



European Project on Ocean Acidification

EPOCA/EUR-OCEANS data rescue and transformation on ocean acidification

Anne-Marin Nisumaa
Villefranche-sur-mer, France
(nisumaa@obs-vlfr.fr)

<http://epoca-project.eu>



1. receive data
2. check if all used parameters exist in the database
3. add parameters and/or transform into suitable units if necessary
4. prepare import files
5. add metadata and comments
6. request additional information if necessary
7. check online if everything looks OK
8. data set originator is asked to quality-check the data
9. make data set public



- another backup
- access restrictions possible until the article is published
- in Pangaea each data set has a DOI and can be referenced
- authors, publications and data become more visible
- increased number of citations
- increased number of collaborations
- no hassle for the authors, the data manager does the work



- back-up is not archiving but archiving is another (long lasting) back-up
- greater accountability and transparency of science
- increased recognition
- research cannot flourish if data are not preserved and made accessible (Nature 2009 vol 461 issue 7261)
- *“We need to change the culture of science to one that equally values publications and data” - William Michener*



- the EU project **EUR-OCEANS** initiated a data rescue and transformation on ocean acidification project which is now continued by **EPOCA**, the European Project on Ocean Acidification.

Reasons for the compilation

- numerous papers report the effects of ocean acidification but few offer details on the carbonate chemistry, irradiance and other ancillary data.
- parameters of the carbonate system have often been reported on different pH scales (NBS, total, free, or sea-water) using different sets of equilibrium constants
- this makes data comparison and meta-analysis difficult

- to collect the data on the carbonate chemistry, processes and ancillary data
- to analyze and transform the data if needed
- to make the data available to the whole community via the EPOCA database that is hosted by the World Data Center for Marine Environmental Sciences (WDC-MARE)/Pangaea (www.pangaea.de)



- getting the data
- huge number of parameters
- complexity of the mesocosm data
- normalization of parameters (e.g. growth rate, calcification)



- 55 data sets from 79 papers
- 16 data sets soon to be uploaded
- requests were sent to the corresponding author of 54 publications
- 36 data sets are lost or could not be obtained from the authors

The database can be accessed on the EPOCA web site.

Additional information can be obtained from Anne-Marin Nisumaa (nisumaa@obs-vlfr.fr) the EPOCA observational data manager.

The EPOCA project hopes that this service will be useful to the community and encourage authors to provide their data once their papers are accepted.