



Metadata

Integrated management tools for water bodies in agricultural landscapes

SUPPORTED BY



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Visit the Freshwater Metadatabase, http://data.freshwaterbiodiversity.eu/metadb/about_metadata

General information

name of the dataset:

full name of the dataset: *Integrated management tools for water bodies in agricultural landscapes*
dataset short name: *MANSCAPE*

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

data type: *point data/observation data*

short description of the dataset/summary:

The database of the MANSCAPE project (Integrated management tools for water bodies in agricultural landscapes) comprises species occurrence data of seven different organism groups (phytoplankton, diatoms, zooplankton, macro-invertebrates, macrophytes, amphibians and fish) and data on physical, chemical and morphometric variables of 126 small farmland ponds distributed over almost the entire Belgian territory.

science keywords according to [GCMD](#):

topic: *Agriculture, Biosphere, Biological Classification, Land Surface, Terrestrial Hydrosphere*

keywords: *farmland ponds, occurrences, environmental conditions, Belgium*

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

Farming, Biota, Environment, Inland Waters

Technical and administrative specifications

data format: *Excel*
operating system: *all operating systems*
data language: *English*
current access level: *web (public)*
web address (URL): *http://data.freshwaterbiodiversity.eu/ipt/resource?r=manscape*
currently available through [GBIF](#): *yes*
exchange planned: *no*
data in data repository: *no*

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

already published through BioFresh
media for data delivery: *BioFresh IPT (IPT)*

update level: *completed*

documentation:

type: *scientific paper*
language: *English*

contact details:

metadata contact person:

first, last name: *Koen Martens*
phone: *+32 (0)2 627 43 15*
email: *koen.martens@naturalsciences.be*
institution: *Royal Belgian Institute of Natural Sciences*
address: *Vautierstraat 29*
postal code, city: *1000 Brussels*
country: *Belgium*

technical contact person:

first, last name: *Koen Martens*
phone: *+32 (0)2 627 43 15*
email: *koen.martens@naturalsciences.be*

scientific contact person:

first, last name: *Koen Martens*
phone: *+32 (0)2 627 43 15*
email: *koen.martens@naturalsciences.be*

Intellectual property rights and citation

(if the dataset is already published):

dataset creator (data compiler):

contact name: *Pieter Lemmens*
contact email: *pieter.lemmens@bio.kuleuven.be*
contact institution: *KU Leuven*

data contributors to/owners of this dataset:

number: *multiple*
6

provider 1:

provider institute: *KBIN*
contact name: *Koen Martens*
contact email: *koen.martens@naturalsciences.be*
criteria for using the data in a publication/scientific analysis:

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.

provider 2:

provider institute: *UGent*
contact name: *Wim Vijverman*
contact email: *wim.vyverman@ugent.be*
criteria for using the data in a publication/scientific analysis:

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.

provider 3:

provider institute: *UNamur*
contact name: *Patrick Kestemont*
contact email: *patrick.kestemont@unamur.be*
criteria for using the data in a publication/scientific analysis:

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.

provider 4:

provider institute: *INBO*
contact name: *Dirk Bauwens*
contact email: *dirk.bauwens@inbo.be*
criteria for using the data in a publication/scientific analysis:

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.

provider 5:

provider institute: *National Botanical Garden*
contact name: *Leo Van Hecke*
contact email: *leo.vanhecke@skynet.be*
criteria for using the data in a publication/scientific analysis:

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.

provider 6:

provider institute: *KULeuven*
contact name: *Luc De Meester*
contact email: *luc.demeester@kuleuven.be*
criteria for using the data in a publication/scientific analysis:

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.

citation of this dataset:

author(s): *Lemmens P., De Wever A., Hampel H., De Bie T., Ercken D., Van Wichelen J., Denys L., Goddeeris B., Mandiki S.N.M., van Hecke L., van der Gucht K., Bauwens D., Durinck R., Dasseville R., Lionard M., van De Meutter F., Louette G., Hulsmans A., De Gelas K., Schön I., Vrijders H., Maes A., Losson B., Lasri S., Kestemont P., Vyverman W., Vanormelingen P., Brendonck L., De Meester L., Declerck S.A.J. & Martens K.*
title: *Management tools for waterbodies in agricultural landscapes (MANSCAPE)*
year: *2017*

citation of the metadata:

author(s): *Lemmens P., De Wever A., Hampel H., De Bie T., Ercken D., Van Wichelen J., Denys L., Goddeeris B., Mandiki S.N.M., Vanhecke L., van der Gucht K., Bauwens D., Denayer S., Durinck R., Dasseville R., Lionard M., van De Meutter F., Louette G., Hulsmans A., De Gelas K., Schön I., Vrijders H., Maes A., Losson B., Lasri S., Kestemont P., Vyverman W., Vanormelingen P., Brendonck L., De Meester L., Declerck S.A.J. & Martens K.*
title and journal (name, number, pages): *Database of the MANSCAPE project (Management tools for water bodies in agricultural landscapes). Freshwater Metadata Journal 0: 0-0*
year: *0000*
doi (if applicable): *<https://doi.org/10.15504/fmj.0000.0>*

General data specifications

regional coverage of the dataset:

scale of the dataset: *national*
continents: *Europe*

spatial extent (bounding coordinates):

southernmost latitude [°]: *51.42*
northernmost latitude [°]: *49.68*
westernmost longitude [°]: *2.84*
easternmost longitude [°]: *5.95*
countries: *Europe: Belgium*

Site specifications

coordinate system/grid data:	<i>latitude/longitude projected</i>
datum (e.g. WGS84):	<i>WGS84</i>
grid data available:	<i>no</i>
site coding:	
site coding available:	<i>yes</i>
	<i>alphanumerical</i>
number of digits:	<i>7</i>
example:	<i>AnHerEx</i>
number of sites:	<i>100 - 1000</i>
exact number of sites:	<i>126</i>

Climate and environmental data

climate related data:	<i>no data available</i>
environmental data:	<i>no parameter data per catchment available</i>
available parameters per site:	<i>maximum depth</i>
available parameters per site:	<i>mean depth</i>
available parameters per site:	<i>substrate composition</i>
available parameters per site:	<i>land use at multiple perimeters around each pond</i>
comments:	<i>Data on land use in different perimeters around the pond are available in the main database (see also T. De Bie, L. De Meester, L. Brendonck, K. Martens, B. Goddeeris, D. Ercken, H. Hampel, L. Denys, L. Vanhecke, K. Van der Gucht, J. Van Wichelen, W. Vyverman & S. A. J. Declerck (2012): Body size and dispersal mode as key traits determining metacommunity structure of aquatic organisms. Ecology Letters, 15(7), 740-747.)</i>
physico-chemistry data:	<i>total P, nitrate, total N, sulphate, hardness, alkalinity, oxygen content, water temperature, pH, conductivity, chlorophyll, Secci disc depth, suspended solids</i>
availability of physico-chemical data, if there is more than one sample per site:	<i>per sample</i>
stressors influencing the sites:	
reference sites available:	<i>no</i>
	<i>no stressor data available</i>

Biological data

biological data origin:

from sampling

specify project:

MANSCAPE

organism group addressed:

amphibians, fish, macro-invertebrates (Mollusca, Ephemeroptera, Odonata, Plecoptera, Coleoptera, Trichoptera, Chironomidae), zooplankton (Cladocera), phytoplankton, (benthic) diatoms, macrophytes

Sample specifications/sample resolution

amphibians:

sample information:

covered timeframe:
year from - to: 2003 - 2003
historical data: no
season: summer
temporal resolution/frequency of sampling:
per year
time series data: no

taxonomic resolution:

taxonomic coding:

taxalist according to: Arnold E.N. & Ovenden D.W. (2002)
citation: Arnold E.N. & Ovenden D.W. (2002). *Reptiles and amphibians of Europe*. Princeton University Press, Princeton, NJ.

sample specifications:

replicate samples: no
comments: For details see appendix of T. De Bie, L. De Meester, L. Brendonck, K. Martens, B. Goddeeris, D. Ercken, H. Hampel, L. Denys, L. Vanhecke, K. Van der Gucht, J. Van Wichelen, W. Vyverman & S. A. J. Declerck (2012) *Body size and dispersal mode as key traits determining metacommunity structure of aquatic organisms*. *Ecology Letters*, 15(7), 740-747.

fish:

sample information:

covered timeframe:
year from - to: 2003 - 2003
historical data: no
palaeo data: no
season: summer
temporal resolution/frequency of sampling:
per year
time series data: no

taxonomic resolution:

taxonomic coding:

taxalist according to: Keith P. & Allardi J. (2001)
citation: Keith P. & Allardi J. (2001). *Atlas des poissons d'eau douce de France*. Publications Scientifiques du M.N.H.N., Paris.

sample specifications:

comments: For details see appendix of T. De Bie, L. De Meester, L. Brendonck, K. Martens, B. Goddeeris, D. Ercken, H. Hampel, L. Denys, L. Vanhecke, K. Van der Gucht, J. Van Wichelen, W. Vyverman & S. A. J. Declerck (2012) *Body size and dispersal mode as key traits determining metacommunity structure of aquatic organisms*. *Ecology Letters*, 15(7), 740-747.

macro-invertebrates:

sample information:

covered timeframe:
year from - to: 2003 - 2003
historical data: no

palaeo data: *no*
season: *summer*
temporal resolution/frequency of sampling:
per year
time series data: *no*

taxonomic resolution:

comments: *Chironomidae, Ephemeroptera, Trichoptera, Heteroptera, Mollusca and Coleoptera were identified to species level.*

taxonomic coding:

taxalist according to: *see full reference list below*

citation: *Devriese R., Warmoes T. & Vercoutere B. (1997). Land- en zoetwatermollusken van de Benelux. Jeugdbond voor Natuur en Milieu, Gent.*

De Pauw N. & Vannevel R. (1990). Macro-invertebraten en waterkwaliteit. Stichting Leefmilieu vzw., Antwerpen.

Drost M.B.P., Cuppen H.P.J.J., Nieukerken E.J. & Schreijer M. (1992). De waterkevers van Nederland. Uitgeverij K.N.N.V., Utrecht, The Netherlands.

Savage A.A. (1989). Adults of the British aquatic Hemiptera Heteroptera: a key with ecological notes. Freshwater Biological Association, Ambleside (UK).

Wiederholm T. (1983). Chironomidae of the holarctic region: keys and diagnoses, Part 1 - larvae. Entomologica Scandinavica Supplement 19.

Moller Pillot H.K.M. (1984a). De larven der Nederlandse Chironomidae (Diptera) (Inleiding, Tanypodinae en Chironomini). Nederlandse Faunistische Mededelingen, 1A, 1-227.

Moller Pillot H.K.M. (1984b). De larven der Nederlandse Chironomidae (Diptera) (Orthocladiinae sensu lato). Nederlandse Faunistische Mededelingen, 1B, 1-175.

sample specifications:

replicate samples: *no*

comments: *For details see appendix of T. De Bie, L. De Meester, L. Brendonck, K. Martens, B. Goddeeris, D. Ercken, H. Hampel, L. Denys, L. Vanhecke, K. Van der Gucht, J. Van Wichelen, W. Vyverman & S. A. J. Declerck (2012) Body size and dispersal mode as key traits determining metacommunity structure of aquatic organisms. Ecology Letters, 15(7), 740-747.*

zooplankton:

sample information:

covered timeframe:
year from - to: *2003 - 2003*
historical data: *no*
palaeo data: *no*
season: *summer*
temporal resolution/frequency of sampling:
per year

time series data: *no*

taxonomic resolution:

comments: *Cladocera and Rotifera were counted and identified to species and genus level, respectively.*

taxonomic coding:

taxalist according to: *Nootenboom-Ram E. (1981); Flössner D. (2000); Alonso M. (1996)*

citation: *Nootenboom-Ram E. (1981). Verspreiding en Ecologie van de Branchiopoda in Nederland. In: Arnhem, p. 95.*

Alonso M. (1996). Crustacea Branchiopoda. Fauna Iberica 7. Museo Nacional de Ciencias Naturales (CSIC) Madrid.

Flössner D. (2000). Die Haplopoda und Cladocera (ohne Bosminidae) Mitteleuropas. Backhuys Publishers, Leiden.

sample specifications:

replicate samples: *no*

comments: *For details see appendix of T. De Bie, L. De Meester, L. Brendonck, K. Martens, B. Goddeeris, D. Ercken, H. Hampel, L. Denys, L. Vanhecke, K. Van der Gucht, J. Van Wichelen, W. Vyverman & S. A. J. Declerck (2012) Body size and dispersal mode as key traits determining metacommunity structure of aquatic organisms. Ecology Letters, 15(7), 740-747.*

phytoplankton:

sample information:

covered timeframe:

year from - to: *2003 - 2003*

historical data: *no*

season: *summer*

temporal resolution/frequency of sampling: *per year*

taxonomic resolution:

taxonomic coding:

taxalist according to: *John D.M., Whitton B.A. & Brook A.J. (2002); Tikkanen T. & Willén T. (1992)*

citation: *John D.M., Whitton B.A. & Brook A.J. (2002). The freshwater algal flora of the British isles. Cambridge University Press, Cambridge.*

Tikkanen T. & Willén T. (1992). Växtpflantonflora. Författarna Natur, Solna

sample specifications:

replicate samples: *no*

comments: *For details see appendix of T. De Bie, L. De Meester, L. Brendonck, K. Martens, B. Goddeeris, D. Ercken, H. Hampel, L. Denys, L. Vanhecke, K. Van der Gucht, J. Van Wichelen, W. Vyverman & S. A. J. Declerck (2012) Body size and dispersal mode as key traits determining metacommunity structure of aquatic organisms. Ecology Letters, 15(7), 740-747.*

(benthic) diatoms:

sample information:

covered timeframe:

year from - to: *2003 - 2004*

historical data: no
palaeo data: no
season: summer
temporal resolution/frequency of sampling:
per year
time series data: no

taxonomic resolution:

taxonomic coding:

taxalist according to: see full reference list below

citation: Krammer K. & Lange-Bertalot H. (1986). *Süßwasserflora von Mitteleuropa 2: Bacillariophyceae. 1. Teil: Naviculaceae.* Gustav Fischer Verlag, Stuttgart.

Krammer K. (1997a). *Die cymbelloiden Diatomeen. Eine Monographie der weltweit bekannten Taxa. Teil 1. Allgemeines und Encyonema Part.* Bibliotheca Diatomologica 36, 1-382.

Krammer K. (1997b). *Die cymbelloiden Diatomeen. Eine Monographie der weltweit bekannten Taxa. Teil 2. Encyonema part., Encyonopsis and Cymbellopsis.* Bibliotheca Diatomologica 37, 1-469.

Krammer K. (2000). *Diatoms of Europe. Vol. 1. The genus Pinnularia.* A.R.G. Gantner Verlag K.G., Ruggell.

Krammer K. (2002). *Diatoms of Europe. Vol. 3. Cymbella.* A.R.G. Ganter Verlag K.G., Ruggell.

Krammer K. (2003). *Diatoms of Europe. Vol. 4. Cymbopleura, Delicata, Navicymbula, Gomphocymbellopsis, Afrocybella.* A.R.G. Ganter Verlag K.G., Ruggell.

Krammer K. & Lange-Bertalot H. (2004). *Süßwasserflora von Mitteleuropa 2: Bacillariophyceae. 3. Teil: Centrales, Fragilariaceae, Eunotiaceae.* Elsevier GmbH, Spektrum Akademischer Verlag, Heidelberg.

Krammer K. & Lange-Bertalot H. (2007). *Süßwasserflora von Mitteleuropa 2: Bacillariophyceae. 2. Teil: Bacillariaceae, Epithemiaceae, Surirellaceae.* Ergänzter Nachdruck der 1. Auflage. Elsevier GmbH, Spektrum Akademischer Verlag, Heidelberg.

Lange-Bertalot H. (2001). *Diatoms of Europe. Vol. 2. Navicula sensu stricto, 10 genera separated from Navicula sensu lato, Frustulia.* Gantner Verlag, Ruggell.

Lange-Bertalot H. & Moser G. (1994). *Brachysira: Monographie der Gattung.* Bibliotheca Diatomologica 29, 1-212.

Lange-Bertalot H. & Metzeltin D. (1996). *Oligotrophie-Indikatoren. 800 Taxa repräsentativ für drei diverse Seen-Typen, kalkreich - oligodystroph - schwach gepuffertes Weichwasser.* Iconographia Diatomologica 2: 1-390. 9

Lange-Bertalot H., Cavacini P., Tagliaventi N. & Alfinito S. (2003). Diatoms of Sardinia. Rare and 76 new species in rock pools and other ephemeral waters. *Iconographia Diatomologica* 12, 1-438.

Werum M. & Lange-Bertalot H. (2004). Diatoms in springs from Central Europe and elsewhere under the influence of hydrogeology and anthropogenic impacts. *Iconographia Diatomologica* 13, 3-417.

sample specifications:

replicate samples: no

comments: For details see appendix of T. De Bie, L. De Meester, L. Brendonck, K. Martens, B. Goddeeris, D. Ercken, H. Hampel, L. Denys, L. Vanhecke, K. Van der Gucht, J. Van Wichelen, W. Vyverman & S. A. J. Declerck (2012) Body size and dispersal mode as key traits determining metacommunity structure of aquatic organisms. *Ecology Letters*, 15(7), 740-747.

macrophytes:

sample information:

covered timeframe:

year from - to: 2003 - 2003

historical data: no

palaeo data: no

season: summer

temporal resolution/frequency of sampling: per year

taxonomic resolution:

taxonomic coding:

taxalist according to: see full reference list

citation: Haslam S.M., Sinker C.A. & Wolseley P.A. (1975). *British water plants. Field Studies* 4, 243-351.

Casper S.J. & Kraus H.D. (1980). *Süßwasserflora von Mitteleuropa, Band 23. Pteridophyta und Anthophyta, 1. Teil: Lycopodiaceae bis Orchidaceae* Fischer Verlag, Jena.

Jermy A.C., Chater A.O. & David R.W. (1982). *Sedges of the British Isles* 2 edn. Botanical Society of the British Isles, London.

sample specifications:

comments: For details see appendix of T. De Bie, L. De Meester, L. Brendonck, K. Martens, B. Goddeeris, D. Ercken, H. Hampel, L. Denys, L. Vanhecke, K. Van der Gucht, J. Van Wichelen, W. Vyverman & S. A. J. Declerck (2012) Body size and dispersal mode as key traits determining metacommunity structure of aquatic organisms. *Ecology Letters*, 15(7), 740-747.

Other specifications

GIS layers, shapes related to the dataset:

no data available

availability of photos: *no*

availability of maps: *no*

quality control procedures:

Were any quality control procedures applied to your dataset?

yes

quality control protocols and comments:

Species names were checked using the GBIF species list. In addition, the quality of data has been checked with the phwhip validator.