Metadata

Sorraia catchment (Portugal)

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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 whithin 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

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:	*continously 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:

first, last name:	*Pedro Segurado*
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province, state:	*Lisbon*
country	*Portugal*

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Intellectual property rights and citation

dataset publisher (if the database 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*

dataset publisher (if the database is already published) *not published*

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*

Site specifications

coordinate system/grid data:	*latitude/longitude*
	projected
datum (e.g. WGS84):	*WGS84*
grid data available:	*yes*
resolution:	*500m*
site coding:	
site coding available:	*yes*
	alphanumerical
number of digits:	*6*
example:	*DQA004*
number of sites:	*<100*
exact number of sites:	*65*

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
                                    weather station, SNIRH (National Water Resources Institute) data source:

                                    mean annual temperature for each month
                                    weather station, SNIRH (National Water Resources Institute) data source:

                                    minimal, maximal and mean winter and summer temperatures
                                    weather station, SNIRH (National Water Resources Institute) data source:

                                    daily air temperatures
                                    weather station, SNIRH (National Water Resources Institute) data source:

                                    mean annual precipitation
                                    weather station, SNIRH (National Water Resources Institute) data source:

                                    winter and summer precipitation
                                    weather station, SNIRH (National Water Resources Institute) data source:

                                    evaporation
                                    weather station, SNIRH (National Water Resources Institute) data source:

                                    mean discharge
                                    ARBVS; weather station, SNIRH (National Water Resources Institute) data source:

                                    Solar radiation, humidity, wind speed
                                    weather station, SNIRH (National Water Resources Institute) data source:

environmental data:

available parameters per catchment:	*catchment size*
	SNIRH (National Water Resources Institute) data source:
available parameters per catchment:	*catchment land cover/land use*
	GSE Land V2.1, Corine2006, Global Cover 2006 data source:
available parameters per catchment:	*presence of barriers/dams/reservoirs (fragmentation)*
	SNIRH (National Water Resources Institute) data source:
available parameters per catchment:	*hydrological regime/flow regime*
	SNIRH (National Water Resources Institute) data source:
available parameters per site:	*catchment land use upstream of sampling site*
	SNIRH (National Water Resources Institute) data source:
available parameters per site:	*information on embankment (incl. information on modification)*
	SNIRH (National Water Resources Institute) data source:
available parameters per site:	*information on channel form (incl. information on modification)*
	SNIRH (National Water Resources Institute) data source:
available parameters per site:	*information on cross section (incl. information on modification)*
	SNIRH (National Water Resources Institute) data source:
available parameters per site:	*distance to next migration barrier upstream*
	EFI+ Project data source:
available parameters per site:	*distance to next migration barrier downstream*
	EFI+ Project data source:
available parameters per site:	*distance to the next lake upstream*
	EFI+ Project data source:
available parameters per site:	*river length*
	SNIRH (National Water Resources Institute) data source:
available parameters per site:	*distance to source*

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

physico-chemistry data: *total P, nitrate, nitrite, total N, ammonium, TOC (total organic carbon), oxygen content, chlorophyll, Secci 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:

    reference sites available: *no*

                no stressor data available

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*

general compilation

Sample specifications/sample resolution

<u>fish:</u>
sample information:

covered timeframe:	
year from - to:	*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)*
citation:	*Kottelat M. & Freyhof J. 2007. Handbook of European Freshwater Fishes. Kottelat, Cornol and Freyhof, Berlin, 646 pp.*
coding system:	*3 initials of the genus and species names with an undescore 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.
citation:	*EN 14011, 2003. Water Quality - Sampling of Fish with Electricity. Comité Européen de Normalisation (CEN).*

<u>macro-invertebrates:</u>
sample information:

covered timeframe:	
year from - to:	*2010 - 2011*
historical data:	*no*
palaeo data:	*no*
season:	*spring, summer*
time series data:	*no*

taxonomic resolution: *family*

taxonomic coding:

taxalist according to:	*not specified*
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),

	proportionally distributed throughout the available habitats.
citation:	*INAG, I.P. 2008. Manual para a avaliação biológica da qualidade da água em sistemas fluviais segundo a Directiva Quadro da Água. Protocolo de amostragem e análise para os macroinvertebrados bentónicos. Ministério do Ambiente, Ordenamento do Território e do Desenvolvimento Regional. Instituto da Água, Lisboa.*
comments:	*More sites are expected to be included soon.*

(benthic) diatoms:

sample information:

covered timeframe:	
year from - to:	*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:

taxalist according to:	*Identification followed Krammer and Lange-Bertalot (1986, 1988, 1991a, 1991b).*
citation:	*Krammer K. & Lange-Bertalot H., 1986. Bacillariophyceae. Naviculaceae. Süßwasserflora von Mitteleuropa, Vol. 1. Gustav Fischer Verlag, Stuttgart.* *Krammer K. & Lange-Bertalot H., 1986. Bacillariophyceae. Bacillariaceae, Epithemiaceae, Surirellaceae. Süßwasserflora von Mitteleuropa, Vol. 2. Gustav Fischer Verlag, Stuttgart.* *Krammer K. & Lange-Bertalot H., 1986. Bacillariophyceae. Centrales, Fragilariaceae, Eunoticeae. Süßwasserflora von Mitteleuropa, Vol. 3. Gustav Fischer Verlag, Stuttgart.* *Krammer K. & Lange-Bertalot H., 1986. Bacillariophyceae. Achnanthaceae. Kristische Ergänzungen zu Navicula (Lineolatae) und Gomphonema, Gesamtliteraturverzeichnis. Süßwasserflora von Mitteleuropa, Vol. 4. Gustav Fischer Verlag, Stuttgart.*
coding system:	*species name*
example:	*Achnanthes brevipes*
sample specifications:	*quantitative (abundance data)*
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.
citation:	*EN 13946, 2003. Water quality - guidance standard for the routine sampling and pretreatment of benthic diatoms for rivers. Comité Européen de Normalisation (CEN).* *EN 14407, 2004. Water quality - guidance standard for the identification, enumeration and interpretation of benthic diatom samples from running waters. Comité Européen de Normalisation (CEN).* *Kelly M.G., Cazaubon A., Coring E., Dell'Uommo A., Ector L., Goldsmith B., et al., 1998. Recommendations for the routine sampling of diatoms for water quality assessments in Europe. Journal of Applied Phycology 10:*

	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.*
citation:	*Castroviejo S. et al. (coor.), 1986-2012. Flora Iberica. Plantas vasculares de la Península Ibérica, e Islas Baleares. Real Jardín Botánico, CSIC. Madrid.*
	Franco J.A., 1971-1984. Nova Flora de Portugal (Continente e Açores), Author Edition. Lisboa.
	Franco J.A. & Rocha-Afonso M.L. 1994 -1998. Nova Flora de Portugal (Continente e Açores), Escolar Editora. Lisboa.
	Tutin T.G., Heywood V.H., Burgess N.A., Moore D.M., Valentine D.H., Walters S.M. & Webb D.A. (eds). 1964-1993. Flora Europaea. Cambridge University Press, UK.
coding system:	*species name*
example:	*Agrostis stolonifera*
sample specifications:	*quantitative (abundance data)*
replicate samples:	*no*
number of samples:	*16*
specification of method(s) used for sampling and sorting:	
	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.
citation:	*INAG, I.P. 2008. Manual para a avaliação biológica da qualidade da água em sistemas fluviais segundo a Directiva Quadro da Água. Protocolo de amostragem e análise para os macrófitos. Ministério do Ambiente, Ordenamento do Território e do Desenvolvimento Regional. Instituto da Água, Lisboa.*
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.

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