

# Metadata to the Distribution Atlas of European Trichoptera

*Astrid Schmidt-Kloiber, Peter J. Neu & Wolfram Graf*



Freshwater Metadata Journal  
DOI 10.15504/fmj.2015.9  
ISSN 2312-6604  
Published online: 2015-11-26



*Published by University of Natural Resources and  
Life Sciences, Institute of Hydrobiology and  
Aquatic Ecosystem Management, BOKU - Vienna*



# Metadata to the Distribution Atlas of European Trichoptera

*Astrid Schmidt-Kloiber*<sup>1</sup>, *Peter J. Neu*<sup>2</sup> & *Wolfram Graf*<sup>1</sup>

<sup>1</sup> University of Natural Resources and Life Sciences, BOKU - IHG, Vienna, Austria; corresponding author: ask@boku.ac.at

<sup>2</sup> Kasel, Germany

Please cite this paper as follows: Schmidt-Kloiber, A., Neu, P. J. & Graf, W., 2015. Metadata to the Distribution Atlas of European Trichoptera. *Freshwater Metadata Journal* 9: 1-6.  
<https://doi.org/10.15504/fmj.2015.9>

Received: 2015-11-12 / Published: 2015-11-26

## Keywords

Trichoptera, caddisfly species, Europe, occurrence records, distribution, adults

## Short description of the dataset/summary

The Distribution Atlas of European Trichoptera (DAET) database is a collection of about 561.000 occurrence data of caddisflies containing 413.000 datasets of adult Trichoptera from all over Europe (and a few records from Asia and Africa). The data compilation process was initiated by the EU funded BioFresh project ([www.freshwaterbiodiversity.eu](http://www.freshwaterbiodiversity.eu)) through its contingency fund. With the end of BioFresh 2014 work on the database continued, mostly focusing on filling the distribution gaps and an extensive quality control. Occurrence data in the dataset were provided by 74 data holders based on records from more than 400 different caddisfly collectors. Additional data (about 15.000) were gained through literature evaluation. All data will be made available through the Freshwater Biodiversity Data Portal ([www.freshwaterplatform.eu](http://www.freshwaterplatform.eu)) in the first half of 2016.

## General information

|  |   |
|--|---|
| dataset entry ID:                          | BF_CF9                                      |
| <b>name of the dataset:</b>                |   |
| full name of the dataset:                  | Distribution Atlas of European Trichoptera  |
| dataset short name:                        | DAET  |
| <b>type of dataset:</b>                    | species distribution data                   |
| data type:                                 | point data/observation data                 |
| <b>science keywords according to GCMD:</b> |   |
| topic:                                     | Biosphere                                   |
|  | Biota, Environment, Inland Waters, Location |

## Technical and administrative specifications

|  |  |
|--|--|
| <b>data format:</b>  | Access                                     |
| <b>operating system:</b>   | Win 7                                      |
| <b>data language:</b>  | English                                    |
| <b>current access level:</b>   | restricted access                          |
| currently available through <a href="#">GBIF</a> :                                 | no   |
| exchange planned:  | yes  |
| data in data repository:   | no   |
| <b>Do you plan to publish the data on the Freshwater Biodiversity Data Portal:</b> |  |
|  | yes  |
| <b>update level:</b>   | others/specify                             |
| others/details:  | For the future a yearly update is planned. |
| <b>documentation:</b>  |  |
| type:  | internal description                       |
| language:  | English                                    |

### contact details:

|                            |   |
|----------------------------|---|
| metadata contact person:   |   |
| first, last name:          | Astrid Schmidt-Kloiber  |
| phone:                     | ++431476545225  |
| email:                     | astrid.schmidt-kloiber@boku.ac.at   |
| institution:               | BOKU - University of Natural Resources and Life Sciences Vienna, IHG                                  |
| address:                   | Max Emanuel-Strasse 17  |
| postal code, city:         | 1180 Vienna   |
| province, state:           | Vienna  |
| country:                   | Austria   |
| web address:               | <a href="http://www.wau.boku.ac.at/ihg.html?&amp;L=1">http://www.wau.boku.ac.at/ihg.html?&amp;L=1</a> |
| technical contact person:  |   |
| first, last name:          | Peter J. Neu  |
| phone:                     | ++4965169962120   |
| email:                     | peter.neu@trichoptera-rp.de   |
| scientific contact person: |   |
| first, last name:          | Wolfram Graf  |
| phone:                     | ++431476545221  |
| email:                     | wolfram.graf@boku.ac.at   |

## Intellectual property rights and citation

### dataset creator (data compiler):

|                      |  |
|----------------------|--|
| contact name:        | Astrid Schmidt-Kloiber   |
| contact email:       | astrid.schmidt-kloiber@boku.ac.at                                    |
| contact institution: | BOKU - University of Natural Resources and Life Sciences Vienna, IHG |

### data contributors to/owners of this dataset:

|                                  |  |
|----------------------------------|--|
|                                  | single   |
| criteria for using this dataset: | The dataset needs to be requested from dataset creator with specific conditions of use.  |
| other/additional criteria:       | Currently the dataset still needs to be requested from the dataset creator as quality control is ongoing. All data will be made publicly available on the Freshwater Biodiversity Data Portal in the first half of 2016. |

Note that 74 different persons and institutions have contributed occurrence records to the DAET dataset. Their work has to be acknowledged accordingly whenever data are used.

**citation of this dataset:**

author(s): Graf, W., Neu, P. J. & Schmidt-Kloiber, A. (eds.)  
 title and journal (name, number, pages): Distribution Atlas of European Trichoptera (DAET)  
 year: 2015  
 version: 24/11/2015

**citation of the metadata:**

author(s): Schmidt-Kloiber A., Neu P. J. & Graf W.  
 title and journal (name, number, pages): Metadata to the Distribution Atlas of European Trichoptera. Freshwater Metadata Journal 9: 1-6  
 year: 2015  
 doi: <https://doi.org/10.15504/fmj.2015.9>

**General data specifications**

**regional coverage of the dataset:**

spatial extent of the dataset: continental  
 continents: Africa, Asia, Europe

**spatial extent (bounding coordinates):**

southernmost latitude [°]: 27  
 northernmost latitude [°]: 75  
 westernmost longitude [°]: -28  
 easternmost longitude [°]: 70  
 minimum altitude: -216 metres  
 maximum altitude: 3797 metres  
 countries:

Africa: Algeria, Egypt, Morocco, Tunisia

Asia: Afghanistan, Armenia, Azerbaijan, Cyprus, Georgia, Iran, Iraq, Israel, Jordan, Kazakhstan, Kuwait, Lebanon, Pakistan, Syria, Tajikistan, Turkey, Turkmenistan, Uzbekistan

Europe: Albania, Andorra, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Faroe Islands, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Macedonia, Moldova, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Russia, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, United Kingdom, Kosovo

comments: The Chechen Republic is included within the Russian Federation.  
 Only few data are available from Africa and Asia, the main scope of the dataset is Europe.

**world climatic regions according to Köppen:**

Group C: temperate/mesothermal climates  
 Group D: continental/microthermal climate

**European ecoregions according to Illies (WFD):**

Iberic-Macaronesian Region (ER1), Pyrenees (ER2), Italy, Corsica and Malta (ER3), Alps (ER4), Dinaric Western Balkan (ER5), Hellenic Western Balkan (ER6), Eastern Balkan (ER7), Western Highlands (ER8), Central Highlands (ER9), The Carpathians (ER10), Hungarian Lowlands (ER11), Pontic Province

(ER12), Western Plains (ER13), Central Plains (ER14), Baltic Province (ER15), Eastern Plains (ER16), Ireland and Northern Ireland (ER17), Great Britain (ER18), Iceland (ER19), Borealic Uplands (ER20), Tundra (ER21), Fenno-Scandian Shield (ER22), Taiga (ER23), The Caucasus (ER24), Caspic Depression (ER25), North Africa (ERX), Middle East (ERY)

**ecosystem type:** rivers, lakes/ponds, wetlands

**coverage timeframe:** 1793 - 2015

**comments:** Additional freshwater types: springs, hygropetric habitats.

## Site specifications

**coordinate system/grid data:** latitude/longitude, format: DD

datum (e.g. WGS84): WGS84

grid data available: yes

comments: Some data were only available as grid data (UTM, Gauss Krüger, BN Grid etc.). These data were transferred to WGS84 with unavoidable blur, depending on the specified grid.

site coding available: no

**number of sites:** >1000

exact number of sites: 55791

**comments:** In total the dataset contains 561.187 occurrence records from 55.791 different locations; 413.229 records are adult Trichoptera records formed of 1.708 species (including sub-species).

## Biological data

**biological data origin:** from sampling

specify project: Data provided by Trichoptera experts from their own collections.

specify method: general compilation,

organism group addressed: Data available form literature and museum collections.

comments: macro-invertebrates

Occurrence records were contributed by 74 data providers. About 15.000 additional data were generated through literature review.

## Sample resolution

**macro-invertebrates:**

**taxonomic resolution:**

level: species, other

other taxonomic levels: sub-species

percentage of species level data: 100

comments: All species are taxonomically linked: order, family, (sub-family), genus, species, (sub-species). Synonyms are included.

Percentage of species level data includes the sub-species level.

**taxonomic coding:**

taxalist according to: [www.freshwaterecology.info](http://www.freshwaterecology.info)

reference(s): Graf, W., Murphy, J., Dahl, J., Zamora-Muñoz, C., López-Rodríguez M.J. & Schmidt-Kloiber, A.: Dataset "Trichoptera". [www.freshwaterecology.info](http://www.freshwaterecology.info) - the taxa and autecology database for freshwater organisms, version 6.0 (accessed on

25.11.2015).  
 Graf, W., Murphy, J., Dahl, J., Zamora-Muñoz, C. & López-Rodríguez, M.J. (2008): Distribution and Ecological Preferences of European Freshwater Organisms. Volume 1 - Trichoptera. Edited by Schmidt-Kloiber, A. & D. Hering. Pensoft Publishers (Sofia-Moscow). 388pp.

coding system: ID\_fwe  
 example: 12345  
 comments: The taxalist of freshwaterrecology.info was amended with additional species/sub-species according to recent publications. These taxa will be included in freshwaterrecology.info.

## Other specifications

### GIS layers, shape files related to the dataset:

others/details: species distribution  
 political borders layer  
 water lines/water areas layer  
 altitudinal layer  
 ecoregions according to Illies layer

availability of photos: no

availability of maps: yes

### quality control procedures:

Were any quality control procedures applied to your dataset?

yes

quality control protocols and comments:

- The underlying taxalist was checked by the freshwaterrecology.info Trichoptera experts and currently holds 1708 species (including sub-species).
- Distribution data were in a first step quality controlled through GIS routines. In a second step the occurrence records were quality checked by experts, namely Hans Malicky and Wolfram Graf.
- To avoid quality issues regarding the identification of larvae, the focus of the dataset is on adult data.
- In cases of recent differentiations to sub-species older data may contain ambiguous species.

## Acknowledgements

This database would not exist without the contribution of 78 further data providers. We sincerely thank Trond Andersen, Miklos Balint, Angela Berlin, Nuria Bonada, Mario Brauns, Andreja Brigic, Rainer Brinkmann, Pavel Chvojka, Fernanda Cianficconi, Constantin Ciubuc, Klaus Cölln, Gennaro Coppa (OPIE-Benthos, France), Carla Corallini, Alain Dohet, Maria Dommermuth, Thomas Ehlert, Brigitta Eiseler, Frank Eiseler, Klaus Enting, Georges Erpelding (d), Jochen Fischer, Jürgen Gaul, Gudrun Gerdes, Gisli Gislason, Marcos Gonzales, Yves Gonzeth (CSCF-Info Fauna, Swiss National Caddisfly Databank), Bo Gullefors, Ullrich Heckes, Monika Hess, L.W.G. Higler (d), Mathias Hohmann, Halil Ibrahim, Matthias Kitt, Samuel Jolivet (OPIE-Benthos, France), Ute Kampwerth, Lujza Keresztes, Petr Komzak, Mladen Kucinic, Ralf Küttner, Johanna Lietz, Koen Lock, Omar Lodovici, Verena Lubini, Janusz Majecki, Hans Malicky, Dirk Mattern, Bart Mevius, Wolfram Mey, Marc Meyer (d), Reinhard Müller, Thomas Pitsch, Bodo Plesky, Ellen Ploss, Aleksandar Popijac, Ana Previsic, Maria Angeles Puig, Berthold Robert, Marta Sainz-Bariain, Juha Salokannel, Maria Sanabria, Isabel Schrankel, Manfred Siebert, Svjetlana Stanic-Kostroman, Bronislaw Szczesny, David Tempelmann, Wolfgang Tobias, Akos Uherkovich, Heinrich Vicentini, Giedre Visinskiene, Hanno Voigt, Ian Wallace, Johann Waringer, Armin Weinzierl, Matthias Weitzel, Peter Wiberg-Larsen, Beate Wolf, Carmen Zamora-Munoz, ZOBODAT.

We additionally thank those colleagues who donated their honorarium to UNICEF.

We are very grateful to Hans Malicky for the comprehensive quality control. We thank Michael Malicky for the ZOBODAT support.

Data compilation was supported by the BioFresh project (Biodiversity of Freshwater Ecosystems: Status, Trends, Pressures, and Conservation Priorities; EU Framework Programme 7; contract number 226874; [www.freshwaterbiodiversity.eu](http://www.freshwaterbiodiversity.eu)). We thank Klement Tockner for his coordination work.

## References

- Graf, W., Murphy, J., Dahl, J., Zamora-Muñoz, C. & López-Rodríguez, M. J., 2008. Distribution and Ecological Preferences of European Freshwater Organisms. Volume 1 - Trichoptera. Edited by Schmidt-Kloiber, A. & D. Hering. Pensoft Publishers (Sofia-Moscow). 388pp.
- Graf, W., Murphy, J., Dahl, J., Zamora-Muñoz, C., López-Rodríguez M. J. & Schmidt-Kloiber., A., 2015. Dataset "Trichoptera". [www.freshwaterecology.info](http://www.freshwaterecology.info) - the taxa and autecology database for freshwater organisms, version 6.0 (accessed on 25.11.2015).
- Schmidt-Kloiber, A. & Hering D., 2015. [www.freshwaterecology.info](http://www.freshwaterecology.info) - an online tool that unifies, standardises and codifies more than 20,000 European freshwater organisms and their ecological preferences. *Ecological Indicators* 53: 271-282. <https://doi.org/10.1016/j.ecolind.2015.02.007>