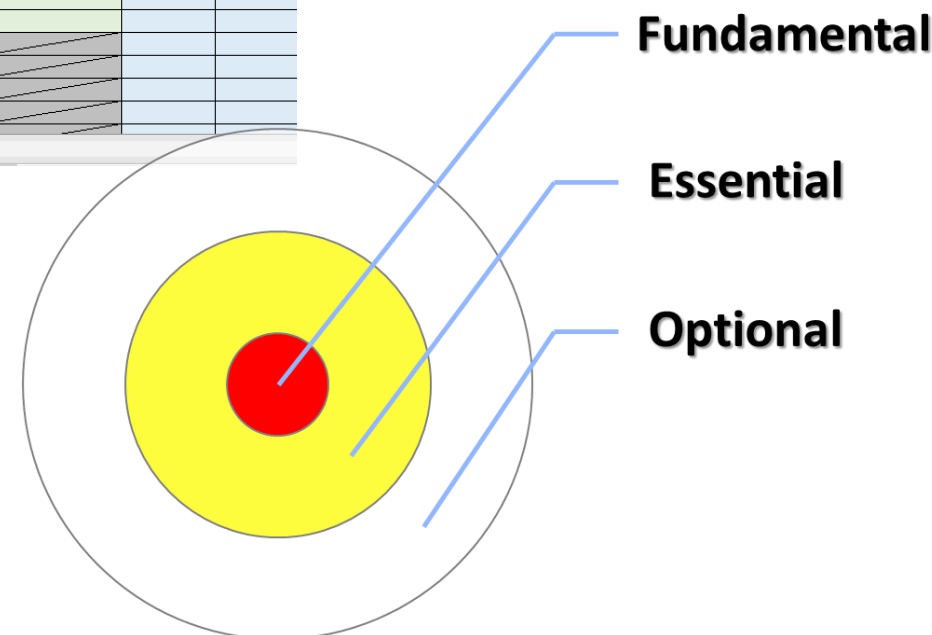
Data management
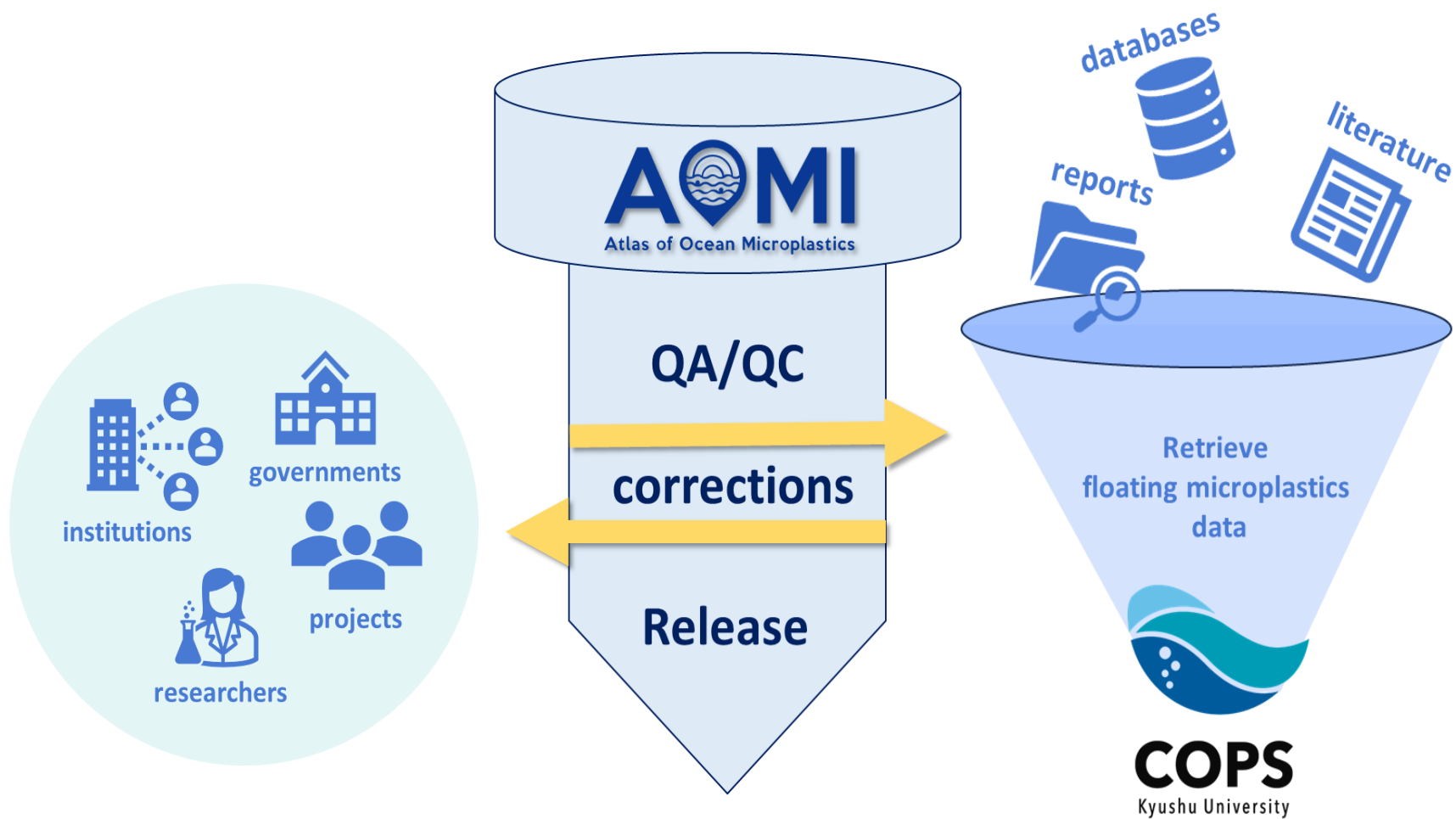
Table 2 Outline of QC grades.

QC Grade	Description of QC Grade
1	Data received (no quality control)
2	Data with codes for quality control
3	Data include "fundamental data items"
4	Data include all "essential data items"
5	Harmonized data*

Table 3 Outline of processed data.

Processed Level 1	Calibration by removal of fibrous microplastics (particles/m³)
Processed Level 2	Processing for wind/wave correction (particles/km²) and conversion from particle count to weight (g/km²)
Processed Level 3	Data gridded using an optimum interpolation method (OEM) (particles/km², g/km²)

https://aomi.env.go.jp/

AOMI Website

Survey sites/abundance point map
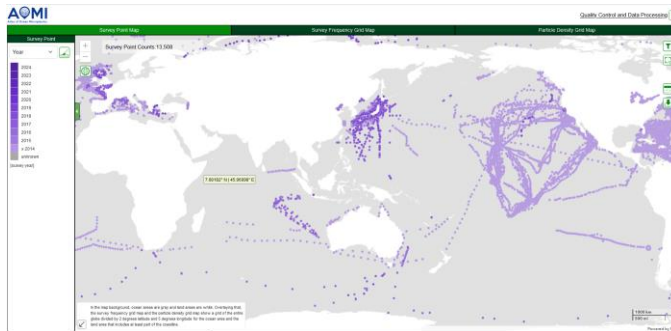
1. Year
2. Density
3. Density rank

Survey frequency grid map
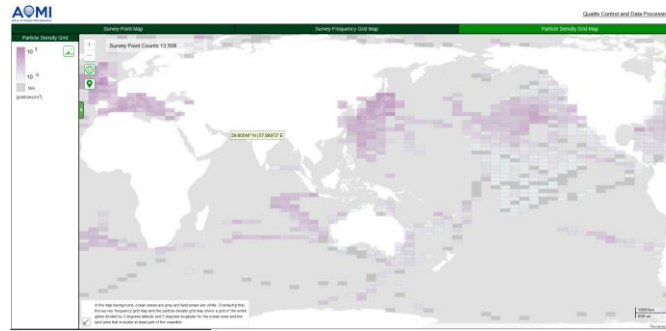
Survey points/
10000 km²

Particle density grid map
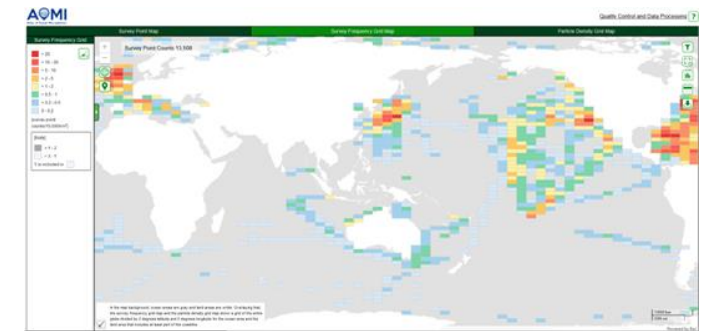
Particles/ m³ or km²
Weight/ m³ or km²

GRID   2 degrees Lat
5 degrees Long

Explore the data
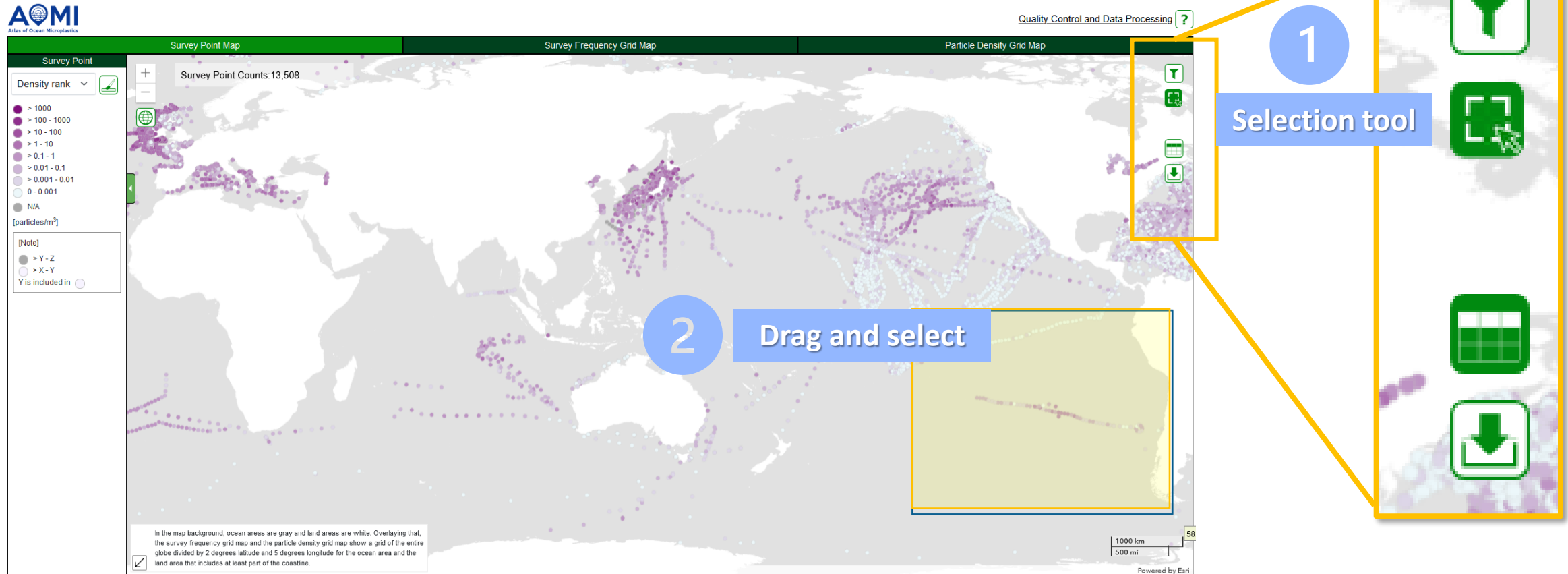
Data example

Survey Point

All data on map | Selected data on map

TERMS OF USE ✕

| d01_0001 Data ID	d01_0002 Data version	d01_0003 Release Date	d01_0004 Name	d01_0006 Location	d01_0008 Location code	d01_0009 Organizati
1	1	2023-01-01 00:00:00	Andres Cozar Cabanas	Spain	724	University of C
2	1	2023-01-01 00:00:00	Andres Cozar Cabanas	Spain	724	University of C
3	1	2023-01-01 00:00:00	Andres Cozar Cabanas	Spain	724	University of C
4	1	2023-01-01 00:00:00	Andres Cozar Cabanas	Spain	724	University of C
5	1	2023-01-01 00:00:00	Andres Cozar Cabanas	Spain	724	University of C
6	1	2023-01-01 00:00:00	Andres Cozar Cabanas	Spain	724	University of C
171	1	2023-01-01 00:00:00	Andres Cozar Cabanas	Spain	724	University of C
172	1	2023-01-01 00:00:00	Andres Cozar Cabanas	Spain	724	University of C
173	1	2023-01-01 00:00:00	Andres Cozar Cabanas	Spain	724	University of C
174	1	2023-01-01 00:00:00	Andres Cozar Cabanas	Spain	724	University of C
175	1	2023-01-01 00:00:00	Andres Cozar Cabanas	Spain	724	University of C

Showing 1 to 12 of 132 entries

Apply filters

1. **QA/QC** and ***processing level***
2. ***Survey results*** (size ranges, min-max values, etc)
3. ***Survey conditions*** (equipment, volume, sea conditions, etc)
4. ***Source*** (organization type, DOI)
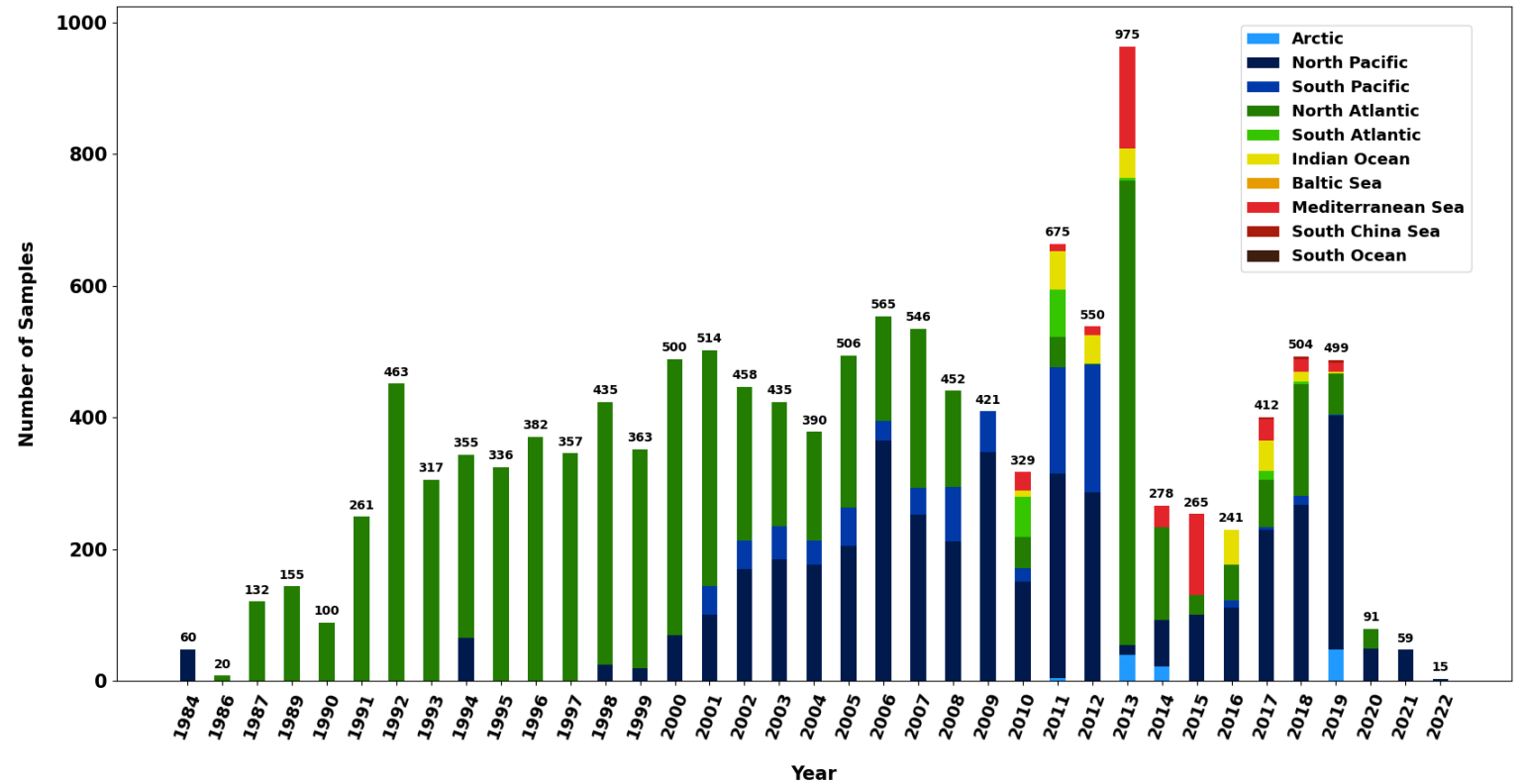
Customize the colors
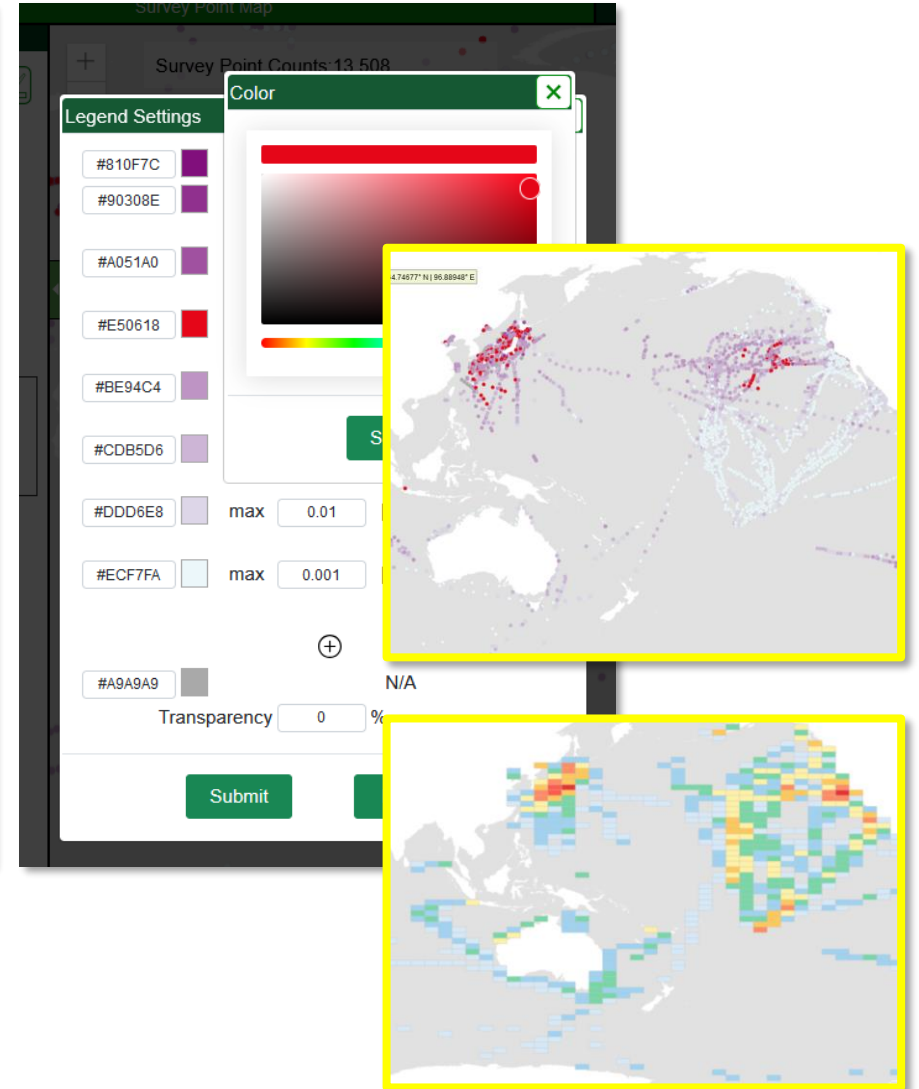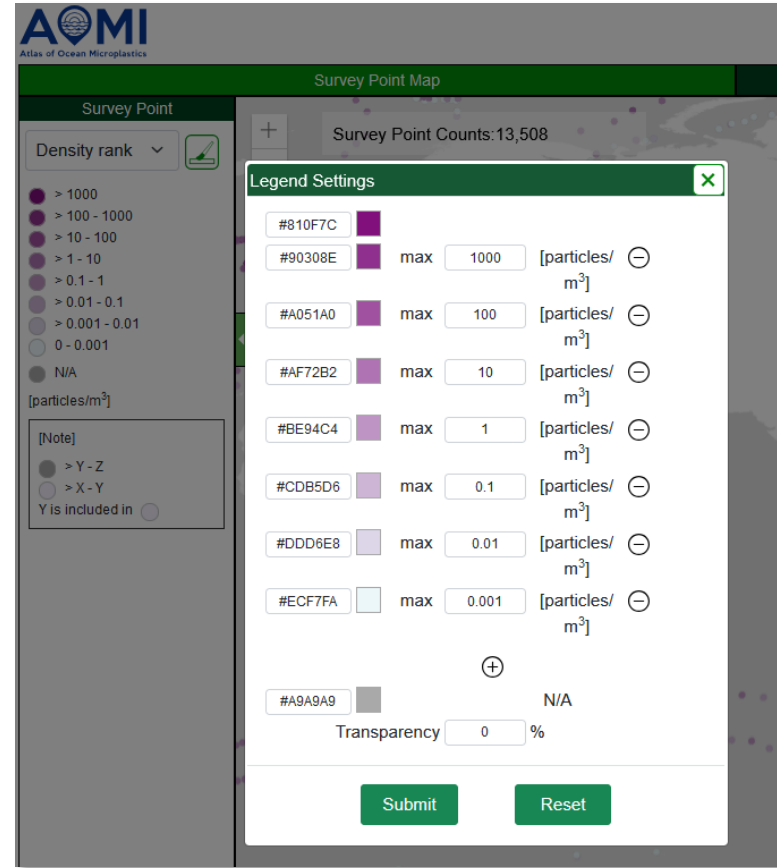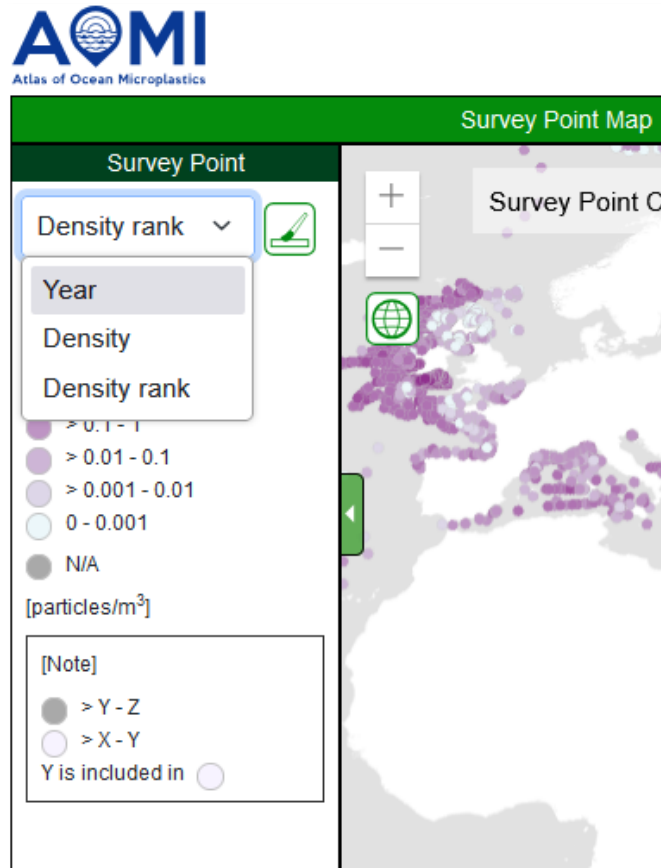
Download your data
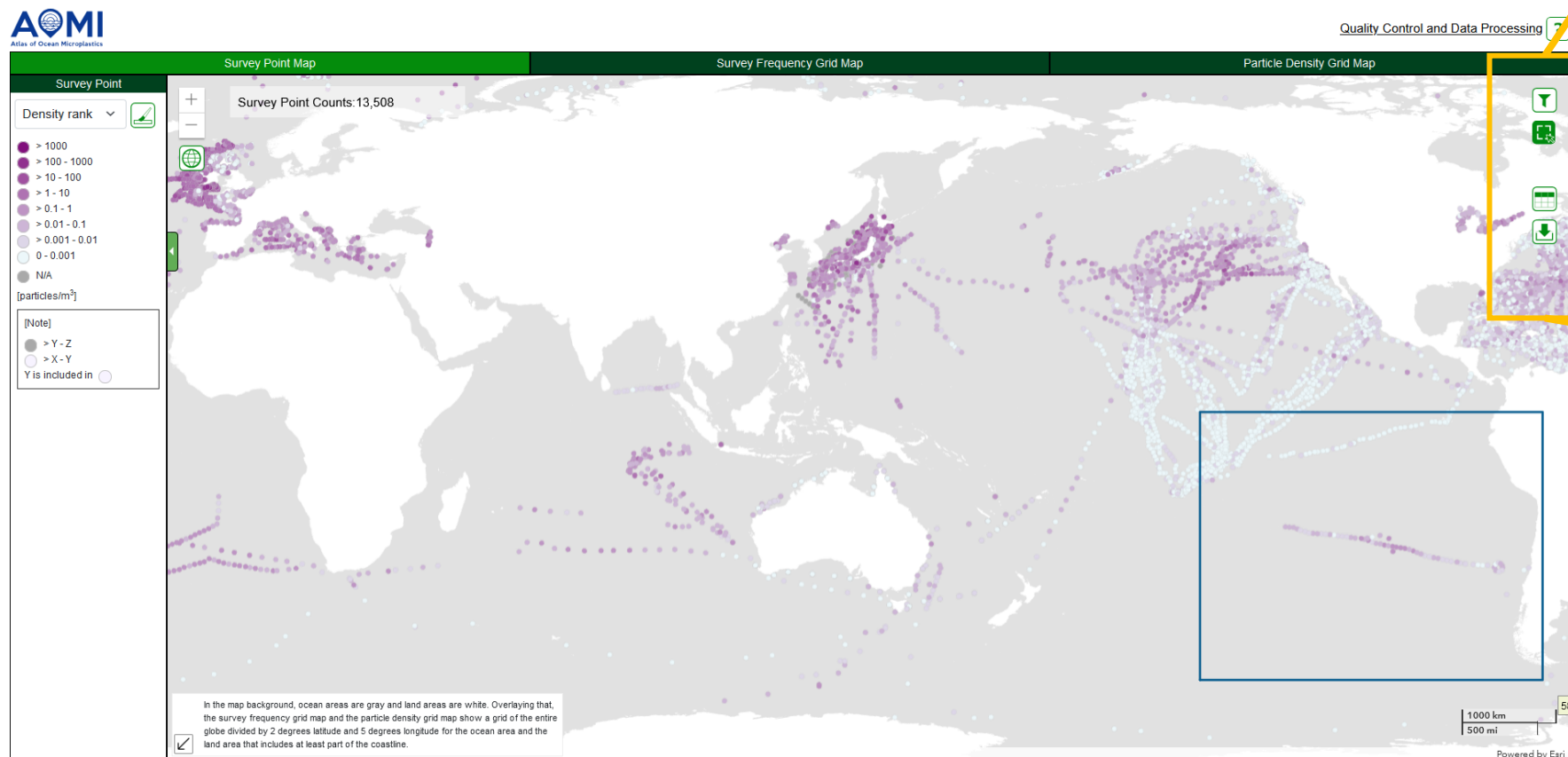
Measuring progress..

More than 13000 values…
…but significant data gaps:
- Indian Ocean
- South China Sea
- South Atlantic
- South Pacific

Goals for AOMI database promotion activities:

1. increase **_awareness and engagement_** among diverse stakeholders

2. highlight key features and advantages

3. simplify and encourage the submission and data download processes

Thank you for your attention

AOMI Website

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Government of Japan

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