



# EMODnet



European Marine  
Observation and  
Data Network

## EMODnet Biology

**EASME Identifier**

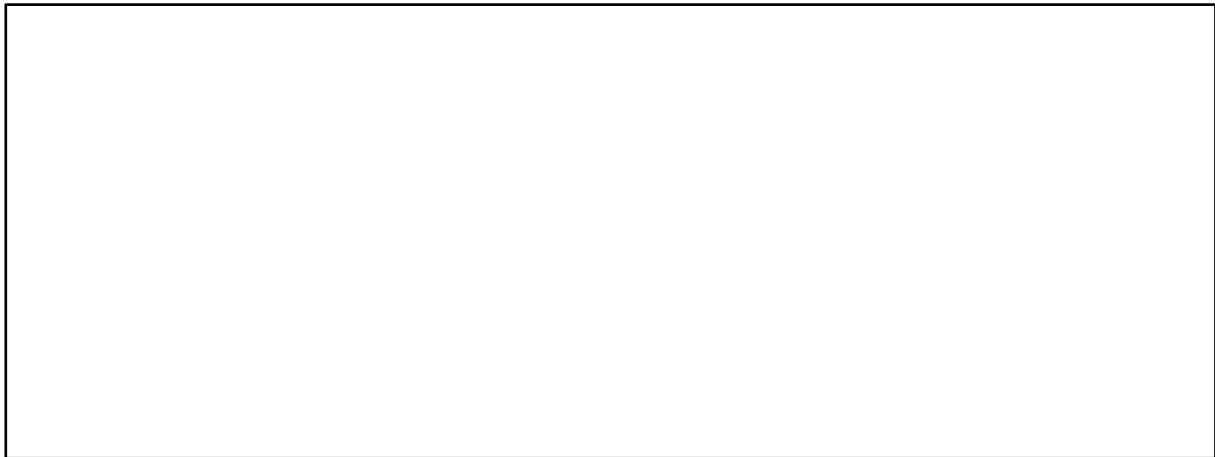
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**D3.3: Update of the list of the 76 datasets along with a list of selected datasets for digitization**

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# 1 Overview

In the second phase of EMODNET (EMN2), a search in the literature delivered 220 publications with a potential dataset. The search was more oriented to the Mediterranean Sea for MedOBIS, the Mediterranean node of OBIS.

Due to the growing of indexation, a similar survey was conducted with two goals:

- Increase the list;
- Check if there were patterns in the publications found.

Fifty new references were collated using Google search, and were annotated to search for recurrent type of publications and potentially establish a strategy for searching datasets.

Remark: WP3 deals with datasets published before 2000. For this work, we have considered dataset only before 1980.

## 2 Searches and identification of potential datasets

### 2.1 Queries

The queries were performed in Google search using:

- the following keywords: expedition, survey, database, dataset, various names of European seas.
- the option search "anywhere in the article",
- year < 1980.

### 2.2 Results

Are given below: the keywords, the number of references with potential datasets, the number of screened references, the total of references found when it is higher that the screened ones.

Expedition "north east atlantic"	24	288	
Expedition "north sea"	1	200	8180
Expedition "bay of biscay"	16	200	2880
Expedition "channel sea"	0	35	
Expedition "irish sea"	3	200	1700
Expedition "celtic sea"	0	113	
(database OR dataset) "celtic sea"	0	35	

It is noticeable for that one that all results checked were from oceanographic physics, chemistry and geology domains as well as for other seas.

Other mixing survey fauna flora and arious names of se: 6

Some references were listed under 2 or several queries.

The references were listed in a spreadsheet for further annotations. The references with potential datasets are listed in section 6.

## 2.3 Characteristics of the results

Most of the dataset are from European different seas (note that the Mediterranean was not looked for): North-East Atlantic (32), Bay of Biscay (8), Mediterranean (4), North Atlantic (4), Channel sea (2).

The targeted ecosystems are in decreasing number: plankton and a few on pelagos (21); shallow benthos (17), deep-sea (almost all benthos) (12).

Two books were found. Google books was tried but the lesser capacities of filtering prevented to screen the too numerous results.

Three technical reports were also found, incidentally in French, while the keywords were in English: it is due to the fact that the search was made on the full text not on the title only, and that the references listed in the publications are also indexed.

The year of the found publications spans over 100 years from 1880 to 1980, but half of them are posterior to 1970.

## 3 Patterns of references found with recurrent potential datasets

### 3.1 Technical reports from fishery institutes and agencies

References were found from the *Travaux Scientifiques de l'Institut Français des Pêches Maritimes* (ISTM), digitized and disseminated by IFREMER, France.

The ISTPM was the previous French national agency before the IFREMER in charge to assess the marine stocks and fisheries in the French waters.

These references raise several issues.

#### The type of references

Technical reports are documents much less disseminated than scientific publications. This is evidenced by the few number of those found in Google Scholar, in documentary database in general, and in the list of EMN2.

Generally, these technical reports contain raw data, which are the data targeted by EMODNET and OBIS in general, while scientific publications list the average or other synthesized indicator.

#### The language

The scarcity of technical reports in EMN search is also due to the language used in the queries, English. Technical reports are usually written in national languages, the more the older there are.

### The type of reported data

Data in the fisheries domain are economically sensitive. The raw data are rarely disseminated without being degraded in terms of spatial and taxonomic resolution.

The two ISTPM publications report are about ecological data collected in support to fisheries. Raw data are published.

### Recommendation

The DG-MARE, funding EMODNET, and being in charge of the fisheries among others, should initiate systematic digitization programmes with these national fishery institutes and agencies, not for the direct fisheries data that are gathered in another context, but for those ecological studies that the institutes have conducted related to the fisheries, and that are relatively not published and difficult to access.

Some of them have digitized the catalogue of technical reports and more (IFREMER). The programme would systematize the data entry exhausting the catalogue.

## **3.2 Expedition reports**

Some new expeditions were found (e.g., *Travailleur* and *Talisman*; Bay of Biscay, ...).

For these reports, there should be a possibility to conduct a more systematic approach as well. Some museums maintain a list of the expeditions (BasExp, MNHN: <https://expeditions.mnhn.fr/>), as well as National Oceanographic Data Centers (IFREMER).

Actually, some of these expeditions are partly recorded through the specimens. But 1) not all specimens are kept, so additional occurrences could be found; 2) Not all expeditions are completely studied, but some preliminary reports could be interesting to integrate.

Some European projects dealt already with specimen collection data (ENSHIN, BioCISE, BioCASE). But none of them envisaged a systematics exhaustion of the expedition datasets that remain large source of data on various species.

## **4 Other potential non-explored sources of references**

### **4.1 European projects**

The European Environment Agency lists all European biodiversity related projects (<https://www.eea.europa.eu/data-and-maps/data/eu-research-projects-on-biodiversity/projects/research/view/>). The availability of datasets they have produced should be checked.

### **4.2 Biodiversity Heritage Library**

Since 2014, the number of scanned works has largely increased. For the current work, BHL was not consulted, but a collaboration should be established through BHL Europe for the systematics digitization of data on European marine biodiversity.

## 4.3 References cited in expedition reports

Another way to discover old datasets is to analyze the citations in the expedition reports contains publications related to expeditions and surveys.

There are a number of publications listing historic expedition hold in a region or with specific target, e.g., Wüst, G. (1964). The major deep-sea expeditions and research vessels 1873-1960: a contribution to the history of oceanography. *Progress in Oceanography*, 2, 1-52.

## 5 Conclusion

The development of the indexation of all documents on the web (Google Scholar, Google Books, Web of Science, and especially Biodiversity Heritage Library for old literature) has allowed to collect enough references for several person-years of digitization work, and to prioritize them. References can now be easily retrieved.

The question is not anymore to find datasets opportunistically to be digitized, but rather to develop digitization programmes in collaboration that systematically exhaust the catalogues already assembled by institutes and initiatives.

Potential partners could be:

- BHL (through BHL Europe)
- Natural history museums: CETAF - Consortium of European Taxonomic Facilities (<https://www.cetaf.org/>)
- Institute and agencies related to fisheries through DG-MARE
- Marine stations: MARS network - the European Marine Research Institutes and stations (<http://www.marinstations.org/>)

## 6 List of publications with potential dataset

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Beaudouin, J. (1971). Données écologiques sur quelques groupes planctoniques indicateurs dans le golfe de Gascogne. *Revue des Travaux de l'Institut des Pêches Maritimes*, 35(4), 375-411.

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