

DASSH

The archive for marine
species and habitats data



From Regional to Global: how good data support good stewardship

Dan Lear

Marine Biological Association

dble@mba.ac.uk

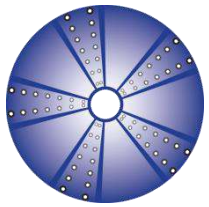


[@danlear](#) / [@dassh](#)



Est. 1884
Incorporated by
Royal Charter





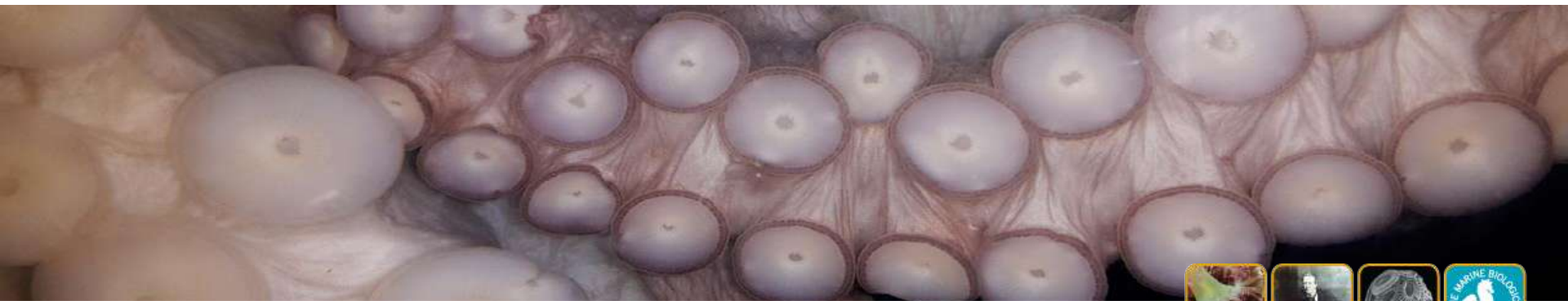
DASSH

The archive for marine
species and habitats data

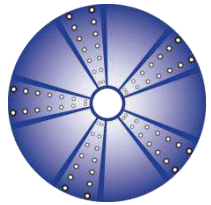
EU in-situ ocean observation costs > €1 billion/year¹



¹ DG-MARE, 2015







DASSH

The archive for marine
species and habitats data

HOW STANDARDS PROLIFERATE: (SEE: A/C CHARGERS, CHARACTER ENCODINGS, INSTANT MESSAGING, ETC.)

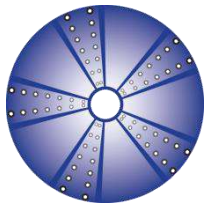


Source: xkcd.com CC-BY-NC



Est. 1884
Incorporated by
Royal Charter





DASSH

The archive for marine
species and habitats data

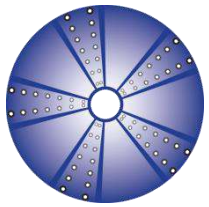


- MEDIN is a collaborative and open partnership
- Working to reduce costs in sourcing, evaluating and preparing data
- Sponsors include government departments, research councils, environmental and conservation agencies, trading funds
- Wide public and private sector involvement (>30 active partners)



Est. 1884
Incorporated by
Royal Charter





DASSH

The archive for marine
species and habitats data



Marine Environmental Data Standards & Tools

MEDIN Discovery Metadata (INSPIRE/ISO/UK GEMINI)

Metadata Maestro

Discovery Metadata Editor



Marineregions.org

towards a standard for georeferenced marine names

World Register of Marine Species (aphiaID)

Marine Regions (MRID)

BODC/SeaDataNet Vocab

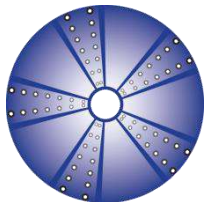
EDMO



Est. 1884
Incorporated by
Royal Charter

```
194 </gui:thesaurusName>
195 </gui:ID_Keywords>
196 </gui:descriptiveKeywords>
197 </gui:descriptiveKeywords>
198 </gui:ID_Keywords>
199 </gui:keyword>
200 </gui:keyword>
201 </gui:keyword>
202 </gui:keyword>
203 </gui:keyword>
204 </gui:keyword>
205 </gui:keyword>
206 </gui:keyword>
207 </gui:keyword>
208 </gui:thesaurusName>
209 </gui:keyword>
210 </gui:keyword>
211 </gui:keyword>
212 </gui:keyword>
213 </gui:keyword>
```





DASSH

The archive for marine
species and habitats data



marine environmental
data & information network



**British
Geological Survey**
NATURAL ENVIRONMENT RESEARCH COUNCIL



**British Oceanographic
Data Centre**
NATURAL ENVIRONMENT RESEARCH COUNCIL



THE UNITED KINGDOM
HYDROGRAPHIC OFFICE



Met Office



DASSH The Archive for Marine
Species and Habitats Data

**marinescotland
science**



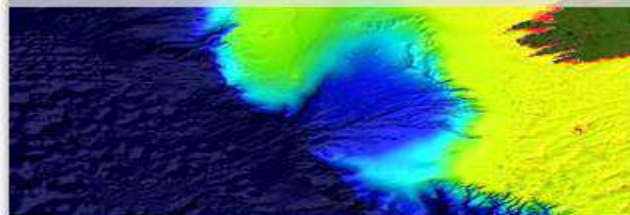
Cefas



**ARCHAEOLOGY
DATA SERVICE**



Bathymetry



Data on bathymetry (water depth), coastlines, and geographical location of underwater features: wrecks.

[Read more](#) [Portal](#)

Geology



Data on seabed substrate, sea-floor geology, coastal behaviour, geological events, and minerals.

[Read more](#) [Portal](#)

Seabed Habitats



Data on modelled seabed habitats based on seabed substrate, energy, biological zone, and salinity.

[Read more](#) [Portal](#)

Chemistry



Data on the concentration of nutrients, organic matter, pesticides, heavy metals, radionuclides and antifoulants in water, sediment and biota.

[Read more](#) [Portal](#)

Biology



Data on temporal and spatial distribution of species abundance and biomass from several taxa.

[Read more](#) [Portal](#)

Physics



Data on salinity, temperature, waves, currents, sea-level, light attenuation, and FerryBoxes.

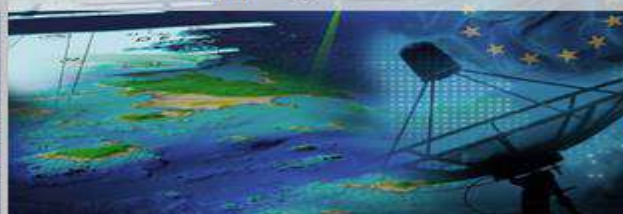
[Read more](#) [Portal](#)

Human Activities

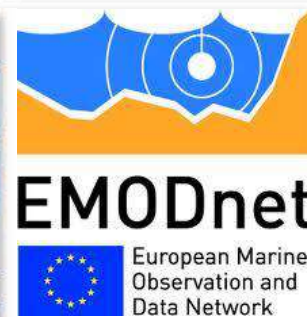


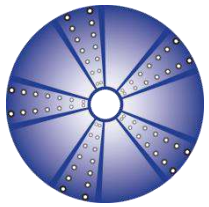
Data on the intensity and spatial extent of human activities at sea.

Coastal Mapping



Building a Joint European Coastal Mapping Programme.





DASSH

The archive for marine
species and habitats data

<http://portal.oceannet.org>

Search for marine data across UK organisations

Contact Addthis

FILTER SEARCH

You searched for:

North: '51.63848'
West: '-6.83350'
East: '-0.37354'
South: '49.17452'

Data theme:
Marine Biodiversity
Sub theme:
Biota abundance, bl...

FREE SEARCH

TIME PERIOD

From To

PARAMETER GROUP

Fish abundance in w...	(243)
Biodiversity indices	(193)
Salinity of the water ...	(158)
Temperature of the ...	(158)
Zoobenthos generic ...	(142)
Fish biomass in wat...	(141)

ORIGINATOR

Centre for Environm...	(331)
Marine Biological As...	(70)
Department for Envi...	(44)
No organisation	(26)
Environment Agency...	(23)

RESULTS

New search Wide view

Found 701 | Show Page (1 of 36) | Previous | Next

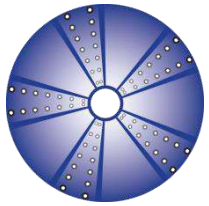
20 100 1000

UK Surface Ocean-Lower Atmosphere Study (UK SOLAS) 2003-2010
University of East Anglia, School of Environmental Sciences
20180206T15:16:39

Marine and Freshwater Microbial Biodiversity Programme Data Set
Plymouth Marine Laboratory
20180206T15:16:39

Biological and Hydrographic station data collected during the Atlantic Meridional Transect (AMT) programme (1995-)
National Oceanography Centre, Southampton; Plymouth Marine Laboratory; Southampton Oceanography Centre
20180206T15:16:38

Ocean Margin Exchange Phase I (OMEX I) Project Data Set (1993-1995)
Baltic Sea Research Institute Warnemuende (IOW); CEA / Service Mixte De Surveillance Radiologique Et Biologique; Central Marine Services Ltd; Christian Albrechts University of Kiel, Leibniz Laboratory for Radiometric Dating and Isotope Research; CNRS-CEA Centre des Faibles Radioactivités; Defence Research Agency; ECOLE NORMALE SUPERIEURE / LABORATORY OF GEOLOGY - ENS; EPOC - Geology and Oceanography Department; GEOMAR Research Centre for Marine Geosciences; Ghent University, Faculty of Sciences, Biology Department; IFREMER; IHPT, Hydrographic Institute; Institute for Marine

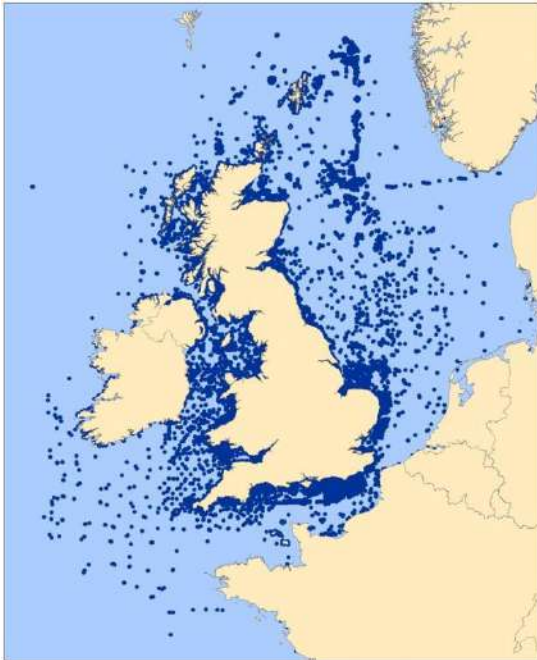


DASSH

The archive for marine
species and habitats data

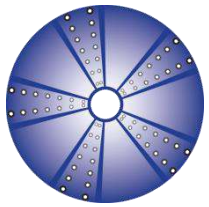


- Launched 2005 from MarLIN Data Access Programme (est. 1998)
- Centre of excellence for the management of marine biological data
- Accredited Data Archive Centre
- Currently hold >43 million records



- 'Free' ingestion for standard formats
- Over 2.5 million data requests per year
- Publish through NBN, ALS, GBIF, OBIS, EMODNet Biology
- Support for monitoring and reporting frameworks (inc Habitats Dir, WFD and MSFD)





DASSH

The archive for marine
species and habitats data

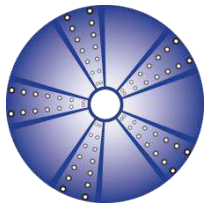


- Mints DOI's for internal use and 3rd parties
- Generates standardised metadata (online tool)
- Runs MEDIN Metadata Helpdesk & workshops
- Data delivery via open source standards for 3rd party integrations
- Dedicated data discovery and download portal (plus options for customisation)



Est. 1884
Incorporated by
Royal Charter





DASSH

The archive for marine
species and habitats data



- National role
 - Accredited MEDIN Data Archive Centre since 2005
 - Marine Node of the National Biodiversity Network
 - Data provider to the Atlas of Living Scotland
- EU role
 - EMODnet Biology partner
- International role
 - UK Node of Ocean Biogeographic Information System
 - Accredited Data Unit of IODE



Est. 1884
Incorporated by
Royal Charter



INSPIRE Geoportal

data.gov.uk

MEDIN Portal
Marine Data Discovery
Portal

OBIS-ENV-DATA schema

OBIS/EurOBIS
Global Marine Species,
Habitats and Associated
Environmental Data

EMODnet
Biology

GBIF star schema

GBIF
Global Biodiversity

datasets
(marine)

NBN
UK Biodiversity

NERC
SCIENCE OF THE
ENVIRONMENT

Metadata
Web

& 'mixed'
datasets

Names &
Species

Local
Record
Centres

Governing
Bodies

Inventory
Bodies

Academia

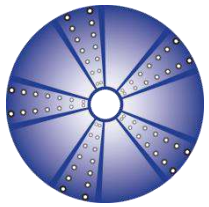
Recorders

Commissioned Research



Est. 1884
Incorporated by
Royal Charter



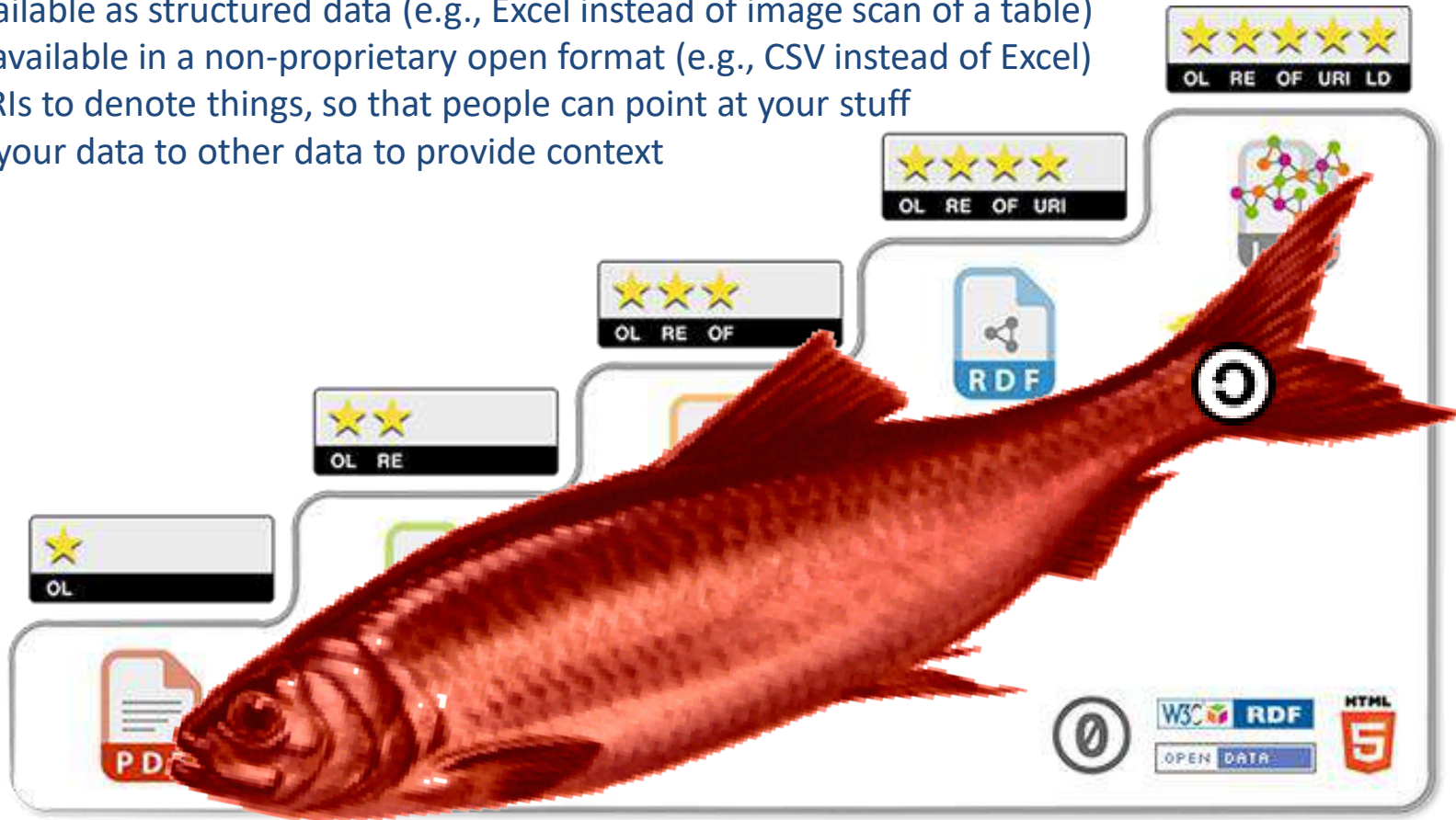


DASSH

The archive for marine
species and habitats data

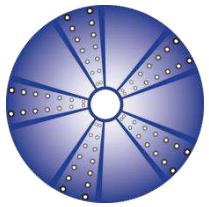
Open Data for Open Science

- ★ - make your data available on the Web (whatever format) under an open license
- ★★ - make it available as structured data (e.g., Excel instead of image scan of a table)
- ★★★ - make it available in a non-proprietary open format (e.g., CSV instead of Excel)
- ★★★★ - use URIs to denote things, so that people can point at your stuff
- ★★★★★ - link your data to other data to provide context



Est. 1884
Incorporated by
Royal Charter





DASSH

The archive for marine
species and habitats data



Legitimate concerns over

- Academic ‘priority’
- Sensitive species
- Commercial interest

and problems remain

- Data ‘protectionism’
- Confusing data flow (inc UKRI vs Defra)
- Technical barriers/limited resources

Make your data open,
make your data FAIR!

Findable

Accessible

Interoperable

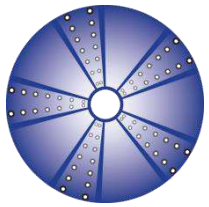
Reusable



Est. 1884
Incorporated by
Royal Charter

As open as possible, as closed as necessary





DASSH

The archive for marine
species and habitats data



Unprecedented levels of cooperation -

- MCZ Monitoring
- MSFD Indicator development
- Wind Farm licensing

Only possible due to adoption of standards and data guidelines

By contributing to the network you are influencing policy at the UK, European and global scales.

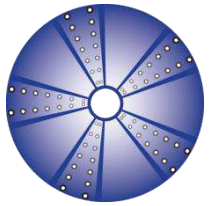
Get involved!



Est. 1884
Incorporated by
Royal Charter

MEDIN Open Meeting, London 24th April
MEDIN Workshops - London/Southampton/Edinburgh/Plymouth





DASSH

The archive for marine
species and habitats data

Thank you & Questions?

For help and advice on all marine data management issues contact DASSH
dassh.enquiries@mba.ac.uk
@DASSH

