Exported from the Freshwater Biodiversity Data Portal, http://data.freshwaterbiodiversity.eu
Visit the Freshwater Metadatabase, http://data.freshwaterbiodiversity.eu/metadb/about_metadata

General information

name of the dataset:

full name of the dataset: *Phytoplankton in Middle Elbe catchment (Germany)*

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:

This database comes from different sources (monitoring programs in the period 2005-2012) aiming to create an information system on the state of water environment in the Middle Elbe basin. This information includes environmental (water, land use) and biological (phytoplankton, status of benthic macroinvertebrates and fish) elements obtained from sampling stations placed in larger rivers and lakes connected to the river network and from GIS maps in the whole catchment. The database is also used for empirical modelling of ecological status of phytoplankton and is compiled within the context of the FP7 MARS project.

science keywords according to GCMD**:**

topic: *Biosphere, Biological Classification, Land Surface*

keywords: *surface water, rivers/streams, water quality/water chemistry, discharge/flow, nutrients, chlorophyll, biological classification, phytoplankton*

ISO topic category according to ISO 19115**:**

Biota, Environment, Inland Waters

Technical and administrative specifications

data format: *Access*
operating system: *Win 7*
data language: *German*
current access level: *internal*
    currently available through [GBIF](#):   *no*
    exchange planned: *no*
    data in data repository: *no*
update level: *completed*
documentation:
    type: *scientific paper, internal description*
    language: *English*
Do you plan to publish the data on the Freshwater Biodiversity Data Portal:

     no
    comments: *Abiotic and biological data harmonised for 105 sites and their catchments are planned to be published as material for a scientific paper about modelling. Publication of data possible, when data rights are finally clarified.*

contact details:

    metadata contact person:
    first, last name: *Ute Mischke*
    email: *mischke@igb-berlin.de*
    institution: *Leibniz-Institute of Freshwater Ecology and Inland Fisheries (IGB)*
    address: *Justus-von-Liebig-Strasse 7*
    postal code, city: *12489 Berlin*
    country   *Germany*
    web address: *http://www.igb-berlin.de/*

    technical contact person:
    first, last name: *Judith Mahnkopf*
    email: *j.mahnkopf@igb-berlin.de*

    scientific contact person:
    first, last name: *Ute Mischke*
    email: *mischke@igb-berlin.de*

Intellectual property rights and citation

(if the database is already published):

dataset creator (data compiler):

contact name:	*Ute Mischke*
contact email:	*mischke@igb-berlin.de*
contact institution:	*IGB*

data contributors to/owners of this dataset:

	multiple
number:	*6*

provider 1:

provider institute:	*www.fgg-elbe.de*
contact name:	*FGG Elbe*
contact email:	*gregor.ollesch@fgg-elbe.de*

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

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

provider 2:

provider institute:	*Berlin: Senatsverwaltung für Gesundheit, Umwelt und Verbraucherschutz (SenGUV)*
contact name:	*Antje Köhler*
contact email:	*Antje.Koehler@senstadtum.berlin.de*

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

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

provider 3:

provider institute:	*Brandenburg: Landesamt für Umwelt, Gesundheit und Verbraucherschutz (LUGV)*
contact name:	*Dr. Jens Paezolt*
contact email:	*Jens.Paezolt@LUGV.Brandenburg.de*

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

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

provider 4:

provider institute:	*Sachsen: Landesamt für Umwelt, Landwirtschaft und Geologie (LfULG)*
contact name:	*Kerstin Jenemann*
contact email:	*Kerstin.Jenemann@smul.sachsen.de*

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

The dataset is publicly available (data portal, data archive) and can be used without restrictions, but dataset creator/data contributors must be informed prior to publication. Data must be acknowledged and cited correctly.

provider 5:

provider institute:	*Sachsen-Anhalt: Landesbetrieb für Hochwasserschutz und Wasserwirtschaft (LHW Mag*
contact name:	*Birgit Kormann*
contact email:	*Birgit.Kormann@lhw.mlu.sachsen-anhalt.de*

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

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

provider 6:

provider institute:	*Niedersachsen: Landesbetrieb für Wasserwirtschaft, Küsten- und Naturschutz (NLWK*
contact name:	*Agnes Haas*
contact email:	
criteria for using the data in a publication/scientific analysis:	
	The dataset is publicly available (data portal, data archive) and can be used without restrictions, but dataset creator/data contributors must be informed prior to publication. Data must be acknowledged and cited correctly.

citation of this dataset:

author(s):	*Mischke Ute & Venohr Markus*
title:	*MARS phytoplankton database for Middle Elbe catchment*
year:	*2014*

citation of the metadata:

author(s):	*Mischke Ute & Venohr Markus*
title and journal (name, number, pages):	
	Metadata of MARS phytoplankton database for Middle Elbe catchment
year:	*2016*

General data specifications

regional coverage of the dataset:

scale of the dataset:	*catchment*
continents:	*Europe*
countries:	*Europe: Germany*

Site specifications

coordinate system/grid data:	*latitude/longitude*
	projected
datum (e.g. WGS84):	*WGS84*
grid data available:	*no*
site coding:	
site coding available:	*yes*
	alphanumerical
number of digits:	*22*
example:	*HV_0240*
number of sites:	*100 - 1000*
exact number of sites:	*125*
comments:	*105 river sites and 20 largest connected lakes or reservoirs*

Climate and environmental data

climate related data:

available per:	*per catchment*
spatial resolution of the data (if not catchment/site related):	
	50 km
available parameters:	
	mean annual temperature for each month
	GPCC data (DWD):
	mean annual precipitation
	GPCC - source: Global Precipitation Climatology Centre
	evaporation
	Evapotranspiration MODIS16-Daten NASA
	mean discharge
	FGG Elbe http://www.elbe-datenportal.de
comments:	*daily air temperature, discharge and global radiation per chatchment are taken from SWIM modelling provided by Potsdamer Climate Institute (PIK)*

environmental data:

available parameters per catchment:	*catchment size*
	shapefiles - source German wide MONERIS application, Environ. Agency, UBA 2005, 2007
available parameters per catchment:	*catchment geology*
	BGR 1998 & European Soil Bureau Network (ESBN, 2007)
available parameters per catchment:	*catchment land cover/land use*
	ATKIS 2013 (Amtliche Geodaten (GeoBasis-DE / *BKG*(/2013/))? - landuse data
available parameters per catchment:	*population density*
	EUROSTAT (FDZ, 2007)
available parameters per catchment:	*presence of barriers/dams/reservoirs (fragmentation)*
	dam inventory provided by river basin managemen,t FGGE & ATKIS (2013)
available parameters per catchment:	*hydrological regime/flow regime*
	WSV-gauges provided by Bundesanstalt für Gewässerkunde (BfG)
available parameters per site:	*catchment land use upstream of sampling site*
	reda transfrom ATKIS data 2013
available parameters per site:	*information on riparian vegetation (incl. information on modification)*
	reda transfrom ATKIS data 2013
available parameters per site:	*distance to source*
	river network DLM WasserBLick/BfG, 2010
available parameters per site:	*slope*
	GIS data/digital elevation model
available parameters per site:	*altitude*
	GIS data/digital elevation model
available parameters per site:	*discharge*
	gauges FGG Elbe and IGB - hydrological model in MONERIS
available parameters per site:	*mean depth*
	IGB estimated according discharge and river network
physico-chemistry data:	*total P, ortho P, nitrate, total N, ammonium, water temperature, pH, chlorophyll, Secci disc depth*
other physico-chemical parameters	*DOC*
availability of physico-chemical data, if there is more than one sample per site:	
	per sample

stressors influencing the sites:

reference sites available: *no*

stressor	restored sites available	data before/after restoration available	stressor gradient available	comments
eutrophication	no	no	no	LAWA trophic score lakes: PhytoFluss for rivers
hydromorphological degradation	no	no	no	German LAWA assessment and regional methods

Biological data

biological data origin:

	general compilation
specify method:	*national data base according PhytoFluss method*
organism group addressed:	*phytoplankton*

Sample specifications/sample resolution

<u>phytoplankton:</u>
sample information:

covered timeframe:	
year from - to:	*2005 - 2012*
historical data:	*no*
season:	*spring*
temporal resolution/frequency of sampling:	
	per month
time series data:	*yes*
comments:	*Time series data are available for the operational stations.*
taxonomic resolution:	*genus, species*
percentage of species level data:	*75*
taxonomic coding:	
taxalist according to:	*HTL (Harmonisierte Taxaliste Phytoplankton)*
citation:	*Mischke, U.& Kusber, W.-H. (2009): Die harmonisierte Taxaliste des Phytoplanktons für Seen und Flüsse in Deutschland. Excel Datei. Stand 2009/05/20. http://www.igb-berlin.de/datenbanken.html*
coding system:	*HTL-ID*
example:	*100*
sample specifications:	*quantitative (abundance data)*
replicate samples:	*no*
number of samples:	*1*
specification of method(s) used for sampling and sorting:	
	Utermöhl counts
citation:	*Nixdorf, B., Hoehn, E., Riedmüller, U., Mischke U. & Schönfelder, I. (2010): III-4.3.1 Probenahme und Analyse des Phytoplanktons in Seen und Flüssen zur ökologischen Bewertung gemäß der EU-WRRL. In: Handbuch Angewandte Limnologie ? 27. Erg.Lfg. 2/10 1. S. 1- 24*

Other specifications

GIS layers, shapes related to the dataset:

        catchments, river-sub-basins
        land use
        population density
        environmental variables (freshwater or terrestrial)

availability of photos: *yes*
availability of maps: *yes*
quality control procedures:
related information: *http://www.fgg-elbe.de/*
        http://www.ikse-mkol.org/index.php?id=1&L=2