AtlantECO [WP2] - Microplastics silo - Small plastic measured with surface trawls

1 Introduction

The geodatabase on small plastic that was measured with surface trawls was created in 2021 for the AtlantECO project, by combining data from the peer-reviewed literature. The main source was the 2015 article by Van Sebille et al. (2015), which was a collation of the data of some 40 datasets collected around the world; the most extensive ones from the Sea Education Association (SEA). In this 2021 version of the geodatabase, this has been augmented with more recent publications.

2 Dataset Description

- Data type:
- Latitude/Longitude format: WGS84
- Area covered by the dataset: Global Ocean
- Depth range covered by the dataset: from 0 to 270 m
- Time period covered by the dataset: from 1979 to 2019
- Dataset format: CSV
- Date of dataset creation: 2022-04-13
- Dataset repository: `https://data.up.ethz.ch/shared/AtlantECO/BASE/microplastics/AtlantECO_BASE_microplastics.csv`
- Number of records: 13,159
- Number of samples (`sampleID`): 12,857

3 Variables Description

Other variables

- `projectID`: Name of the overarching project
- `projectWP`: Work Package within the overarching project (e.g., WP2, WP4)
- `dataSilo`: Name of data silo
- `contactName`: Names of people in charge of the dataset
- `contactAddress`: Email addresses of dataset contacts
- `occurrenceID`: AtlantECO-specific identifier for the record
- `decimalLatitude`: Geographic latitude in decimal degrees (WGS84)
- `decimalLongitude`: Geographic longitude in decimal degrees (WGS84)
- `geodeticDatum`: Spatial reference system
- `countryCode`: ISO3166-1 alpha-2 country code
- `year`: Year of sampling
- `month`: Month of sampling
- `day`: Day of sampling
- `eventDate`: Date of sampling event in ISO 8601 format (YYYY-MM-DDTHH:MM:SS)
- `longhurstProvince`: Longhurst biogeographical province code
- `depth`: Depth of sample from sea surface (> 0)

- `minDepth`: Minimum depth for depth-integrated sample
- `maxDepth`: Maximum depth for depth-integrated sample
- `parentEventID`: ID for a parent sampling event
- `eventID`: Unique ID for a replicate or sub-sample
- `sampleID`: Unique ID for a sample; combination of `decimalLatitude decimalLongitude depth eventDate`
- `institutionCode`: Institution responsible for the data
- `biblioCitation`: Citation for the dataset/publication
- `biblioCitationDOI`: DOI of the citation
- `taxonRank`: Taxonomic rank (e.g., species, family)
- `measurementID`: Identifier for a measurement or fact
- `measurementTypeID`: URI identifying measurement type
- `measurementValue`: Numeric measurement value
- `measurementUnit`: Unit for the measurement value
- `samplingProtocol`: Protocol used for sampling
- `note`: Notes or comments on sampling/measurement

4 Links

`https://studenttheses.uu.nl/handle/20.500.12932/40945`

5 Contributors

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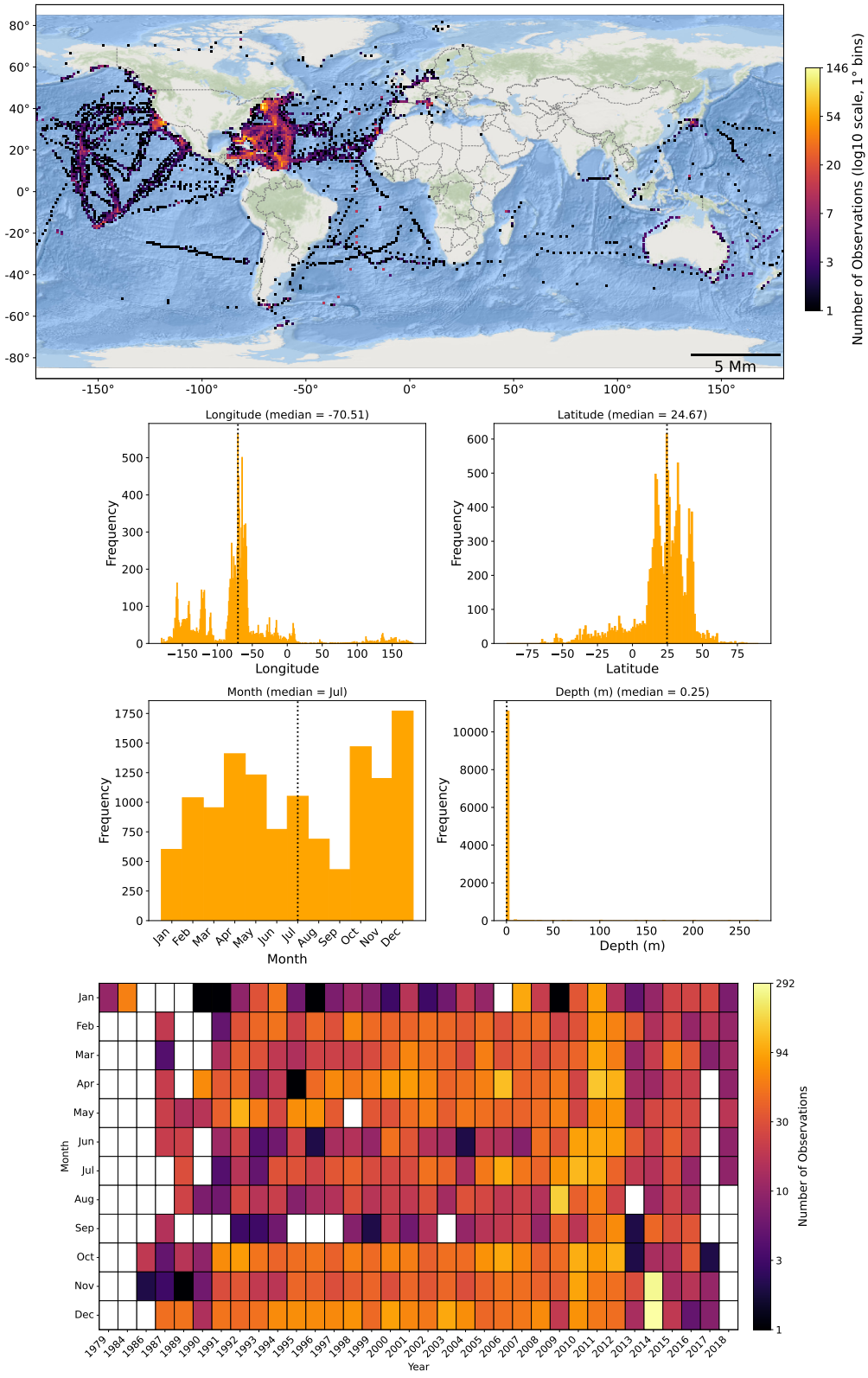
6 Data Overview



References

Van Sebille, E., Wilcox, C., Lebreton, L., Maximenko, N., Hardesty, B. D., Van Franeker, J. A., Eriksen, M., Siegel, D., Galgani, F., and Law, K. L. (2015). A global inventory of small floating plastic debris. *Environmental research letters*, 10(12):124006.