



## Metadata

# Floodplain restoration in the river Berkel

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### General information

**name of the dataset:**

full name of the dataset: *Floodplain restoration in the river Berkel*

**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:

*Metadata based on literature: Brockmann-Scherwaß et al. (Hrsg.): Renaturierung der Berkelaue. Ergebnisse eines Erprobungs- und Entwicklungsvorhabens im Kreis Borken. Naturschutz und Biologische Vielfalt 45: 173-209.*

**science keywords according to [GCMD](#):**

topic: *Biosphere*

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

*Biota, Inland Waters*

## Technical and administrative specifications

**data format:** *others/specify*  
others/details: *public publication, data as PDF available*  
**operating system:** *all Windows systems*  
**data language:** *German*  
**current access level:** *web (public)*  
**update level:** *completed*

**documentation:**

**Do you plan to publish the data on the Freshwater Biodiversity data portal:**

**contact details:**

metadata contact person:

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technical contact person:

scientific contact person:

## Intellectual property rights and citation

(if the database is already published):

**dataset creator (data compiler):**

**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 must be acknowledged and cited correctly.*

**citation of this dataset:**

author(s):

*Brockmann-Scherwaß et al. (Hrsg.)*

title:

*Renaturierung der Berkelaue - Ergebnisse eines Erprobungs- und Entwicklungsvorhabens im Kreis Borken. Naturschutz und Biologische Vielfalt 45: 173-209.*

year:

*2007*

**citation of the metadata:**

## General data specifications

### regional coverage of the dataset:

scale of the dataset: *regional*  
continents: *Europe*  
countries: *Europe: Germany*

## Site specifications

<b>coordinate system/grid data:</b>	<i>projected, others others: DHDN_3_Degree_Gauss_Zone_3</i>
datum (e.g. WGS84):	<i>D_Deutsches_Hauptdreiecksnetz</i>
<b>number of sites:</b>	<i>&lt;100</i>
exact number of sites:	<i>1</i>
<b>comments:</b>	<i>Morphology and vegetation for the whole floodplain section: number of sample plots depends on sample target and sample year: vegetation ~50 sites, fauna ~38 sites</i>

## Climate and environmental data

**climate related data:** *no data available*

**environmental data:** *no parameter data per catchment available*

available parameters per site: *information on riparian vegetation (incl. information on modification) see investigations*

available parameters per site: *information on embankment (incl. information on modification) Geodatasysteem*

available parameters per site: *information on channel form (incl. information on modification) Geodatasysteem*

available parameters per site: *information on cross section (incl. information on modification) Geodatasysteem*

**physico-chemistry data:** *no data available*

### stressors influencing the sites:

stressor	restored sites available	data before/after restoration available	stressor gradient available	comments
hydromorphological degradation	yes	yes	yes	several restoration measures from 1993-1999
hydrologic stress (e.g. impoundment, flow velocity reduction, hydropeaking, water abstraction, flow velocity increase)	yes		yes	

## Biological data

**biological data origin:**

*from sampling*

specify project:

*E+E project: Renaturierung der Berkelaue*

organism group addressed:

*water birds, amphibians, terrestrial invertebrates, macro-invertebrates (Odonata), other group(s): riparian vegetation, nightactive butterflies (macrolepidoptera), locusts*

## Sample specifications/sample resolution

### water birds:

#### **sample information:**

covered timeframe:

year from - to: 1989 - 2002

historical data: no

season: spring, summer, autumn, winter

temporal resolution/frequency of sampling:

6 surveys per year

time series data: yes

comments: times series not continuously: 1998, 1992, 1995, 1998, 2000, 2002

#### **taxonomic resolution:**

species

percentage of species level data: 100

#### **taxonomic coding:**

taxalist according to: Barthel (1993)

#### **sample specifications:**

quantitative (abundance data)

replicate samples: yes

number of samples: 12

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

Whole floodplain section was divided in 2 study areas; each area was surveyed 5-6 times per sample year + 4 surveys per year to control for notable species.

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### amphibians:

#### **sample information:**

covered timeframe:

year from - to: 1989 - 2002

historical data: no

temporal resolution/frequency of sampling:

4-6 surveys per year at 10 spawning grounds

time series data: yes

comments: time series not continuously: 1989, 1992, 1995, 1998, 2000, 2002

#### **taxonomic resolution:**

species

percentage of species level data: 100

#### **taxonomic coding:**

taxalist according to: Günther (1996)

#### **sample specifications:**

qualitative

number of samples: 60

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

Surveys of spawning grounds at day and night time; in 1998, 2000, 2002 additionally traps (Kühnel & Baier, 1995); semi-quantitative recording of spawn strings

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### terrestrial invertebrates:

#### **sample information:**

covered timeframe:

year from - to: 1998 - 2002

historical data: no

season: spring, summer, autumn

temporal resolution/frequency of sampling:

time series data: 3 to 6 sample periods per year at 42 sample plots  
yes

**taxonomic resolution:** species

percentage of species level data: 100

**taxonomic coding:**

taxalist according to: Müller-Motzfeld (2004)

**sample specifications:** quantitative (abundance data)

replicate samples: yes

number of samples: 42

specification of method(s) used for sampling and sorting:  
Method was developed from 1989 to 2002: 1989, 1992, 1995 pitfall traps;  
1998, 2000, 2002 additionally hand sampling (max. 30 minutes per sample  
plot).  
Pitfall traps: 370ml, 5,5cm diameter; 4 traps per sample plot

sample type (e.g. habitat specific samples, composite samples etc.):  
Habitat specific samples: 11 different habitats

specific sample location (e.g. littoral, profundal, transect, shoreline, hyporheic zone, etc.):  
Sampled habitats: pasture, reed bed, fallow land with reed bed succession,  
forest with alders, formerly meadows with succession, drought fallow land,  
successional areas nearby the Berkel, poplar forestation, sand bars, moist  
ditches, forest with oaks and beeches

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macro-invertebrates:

**sample information:**

covered timeframe:  
year from - to: 1989 - 2002  
historical data: no  
palaeo data: no  
season: spring, summer  
time series data: yes  
comments: time series not continuously: 1998, 1992, 1995, 2000, 2002

**taxonomic resolution:**

percentage of species level data: 100  
comments: focused only on adult *Calopteryx splendens*

**taxonomic coding:**

**sample specifications:**

quantitative (abundance data)  
replicate samples: yes  
number of samples: 390  
specification of method(s) used for sampling and sorting:  
Counting of adult species in 78 sample sections each with 50m length (left  
and right embankment of the river).

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other group(s):

**sample information:**

covered timeframe:  
year from - to: 1998 - 2002  
historical data: no  
season: summer  
time series data: yes  
comments: time series not continuously:  
1. vegetation: 1988, 1993, 1995, 1998, 2002

	<i>2. nightactive butterflies (macrolepidoptera): 1992, 1995, 1998, 2000/2001, 2002; 6 nights in March and Mai per sample year</i>
	<i>3. locusts: 1989, 1992, 1995, 1998, 2000, 2002: August and September in each sample year</i>
<b>taxonomic resolution:</b>	<i>species, other</i>
other taxonomic levels:	<i>vegetation units (Oberdorfer, 1992))</i>
percentage of species level data:	<i>100</i>
comments:	<i>1. vegetation units and species level</i> <i>2. species level</i> <i>3. exclusively Conocephalus dorsalis</i>
<b>taxonomic coding:</b>	
taxalist according to:	<i>1. Raabe et al. 1996, 2. Dudler et al., 1999</i>
<b>sample specifications:</b>	<i>quantitative (abundance data), semi-quantitative, qualitative</i>
replicate samples:	<i>yes</i>
number of samples:	<i>200</i>
specification of method(s) used for sampling and sorting:	<i>1. quantitative: area-wide recording of vegetation units(Braun-Blanquet, 1964; Oberdorfer, 1992) and permanent observation plots with estimation of species coverage(Braun-Blanquet, 1964)</i> <i>2. qualitative: light traps at two sites in the western sample area</i> <i>3. semi-quantitative, area-wide: visual observation and ultrasonic detection of stridulating male (Bruckhaus &amp; Detzel, 1997; Froehlich, 1989)</i>

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## **Other specifications**

**quality control procedures:**