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Keywords

water chemistry, hydromorphological features, 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: Environmental and abiotic variables of wells in Benin (West Africa)

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

Environmental and abiotic variables of wells in Benin (West Africa)

dataset short name:	Environmental and abiotic 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, hydromorphological features, water quality, catchment area, Africa
related project:	Projects CEBioS GTI type 2 - P. Martin (see "funding" below)
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 - Taxinomie 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 - Taxinomie 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:	Part of the data is published: 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:	
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 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
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 criteria for using this part of the dataset:
 The dataset needs to be requested from dataset creator with specific conditions of use.

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of use.

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criteria for using this part of the dataset:

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

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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): Environmental and abiotic variables of wells in Benin (West Africa)
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 54: 1-7
year: 2024
doi: <https://doi.org/10.15504/fmj.2024.54>

dataset related references:

reference 1:

author(s): Hotékpo, S.J., Namiotko, T., Lagnika, M., Ibikounlé, M., Martin, P., Schön, I., Martens, K.
 title: Stygobitic Candonidae (Crustacea, Ostracoda) as potential environmental indicators of groundwater quality in tropical West Africa. (Submitted)
 year: Submitted

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 [°]: 12.500000
 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, Lower Niger - Benue, Volta

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: 6
 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
physico-chemical data:	data source: field measurement
	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

Acknowledgements

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