Shaping our taxonomic legacy through openly sharing primary biodiversity data in taxonomic revisions

Torsten Dikow

ORCID 0000-0003-4816-2909

@TDikow #asiloidflies #USNMDiptera

NATIONAL MUSEUM of NATURAL HISTORY

Smithsonian

figshare doi: 10.25573/data.c.5907014

◊ PDF = text document that can easily be transferred – really nothing more

African Invertebrates Vol. 44 (2) Pages 1–131 Pietermaritzburg December, 2003

Revision of the genus *Euscelidia* Westwood, 1850 (Diptera: Asilidae: Leptogastrinae)

by

Torsten Dikow

(Institut für Biodiversitätsforschung, Universität Rostock, Germany; current address: Cornell University, Department of Entomology, Comstock Hall, Ithaca, NY 14853, USA; e-mail: torsten@tdvia.de)

ABSTRACT

The genus *Euscelidia* Westwood, 1850 is revised. Sixty-eight species (55 Afrotropical, 11 Oriental, 4 Palaearctic) are recognised, of which 40 are newly described: Afrotropical - *acuminata*, *adusta*, *atrata*, *bechuana*, *cacula*, *cana*, *capensis*, *crena*, *erichthenii*, *fistula*, *hesperia*, *hyalina*, *insolita*, *kasungu*, *lata*, *longibifida*, *lucioides*, *milva*, *mucronata*, *natalensis*, *notialis*, *obtusa*, *obudu*, *peteraxi*, *picta*, *pipinna*, *pulchra*, *senegalensis*, *tsavo*, *vallis*, *venusta*; Oriental - *abbreviata*, *cobice*, *flava*, *glabra*, *lepida*, *livida*, *popa*, *prolata*, *splendida*. *Dolichoscius* Janssens, 1953 is synonymised with *Euscelidia*. Four species, *Dolichoscius francoisi* Janssens, 1953, *Leptogaster brunneus* Loew, 1858, *L. nenemusha* Speiser, 1910, *L. ochricornis* Loew, 1858, are newly combined with *Euscelidia*. Four species are newly synonymised, *Dolichoscius longipes* Janssens, 1954 with *D. francoisi*, *Euscelidia oldroydi* Lindner, 1955 and *Leptogaster stigmaticalis* Loew, 1852 with *Leptogaster proculus* Walker, 1849, and *Lasiocnemus pilipes* Curran, 1927 with *Leptogaster datis* Walker, 1849. *Euscelidia piliensis* Oldroyd, 1972 is transferred to *Leptogaster* Meigen, 1803. The status of *Leptogaster setifer* Frey, 1937 and *L. simplex* Bigot, 1878 is revised as species of *Leptogaster*. Redescriptions and descriptions of the genus and all species and an identification key to species are provided. The distribution, seasonality, and biology are discussed. Comments on the subfamily Leptogastrinae are given.

Keywords: *Euscelidia*, Leptogastrinae, Asilidae, Diptera, revision, biogeography

Dikow 2003
doi:10.5281/zenodo.32467

Type material - The ♂ holotype is labelled 'SOUTH WEST AFRICA 2217Ca Windhoek Dist. Auasberge 21 km. S. Windhoek, 1800 m. 31-1-1974, ME Irwin sandy wash in mountains / HOLOTYPE *Euscelidia acuminata* sp. nov. det. T. Dikow 2001 (red label)'. The specimen is double mounted (minuten in block of foam), is in excellent condition, and is deposited in the NMSA.

The 3♀ ♀ 4♂♂ paratypes have same labels as holotype except 'PARATYPE *Euscelidia acuminata* sp. nov. det. T. Dikow 2001 (yellow label)'. The specimens are double mounted (minuten in block of foam), are in very good condition (1 ♀ with cracked sct), and are deposited in the NMSA.

Type locality and distribution (Fig. 29): Namibia, Auasberge (21 km S Windhoek), 22°44'S 17°00'E. Angola, Namibia.

Material examined: ANGOLA: 1♂ Capangombe, 15°05'S 13°10'E, 17–20.x.1974; NAMIBIA: 1? Outjo, 20°14'S 15°40'E; 1♂ Khan River, 21°47'S 15°55'E, 27.iii.1984; 1♀ 2♂♂ 1? Hochfeld, 21°29'S 17°50'E, 18.iii.1984; 1♂ Regenstein, 22°43'S 17°01'E, 8.ii.1972; 1♀ 1♂ Witvlei, 22°26'S 18°31'E, 17.iii.1984. Depository: BMNH, NMSA.

› PDF prison ‹

› Donat Agosti at Plazi ‹

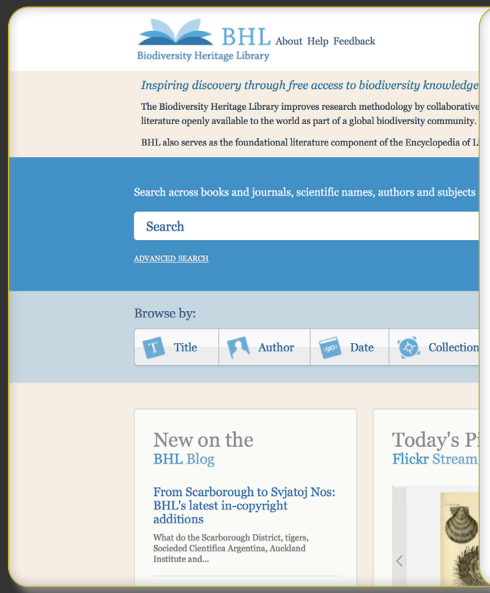
› doi: 10.5281/zenodo.1287269 ‹

◊ high-quality taxonomic output is not just . . .
› comprehensively undertaken and illustrated revisions / monographs

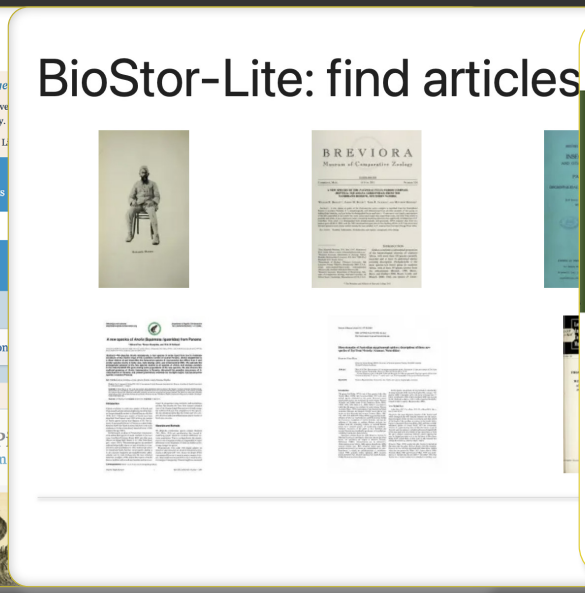
◊ high-quality taxonomic output is also . . .
› making data openly accessible

› open-access to data — cybertaxonomy ‹
(and its synonyms)

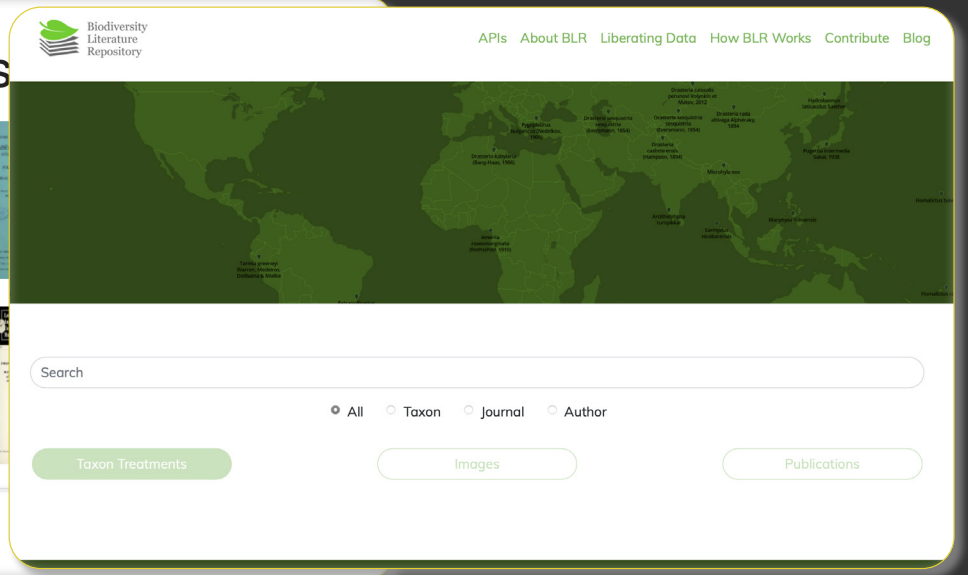
◊ imagine you have . . . at your fingertips digitally online



› BHL



› BioStor



› BLR

Bequaert 1959
doi: 10.5281/zenodo.3994689

zenodo Search Upload Communities Log in Sign up

December 31, 1959 Book section Open Access

Chapter XVIII. Diptera (Brachycera): Mydaidae

Bequaert, Michel

Bequaert, Michel (1959): Chapter XVIII. Diptera (Brachycera): Mydaidae. In: South African Animal Life (Results of the Lund University Expedition in 1950-1951). Lund: Almqvist and Wiksell: 356-372, DOI: http://doi.org/10.5281/zenodo.3994689

Preview

Page: 1 of 17 Automatic Zoom

Chapter XVIII

Diptera (Brachycera): Mydaidae

Par MICHEL BEQUAERT

Parmi les Diptères récoltés par la Swedish South African Expedition, 1950–1951, se trouvent six exemplaires appartenant à la famille des Mydaidae, et comportant trois espèces toutes inédites. Elles se rangent dans trois genres distincts; deux de ceux-ci, *Syllegomydas* BECKER et *Leptomydas* GERST. sont représentés dans les régions avoisinantes de l'Afrique méridionale; le troisième genre, *Eremohaplomydas* décrit ici

Files (39.4 MB)

31 views 11 downloads

See more details...

Part of Biodiversity Literature Repository

Indexed in OpenAIRE

Publication date:
December 31, 1959

DOI:
DOI 10.5281/zenodo.3994689

Keyword(s):
Biodiversity Taxonomy Animalia Arthropoda Insecta Diptera Mydidae

Publication date:
December 31, 1959

DOI:
DOI 10.5281/zenodo.3994689

Keyword(s):
Biodiversity Taxonomy Animalia Arthropoda Insecta Diptera Mydidae

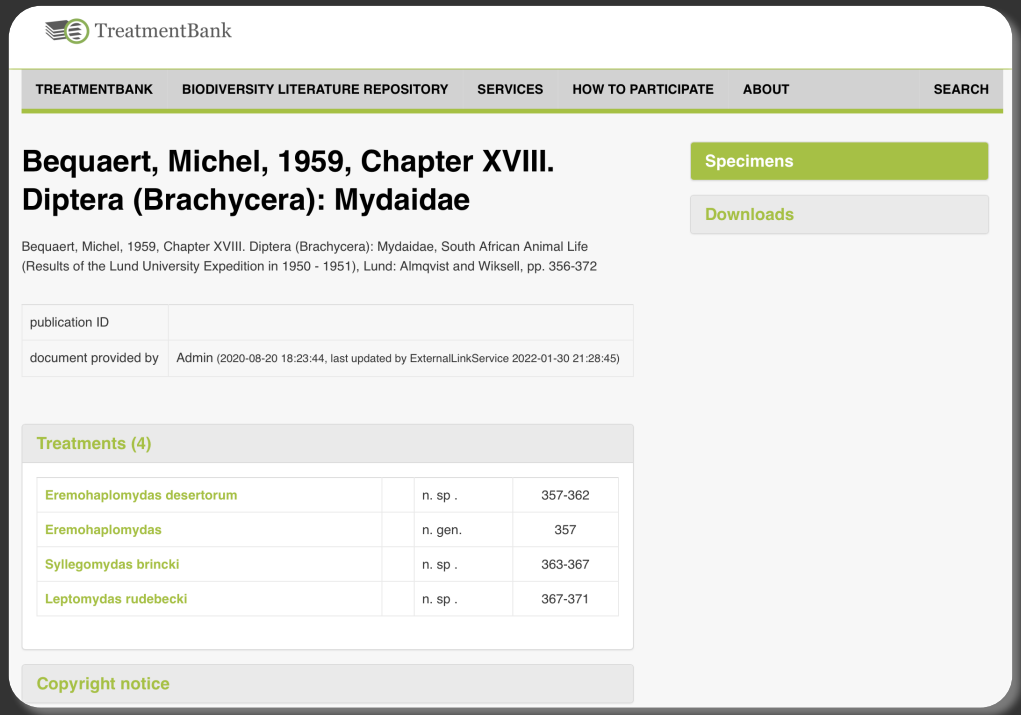
Published in:
South African Animal Life (Results of the Lund University Expedition in 1950-1951), Almqvist and Wiksell, Lund, pp. 356-372.

Related identifiers:
Has part
10.5281/zenodo.4328518 (Taxonomic treatment)
urn:lsid:zoobank.org:act:F170BC4E-DC90-4903-8836-53E3B693CB13 (LSID) (Taxonomic treatment)
http://treatment.plazi.org/id/03D687AD5962FFF1FDA9FB4AF93AF63F (Taxonomic treatment)
10.5281/zenodo.4328512 (Taxonomic treatment)
urn:lsid:zoobank.org:act:DD434890-73C0-429E-AE09-670889346232 (LSID) (Taxonomic treatment)
http://treatment.plazi.org/id/03D687AD5962FFF7FFD5F63AFEF3F788 (Taxonomic treatment)
urn:lsid:zoobank.org:act:54F33B81-5197-497B-94EE-E97DA9388916 (LSID) (Taxonomic treatment)
http://treatment.plazi.org/id/03D687AD5964FFFBFFAEF704FAA2F7C6 (Taxonomic treatment)
10.5281/zenodo.4328516 (Taxonomic treatment)
urn:lsid:zoobank.org:act:A0299E09-E5D9-4124-BEC7-8AE1668F3117 (LSID) (Taxonomic treatment)
http://treatment.plazi.org/id/03D687AD5968FFFFFFD8F6CFFBDCF47B (Taxonomic treatment)
10.5281/zenodo.3994691 (Figure)
10.5281/zenodo.3994693 (Figure)
10.5281/zenodo.3994695 (Figure)
10.5281/zenodo.3994697 (Figure)
10.5281/zenodo.3994699 (Figure)

Source of
http://www.gbif.org/dataset/92f14d8c-845d-4410-95e6-ef458099f30f (Dataset)

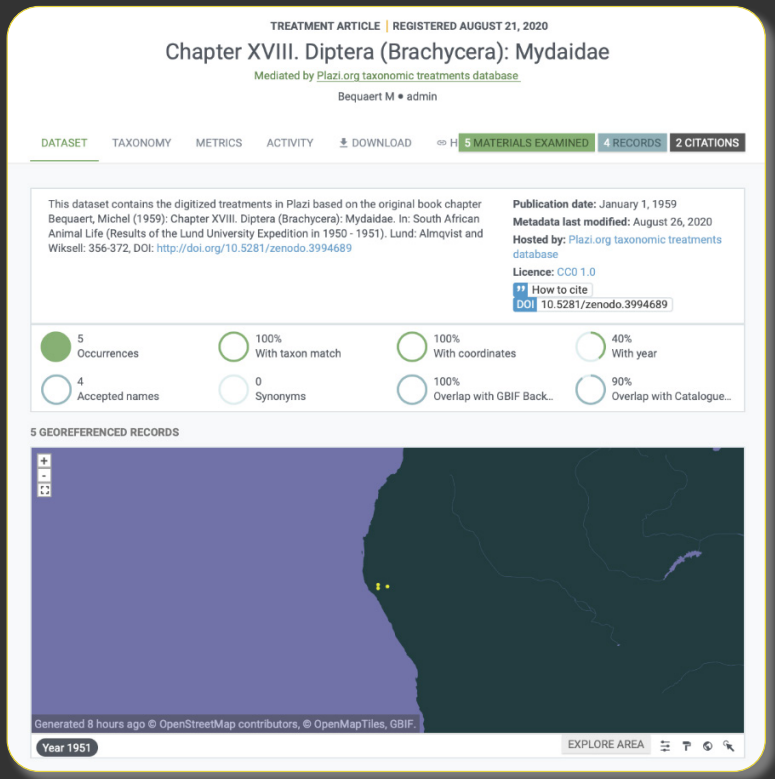
◊ freeing data from published literature

››› TreatmentBank



https://tb.plazi.org/GgServer/summary/FFEFFFD55963FFF0FFE3FFE9FFBEFFB3

››› GBIF



https://www.gbif.org/dataset/92f14d8c-845d-4410-95e6-ef458099f30f

data from Bequaert 1959
doi: 10.5281/zenodo.3994689

data gathering

descriptions + keys

Lucid

comprehensive suites

TaxonWorks
Describe life.

EDIT
Platform for
Cybertaxonomy

collaborative tools

Scratchpads
biodiversity online

collections

GRSciColl

data repositories

specimen occurrences

GBIF

names

ZooBank

keys

Lucid Keys

data sets, illustrations, ecology, + other data

figshare

zenodo

images + 3D data

zenodo

Morph·D·Base

MORPHO SOURCE

articles

Biodiversity Literature Repository

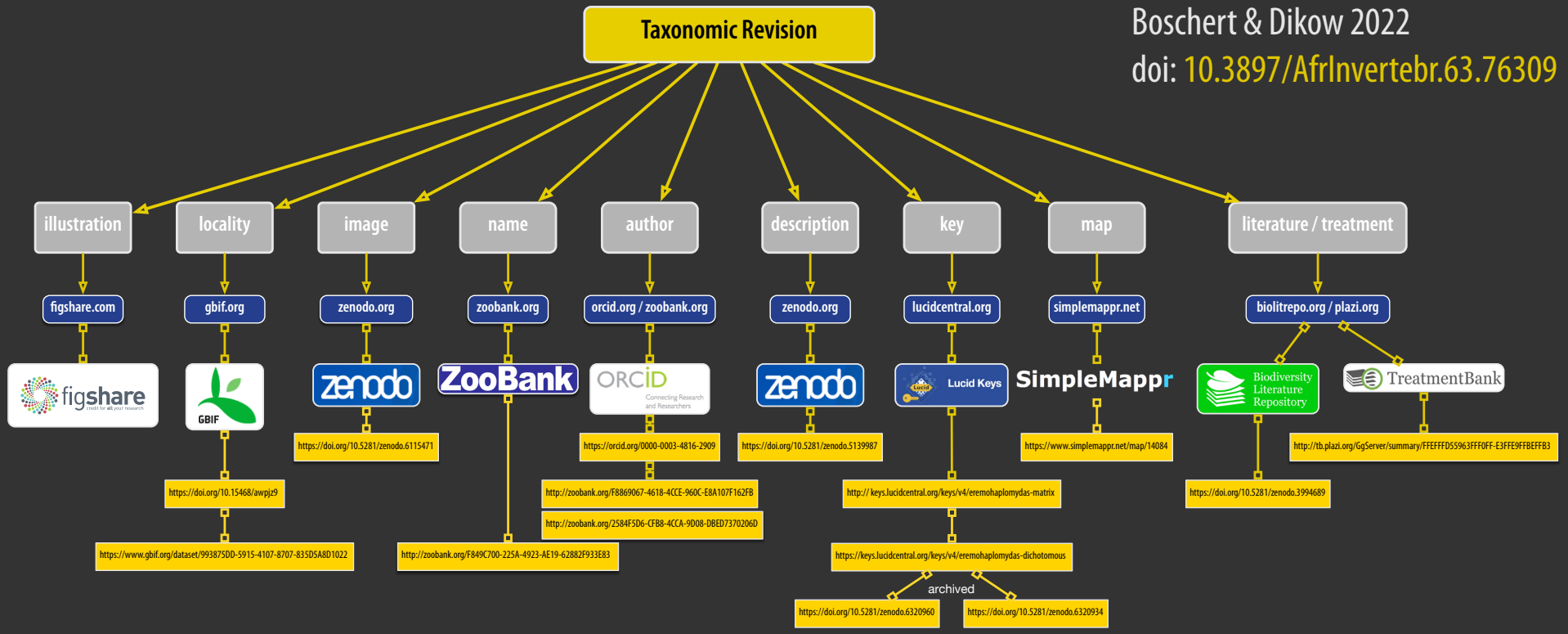
descriptions / treatments

TreatmentBank

distribution maps

SimpleMappr

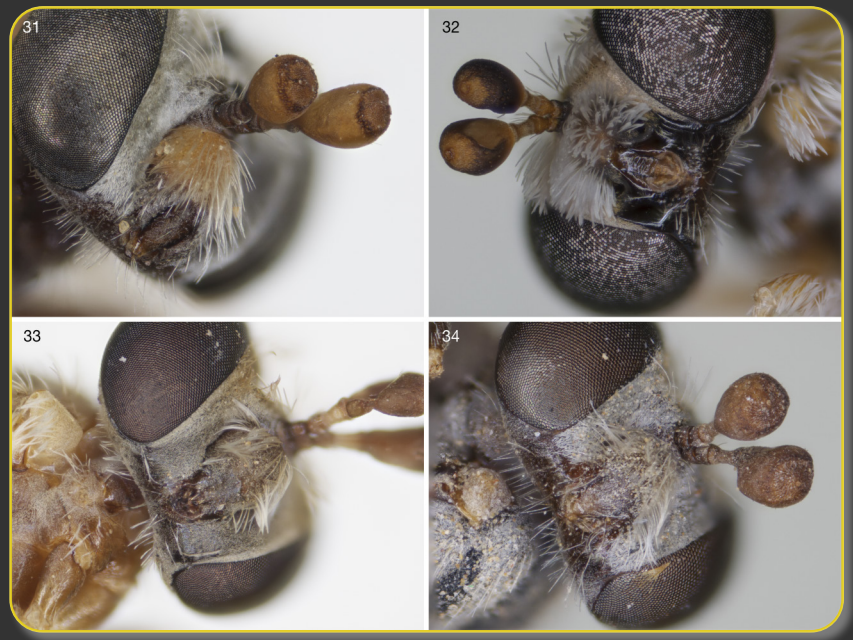
Boschert & Dikow 2022
doi: 10.3897/AfrInvertebr.63.76309



Eremohaplomydas whartoni

Eremohaplomydas gobabebensis

◊ links to openly accessible data in public repositories – make access easy



Data resources

GBIF: specimen occurrence data-set – http://www.gbif.org/dataset/993875DD-5915-4107-8707-835D5A8D1022 – DOI https://doi.org/10.15468/awpjz9.

Lucid Builder: illustrated, multi-entry, matrix-based identification key – http://keys.lucidcentral.org/keys/v4/eremohaplomydas-matrix (archived in SDD format at Zenodo – DOI https://doi.org/10.5281/zenodo.6320960).

Lucid Builder: illustrated, dichotomous, pathway identification key – https://keys.lucidcentral.org/keys/v4/eremohaplomydas-dichotomous (archived in SDD format at Zenodo – DOI https://doi.org/10.5281/zenodo.6320934).

Lucid Builder: illustrated, dichotomous, pathway identification key to Afrotropical Mydidae genera v2 – https://keys.lucidcentral.org/keys/v4/Afrotropical-Mydidae-genera-dichotomous (archived in SDD format at Zenodo – DOI https://doi.org/10.5281/zenodo.5295621).

Plazi TreatmentBank taxon treatments:

Bequaert 1959 – http://tb.plazi.org/GgServer/summary/FFEFFFD55963FFF0FFE3FFE9FFBEFFB3

SimpleMappr: distribution maps – https://www.simplemappr.net/map/14084?width=1000&height=750&legend=true (as in Fig. 3; Google Earth KML file http://www.simplemappr.net/map/14084.kml); https://www.simplemappr.net/map/14089?width=1000&height=750&legend=true (as in Fig. 56; Google Earth KML file http://www.simplemappr.net/map/14089.kml); https://www.simplemappr.net/map/14090?width=1000&height=750&legend=true (as in Fig. 57; Google Earth KML file http://www.simplemappr.net/map/14090.kml).

Zenodo: natural-language species descriptions from Lucid Builder 4.0 in SDD format – DOI https://doi.org/10.5281/zenodo.5139987.

Zenodo BLR: full-resolution specimen photographs – DOI https://doi.org/10.5281/zenodo.6115471.

ZooBank new nomenclatorial acts: http://zoobank.org/F849C700-225A-4923-AE19-62882F933E83.

Boschert & Dikow 2022
doi: 10.3897/AfrInvertebr.63.76309

- cybercatalog of Afrotropical *Apiocera*
  - interactive
  - links to openly accessible data in public repositories
- Dikow & Agosti 2015
  - doi: 10.3897/BDJ.3.e5707

Apiocera (*Ripidosyrma*) *alastor* (Walker, 1849)

- ZooBank urn:lsid:zoobank.org:act:C4D38C42-45E5-48A0-B55A-29BC06FFB72A
- original description page online BHL http://biodiversitylibrary.org/page/38706155
- original article online BLR http://dx.doi.org/10.5281/zenodo.30972
- original article online BHL http://www.biodiversitylibrary.org/item/119308
- GBIF http://www.gbif.org/species/1611657
- Plazi http://treatment.plazi.org/id/03EF3D32-FFB6-5C2C-FFF5-FAD25186B0F7
- Plazi taxon query http://plazi.cs.umb.edu/GgServer/search?taxonomicName.isNomenclature=true&taxonomicName.exactMatch=true&taxonomicName.order=Diptera&taxonomicName.species=alastor
- Morphbank (by taxon) http://www.morphbank.net/Browse/ByImage/?tsn=999022155
- Encyclopedia of Life http://eol.org/pages/718862/overview
- asiloidflies.si.edu distribution map http://asiloidflies.si.edu/specimen-map-Apioceridae?genus=Apiocera&species=alastor
- asiloidflies.si.edu specimen table http://asiloidflies.si.edu/specimen-table-Apioceridae?genus=Apiocera&species=alastor

Nomenclature:

Asilus alastor Walker 1849: 444

Apiocera (*Ripidosyrma*) *alastor*, new combination by Stuckenberg 1968 : 124

Apiocera (*Ripidosyrma*) *africana* Paramonov, 1950, new junior synonymy by Yeates 1994 : 124

- ZooBank GUID B745D2C2-8CB6-4C95-970E-B3C3246B7A73
- Plazi original treatment GUID B745D2C2-8CB6-4C95-970E-B3C3246B7A73

Distribution: South Africa (Northern Cape, Western Cape)

Notes: Institutions with specimens: BMNH, SAMC, ZSMC.

- ZooBank – new + existing names (nomenclatorial acts) – LSID – zoobank.org
- GBIF – specimen occurrence data – GUID + DOI – gbif.org
- Biodiversity Literature Repository
  - – images – DOI – zenodo.org
  - – previous articles – DOI + GUID – biolitrepo.org
- Figshare – illustrations – DOI – figshare.com
- Zenodo – species descriptions in SDD/XML-format – DOI – zenodo.org
  - – other general data
- TreatmentBank – previous taxon treatments – GUID – plazi.org/treatmentbank
- Simplemappr – distribution maps – PURL – simplemappr.net
- Lucidcentral – pathway / matrix keys – PURL – lucidcentral.org
  - – archived in SDD/XML-format at zenodo.org

› open-access to data — cybertaxonomy ‹

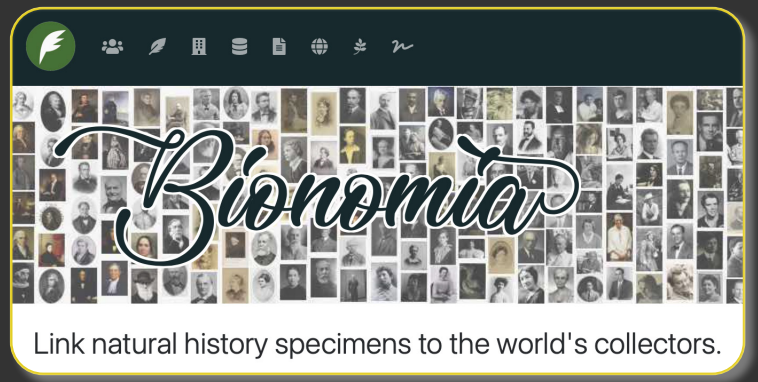
› re-use, re-purpose, and test previously gathered data easily ‹

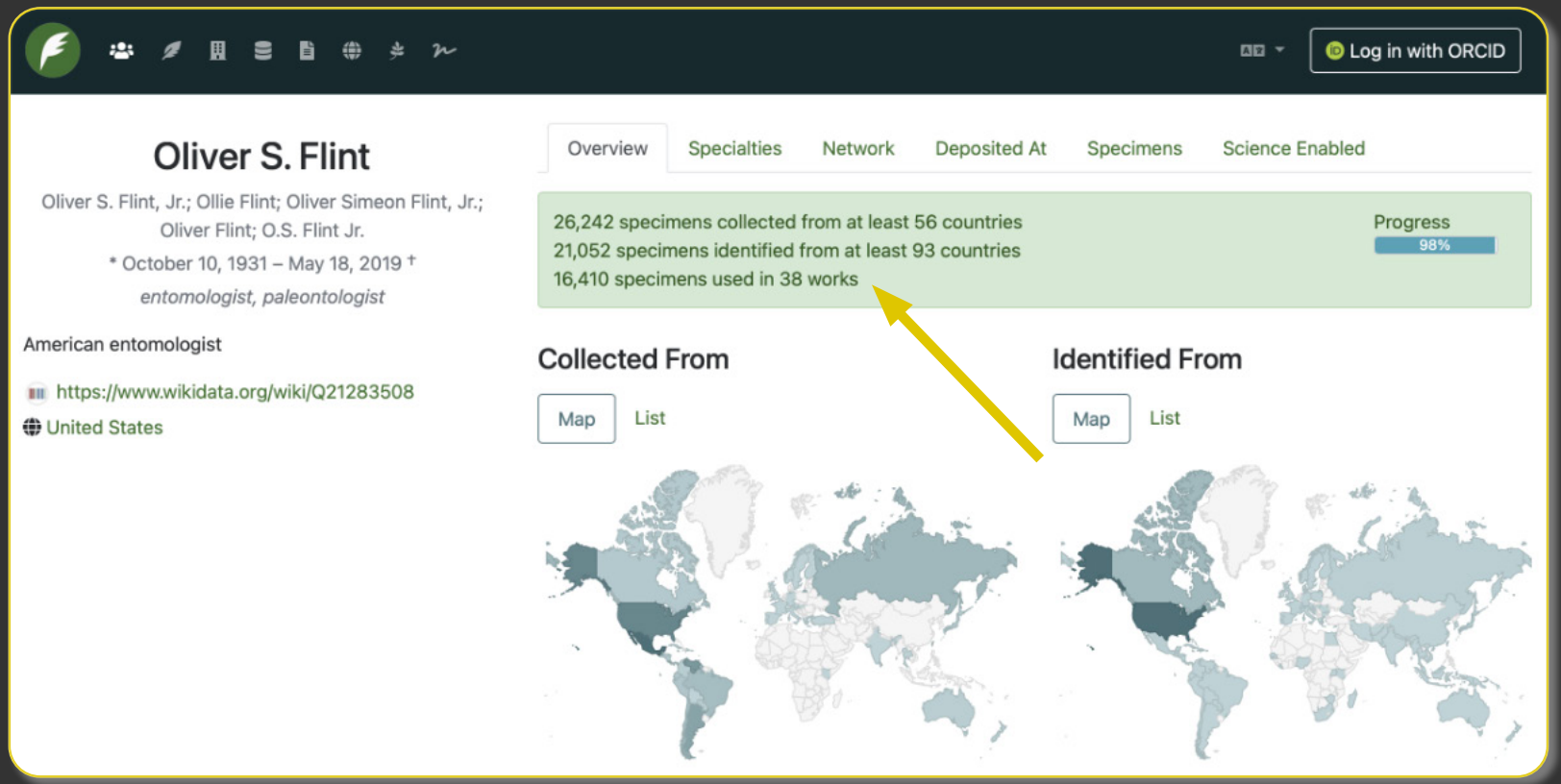
› make work of future taxonomists easier ‹

› move taxonomy into 21st century ‹

› your taxonomic legacy ‹

- Bionomia
  - bionomia.net
  - @BionomiaTrack





bionomia.net/Q21283508

- discussions
  - Donat Agosti @myrmoteras
  - Marcus Guidoti @marcusguidoti
  - Lyubo Penev
  - Deb Paul @idbdeb
  - David Shorthouse @dpsSpiders
  - Rich Pyle
  - GBIF team
  - BHL team
  - all developers

@TDikow

figshare credit for all your research

presentation PDF + recording doi: 10.25573/data.c.5907014