

Metadata of the Regge & Dinkel catchment for the MARS project

Lilith Kramer & Marijn Kuijper



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¹ Deltares, Delft, The Netherlands

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Keywords

macrophytes, macrofauna, fish, physico-chemical parameters, Regge, Dinkel, Netherlands, streams, freshwater

Short description of the dataset/summary

This data set contains an overview of biological and environmental data from the Regge and Dinkel catchment, the Netherlands. The main factors that impact this catchment are hydrological alteration, groundwater abstraction and drainage, point source and diffuse nutrient loading.

The data has been collected between 2000 and 2012 by the waterboard Vechtstromen and contains macroinvertebrate, macrophyte, fish, and physico-chemical parameters. The dataset is available upon request from the waterboard Vechtstromen.

General information

dataset entry ID:	MARS_17
name of the dataset:	
full name of the dataset:	Regge & Dinkel catchment (The Netherlands)
type of dataset:	species (taxonomic group) per site database including environmental information
data type:	point data/observation data
science keywords according to GCMD:	
topic:	Biosphere, Biological Classification, Terrestrial Hydrosphere
keywords:	macroinvertebrates, macrophytes, fish, physico-chemical parameters, streams, rivers, freshwater
ISO topic category according to ISO 19115:	
	Biota, Environment, Inland Waters

Technical and administrative specifications

data format:	csv
operating system:	all Windows systems
data language:	others/specify
specify:	Dutch
current access level:	restricted access
currently available through GBIF :	no
exchange planned:	no
data in data repository:	no
Do you plan to publish the data on the Freshwater Biodiversity Data Portal:	
	no
comments:	The data is public, but should be requested at the waterboard Vechtstromen, see https://www.vechtstromen.nl/algemeen (in Dutch).

update level:	update planned
others/details:	See river basin management plan: http://www.vechtstromen.nl/waterbeheerplan/uitvoering/gebruiken-we-onze/meten-monitoren/ (in Dutch)

documentation:	
type:	internal description
language:	others/specify
specify:	Dutch

contact details:	
metadata contact person:	
first, last name:	Lilith Kramer
phone:	+31883357367
email:	Lilith.Kramer@deltares.nl
institution:	Deltares
address:	Boussinesqweg 1
postal code, city:	2629 HV Delft
province, state:	Zuid-Holland
country:	The Netherlands
web address:	http://www.deltares.nl/
technical contact person:	
first, last name:	Lilith Kramer
phone:	+31883357367
email:	Lilith.Kramer@deltares.nl
scientific contact person:	
first, last name:	Lilith Kramer
phone:	+31883357367
email:	Lilith.Kramer@deltares.nl

Intellectual property rights and citation

dataset creator (data compiler):	
contact name:	Waterschap Vechtstromen
contact email:	info@vechtstromen.nl
contact institution:	Waterschap Vechtstromen

data contributors to/owners of this dataset:

criteria for using this dataset: single
The dataset needs to be requested from dataset creator with specific conditions of use.

citation of this dataset:

author(s): Waterschap Vechtstromen
title: Macrofyten-, macrofauna- en visdata Dinkel stroomgebied 2000-2012
year: 2015

citation of the metadata:

author(s): Kramer L. & Kuijper M.
title and journal (name, number, pages): Metadata of the Regge & Dinkel catchment for the MARS project. Freshwater Metadata Journal 19: 1-8
year: 2016
doi: <http://dx.doi.org/10.15504/fmj.2016.19>

General data specifications**regional coverage of the dataset:**

scale of the dataset: catchment

spatial extent (bounding coordinates):

southernmost latitude [°]: N 52°05'00"
northernmost latitude [°]: N 52°29'00"
westernmost longitude [°]: E 6°26'00"
easternmost longitude [°]: E 7°08'00"
countries: Europe: Netherlands

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

Group C: temperate/mesothermal climates
freshwater ecoregions of the world (FEOW) according to [WWF](#):
Europe: Central & Western Europe

European ecoregions according to [Illies \(WFD\)](#):

Central Plains (ER14)

ecosystem type:

rivers, lakes/ponds

covered timeframe:

2000 - 2012

Site specifications**coordinate system/grid data:**

latitude/longitude, format: DD
projected, local
datum (e.g. WGS84): EPSG:28992
grid data available: no
comments: The coordinate system used is Rijksdriehoekscoördinaten (Amersfoort/RD New). It expresses in meters the distance to a central point in Amersfoort, the Netherlands.

ecosystem type classification:

rivers (classification according to WFD):
altitude typology
lowland: <200 m

size typology based on catchment area
 small: < 100 km², medium: 100-1000 km²

geology
 siliceous

lakes (classification mainly according to WFD):

altitude typology
 lowland: <200 m

site coding:

site coding available: yes, numerical

number of digits: 5

example: 30-001

number of sites: 100 - 1000

comments: Not all parameters were measured at each site and/or every year.

Climate and environmental data

climate related data:

available parameters per catchment:

daily air temperatures

data source: <http://www.knmi.nl/over-het-knmi/about>

winter and summer precipitation

data source: <http://www.knmi.nl/over-het-knmi/about>

evaporation

data source: <http://www.knmi.nl/over-het-knmi/about>

mean discharge

data source: Waterboard Vechtstromen

environmental data:

available parameters per catchment:

catchment size

data source: Waterboard Vechtstromen

available parameters per site: information on water uses (e.g., irrigation, fish ponds)

data source: Waterboard Vechtstromen

discharge

data source: Waterboard Vechtstromen

physico-chemistry data:

total P, ortho P, nitrate, nitrite, total N, ammonium, sulphate, chloride, magnesium, calcium, oxygen content, BOD5 (biochemical oxygen demand), water temperature, pH, chlorophyll, suspended solids

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

per sample

comments: Depending on the site, one or multiple samples were taken during 2000-2012.

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	no	

Biological data

biological data origin: from sampling
 specify project: River Basin Management Plan - Waterboard Vechtstromen
 organism group addressed: fish, macro-invertebrates (Mollusca, Ephemeroptera, Odonata, Plecoptera, Coleoptera, Trichoptera, Chironomidae), macrophytes

Sample specifications/sample resolution

fish:

sample information:

covered timeframe: 2000 - 2012
 historical data: no
 palaeo data: no
 season: spring, autumn
 temporal resolution/frequency of sampling:
 The temporal resolution depends on sampling location. Some locations were measured more frequently (yearly) than others (some only once).
 time series data: yes
 comments: Mainly data between 2007-2011.
 For more specific information and/or longer term information please contact waterboard Vechtstromen.

taxonomic resolution:

level: species
 percentage of species level data: 99
 comments: The percentage of species level data is an estimate. This dataset also contains fish sizes.

taxonomic coding:

taxalist according to: WNS code
 reference(s): WNS stands for 'Waarnemingssoort' (type of measurement), a Dutch coding system. If needed the data can also be requested with latin species names for easier international use.
 coding system: WNS code
 example: GASTACUL

sample specifications:

type: quantitative (abundance data)

replicate samples: no
 number of samples: 902
 specification of method(s) used for sampling and sorting:
 Fishing, electrical fishing, seine fishing, sight.
 reference(s): Bijkerk, Ronald and Marco Beers. Handboek Hydrobiologie. 1st ed.
 Amersfoort: STOWA, 2010. Print.
http://handboekhydrobiologie.stowa.nl/Het_Handboek/Het_Handboek.aspx
 sample type (e.g. habitat specific samples, composite samples etc.):
 Composite samples.

macro-invertebrates:**sample information:**

covered timeframe: 2000 - 2012
 historical data: no
 palaeo data: no
 season: spring, autumn
 temporal resolution/frequency of sampling:
 The temporal resolution depends on sampling location. Some locations were measured more frequently (yearly) than others (some only once).
 time series data: no
 comments: This part of the data contains mainly data between 2007-2011.
 For more specific information and/or longer term information please contact waterboard Vechtstromen.

taxonomic resolution:

level: order, family, genus, species
 percentage of species level data: 65
 comments: The percentage of species level data is an estimate.

taxonomic coding:

taxalist according to: WNS code
 reference(s): WNS stands for 'Waarnemingssoort' (type of measurement), a Dutch coding system. If needed the data can also be requested with latin species names for easier international use.
 coding system: WNS code
 example: TUFICIAE

sample specifications:

type: quantitative (abundance data)
 replicate samples: no
 number of samples: 1296
 specification of method(s) used for sampling and sorting:
 Sampling is usually done by multi-habitat sampling with a standard macrofauna handnet. Sample sorting is done up to species level and lifestage. For specifics see the Handbook Hydrobiologie (Dutch).
 reference(s): Bijkerk, Ronald and Marco Beers. Handboek Hydrobiologie. 1st ed.
 Amersfoort: STOWA, 2010. Print.
http://handboekhydrobiologie.stowa.nl/Het_Handboek/Het_Handboek.aspx
 sample type (e.g. habitat specific samples, composite samples etc.):
 Composite samples.
 specific sample location (e.g. littoral, profundal, transect, shoreline, hyporheic zone, etc.):
 Depending on the sampling site: littoral, profundal, and hyporheic zone.

macrophytes:**sample information:**

covered timeframe:	2000 - 2012
historical data:	no
palaeo data:	no
season:	spring, autumn
temporal resolution/frequency of sampling:	The temporal resolution depends on sampling location. Some locations were measured more frequently (yearly) than others (some only once)
time series data:	yes

taxonomic resolution:

level:	species, other
other taxonomic levels:	type
percentage of species level data:	90
comments:	The percentage of species level data is an estimate. The types are: emerging, floating and submerged species.

taxonomic coding:

taxalist according to:	WNS code
reference(s):	WNS stands for 'Waarnemingssoort' (type of measurement), a Dutch coding system. If needed the data can also be requested with latin species names for easier international use.
coding system:	WNS code
example:	URTICDIO

sample specifications:

type:	semi-quantitative
replicate samples:	no
number of samples:	1280
specification of method(s) used for sampling and sorting:	Depending on the size of the sampling area the whole system or parts of the system are sampled according to the Handboek Hydrobiologie. Per sampled area the cover per species and species type are estimated (Tansley scale).
reference(s):	Bijkerk, Ronald and Marco Beers. Handboek Hydrobiologie. 1st ed. Amersfoort: STOWA, 2010. Print. http://handboekhydrobiologie.stowa.nl/Het_Handboek/Het_Handboek.aspx
sample type (e.g. habitat specific samples, composite samples etc.):	Composite samples.
specific sample location (e.g. littoral, profundal, transect, shoreline, hyporheic zone, etc.):	Depending on the water body: Littoral, between 0-1m depth, lake/river floor.

Other specifications**GIS layers, shapes related to the dataset:**

catchments, river-sub-basins

availability of photos: no**availability of maps:** yes**quality control procedures:**

Were any quality control procedures applied to your dataset?

no

Acknowledgements

The data was provided by the Waterboard Vechtstromen and the Royal Netherlands Meteorological Institute (KNMI). This work was funded by the MARS project funded by the European Union under the 7th Framework Programme, Contract No. 603378.

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http://handboekhydrobiologie.stowa.nl/Het_Handboek/Het_Handboek.aspx

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