



Metadata

Phytoplankton and other monitoring data from Lake Vansjø

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General information

name of the dataset:

full name of the dataset: *Phytoplankton and other monitoring data from Lake Vansjø*

dataset short name: *Vansjø*

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:

This paper gives an overview of biological and other environmental monitoring data from Lake Vansjø in the Morsa river basin district, South-East Norway. The lake is impacted by eutrophication and has been subject to several nutrient abatement measures. The dataset comprises phytoplankton data at species level from 2005-2015, and water chemistry data from the period 1980-2015.

The dataset is available online from NIVA's web portal AquaMonitor and will be updated regularly with new monitoring data.

science keywords according to [GCMD](#):

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

keywords: *eutrophication, lake, phytoplankton*

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

Farming, Biota, Environment, Geoscientific Information, Inland Waters

Technical and administrative specifications

data format: Oracle
others/details: Data are stored in Oracle, can be downloaded to Access and Excel via web interface (in Norwegian)

operating system: all Windows systems

data language: English

current access level: web (public)

web address (URL): www.aquamonitor.no/ostfold
others/details: in Norwegian only

currently available through [GBIF](#): no

exchange planned: no

data in data repository: no

comments: More data from Lake Vansjø and River Hobøl are available online by the Norwegian Environment Agency (<http://vanmiljo.miljodirektoratet.no/>). However the website is in Norwegian only and finding the right data may require some knowledge.

update level: update planned
others/details: Dataset is updated yearly.

documentation:

type: internal description

language: others/specify

specify: Norwegian

others/details: Aggregated data are published in reports by NIBIO (Skarbøvik et al. 2016).

Do you plan to publish the data on the Freshwater Biodiversity Data Portal:
no

contact details:

metadata contact person:

first last name: ~~Sigr~~ ~~Haa~~ ~~nde~~
institution: NIVA
address: Gaustadalleen 21
postal code, city: 0349 Oslo
country: Norway
web address: www.niva.no

technical contact person:

first last name: ~~Jao~~ ~~kie~~ ~~Moe~~

scientific contact person:

first last name: ~~Rac~~ ~~iva~~ ~~nde~~

Intellectual property rights and citation

~~dataset publisher~~ is already published by NIVA

dataset creator (data compiler):

contact name: *Sigrid Haande*
contact email: *sha@niva.no*
contact institution: *NIVA*

data contributors to/owners of this dataset:

single

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.

other/additional criteria:

The data can be downloaded and used, but the contact persons will appreciate an invitation to collaboration on use of the data.

citation of this dataset:

author(s): *NIVA*
title: *Data from Lake Vansjø. Accessed at www.aquamonitor.no/ostfold*
year: *2015*

citation of the metadata:

author(s): *Haande S., Moe S. J. & Couture R. M.*
title and journal (name, number, pages):
*Phytoplankton data and other monitoring data from Lake Vansjø.
Freshwater Metadata Journal 0: 0-0*
year: *0000*
doi (if applicable): *<http://dx.doi.org/10.15504/fmj.0000.0>*

General data specifications

regional coverage of the dataset:

scale of the dataset: *catchment*

continents: *Europe*

spatial extent (bounding coordinates):

southernmost latitude [°]: *59.344259*

northernmost latitude [°]: *59.858634*

westernmost longitude [°]: *10.660904*

easternmost longitude [°]: *11.130339*

minimum altitude: *59 metres*

maximum altitude: *136 metres*

countries: *Europe: Norway*

comments: *Data from rivers (River Hobøl) are not included in this dataset, but can be made available upon request.*

Site specifications

coordinate system/grid data:	<i>latitude/longitude, format: DMS</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>4</i>
example:	<i>VAN1</i>
number of sites:	<i><100</i>
exact number of sites:	<i>2</i>
comments:	<i>2 lake sites: Basin Storefjorden (VAN1) and Basin Vanemfjorden (VAN2). In addition, several river sites are monitored (data can be made available upon request).</i>

Climate and environmental data

climate related data:

available per: *per site*
others: *Data can be downloaded from eklima.met.no, station Rygge (station 17150)*

available parameters:

mean annual temperature January, July
~~www.data source:~~
mean annual temperature for each month
~~www.data source:~~
minimal, maximal and mean winter and summer temperatures
~~www.data source:~~
daily air temperatures
~~www.data source:~~
mean annual precipitation
~~www.data source:~~
winter and summer precipitation
~~www.data source:~~
mean discharge
~~www.data source:~~

environmental data:

available parameters per catchment: *catchment size*
available parameters per catchment: *catchment geology*
available parameters per catchment: *catchment land cover/land use*
available parameters per catchment: *population density*
available parameters per catchment: *presence of barriers/dams/reservoirs (fragmentation)*
available parameters per catchment: *hydrological regime/flow regime*
available parameters per site: *catchment land use upstream of sampling site*
available parameters per site: *catchment land use along a buffer strip (100m width on both sides) upstream (10km) of the sampling site*

available parameters per site: *river length*
available parameters per site: *altitude*
available parameters per site: *hydrological regime/flow regime*
available parameters per site: *discharge*
available parameters per site: *maximum depth*
available parameters per site: *mean depth*

comments: *Most environmental data are available from this source:
Skarbøvik, E. & Bechmann, M. 2010. Some characteristics of the Vansjø-Hobøl (Morsa) Catchment. Bioforsk report. 5 128. 44 pp. ISBN: 978-82-17-00689-3.
http://www.bioforsk.no/ikbViewer/Content/100558/Bioforsk_Report_128_2010_Morsa_Catchment.pdf
More information (in Norwegian): Skarbøvik, E., Haande, S., Bechmann, M. & Skjelbred, B. 2016. Overvåking Vansjø/Morsa 2014-2015. Resultater fra overvåking av innsjøer, elver og bekker i perioden 1. november 2014 - 31. oktober 2015. NIBIO rapport 2; 42 2016. 98 pp. ISBN: 978-82-17-01608-3. <http://hdl.handle.net/11250/2385272>*

physico-chemistry data:

total P, ortho P, total dissolved P, nitrate, total N, ammonium, sulphate, labile aluminium, calcium, alkalinity, TOC (total organic carbon), oxygen content, water temperature, pH, chlorophyll, colour, Secci disc depth,

thermocline depth, suspended solids

other physico-chemical parameters: *Water temperature, SiO₂.*

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

per sample

stressors influencing the sites:

reference sites available: *no*

stressor	restored sites available	data before/after restoration available	stressor gradient available	comments
eutrophication	yes	yes	yes	
hydromorphological degradation	no	no	no	
organic pollution				
toxic stress	no	no	no	
general degradation	no	no	no	
thermal stress	no	no	no	

Biological data

biological data origin:

specify project:

from sampling

Surveillance monitoring by NIVA

organism group addressed:

comments:

phytoplankton

Data on macrophytes and fish are available only for a few years and have not been yet included in the dataset, but can be made available.

Sample specifications/sample resolution

phytoplankton:

sample information:

covered timeframe:
year from - to: 2005 - 2015
historical data: yes
season: spring, summer, autumn
temporal resolution/frequency of sampling:

bi-weekly

time series data: yes

taxonomic resolution: *species*

percentage of species level data: 100

comments: *Phytoplankton data grouped by class are available online on www.aquamonitor.no/ostfold. Original data on species level can be obtained upon request.
Data on total phytoplankton biomass and selected groups are available from earlier years, but not online.*

taxonomic coding:

citation: *The database uses the taxonomic code RUBIN, which is not international. All taxonomic information can be obtained upon request.*

coding system: *RUBIN code*

example: *APHA FLO*

sample specifications: *quantitative (abundance data)*

replicate samples: *no*

number of samples: *200*

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

Sampling: Norwegian Standard (NS-9459)

Analyse: Norwegian Standard (NS-EN 15204)

citation: *NS-9459:2004: Water quality - Guidance on sampling of phytoplankton from lakes and reservoirs*

NS-EN 15204:2006: Water quality - Guidance standard on the enumeration of phytoplankton using inverted microscopy (Utermöhl technique)

sample type (e.g. habitat specific samples, composite samples etc.):

Integrated sample from the profundal, representing the euphotic zone of the lake.

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

Profundal, integrated sample from 0-4 meters.

Other specifications

GIS layers, shapes related to the dataset:

others (specify): *catchments, river-sub-basins*
More GIS layers are probably available, but not included in this dataset.

availability of photos: *yes*

availability of maps: *yes*

quality control procedures:

Were any quality control procedures applied to your dataset?
yes

quality control protocols and comments:
Sampling and biological and chemical analyses followed standard procedures and Norwegian Standards.

reference: *Direktoratsgruppa (2013). Klassifisering av miljøtilstand i vann. Økologisk og kjemisk klassifiseringssystem for kystvann, grunnvann, innsjøer og elver. Veileder 02: 2013. Utgitt av Direktoratets gruppa for gjennomføring av Vanddirektivet. 263 pp. (In Norwegian)*