General information

name of the dataset:
  full name of the dataset: Sorraia catchment (Portugal)
  dataset short name: Sorraia

type of dataset (more information):
  species (taxonomic group) per site database including environmental information

data type:
  point data/observation data, shape files

short description of the dataset/summary:
The database presented here contains general and specific information for the Sorraia river basin in Portugal, compiled within the context of the FP7 MARS Project. The information is based on multiple datasets from multiple sources and contains data on hydrology, climate, water quality, geomorphological pressures and several biotic elements, including fish, macroinvertebrates, macrophytes and diatoms. The main source of information is the Portuguese Environmental Agency (APA) from the Ministry of the Environment, Territory and Energy.

science keywords according to GCMD:
  topic: Agriculture, Biosphere, Climate Indicators, Land Surface, Terrestrial Hydrosphere
  keywords: climate, fish, hydrology, land use, macroinvertebrates, nutrients, river habitat, surface water, water quality

ISO topic category according to ISO 19115:
  Biota, Environment, Inland Waters
Dataset: Sorraia catchment (Portugal)

Technical and administrative specifications

data format: Excel
operating system: Win 8/8.1
data language: English
current availability: internal
    web address (URL): not available
currently available through GBIF: no
    exchange planned: no
update level: continuously updated
documentation:
    type: others/specify
    others/details: no documentation available
Do you plan to publish the data on the BioFresh data portal: no

contact details:

    metadata contact person: Pedro Segurado
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    email: psegurado@isa.ulisboa.pt
Dataset: Sorraia catchment (Portugal)

Intellectual property rights and citation

dataset publisher is already published: not published

dataset creator (data compiler):

  contact name: Pedro Segurado
  contact email: psegurado@isa.ulisboa.pt
  contact institution: Instituto Superior de Agronomia, Tapada da Ajuda, 1349-017 Lisboa

data contributors to/owners of this dataset: single

criteria for using the data in a publication/scientific analysis:

  The dataset needs to be requested from dataset creator with specific conditions of use.

citation of this dataset:

  author(s): Pedro Segurado, Carina Almeida, José Maria Santos, Ramiro Neves & Teresa Ferreira
  title: Biological and environmental database of Sorraia catchment, Portugal
  year: 2014

citation of the metadata:

  author(s): Pedro Segurado, Carina Almeida, José Maria Santos, Ramiro Neves & Teresa Ferreira
  title and journal (name, number, pages): Description of a biological and environmental database for the catchment of Sorraia River, Portugal
  year: 2014
General data specifications

regional coverage of the dataset:
  scale of the dataset: catchment
  continents: Europe

spatial extend (bounding coordinates):
  southernmost latitude [°]: 38.58
  northernmost latitude [°]: 39.50
  westernmost longitude [°]: -8.99
  easternmost longitude [°]: -7.242
  minimum altitude: 3 metres
  maximum altitude: 380 metres
  countries: Europe: Portugal
Dataset: Sorraia catchment (Portugal)

Site specifications

coordinate system/grid data: latitude/longitude
projected

datum (e.g. WGS84): WGS84
grid data available: yes
resolution: 500m

site coding: alphanumerical

site coding available: yes

number of digits: 6
example: DQA004

number of sites:
exact number of sites: 65

<100
Climate and environmental data

climate related data:

available per: per catchment

spatial resolution of the data (if not catchment/site related):

others/specify

available parameters:

mean annual temperature January, July

winter and summer precipitation

mean annual precipitation

daily air temperatures

mean annual discharge

Solar radiation, humidity, wind speed

Environmental data:

available parameters per catchment: catchment size

SNIRH (National Water Resources Institute)

available parameters per catchment: catchment land cover/land use

GSE Land M2.1, Corine2006, Global Cover 2006

available parameters per catchment: presence of barriers/dams/reservoirs (fragmentation)

SNIRH (National Water Resources Institute)

available parameters per catchment: hydrological regime/flow regime

SNIRH (National Water Resources Institute)

available parameters per site: catchment land use upstream of sampling site

SNIRH (National Water Resources Institute)

available parameters per site: information on embankment (incl. information on modification)

SNIRH (National Water Resources Institute)

available parameters per site: information on channel form (incl. information on modification)

SNIRH (National Water Resources Institute)

available parameters per site: information on cross section (incl. information on modification)

SNIRH (National Water Resources Institute)

available parameters per site: distance to next migration barrier upstream

EFI+ Project

available parameters per site: distance to next migration barrier downstream

EFI+ Project

available parameters per site: distance to the next lake upstream

EFI+ Project

available parameters per site: river length

SNIRH (National Water Resources Institute)

available parameters per site: distance to source
Dataset: Sorraia catchment (Portugal)

available parameters per site: distance to mouth
available parameters per site: stream order (according to Strahler)
available parameters per site: slope
available parameters per site: altitude
available parameters per site: hydrological regime/flow regime
available parameters per site: mean depth
available parameters per site: wetted width
available parameters per site: information on instream habitat (incl. information on modification)

physico-chemistry data: total P, nitrate, nitrite, total N, ammonium, TOC (total organic carbon), oxygen content, chlorophyll, Secchi disc depth, thermocline depth, sediment/soil parameters

other physico-chemical parameters: Data on lake’s trophic state and stratification are available

stressors influencing the sites: no
reference sites available: no stressor data available
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Biological data

biological data origin: general compilation
specify method: report search
organism group addressed: fish, macro-invertebrates (Mollusca, Crayfish, Ephemeroptera, Odonata, Plecoptera, Coleoptera, Trichoptera, Chironomidae), (benthic) diatoms, macrophytes
Sample specifications/sample resolution

**fish:**

**sample information:**
- covered timeframe: 1994 - 2009
- historical data: yes
- palaeo data: no
- season: spring, summer, autumn

**temporal resolution/frequency of sampling:**
- For most sites only one fishing occasion is available.

**time series data:** no

**comments:** Historical data includes records on the presence of diadromous fish from the 18th and 19th century.

**taxonomic resolution:** species

**percentage of species level data:** 100

**taxonomic coding:**
- taxalist according to: Kottelat & Freyhof (2007)
- coding system: 3 initials of the genus and species names with an underscore separator
- example: Sal_tru

**sample specifications:** quantitative (abundance data)

**replicate samples:** no

**number of samples:** 65

**specification of method(s) used for sampling and sorting:** Sites were sampled by electrofishing during lowflow periods employing standard European methods (EN, 2003), mostly by wading. There is only one sample per site available.


**macro-invertebrates:**

**sample information:**
- covered timeframe: 2010 - 2011
- historical data: no
- palaeo data: no
- season: spring, summer
- time series data: no

**taxonomic resolution:** family

**coding system:** family name

**example:** Corixidae

**sample specifications:** quantitative (abundance data)

**replicate samples:** no

**number of samples:** 8

**specification of method(s) used for sampling and sorting:** Sampling was based on methodology defined by the former Portuguese water authorities (INAG, 2008): six trawls (1m length and 0.25 m width),
**Dataset:** Sorraia catchment (Portugal)


**comments:** More sites are expected to be included soon.

### (benthic) diatoms:

**sample information:**
- **covered timeframe:** 2004 - 2011
- **historical data:** no
- **palaeo data:** no
- **season:** spring, summer
- **time series data:** no

**taxonomic resolution:** species

**percentage of species level data:** 100

**taxonomic coding:**

- **coding system:** species name
- **example:** Achnanthes brevipes

**sample specifications:**
- **replicate samples:** no
- **number of samples:** 12
- **specification of method(s) used for sampling and sorting:** Samples were collected according to standard methods (EN, 2003; Kelly et al., 1998). Counting of the diatom cells followed standard procedures (EN, 2004) with a minimum of 400 valves identified and counted.

Dataset: Sorraia catchment (Portugal)

215-224.

comments: More sites are expected to be included soon.

macrophytes:
sample information:
covered timeframe:
  year from - to: 2004 - 2005
  historical data: no
  palaeo data: no
  season: spring, summer
  time series data: no
taxonomic resolution: species
  percentage of species level data: 98

taxonomic coding:
taxalist according to: Many different sources were used.
coding system: species name
taxonomy coding system: example: Agrostis stolonifera

taxonomic coding:

taxonomic coding:
sample specifications:
quantitative (abundance data)
replicate samples: no
number of samples: 16

taxonomic coding:
sample specifications:
sampling methods were based on the European standards EN14184 (2003) and EN14996 (2006), and adaptations can be found in the Sampling Survey Guidebook for Macrophytes (Instituto da Água IP, 2008). Surveyors waded upstream within the channel in a zig-zag manner, re-wading downstream to ensure that all the species were recorded and to confirm species abundance (measured as percentage cover). If channel access was hazardous, surveying was done by walking along the banks. Surveys include mainly vascular plant species and bryophyte, some macroalgae were identified.
specific sample location (e.g. littoral, profundal, transect, shoreline, hyporheic zone, etc.): Survey area included the in-stream river part that is under water or temporarily exposed under conditions of dry-water flow or for longer periods under certain natural conditions.
Dataset: Sorraia catchment (Portugal)

Other specifications

GIS layers, shapes related to the dataset:
- species distribution
- hydrological information (as HydroSHEDS)
- catchments, river-sub-basins
- land use
- dams/reservoirs/barriers
- environmental variables (freshwater or terrestrial)
- climatic variables (current and predictions)

availability of photos: yes
availability of maps: yes

quality control procedures:
- Were any quality control procedures applied to your dataset?
  - no