General information

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:

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

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

**contact details:**

metadata contact person:
first, last name: Kathrin Januschke
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email: kathrin.januschke@uni-due.de
institution: Department of Aquatic Ecology, University of Duisburg-Essen
postal code, city: 45141 Essen

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.)
year: 2007

citation of the metadata:

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General data specifications

**regional coverage of the dataset:**
- scale of the dataset: *regional*
- continents: *Europe*
- countries: *Europe: Germany*
Site specifications

**coordinate system/grid data:**
- projected, others others: DHDN_3_Degree_Gauss_Zone_3
- D_Deutsches_Hauptidecksnetz

**number of sites:**
- <100
- 1

**exact number of sites:**
1

**comments:**
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
**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)

available parameters per site: information on embankment (incl. information on modification) [see investigations](#)

available parameters per site: information on channel form (incl. information on modification) [Gewässerstruktur]tgüte

available parameters per site: information on cross section (incl. information on modification) [Gewässerstruktur]tgüte

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

**stressors influencing the sites:**

<table>
<thead>
<tr>
<th>stressor</th>
<th>restored sites available</th>
<th>data before/after restoration available</th>
<th>stressor gradient available</th>
<th>comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>hydromorphological degradation</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>several restoration measures from 1993-1999</td>
</tr>
<tr>
<td>hydrologic stress (e.g. impoundment, flow velocity reduction, hydropoeaking, water abstraction, flow velocity increase)</td>
<td>yes</td>
<td></td>
<td>yes</td>
<td></td>
</tr>
</tbody>
</table>
### Biological data

**biological data origin:** from sampling  
**specify project:** E+E project: Renaturierung der Berkelau

**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: 1989 - 2002
- historical data: no
- season: spring, summer, autumn, winter
- temporal resolution/frequency of sampling:
  - time series data: yes

**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.

**amphibians:**

**sample information:**
- covered timeframe: 1989 - 2002
- historical data: no
- temporal resolution/frequency of sampling:
  - time series data: yes

**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

**terrestrial invertebrates:**

**sample information:**
- covered timeframe: 1998 - 2002
- historical data: no
- season: spring, summer, autumn
- temporal resolution/frequency of sampling:
Dataset: Floodplain restoration in the river Berkel

3 to 6 sample periods per year at 42 sample plots

**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:**


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

**macro-invertebrates:**

**sample information:**
- covered timeframe: 1989 - 2002
- historical data: no
- palaeo data: no
- season: spring, summer
- time series data: yes

**taxonomic resolution:** species

**percentage of species level data:** 100%

**taxonomic coding:** focused only on adult Calopteryx splendens

**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).

**other group(s):**

**sample information:**
- covered timeframe: 1998 - 2002
- historical data: no
- season: summer
- time series data: yes
- comments: time series not continuously:

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taxonomic resolution:
- species, other

other taxonomic levels:
- vegetation units (Oberdorfer, 1992)

percentage of species level data: 100

comments:
1. vegetation units and species level
2. species level
3. exclusively Conocephalus dorsalis

sample specifications:
- quantitative (abundance data), semi-quantitative, qualitative

replicate samples: yes

number of samples: 200

specification of method(s) used for sampling and sorting:
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)
2. qualitative: light traps at two sites in the western sample area
3. semi-quantitative, area-wide: visual observation and ultrasonic detection of stridulating male (Bruckhaus & Detzel, 1997; Froehlich, 1989)
Other specifications

green control procedures: