

Herbarium of Division of Marine Biology and Ecology as the Primary Basis for Conservation Status Assessments in the Gulf of Gdańsk

Ilona Złoch^{1*}

¹ Department of Marine Biology and Ecology, Faculty of Oceanography and Geography, University of Gdańsk (8 Jana Bażyńskiego Street, Gdańsk, Poland)

* Correspondence author: ilona.zloch@ug.edu.pl; ORCID: [0000-0002-3233-2021](https://orcid.org/0000-0002-3233-2021)

Abstract

The dataset titled Herbarium of Division of Marine Biology and Ecology University of Gdańsk (DMBE) is a research herbarium encompassing specimens of vascular plants and algae hosted by the Laboratory of Marine Plant Ecology at the University of Gdańsk, Poland. The aim of Herbarium is to preserve marine plant and algae collections mostly from the Gulf of Gdańsk, but the herbarium also holds specimens from other parts of the world.

Keywords: herbarium, algae, plants, the Gulf of Gdańsk

https://doi.org/10.34808/x55q-sz53_dyr_roz16

Specification table (data records)

Subject area	Herbarium, Vascular plants, Algae
More specific subject area	marine plant and algae collections from Gulf of Gdańsk
Type of data	Text
How the data was acquired	The data was collected during annual Gulf of Gdańsk monitoring
Data format	The tables are in .xlsx format
Data source location	MOST Wiedzy Open Research Catalog, Gdańsk University of Technology, Gdańsk, Poland
Data accessibility	The dataset is accessible for any research or educational purposes under CC BY licence

Measurement Type	taxonomic inventory
Design Type(s)	data integration objective, database creation objective

Background

Herbarium of Division of Marine Biology and Ecology University of Gdańsk (DMBE) is a research herbarium encompassing specimens of vascular plants and algae hosted by the Laboratory of Marine Plant Ecology at the University of Gdańsk, Poland. The main aim of Herbarium is to preserve marine plant and algae collections mostly from the Gulf of Gdańsk. Storing the specimens allows users to return to them, after even long time, to check the identification of a specimen, to describe new species or to classify them based on their morphological and genetic traits. Recently, new purposes for herbarium specimens have arisen, so they are being utilised for purposes for which they were not initially intended, for example medical research and phenology. The application of herbarium to taxonomy, ecology, biodiversity conservation, evolution, and other disciplines, makes it a valuable research tool.

Our collection of preserved plant and algae specimens is used for scientific study to understand plant diversity in time and space, conservation and threats, and to provide an educational resource for learning.

To conclude, the DMBE herbarium is particularly rich in the genera *Chara* and individuals under protection, what makes this collection an extensive reference collection of Gulf of Gdańsk macrophytes.

Methods

Specimens in good condition were chosen and collected directly from environment; the snorkeling or scuba-diving method were also implemented. After collection of each specimen, a unique collection number was assigned. Most specimens in the herbarium are pressed, dried plants. These pressed specimens are mounted on sheets of card and stored in flat folders.

Data records

The dataset currently comprises records for 572 specimens representing 50% of the estimated total number of specimens. The collection specimens are mounted on herbarium sheets.

The file 'Herbarium_of_Division_of_Marine_Biology_and_Ecology' follows the [Darwin Core Archive \(DwCA\)](#) specifications for the field, holding one record per specimen with all core specimen fields (herbarium info, current identification, collector info, dates, location, notes, etc.). Each occurrence record is uniquely identified within the DMBE Herbarium database by a field called id (DwCA).

The structure of the dataset is presented in Fig. 16.1.



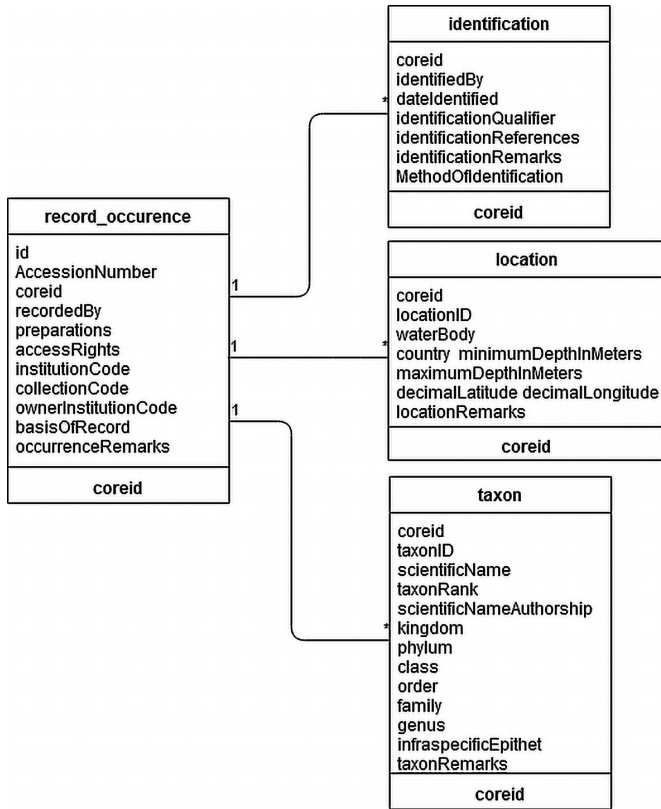


Fig. 16.1. Diagram of the main tables of the dataset presenting the column headers and the relations between the tables

The Herbarium holds a wide variety of specimens; however, the main body of the collection comprises the Charales species (Fig. 16.2).

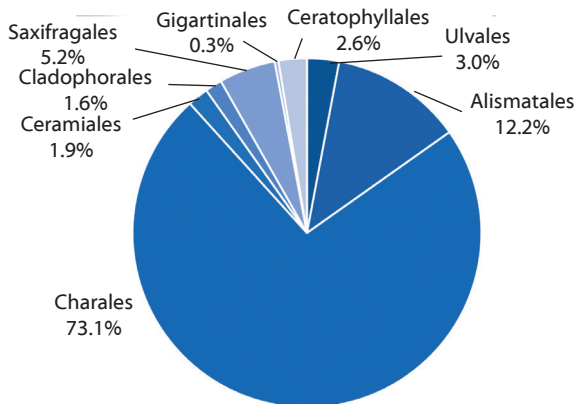


Fig. 16.2. Taxonomic coverage of the dataset



The temporal coverage of the database runs from 2013 until 2019 (Fig. 16.3).

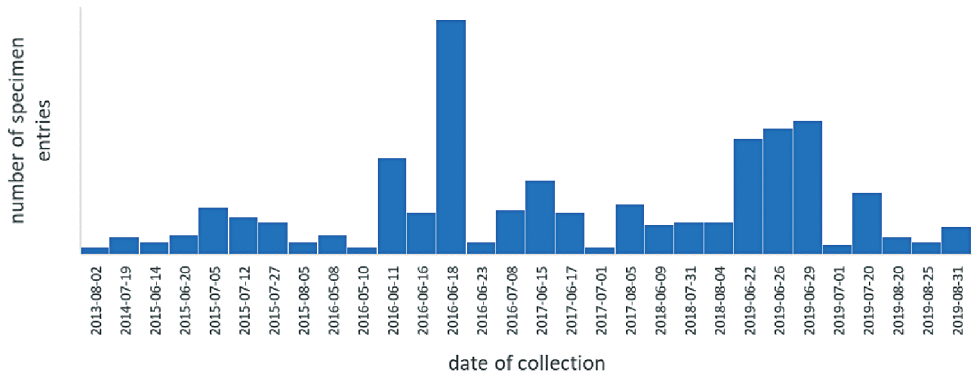


Fig. 16.3. Chronological composition of dataset by date of collection

Data quality and availability

The data included in the dataset has not been processed in any way (raw data). The data quality of the dataset has been checked with several taxonomic authorities.

Dataset DOI

[10.34808/jh0b-ne37](https://doi.org/10.34808/jh0b-ne37)

Dataset License

CC-BY