Metadata

Beysehir catchment (Turkey)

General information

name of the dataset:

full name of the dataset: *Beysehir catchment (Turkey)*

dataset short name: *TRBY*

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

data type: *point data/observation data, shape files, descriptive data*

short description of the dataset/summary:

This database contains climatic, hydrologic, water quality and biological information for the Lake Beysehir catchment, Turkey. The dataset includes meteorological data (precipitation, air temperature, wind speed, solar radiation, relative humidity), discharges for the main inflows and lake outflow, lake water level, water chemistry data for inflows and lake. In addition, lake biological data (phytoplankton, zooplankton, fish and macrophyte) is avaiable. Data was compiled during the METU-DPT-TEAB project, EU-FP7 REFRESH project and EU-FP7 MARS project .

science keywords according to GCMD:

topic: *Agriculture, Climate Indicators, Land Surface, Terrestrial Hydrosphere*

keywords: *water quality, nutrients, water level, irrigation, phytoplankton, zooplankton, fish, macrophyte*

ISO topic category according to ISO 19115:

Farming, Biota, Climatology/Meteorology/Atmosphere, Environment, Inland Waters

Technical and administrative specifications

data format: *Excel*
operating system: *Win 7*
data language: *English*
current access level: *internal*
currently available through GBIF: *no*
exchange planned: *no*
data in data repository: *no*
update level: *update planned*
documentation:
type: *others/specify*
others/details: *no documentation*
Do you plan to publish the data on the Freshwater Biodiversity Data Portal: *no*
contact details:

metadata contact person:
first, last name: *Meryem Beklioglu*
phone: *+903122105155*
email: *meryem@metu.edu.tr*
institution: *Middle East Technical University*
address: *ODTÜ Biyolojik Bilimler Çankaya*
postal code, city: *06800 Ankara*
country *Turkey*
web address: *http://limnology.bio.metu.edu.tr/*

technical contact person:
first, last name: *Tuba Bucak*
phone: *+903122105155*
email: *tuba.bucak@metu.edu.tr*

scientific contact person:
first, last name: *Meryem Beklioglu*
phone: *+903122105155*
email: *meryem@metu.edu.tr*

Intellectual property rights and citation

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

dataset creator (data compiler):

contact name:	*Meryem Beklioglu*
contact email:	*meryem@metu.edu.tr*
contact institution:	*Middle East Technical University*

data contributors to/owners of this dataset:

	multiple
number:	*2*

provider 1:

provider institute:	*General Directorate of State Hydraulic Works*
contact name:	*General Directorate of State Hydraulic Works*
contact email:	*http://www.dsi.gov.tr/*
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:	*Turkish State Meteorological Service*
contact name:	*Turkish State Meteorological Service*
contact email:	*http://www.mgm.gov.tr/*
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):	*Bucak Tuba, Beklioglu Meryem, Cakiroglu Ayse Idil, Erdogan Seyda, Levi Eti*
title:	*Database of the Lake Beysehir and its Catchment, Turkey*
year:	*2015*

citation of the metadata:

author(s):	*Bucak T., Beklioglu M., Cakiroglu A.I., Erdogan S. & Levi E.*
title and journal (name, number, pages):	
	Metadata of the Lake Beysehir and Its Catchment, Turkey. Freshwater Metadata Journal 11: 1-8
year:	*2016*
doi (if applicable):	*http://dx.doi.org/10.15504/fmj.2016.11*

General data specifications

regional coverage of the dataset:

scale of the dataset:	*catchment*
continents:	*Asia*

spatial extent (bounding coordinates):

southernmost latitude [°]:	*37.20*
northernmost latitude [°]:	*38.20*
westernmost longitude [°]:	*31.09*
easternmost longitude [°]:	*32.08*
minimum altitude:	*1027 metres*
maximum altitude:	*2958 metres*
countries:	*Asia: Turkey*

Site specifications

coordinate system/grid data:	*latitude/longitude*
	projected
datum (e.g. WGS84):	*WGS84*
grid data available:	*no*
site coding available:	*no*
number of sites:	*<100*
exact number of sites:	*15*

Climate and environmental data

climate related data:

available per:	*per catchment*
available parameters:	
	mean annual temperature January, July
	data source: Turkish State Meteorological Service
	mean annual temperature for each month
	data source: Turkish State Meteorological Service
	minimal, maximal and mean winter and summer temperatures
	data source: Turkish State Meteorological Service
	daily air temperatures
	data source: Turkish State Meteorological Service
	mean annual precipitation
	data source: Turkish State Meteorological Service
	winter and summer precipitation
	data source: Turkish State Meteorological Service
	evaporation
	data source: Turkish State Meteorological Service
	mean discharge
	data source: Turkish State Meteorological Service
	solar radiation, wind speed, relative humidity
	data source: Turkish State Meteorological Service
comments:	*Most of the meteorological data is available from 1990s.*

environmental data:

available parameters per catchment:	*catchment size*
	data source: Republic of Turkey ministry of forestry and water affairs
available parameters per catchment:	*catchment land cover/land use*
	data source: Republic of Turkey Ministry of Food, Agriculture and Livestock, CORINE 2006
available parameters per catchment:	*hydrological regime/flow regime*
	data source: General Directorate Of State Hydraulic Works
available parameters per site:	*catchment land use upstream of sampling site*
	data source: CORINE 2006
available parameters per site:	*information on water uses (e.g., irrigation, fish ponds)*
	data source: General Directorate Of State Hydraulic Works
available parameters per site:	*hydrological regime/flow regime*
	data source: General Directorate Of State Hydraulic Works
available parameters per site:	*discharge*
	data source: General Directorate Of State Hydraulic Works
comments:	*Water level data is available from beginning of 1900s, while water discharge data mostly available from 1993.*
physico-chemistry data:	*total P, total dissolved P, nitrate, nitrite, total N, ammonium, alkalinity, oxygen content, water temperature, pH, conductivity, chlorophyll, Secci disc depth, suspended solids*
availability of physico-chemical data, if there is more than one sample per site:	
	mean values per site
comments:	*Physico-chemical data was obtained through sampling conducted between 2010-2012 during the METU-DPT-TEAB project and EU-FP7 REFRESH project.*

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	
hydrologic stress (e.g. impoundment, flow velocity reduction, hydropeaking, water abstraction, flow velocity increase)	no	no	yes	

Biological data

biological data origin:	*from sampling*
specify project:	*METU-DPT-TEAB and EU FP7 REFRESH project*
organism group addressed:	*fish, zooplankton, phytoplankton, macrophytes*

Sample specifications/sample resolution

fish:

sample information:

covered timeframe:

year from - to: *2010 - 2012*

historical data: *no*

palaeo data: *no*

season: *summer*

temporal resolution/frequency of sampling:

per year

time series data: *no*

taxonomic resolution: *species*

percentage of species level data: *90*

taxonomic coding:

taxalist according to: *No standardised taxalist available.*

coding system: *Taxa are listed with species name.*

example: *Pseudorasbora parva*

sample specifications: *quantitative (abundance data)*

number of samples: *2*

specification of method(s) used for sampling and sorting:

Fish sampling was performed with Lundgren multi-mesh gill nets (length 30 m; height 1.5 m; 12 panels with mesh sizes of 5.0, 6.25, 8.0, 10.0, 12.5, 15.5, 19.5, 24.0, 29.0, 35.0, 43.0 and 55.0 mm). The nets were set overnight (for 12 hours) in both the littoral zone and pelagic zone. Fish were counted, measured (total length), and weighed (fresh mass).

zooplankton:

sample information:

covered timeframe:

year from - to: *2010 - 2012*

palaeo data: *yes*

season: *spring, summer, autumn, winter*

temporal resolution/frequency of sampling:

per month

time series data: *no*

comments: *Samplings were conducted monthly between April 2010-March 2012.*

taxonomic resolution: *genus*

percentage of species level data: *90*

taxonomic coding:

taxalist according to: *No standardised taxalist available.*

coding system: *Taxa are listed with genus name.*

example: *Daphnia*

sample specifications: *quantitative (abundance data)*

replicate samples: *yes*

number of samples: *22*

specification of method(s) used for sampling and sorting:

20 liter of water taken from the deepest point of the lake is filtered in the field with 20 µg filter equipment and preserved in 4% lugol solution. Zooplankton are counted under the microscope at genus level. To calculate biomass, body length of the at least 25 individuals from all taxa are

measured when it is possible.

specific sample location (e.g. littoral, profundal, transect, shoreline, hyporheic zone, etc.):
pelagic

phytoplankton:

sample information:

covered timeframe:

year from - to: *2010 - 2012*

historical data: *no*

season: *spring, summer, autumn, winter*

temporal resolution/frequency of sampling:
per month

time series data: *yes*

comments: *Samplings were conducted monthly between April 2010-March 2012.*

taxonomic resolution: *genus*

percentage of species level data: *90*

taxonomic coding:

taxalist according to: *No standardised taxalist available.*

coding system: *Taxa are listed with genus name.*

example: *Scenedesmus*

sample specifications: *quantitative (abundance data)*

replicate samples: *yes*

number of samples: *22*

specification of method(s) used for sampling and sorting:
Water sample was taken from the deepest point of the lake and preserved in 2% lugol solution. Samples are counted according to Utermöhl method under the inverted microscope at genus level. To calculate biovolume, dimensions of at least 25 individuals from all taxa are measured when possible.

macrophytes:

sample information:

covered timeframe:

year from - to: *2010 - 2012*

historical data: *yes*

palaeo data: *yes*

season: *summer*

temporal resolution/frequency of sampling:
per year

time series data: *no*

comments: *Samplings were performed in summer 2010 and summer 2012.*

taxonomic resolution: *species*

percentage of species level data: *90*

taxonomic coding:

taxalist according to: *No standardised taxalist available.*

coding system: *Taxa are listed with species name.*

example: *Potamogeton pectinatus*

sample specifications: *semi-quantitative*

replicate samples: *yes*

number of samples: *2*

specification of method(s) used for sampling and sorting:

Aquatic macrophytes (floating-leaved, submerged plants) were surveyed along parallel transect lines spaced out at even intervals around the lake. PVI% (Plant volume infested) was calculated using plant surface coverage, height and water depth.

Other specifications

GIS layers, shapes related to the dataset:

catchments, river-sub-basins

land use

availability of photos: *yes*

availability of maps: *yes*

quality control procedures:

Were any quality control procedures applied to your dataset?

no