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Metadata of environmental and abiotic variables of wells in Benin (West Africa)

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Keywords

Water chemistry, wells, water quality, catchment area, Africa

Short description of the dataset/summary

The database comprises georeferenced data on Benin's wells, their attributes, and a series of physical and chemical variables for the water samples.

Short description of the dataset/summary (original/national language)

La base de données comprend des données géoréférencées sur les puits du Bénin, leurs caractéristiques, ainsi qu'une série de variables physiques et chimiques pour les échantillons d'eau.

General information

dataset entry ID: FWM_44

name of the dataset:

full name of the dataset: Metadata of environmental and abiotic variables of wells in Benin (West Africa)

full name of the dataset (original/national language):

Metadata of environmental and abiotic variables of wells in Benin (West Africa)

dataset short name: Abiotic and environmental data of wells in Benin

type of dataset: environmental characteristics database

data type: point data/observation data

science keywords according to [GCMD](#):

topic: Biosphere, Climate Indicators, Land Surface, Terrestrial Hydrosphere

ISO topic category according to [ISO 19115](#):

Biota, Elevation, Environment, Geoscientific Information, Inland Waters, Location

INSPIRE keywords according to [GEMET](#):

Bio-geographical regions, Coordinate reference systems, Elevation, Habitats and biotopes, Land use, Species distribution

own science keywords: Water chemistry, wells, water quality, catchment area, Africa

related project: Projects CEBioS GTI type 2 - P. Martin (see "funding")

funding:

- * Project CEBioS GTI ? Taxinomie, systématique et biodiversité des oligochètes des eaux souterraines du Bénin; Refs.: 2459LJB2_SO1-SBES-2.1_Martin_2015; 2459LJB2_SO1-SBES-2.1_Martin_2016; 2459LJB2_SO1-SBES-2.1_Martin_2017; 2018/SO1-SBES-2.1/183; 1.1-2/2019/008.
- * Project CEBioS GTI - Taxonomie des invertébrés des eaux souterraines du Bénin : ouvrir la voie aux outils d'évaluation et de biomonitoring de la qualité de l'eau; R1.1-2/2020/072
- * Project CEBioS GTI ? Taxonomie des ostracodes stygobiontes du Bénin : asseoir les fondations pour leur utilisation dans l'évaluation et le suivi de la qualité des eaux souterraines. Ref.: R.1.1-2/2022/137

Technical and administrative specifications

data format: Excel

operating system: all operating systems

data language: English

current access level: internal

currently available through [GBIF](#): no

exchange planned: yes

data in data repository: yes

specify repository: Partial repository at:
<http://taxonomy.naturalsciences.be/research-projects/research-training-project-martin-patrick-1-benin/>

Do you plan to publish the data on the Freshwater Biodiversity Data Portal:

yes

update level: continuously updated

documentation:

type: manual

language: English

contact details:

metadata contact person:

first, last name: Sourou Joseph Hotèkpo

phone: +32466045091

email: jshotekpo@gmail.com

institution: Royal Belgian Institute of Natural Sciences, Freshwater Biology

address: Vautierstraat 29
 postal code, city: 1000 Brussels
 country: Belgium
 web address: <https://www.naturalsciences.be/>
 technical contact person:
 institution: Centre de Recherche pour la lutte contre les Maladies Infectieuses Tropicales (CReMIT/TIDRC), Université d'Abomey-Calavi
 address: 01 BP: 526, Abomey-Calavi
 postal code, city: Abomey-Calavi
 country: Benin
 web address: www.uac.bj
 scientific contact person:
 first, last name: Patrick Martin
 phone: +3226274317
 email: pmartin@naturalsciences.be
 institution: Royal Belgian Institute of Natural Sciences, Taxonomy & Phylogeny
 address: Rue Vautier, 29
 postal code, city: 1000 Brussels
 country: Belgium
 web address: <https://www.naturalsciences.be/>

Intellectual property rights and citation

dataset publisher: NA

dataset creator (data compiler):

contact name: Sourou Joseph Hotèkpo
 contact email: jshotekpo@gmail.com
 contact institution: Royal Belgian Institute of Natural Sciences

data contributors to/owners of this dataset:

multiple

number: 7

data contributor/owner 1:

contact name: Sourou Joseph Hotèkpo
 contact email: jshotekpo@gmail.com
 contact institute: Royal Belgian Institute of Natural Sciences
 criteria for using this part of the dataset:

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

data contributor/owner 2:

contact name: Patrick Martin
 contact email: pmartin@naturalsciences.be
 contact institute: Royal Belgian Institute of Natural Sciences
 criteria for using this part of the dataset:

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.

data contributor/owner 3:

contact name: Moïssou Lagnika
 contact email: moissou@yahoo.fr

contact institute: Université d'Abomey-Calavi

criteria for using this part of the dataset:

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

data contributor/owner 4:

contact name: Moudachirou Ibikounlé

contact email: mibikounle2001@yahoo.fr

contact institute: Université d'Abomey-Calavi

criteria for using this part of the dataset:

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

data contributor/owner 5:

contact name: Tadeusz Namiotko

contact email: tadeusz.namiotko@ug.edu.pl

contact institute: University of Gdansk

criteria for using this part of the dataset:

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

data contributor/owner 6:

contact name: Isa Schön

contact email: ischoen@naturalsciences.be

contact institute: Royal Belgian Institute of Natural Sciences

criteria for using this part of the dataset:

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

data contributor/owner 7:

contact name: Koen Martens

contact email: darwinula@gmail.com

contact institute: Royal Belgian Institute of Natural Sciences

criteria for using this part of the dataset:

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

citation of this dataset:

author(s): Lagnika, M., Hotèkpo, S.J., Ibikounlé, M., Martin, P.

title and journal (name, number, pages):

Database of the GTI projects 2459LJB2_SO1-SBES-2.1_Martin_2015; 2459LJB2 SO1-SBES-2.1_Martin_2016; 2459LJB2_SO1-SBES-2.1_Martin_2017; 2018/SO1-SBES-2.1/183; 1.1-2/2019/008; R1.1-2/2020/072; R.1.1-2/2022/137.

year: 2022

citation of the metadata:

author(s): Hotèkpo, S.J., Namiotko, T., Lagnika, M., Ibikounlé, M., Martin, P., Schön, I. & Martens, K.

title and journal (name, number, pages):

Metadata of environmental and abiotic variables of wells in Benin (West Africa). Freshwater Metadata Journal 0: 0-0

year: 0000

doi: <https://doi.org/10.15504/fmj.0000.0>

General data specifications

regional coverage of the dataset:

spatial extent of the dataset: national
continents: Africa

spatial extent (bounding coordinates):

southernmost latitude [°]: 6.500000
northernmost latitude [°]: 12.50000
westernmost longitude [°]: 1.000000
easternmost longitude [°]: 3.666667
minimum altitude: 0 metres
maximum altitude: 658 metres
countries: Africa: Benin

world climatic regions according to [Köppen](#):

Group A: tropical/megathermal climates

freshwater ecoregions of the world (FEOW) according to [WWF](#):

Africa: Bight Drainages

ecosystem type:

groundwater

covered timeframe:

2015 - 2022

Site specifications

coordinate system/grid data:

datum (e.g. WGS84): WGS84
grid data available: no

site coding:

site coding available: yes, alphanumerical
number of digits: 3
example: BEN001

number of sites:

100 - 1000
exact number of sites: 219

Climate and environmental data

climate related data:

no climate data available

environmental data:

no environmental data per catchment available

available parameters per site:

altitude

data source: Field measurement

maximum depth

data source: Field measurement

mean depth

data source: Field measurement

Type of well, Well overhead protection, Well usage, Well diameter.

data source: Field measurement

physico-chemical data:

ortho P, nitrate, nitrite, total N, ammonium, sulphate, chloride, sodium, magnesium, calcium, hardness, alkalinity, oxygen content, water temperature, pH, conductivity, colour

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

Other specifications

GIS layers, shape files related to the dataset:

catchments, river-sub-basins

availability of photos: yes

availability of maps: yes

quality control procedures:

Were any quality control procedures applied to your dataset?

no

related information:

Hotèkpo, S.J., Namiotko, T., Lagnika, M., Ibikounlé, M., Martin, P., Schön, I., Martens, K. (in press). Stygobitic Candonidae (Crustacea, Ostracoda) as potential environmental indicators of groundwater quality in tropical West Africa.

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Martin, P., 2020. Taxinomie, systématique et biodiversité des oligochètes des eaux souterraines du Bénin (Rapport d'activité). Projet CEBioS GTI?Refs.: 1.1-2/2019/008.

Martin, P., 2019. Taxinomie, systématique et biodiversité des oligochètes des eaux souterraines du Bénin (Rapport d'activité). Projet CEBioS GTI?Refs.: 2018/SO1-SBES-2.1/183.

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Martin, P., 2023. Taxonomie des ostracodes stygobiontes du Bénin : asseoir les fondations pour leur utilisation dans l'évaluation et le suivi de la qualité des eaux souterraines. Project CEBioS GTI?Ref.: R.1.1-2/2022/137.

Martin, P., 2018. Taxonomie, systématique et biodiversité des oligochètes des eaux souterraines du Bénin (Rapport d'activité 9 juin 2017-15 février 2018). Projet CEBioS GTI?Ref.: 2459LJB2_SO 1-SBES-2.1_Martin_2017, 41.