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[1] The disclaimer is needed when the document is published

Contents

1 Overview

Three datasets were chosen to internal test the modifications of the data entry procedure.

The next step is to test the procedure with datasets granted by EMODNET3.

Two were chosen for a same expedition, However, the reports form this expedition are not standardized. The third one is more relevant to the WP2, but it was convenient in the MedOBIS schedule to integrate that dataset.

2 Description of the datasets

2.1 Steuer A. 1939. The fishery grounds near Alexandria. XIX Mollusca. Notes and Memoirs No 33

Resource Citation

Tsikopoulou Irini, Dimitriou D. Panagiotis and Nikolopoulou Stamatina (2016). Digitization of The fishery grounds near Alexandria. XIX Mollusca. Notes and Memoirs No 33. Hydrobiology and Fisheries Directorate, 1939, Egypt

Abstract

This is a historical dataset that was published in 1939 by Ad. Steuer and concerns of the faunistic report on the Mollusca collected during the floristical and faunistical survey on the coasts near Alexandria mainly with the vessel "El Hoot". This dataset covers the time span of 1/4/1933 to 18/11/1933 and contains occurrence data of Molluscs in the coasts of Alexandria, Egypt. For some species, the dataset contains individual counts, sex, life stage and body length. The digitization of this dataset was done by LifewatchGreece team.

Additional information: Body length measurements. 145 Events, 882 records, 6 measurements. Publication: Digging for historical data on the occurrence of benthic macrofaunal species in the southeastern Mediterranean https://bdj.pensoft.net/article/10071/.

Data published through GBIF: http://ipt.medobis.eu/resource?r=egyptexpeditionmollusca

Taxonomic ranks

Phylum: Mollusca, 207 species

General spatial coverage: Mollusc species were found in about 150 benthic stations in the coasts of Alexandria, Egypt. Some species with pelagic larvae were also found in planktonic stations.

Coordinates: 31°3'14.4''N and 31°28'22.8''N Latitude; 29°39'32.4''E and 30°25'33.6''E Longitude

Temporal coverage: April 1, 1933 - November 18, 1933

Method step description: Adolf Steuer.Preliminary report. The Fishery Grounds Near Alexandria. Notes and Memories No 8.

http://ipt.medobis.eu/resource?r=egyptexpeditionpreliminaryrepor

http://ipt.medobis.eu/resource?r=egyptexpeditionbottomsampler

Sampling description: This dataset is only a part from a large expedition that took place in the coasts near Alexandria. The samples were collected by A. Steuer. For bottom samples almost exclusively a dredge with 20x70 cm opening was used. A single catch was made in a depth of 20 m with a large otter trawl in the eastern part of the Bay of Abukir. For plankton samples, vertical hauls were made using medium sized nets with buckets of celluloids with gauze bottom. In general, the motor-launch of the Marine Laboratory "El Hoot" was used for dredging and a rowing boat in shallow water. All excursions were one-day trips. After the expedition, taxonomic identification of the samples was done by specialists. The results of this expedition were published in separate for each taxonomic group volumes. Thus, sampling methods were described in a preliminary report by A. Steuer. Taxonomic identification of mollusc species was made by J.R. Le B. Tomlin, G.H. Crawford and S. Jaeckel.

2.2 The Fishery Grounds near Alexandria. VII. Decapoda. By Heinrich Balss (1936). Notes and memoirs No. 15

Resource Citation

Legaki Aglaia, Tsikopoulou Irini and Nikolopoulou Stamatina (2016). Digitization of "Balss, H., 1936. Decapoda. The Fishery grounds near Alexandria. VII. Notes and Memoirs of the Fisheries Research Directory of Egypt 15: 1-67".

Abstract

This is a historical dataset that was published in 1936 by H. Balss and concerns of the faunistic report on the Decapoda collected during the floristical and faunistical survey of Adolf Steuer on the coasts near Alexandria mainly with the vessel “El Hoot”. This dataset covers the time span of 3/9/1933 to 18/11/1933 and contains

occurence data of Decapoda in the coasts of Alexandria, Egypt. It also informations about individual counts, sex, lifestage and carapace length. The digitization of this dataset was done by LifewatchGreece team.

Additional information: Carapace length. 107 Events, 310 records, 166 measurements. Publication: Digging for historical data on the occurrence of benthic macrofaunal species in the southeastern Mediterranean https://bdj.pensoft.net/article/10071/

Data published through GBIF: http://ipt.medobis.eu/resource?r=egyptexpeditiondecapoda

General taxonomic coverage description: Main category : Decapoda

Taxonomic ranks

67species

Phyllum: Arthropoda

Order: Decapoda, Mysida

General spatial coverage: Decapoda were found in about 150 sampling stations in the coasts of Alexandria, Egypt.

Coordinates: 31°3'14.4''N and 31°28'22.8''N Latitude; 29°39'32.4''E and 30°25'33.6''E Longitude

Temporal coverage: September 3, 1933 - November 18, 1933

Method step description: Adolf Steuer. Preliminary report. The Fishery Grounds Near Alexandria. Notes and Memories No 8.

http://ipt.medobis.eu/resource?r=egyptexpeditionpreliminaryrepor

http://ipt.medobis.eu/resource?r=egyptexpeditionbottomsampler

Sampling description: This dataset is only a part from a large faunistical expedition (http://ipt.medobis.eu/resource?r=egyptexpeditionpreliminaryrepor) that took place in the coasts near Alexandria. The samples were collected by A. Steuer. For bottom samples almost exclusively a dredge with 20x70 cm opening was used. A single catch was made in a depth of 20 m with a large otter trawl in the eastern part of the Bay of Abukir. In general, the motor-launch of the Marine Laboratory "El Hoot" was used for dredging and a rowing boat in shallow water. All excursions were one-day trips. After the expedition,

taxonomic identification of the samples was done by specialists. The results of this expedition were published in separate for each taxonomic group volumes. Thus, sampling methods were described in a preliminary report by A. Steuer. Decapod and Scizopod species were identified by H. Balss and Zimmer C. respectively

2.3 Benthic communities and environmental parameters in three Mediterranean ports (Sardinia, Crete, Tunisia)

Resource Citation

Chatzinikolaou E., Arvanitidis C. (2017). Benthic communities and environmental parameters in three Mediterranean ports (Sardinia, Crete, Tunisia)

Abstract

Three seasonal sampling campaigns (winter, summer before touristic period, summer after touristic period) were implemented during 2012 in three Mediterranean touristic ports: Cagliari (Sardinia, Italy), Heraklion (Crete, Greece) and El Kantaoui (Tunisia). Three to five stations were sampled per port, which were part of different port sectors (leisure, fishing, passenger, cargo, shipyard). Three water and three sediment replicate samples were collected per station for analysis of nutrients, pigments and hydrocarbons. One replicate was analysed for physical parameters, heavy metals and granulometry. Five sediment replicates were collected for analysis of benthic biodiversity. Benthic organisms were sorted to the main taxonomic groups (e.g. .Annelida, Mollusca, Arthropoda, Echinodermata) and identified to species level.

Keywords: Mediterranean Sea; Ports; Physical parameters; Hydrocarbons; Heavy metals; Nutrients; Benthic biodiversity

Additional information: Environmental measurements. 540 Events, 4067 records, 2608 measurements. Publications: 1)Chatzinikolaou, E., Arvanitidis, C. (2016) Status, values and present threats in Heraklion harbour (Crete, Greece). Regional Studies in Marine Science. 8: 252-258. 2)Chatzinikolaou et al (2017, under review) Benthic biodiversity in three Mediterranean touristic ports. The Science of the Total Environment.

Project title: Management of Port areas in the Mediterranean Sea Basin (MAPMED).

Personnel: Christos Arvanitidis, Alessandra Carucci

Funding: This dataset has been produced with the financial assistance of the European Union under the ENPI CBC Mediterranean Sea Basin Programme.

Data published through GBIF: http://ipt.medobis.eu/resource?r=mapmed_ports

General taxonomic coverage description: Macrobenthos

Taxonomic ranks

272 species

Phylum: Annelida, Arthropoda, Cephalorhyncha, Chordata, Cnidaria, Echinodermata, Echiura, Foraminifera Mollusca, Nematoda, Nemertea, Phoronida , Platyhelminthes, Sipuncula.

General spatial coverage: Cagliari: 5 stations (C1,C2,C3,C4,C5).

Heraklion: 4 stations(H1,H3,H4,H5).

El Kantaoui: 3 stations(E1,E2,E3).

The values given below are maximum station depth. At the same time, this is sampling depth for all sediment samples and benthos.

C1 = 7.8m, C2 = 4.5m, C3 = 8.3m, C4 = 13.5m, C5 = 11.4m.

H1 = 3.7m, H3 = 19.5m, H4 = 10.5m, H5 = 19.0m.

E1 = 2.5m, E2 = 4.0m, E3 = 3.2m.

Coordinates: 33°43'26.4"N and 41°18'39.6"N Latitude; 7°57'14.4"E and 27°35'52.8"E Longitude

Temporal coverage: February 13, 2012 - September 25, 2012

Method step description: 1)Five replicates per station for benthos.

2)Three replicates per station for water and sediment samples: nutrients, pigments, hydrocarbons.

3)One replicate per station for water and sediment samples: physical parameters, heavy metals, granulometry.

4)Water samples were collected from the seawater surface (depth 0-1 m).

Study extent description: Ports of Cagliari-Sardinia, Heraklion-Crete, El Kantaoui-Tunisia

Sampling description: Physical properties of water samples (water temperature, salinity, oxygen, pH) were measured on board with a 3420 WTW multi-meter. Turbidity was measured using a Secchi disk.

Redox potential of sediment samples was measured with a SenTix ORP 900 WTW electrode.

Sediment temperature was measured using a digital sediment thermometer.

Water samples (5L) were collected using plastic containers from the sea surface and analysed for nutrients, pigments, hydrocarbons and heavy metals.

Sediment samples were collected using a custom-made hand-operated box corer (13.5 x 13.5 x 16 cm) equipped with a modular expandable handle.

For benthos box corer samples were sieved using a 0.5 mm sieve and then fixed and preserved in 5% formaldehyde buffered with seawater.

For nutrients, pigments, hydrocarbons, heavy metals and granulometry sediment subsamples were collected using small plastic cores (diameter 4.4 cm).

3 Fitting the procedure

In general, the procedure was followed, even if due to the internal nature of the test, some cooperative work could not be tested.

3.1 Metadata

The step of recreating the printed data layout was not performed.

The metadata are particularly detailed, because the data provider is here the data manager of MedOBIS.

However, from EMN2 (second phase of EMODNET) experiences, this step is known to require some particular attention by MedOBIS that had to correct and especially complete and detail number of information.

What is data and what is metadata is not always clear to the data provider. In addition, there are two types of metadata: the extrinsic metadata: the title of the dataset, ownership, authorship, access right, etc.; and the intrinsic metadata: the taxonomic and geographic scope, the number of records, etc., all descriptors of the dataset that may be derived by computation of the data content.

This part could be more detailed in the procedure, but it might be confusing. Further testing will be conducted. It may appear that according to the database skills of the data provider, this description of metadata is used or not.

3.2 Templates

Templates with several tables were already used as recommended. However small modifications were adapted to the strict context of each of the potential dataset.

The inclusion of drop-down menus took more time than expected and will really depend on the computing skill of data provider. More help from MedOBIS may be needed with external data providers.

Below next page, an example of file exchange for establishing the taxonomy reference table.

Regarding the stations, the actual depth of sampling was difficult to differentiate from the depth of the stations.

3.3 Data entry

Some discrepancies were noted between the stations listed in the Egypt papers compared to the list of stations in the preliminary report (with all datasets treated so far 162 instead of 150). Some dates for stations were not indicated in the paper were easily recovered from the list of stations. Finally, these stations in the papers could be matched with the list.

But some stations textually described in the text could not be detected in the formal list and were created during the data entry in the list of stations.

3.4 Integration in MedOBIS

Despite the technical quality control during the data entry, the final quality control before the integration in the MedOBS database still revealed inconsistencies.

Data entry of measurements are prone to errors. The OBIS-ENV schema enforces proper data entry.

Technical quality control must be reinforced during the data entry.

4 Conclusion

Some improvements were made during these tests (integrated in the procedure already).

The continuous quality control along the procedure is a key point to decrease he final one. And must be reinforced.

The test with bigger dataset from external data provider will allow to produce a final version at the end of the project.

Original name in the publication not found in WoRMS	Author	Without subgenus	Subgenus as genus	Match Taxa type	AphiaID	ScientificName in WoRMS to be used in MedOBIS temporarily	Mostly original names, if not with subgenus name as genus	AphiaID_accepted	ScientificName_accepted	Author
Brachidontes (Mytilaster) minimus	(Poli)	Brachidontes minimus	Mytilaster minimus	exact	140478	Mytilaster minimus	(Poli, 1795)	140478	Mytilaster minimus	(Poli, 1795)
Callochiton laevis	(Montagu)	Callochiton laevis	Callochiton laevis		152782	Chiton laevis	Pennant, 1777 sensu Montagu, 1803	140132	Callochiton septemvalvis	(Montagu, 1803)
Cantharidus (Jujubinus) matoni	(Payraudeau)	Cantharidus matoni	Jujubinus matoni		710143	Trochus matonii	Payraudeau, 1826	141807	Jujubinus exasperatus	(Pennant, 1777)
Codakia (Jagonia) reticulata	(Poli)	Codakia reticulata	Jagonia reticulata		750528	Tellina reticulata	Poli, 1791	140278	Ctena decussata	(O. G. Costa, 1829)
Corbicula consobrina	Cailliaud	Corbicula consobrina	Corbicula consobrina		238371	Corbicula	Megerle von Mühlfeld, 1811	1044424	Corbicula consobrina	(Caillaud, 1823)
Cythara (Mangelia) laevigata	(Philippi)	Cythara laevigata	Mangelia laevigata		435689	Pleurotoma laevigatum	Philippi, 1836	139215	Bela zonata	(Locard, 1892)
Diodora nubecula	(L.)	Diodora nubecula	Diodora nubecula		749738	Patella nubecula	Linnaeus, 1758	139970	Fissurella nubecula	(Linnaeus, 1758)
Heliacus moniliferus	(Bronn)	Heliacus moniliferus	Heliacus moniliferus		137663	Heliacus	d'Orbigny, 1842	138776	Solatisonax alleryi	(Seguenza G., 1876)
Nassarius (Telasco) costulatus	(Renier)	Telasco costulatus	Telasco costulatus		560487	Buccinum costulatum	Renieri, 1804	138239	Tritia cuvierii	(Payraudeau, 1826)
Polinices (Lunatia) alderi var. elata	B. D. and D.	Polinices alderi var. elata	Lunatia elata		752234	Natica alderi var. elata	Bucquoy, Dautzenberg & Dollfus, 1883	151894	Euspira nitida	(Donovan, 1804)
Polinices (Neverita) josephinia	(Risso)	Polinices josephinia	Neverita josephinia	exact	140549	Neverita josephinia	Risso, 1826	140549	Neverita josephinia	Risso, 1826
Sepia officinalis veranyi	(P. Fischer M. S.)	Sepia officinalis veranyi	Sepia veranyi		141444	Sepia officinalis	Linnaeus, 1758	141444	Sepia officinalis	Linnaeus, 1758
Thiara (Melanoides) tuberculata	(Muller)	Thiara tuberculata	Melanoides tuberculata	exact	225694	Melanoides tuberculata	(O. F. Müller, 1774)	225694	Melanoides tuberculata	(O. F. Müller, 1774)

Direct match

Species epithet and author match

No match in WoRMS