



Programme FixO3 training workshop

Title workshop:

Acquisition, validation, quality control and access to (biodiversity) data -

Training course for less experienced users of data products

Date

14-15 June 2016

Venue/Location

Amadore Hotel Restaurant **Arion**

Boulevard Bankert 266

4382 AC Vlissingen, the Netherlands

Website: <http://www.amadore.nl/hotel-zeeland/vlissingen/arion>

Organiser and secretariat

Herman Hummel and Joke van Houte

Netherlands Institute for Sea Research

Yerseke, the Netherlands

e-mail: herman.hummel@nioz.nl, joke.van.houte@nioz.nl

Lecturers

- Herman Hummel (NIOZ)
- Sander Wijnhoven (NIOZ, EcoAuthor)
- Sarah Faulwetter, Nicolas Bailly (HCMR)
- Matt Frost (MBA)
- Pieter Provoost (OBIS, UNESCO)



Participants:

Professional researchers and students, that have less experience, and want to improve their abilities, in processing biodiversity data.

Aim and focus of the training workshop:

The aim is to introduce less experienced users to methods and techniques for processing biodiversity data, integrating physico-chemical and biodiversity data, and delivering data products that may be required to meet policy needs such as GES descriptors.

The workshop will consist of lectures on theory, practical examples, and hands-on sessions (participants should bring their own PC to the course).

Accommodation

In the hotel rooms have been booked (and paid) for all participants from Monday 13 June evening till Thursday 16 June morning (3 nights, incl. breakfast). Also lunch, dinner and a couple of drinks for 14 June and 15 June (for all participants) have been booked (and paid).

Transport

There is a direct train from Amsterdam airport (Schiphol) to Vlissingen (it takes 2.5 hours; leaving from Schiphol twice an hour on xx:16 and xx:46).

Schiphol airport has a railway station in the vicinity of the arrivals halls (1 to 4; see map).

You cannot buy tickets in the train. There are serviced counters to buy a ticket in the hall (see arrow in map).

It is also possible to buy your tickets now already at home through internet. The website to buy tickets is:

<http://www.ns.nl/en/travellers/arrange-and-buy/tickets-and-passes/purchasing-tickets>

(or: <https://www.ns.nl/producten/en/losse-kaartjes-toeslagen>)



From station Vlissingen to hotel there is a bus connection (bus-line 56 in front of Vlissingen station, direction “Middelburg station”, leaving twice an hour on xx:00 and xx:30; get out after about 7 minutes at stop “Badhuisstraat”).

From bus-stop “Badhuisstraat” to hotel is 4 minutes walking (to the seafront; see map).



Awards and refund

The FixO3 project offers to the participants of the workshop a (partial) refund of the costs of the workshop. The refund will include the (cheapest) economy return ticket from your work/home to the venue (for the refund original invoices, tickets and bills have to be sent to the secretariat (copies are not eligible); mind that costs of taxi will not be refunded).

Programme

Day 1: Tuesday 14 June

09:00 -09:45: Introduction, terms, and concepts on Biodiversity

- Introduction to the workshop (Hummel)
 - Aims of workshop, introducing each other shortly, practical issues
- A few concepts of Biodiversity (Hummel)
 - Overview of definitions for biodiversity at different organisational levels
 - Relation between biodiversity at different organisational level
- How is biodiversity defined in policy (Frost)
 - An introduction on the use of biodiversity in policy and politics

09:45-10:30: Networking in marine biodiversity research and in data management

- History of networking in marine (biodiversity) research (Hummel)
 - From 1900 to Horizon2020
- A short history on marine data networking (Bailly)
 - Overview of history and present-day (European and global) marine data infrastructures

10:30-11:00: Coffee break

11:00-12:30: Biodiversity data management

- Data acquisition (Faulwetter)
 - The importance of sample planning, protocols, data recording. Examples of problems in data management that can arise from bad planning
- Metadata (Faulwetter & Bailly)
 - What is metadata? How do we record it? Why is it so important? Some examples
- IPR (Faulwetter)
 - Property rights and licenses
- QA/QC: the role of quality control, validation and harmonization (Faulwetter & Provoost)
 - What is quality control? Why do we do it? Examples, e.g. a proliferation of synonymous and misspelled taxon names, how would this affect statistical analyses. Which tools exist (e.g. WoRMS, Marine Regions, Lifewatch Belgium) to help standardization...
- Data repositories (Provoost & Bailly)
 - Which major repositories exist, what do they do (e.g. OBIS, GBIF, Fishbase, Dashed)

12:30-13:30: Lunch

13:30-14:30: Biodiversity data management (continued)

- Tools for data processing (Provoost & Faulwetter)
 - Introduction to mathematical and statistical packages, e.g. PRIMER and R; ind. strength, weaknesses and capabilities of each package

14:30-18:30: Practical exercises on biodiversity data treatment
(including: 15:30-16:00: Tea break)

- Exercises in data capture, validation, ordering (Faulwetter & Provoost)
 - Data formats and data structure (xls vs databases, local formats vs DarwinCore for data exchange, data atomization)
 - Taxonomy and nomenclature (ind. synonyms, how to find names that are not in WoRMS, ...)

- Quality control procedures (e.g. following OBIS node manual), incl. geography (georeferencing locations), taxonomy, general integrity checks (e.g. finding problems in data, standardization and quality control transformations into different formats as csv, xls, problems in UTF-8,)

19:00- : Dinner

Day 2: Wednesday 15 June

08:30-09:30: Biodiversity data unraveled

- Spatial and temporal trends in marine biodiversity in Europe (Hummel & Frost)
 - Geographic gradients observed in Europe
 - Trends between physico-chemical data and biodiversity data
 - Which environmental factors explain geographic gradients most?

09:30-12:00: Practical exercises on biodiversity data treatment (continued)

(including: 10:30-11:00: Coffee break)

- Statistical treatment of biodiversity data (Faulwetter, Wijnhoven & Provoost)
 - The use of Primer and R for basic analyses as MDS, Anosim, Clustering, ...

12:00-12:30: Linking biodiversity and physicochemical data

- The use of statistical packages in linking biodiversity to environmental (physicochemical) variables (Provoost, Wijnhoven & Faulwetter)

12:30-13:30: Lunch

13:30-16:30: Practical exercises on linking biodiversity and physicochemical data

(including: 15:30-16:00: Tea break)

- Using statistical packages to link biodiversity to environmental (physicochemical) variables (Provoost, Wijnhoven & Faulwetter)

16:30-17:15: Data sharing and publishing,

- Data citations, data papers, why and when should we share data (Baillly & Faulwetter)

17:15-18:00: Biodiversity data in conservation, policy and legislation

- The use of biodiversity in national and European directives, and in conservation and Protected Areas (Frost & Hummel)
 - The implementation of the Marine Strategy Framework Directive (MSFD) and the concept of Good Environmental Status (GES)

18:00-18:30: Wrap-up, workshop evaluation

19:00- : Dinner