SUPPORTED BY

General information

name of the dataset:

    full name of the dataset: *Fonix*

    dataset short name: *Fonix*

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

    data type: *point data/observation data, vector data (shape files)*

    short description of the dataset/summary:

        The database contains the most comprehensive information on macroscopic benthic invertebrates and one of the most comprehensive information on fish in rivers and lakes of Hungary.

science keywords according to GCMD**:**

    topic: *Biosphere, Terrestrial Hydrosphere*

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

    Biota

Technical and administrative specifications

data format: *Oracle*
operating system: *Linux*
data language: *Hungarian*
current access level: *internal*
   currently available through GBIF: *no*
   exchange planned: *no*
Do you plan to publish the data on the Freshwater Biodiversity Data Portal:
   media for data delivery: *others/specify*
   web address: *http://www.bioaquapro.hu*
   others/details: *Please negotiate access with data holders.*
   comments: *Fees need to be discussed with data holders.*
update level: *continuously updated*
documentation:
   type: *internal description*
   language: *Hungarian*
contact details:

   metadata contact person:
   first, last name: *Béla Kiss*
   phone: *+36 30 749-8525*
   email: *bkiss@bioaquapro.hu*
   institution: *BioAqua Pro Ltd.*
   address: *Kosztolányi u. 42.*
   postal code, city: *4032 Debrecen*
   country   *Hungary*
   web address: *http://www.bioaquapro.hu*

   technical contact person:
   first, last name: *Ákos Gáspár*
   phone: *+36 52 541-780*
   email: *Gaspar.Akos@bioaquapro.hu*

   scientific contact person:
   first, last name: *Szabolcs Lengyel*
   phone: *+36 30 488-2067*
   email: *szabolcslengyel@yahoo.com*

Intellectual property rights and citation

(if the dataset is already published):

dataset creator (data compiler):

    contact name: *BioAqua Pro Llc.*

    contact email: *http://www.bioaquapro.hu*

data contributors to/owners of this dataset:

                                  single

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

                                  Other/Additional criteria

    other/additional criteria: *Details of any use of data need to negotiated with data holders (BioAqua Pro Llc., contact: Béla KISS, Kiss.Bela@bioaquapro.hu).*

citation of this dataset:

    author(s):   *Béla KISS, Zoltán MÜLLER, Péter JUHÁSZ*

    title: *The Fonix database of fish and benthic macroscopic invertebrates of rivers and lakes of Hungary.*

    year: *2013*

citation of the metadata:

General data specifications

regional coverage of the dataset:

    scale of the dataset: *national*

continents: *Europe*

spatial extent (bounding coordinates):

    southernmost latitude [°]: *19*

    northernmost latitude [°]: *21*

    westernmost longitude [°]: *45*

    easternmost longitude [°]: *48*

    maximum altitude: *800* *Europe: Hungary*

Site specifications

coordinate system/grid data: *latitude/longitude*
projected
  datum (e.g. WGS84):   *WGS84*
  grid data available: *no*
alphanumerical
  example: *TIS_800*
number of sites: *100 - 1000*

Climate and environmental data

climate related data: *no data available*

environmental data:

available parameters per catchment: *catchment size*
data source: HydroSheds database

available parameters per site: *catchment land use along a buffer strip (100m width on both sides) upstream (10km) of the sampling site*
partially available

available parameters per site: *information on riparian vegetation (incl. information on modification)*
partially available

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

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

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

available parameters per site: *distance to next migration barrier upstream*
recorded on site

available parameters per site: *distance to next migration barrier downstream*
recorded on site

available parameters per site: *distance to the next lake upstream*
recorded on site

available parameters per site: *distance to the next main village/town upstream*
can be queried using additional shapefiles

available parameters per site: *river length*
can be queried using additional shapefiles

available parameters per site: *distance to source*
can be queried using additional shapefiles

available parameters per site: *distance to mouth*
can be queried using additional shapefiles

available parameters per site: *slope*
can be queried using additional shapefiles

available parameters per site: *altitude*
recorded on site

available parameters per site: *hydrological regime/flow regime*
recorded on site

available parameters per site: *current velocity*
recorded on site

available parameters per site: *maximum depth*
recorded on site

available parameters per site: *mean depth*
recorded on site

available parameters per site: *wetted width*
recorded on site

available parameters per site: *substrate composition*
recorded on site

available parameters per site: *information on instream habitat (incl. information on modification)*
recorded on site

physico-chemistry data: *total P, ortho P, total dissolved P, nitrate, nitrite, total N, ammonium, chloride, magnesium, calcium, hardness, TOC (total organic carbon),*

> oxygen content, BOD5 (biochemical oyxgen demand), water temperature,
> pH, conductivity, colour, Secci disc depth, euphotic depth, substrate

availability of physico-chemical data, if there is more than one sample per site:

> *per sample*

comments: *Physico-chemistry data are available from a restricted set of the sites.*

stressors influencing the sites:

stressor	restored sites available	data before/after restoration available	stressor gradient available	comments
eutrophication				
hydromorphological degradation				
organic pollution				
hydrologic stress (e.g. impoundment, flow velocity reduction, hydropeaking, water abstraction, flow velocity increase)				
thermal stress				
socio-economic stress	yes	yes		

Biological data

biological data origin:

organism group addressed: *fish, macro-invertebrates (Mollusca, Crayfish, Ephemeroptera, Odonata, Plecoptera, Trichoptera), phytoplankton, phytobenthos, (benthic) diatoms, macrophytes, other group(s): Heteroptera, Hirudinea, Coleoptera*

biological data origin:

Sample specifications/sample resolution

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

covered timeframe:	
year from - to:	*1978 - 2013*
historical data:	*yes*
palaeo data:	*no*
season:	*spring, summer, autumn*
temporal resolution/frequency of sampling:	
	temporal resolution varies among sites
time series data:	*yes*
comments:	*Repeated, monitoring-like sampling is conducted in a restricted set of sites only.*

taxonomic resolution:

percentage of species level data:	*100*

taxonomic coding:

taxalist according to:	*Hungarian checklists*
coding system:	*taxon latin name, author*
example:	*Abramis brama Linnaeus*

sample specifications:

replicate samples:	*yes*
specification of method(s) used for sampling and sorting:	
	Samples are collected and sorted in the field.
sample type (e.g. habitat specific samples, composite samples etc.):	
	Samples are collected in a modified AQEM protocol (one sampling site has three sections, each section has five replicate samples).
specific sample location (e.g. littoral, profundal, transect, shoreline, hyporheic zone, etc.):	
	Comprehensive for quantitative samples.
other important sample related informations:	
	Beyond quantitative samples, the database contains information from numerous faunistical studies (some from literature sources and many from the dataholders' own surveys).

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

covered timeframe:	
year from - to:	*1978 - 2013*
historical data:	*yes*
palaeo data:	*no*
season:	*spring, summer, autumn*
time series data:	*yes*
comments:	*Repeated, monitoring-like sampling is conducted in a restricted set of sites only.*

taxonomic resolution:

percentage of species level data:	*100*
comments:	*All sampled individuals are identified to the species level or the genus level when species-level identification is not possible.*

taxonomic coding:

taxalist according to:	*Hungarian checklists*
coding system:	*taxon latin name, author*

example: *Palingenia longicauda (Olivier)*
sample specifications:
replicate samples: *yes*
specification of method(s) used for sampling and sorting:
                                          Samples are collected and sorted in the field.
sample type (e.g. habitat specific samples, composite samples etc.):
                                          Samples are collected in a modified AQEM protocol (one sampling site has three sections, each section has five replicate samples).
specific sample location (e.g. littoral, profundal, transect, shoreline, hyporheic zone, etc.):
                                          Comprehensive for quantitative samples.
other important sample related informations:
                                          Beyond quantitative samples, the database contains information from numerous faunistical studies (some from literature sources and many from the dataholders' own surveys).

phytoplankton:
sample information:

taxonomic resolution:
taxonomic coding:
sample specifications:

phytobenthos:
sample information:

taxonomic resolution:
taxonomic coding:
sample specifications:

(benthic) diatoms:
sample information:

taxonomic resolution:
taxonomic coding:
sample specifications:

macrophytes:
sample information:

taxonomic resolution:
taxonomic coding:
sample specifications:

other group(s):
sample information:

taxonomic resolution:

taxonomic coding:
sample specifications:

Other specifications

GIS layers, shapes related to the dataset:

species distribution
catchments, river-sub-basins
land use
dams/reservoirs/barriers
protected areas

availability of photos:　　　　*yes*
availability of maps:　　　　*yes*
quality control procedures:

Were any quality control procedures applied to your dataset?

yes

quality control protocols and comments:

The database is under continuous quality control and development.

comments:　　　　*All data are georeferenced but GIS layers are not readily available, all data (species distributions, catchments, dams, protected areas etc.) need to be mapped.*