

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



Torsten Dikow

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@TDikow #asiloidflies #USNMDiptera

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MUSEUM of
**NATURAL
HISTORY**

Smithsonian

◊ 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

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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*, *atrrata*, *bechuanae*, *cacula*, *cana*, *capensis*, *crena*, *erichthenii*, *fistula*, *hesperia*, *hyalina*, *insolita*, *kasungu*, *lata*, *longibifida*, *luciooides*, *milva*, *mucronata*, *natalensis*, *notialis*, *obtusa*, *obudu*, *peteraxi*, *picta*, *pipinna*, *pulchra*, *senegalensis*, *tsavo*, *vallis*, *venusta*; Oriental - *abbreviata*, *cobice*, *flava*, *glabra*, *lepidia*, *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 stigmatical* Loew, 1852 with *Leptogaster procula* Walker, 1849, and *Lasiocnemus pilipes* Curran, 1927 with *Leptogaster datus* 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 scl), 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

The screenshot shows the BHL homepage. At the top, there's a navigation bar with links for "About", "Help", "Feedback", and "Biodiversity Heritage Library". Below this, a banner reads "Inspiring discovery through free access to biodiversity knowledge". A sub-banner below it says "The Biodiversity Heritage Library improves research methodology by collaborative literature openly available to the world as part of a global biodiversity community." Another line of text states "BHL also serves as the foundational literature component of the Encyclopedia of Life". A search bar is present with the placeholder "Search across books and journals, scientific names, authors and subjects" and a "Search" button. Below the search bar is an "ADVANCED SEARCH" link. A "Browse by:" section follows, featuring four tabs: "Title" (selected), "Author", "Date", and "Collection". To the right of these tabs are three small thumbnail images: a portrait of a man, a page from a scientific journal titled "BREVIORA", and another page from a journal. At the bottom left, a box highlights "New on the BHL Blog" with a link to "From Scarborough to Svjatoj Nos: BHL's latest in-copyright additions". Another box to the right shows "Today's Flickr Stream" with a thumbnail of a shell.

BioStor-Lite: find articles

This screenshot shows the BioStor-Lite search interface. It features a search bar at the top with a placeholder "Search across books and journals, scientific names, authors and subjects". Below the search bar are four radio buttons for filtering results: "All" (selected), "Taxon", "Journal", and "Author". Underneath these filters are three buttons: "Taxon Treatments", "Images", and "Publications". The main area displays two large thumbnail images of scientific journal pages. On the left, there's a sidebar with a "Search" input field and a "Advanced Search" link.

The screenshot shows the BLR homepage. At the top, there's a navigation bar with links for "APIs", "About BLR", "Liberating Data", "How BLR Works", "Contribute", and "Blog". Below the navigation is a large map of the world where various taxonomic names are plotted with colored dots. A search bar is located at the top left of the map area. At the bottom of the map are three buttons: "Taxon Treatments", "Images", and "Publications".

› BHL

› BioStor

› BLR

Bequaert 1959
doi: [10.5281/zenodo.3994689](https://doi.org/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

31 views 11 downloads See more details...

Part of  Biodiversity Literature Repository

Indexed in 

Files (39.4 MB)

Publication date:
December 31, 1959

DOI:
[DOI 10.5281/zenodo.3994689](https://doi.org/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](https://doi.org/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](https://doi.org/10.5281/zenodo.4328512) (Taxonomic treatment)
urn:lsid:zoobank.org:act:DD434890-73C0-429E-AE09-670889346232 (LSID) (Taxonomic treatment)
<http://treatment.plazi.org/id/03D687AD5962FFF7FFDF63AEFF3F788> (Taxonomic treatment)
urn:lsid:zoobank.org:act:54F33B81-5197-497B-94EE-E97DA9388916 (LSID) (Taxonomic treatment)
<http://treatment.plazi.org/id/03D687AD5964FFFBFFAEF704FAA2F706> (Taxonomic treatment)
[10.5281/zenodo.4328516](https://doi.org/10.5281/zenodo.4328516) (Taxonomic treatment)
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<http://treatment.plazi.org/id/03D687AD5968FFF4FFD8F6CFFBDCF47B> (Taxonomic treatment)
[10.5281/zenodo.3994691](https://doi.org/10.5281/zenodo.3994691) (Figure)
[10.5281/zenodo.3994693](https://doi.org/10.5281/zenodo.3994693) (Figure)
[10.5281/zenodo.3994695](https://doi.org/10.5281/zenodo.3994695) (Figure)
[10.5281/zenodo.3994697](https://doi.org/10.5281/zenodo.3994697) (Figure)
[10.5281/zenodo.3994699](https://doi.org/10.5281/zenodo.3994699) (Figure)

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

◊ freeing data from published literature

»» TreatmentBank

 TreatmentBank

TREATMENTBANK BIODIVERSITY LITERATURE REPOSITORY SERVICES HOW TO PARTICIPATE ABOUT SEARCH

Bequaert, Michel, 1959, Chapter XVIII.
Diptera (Brachycera): Mydaidae

Bequaert, Michel, 1959, Chapter XVIII. Diptera (Brachycera): Mydaidae, South African Animal Life (Results of the Lund University Expedition in 1950 - 1951). Lund: Almqvist and Wiksell; pp. 356-372

publication ID		
document provided by	Admin (2020-08-20 18:23:44, last updated by ExternalLinkService 2022-01-30 21:28:45)	

Treatments (4)

	n. sp .	357-362
Eremohaplomydas desertorum	n. sp .	357-362
Eremohaplomydas	n. gen.	357
Syllegomydas brincki	n. sp .	363-367
Leptomydas rudebecki	n. sp .	367-371

Copyright notice

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

»» GBIF

TREATMENT ARTICLE | REGISTERED AUGUST 21, 2020
Chapter XVIII. Diptera (Brachycera): Mydaidae
Mediated by Plazi.org taxonomic treatments database
Bequaert M • admin

DATASET TAXONOMY METRICS ACTIVITY DOWNLOAD MATERIALS EXAMINED RECORDS CITATIONS

This dataset contains the digitized treatments in Plazi based on the original book chapter 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>

Publication date: January 1, 1959
Metadata last modified: August 26, 2020
Hosted by: Plazi.org taxonomic treatments database
Licence: CC0 1.0
How to cite
[DOI 10.5281/zenodo.3994689](http://doi.org/10.5281/zenodo.3994689)

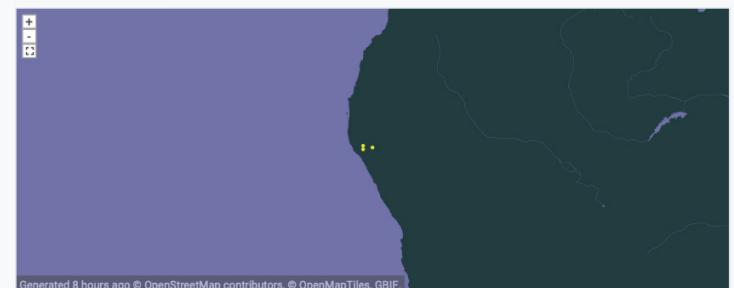
5 Occurrences
4 Accepted names

100% With taxon match
0 Synonyms

100% With coordinates
100% Overlap with GBIF Backbone

40% With year
90% Overlap with Catalogue...

5 GEOREFERENCED RECORDS



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Year 1951 EXPLORE AREA

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

data from Bequaert 1959
doi: [10.5281/zenodo.3994689](http://doi.org/10.5281/zenodo.3994689)

data gathering

descriptions + keys



comprehensive suites



TaxonWorks
Describe life.



collaborative tools



GRSciColl

collections

data repositories

specimen occurrences



keys



images + 3D data



distribution maps

SimpleMappr

names

ZooBank

data sets, illustrations,
ecology, + other data



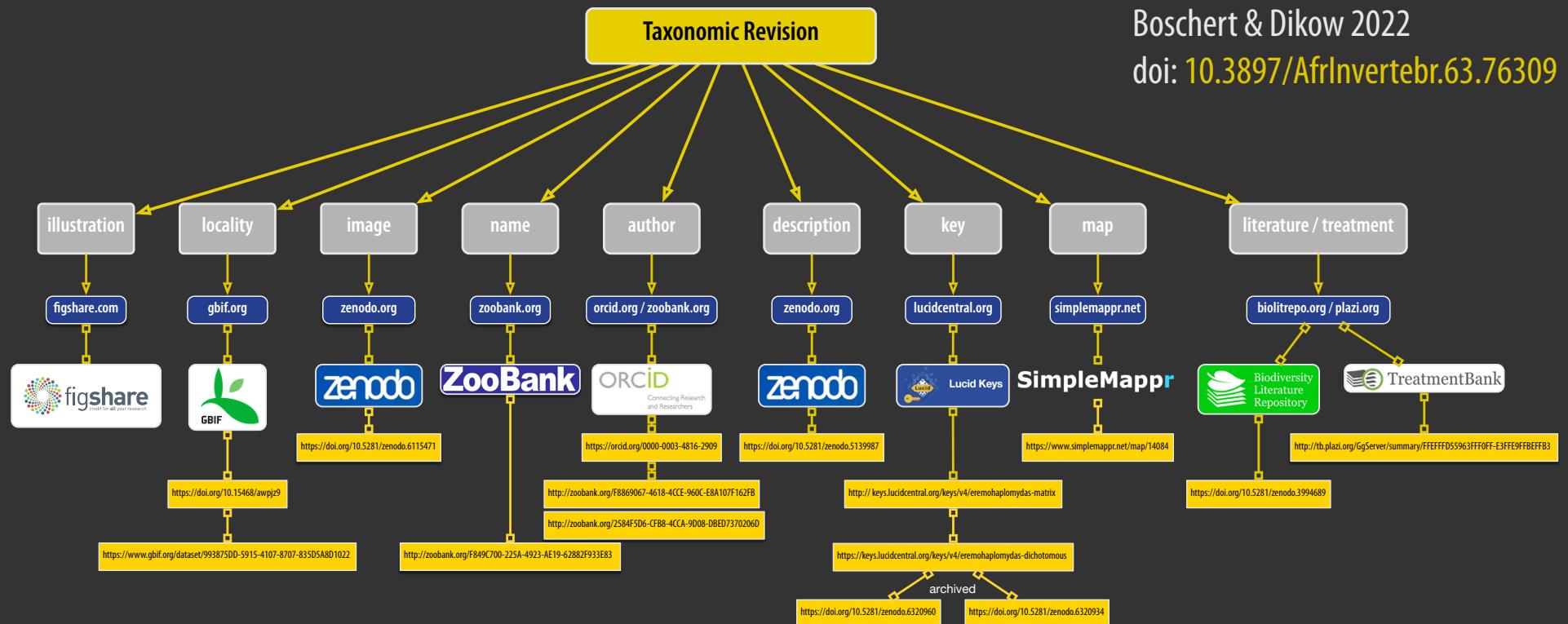
articles



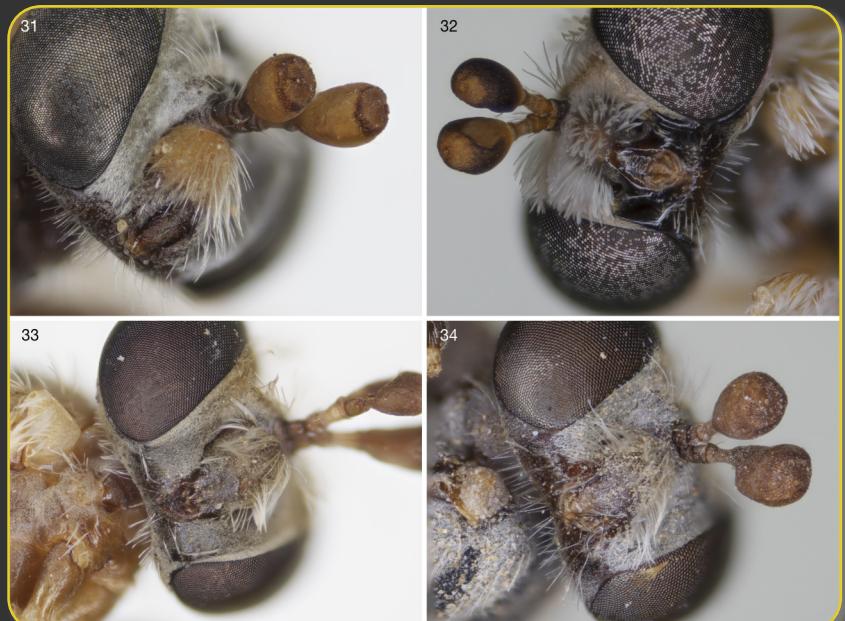
descriptions / treatments



Boschert & Dikow 2022
doi: 10.3897/AfrInvertebr.63.76309

*Eremohaplomydas whartoni**Eremohaplomydas gobabensis*

◊ 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>).

8 Claire Boschert & Torsten Dikow / African Invertebrates @@(\$\$): #–## (2022)

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/FEEFFFD55963FFF0FF-E3FFE9FFBEFFB3>

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>.

◊ 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](http://zoobank.org/B745D2C2-8CB6-4C95-970E-B3C3246B7A73)
- Plazi original treatment GUID [B745D2C2-8CB6-4C95-970E-B3C3246B7A73](http://plazi.org/treatment/B745D2C2-8CB6-4C95-970E-B3C3246B7A73)

Distribution: South Africa (Northern Cape, Western Cape)

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



Taxonomic Paper

Utilizing online resources for taxonomy: a
cybercatalog of Afrotropical apiocerid flies
(Insecta: Diptera: Apioceridae)

Torsten Dikow[‡], Donat Agosti[§]

[‡] National Museum of Natural History, Smithsonian Institution, Washington, DC, United States of America
[§] www.plazi.org, Bern, Switzerland

- ◊ 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

The screenshot shows the Bionomia profile page for Oliver S. Flint Jr. The top navigation bar includes icons for user, search, upload, dashboard, and help. A "Log in with ORCID" button is on the right. The main content area features a large portrait of Oliver S. Flint Jr. Below it is his name, "Oliver S. Flint". His titles are listed as "Oliver S. Flint, Jr.; Ollie Flint; Oliver Simeon Flint, Jr.; Oliver Flint; O.S. Flint Jr.". His birth and death dates are given as "October 10, 1931 – May 18, 2019 †", with "entomologist, paleontologist" noted as his profession. He is identified as an "American entomologist". Below this is a link to his Wikidata page (<https://www.wikidata.org/wiki/Q21283508>) and a "United States" location indicator. To the right, there are tabs for "Overview", "Specialties", "Network", "Deposited At", "Specimens", and "Science Enabled". The "Specimens" tab is active, showing statistics: "26,242 specimens collected from at least 56 countries", "21,052 specimens identified from at least 93 countries", and "16,410 specimens used in 38 works". A progress bar indicates "98%". Below these stats are two world maps: one for "Collected From" and one for "Identified From", each with "Map" and "List" options. A yellow arrow points from the "Specimens" tab to the "16,410 specimens used in 38 works" statistic.



◊ discussions

- › Donat Agosti [@myrmoteras](#)
- › Marcus Guidoti [@marcusguidoti](#)
- › Lyubo Penev
- › Deb Paul [@idbdeb](#)
- › David Shorthouse [@dpsSpiders](#)
- › Rich Pyle
- › GBIF team
- › BHL team
- › all developers



@TDikow

