

# Online direct import of specimen records from iDigBio infrastructure into taxonomic manuscripts

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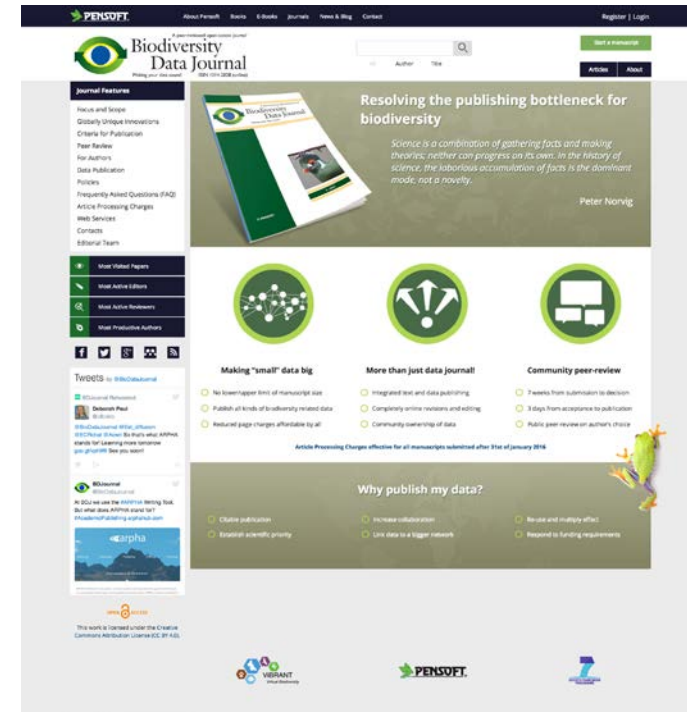
Pensoft & iDigBio Webinar, 16 June 2015



**Data deluge:** We sample now more data than we can digest (analyze, publish & use)



# ARPHA Writing Tool & Biodiversity Data Journal facilitate data publishing & re-use



- Data import
- Authoring
- Peer-review
- Publication
- Dissemination

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online collaborative  
platform!

## Online import of occurrence records directly into a manuscript!




Biodiversity  
Data Journal

<http://bdj.pensoft.net>

**Step 1:** Start a taxonomic manuscript in ARPHA, and open a taxon treatment

[illegible]

# Step 2: Click at the **Materials** section within the treatment

 writing tool

ContributorsReviewersEmail co-authorsTips and tricks

Taxonomic Paper

Article metadata

- Title & Authors
- Abstract & Keywords
- Classifications
- Funder

Introduction

Materials and methods

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Taxon treatments

- Acer lesquereuxi
  - Taxon name
  - External Links
  - Nomenclature
  - Materials**
  - Treatment sections
- Bassaricyon neblina
- Nyctalus lasiopterus

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Analysis

Discussion

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Author contributions

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ARPHA test paper. ARPHA test paper. ARPHA test paper. ARPHA test paper. ARPHA test paper. ARPHA test paper. ARPHA test paper. ARPHA test paper. ARPHA test paper.

## Taxon treatments

### *Acer lesquereuxi*

MaterialsDownload as CSV

a. scientificName: Acer (Liquidambar) lesquereuxi; kingdom: Plantae; class: Magnoliopsida; order: Hamamelidales; family: Hamamelidaceae; taxonRank: species; nomenclaturalCode: ICBN; genus: Acer (Liquidambar); specificEpithet: lesquereuxi; locationID: PA116; continent: North America; country: United States; stateProvince: Wyoming; county: Sweetwater County; locality: Little Mountain-Wilkins Peak; individualCount: 1; preparations: leaf; catalogNumber: 153007; occurrenceDetails: <https://search.idigbio.org/v2/view/records/af6f1596-4b7d-4629-8512-c33e98da3e2c>; recordedBy: MacGinitie, H.D.; modified: 22/02/2010 13:42; rights: <http://vertnet.org/resources/norms.html>; institutionCode: UCMP; collectionCode: P; basisOfRecord: FossilSpecimen; informationWithheld: Location data available to qualified researchers on request.; occurrenceID: BDJ\_5985\_1

b. scientificName: Acer (Liquidambar) lesquereuxi; kingdom: Plantae; class: Magnoliopsida; order: Hamamelidales; family: Hamamelidaceae; taxonRank: species; nomenclaturalCode: ICBN; genus: Acer (Liquidambar); specificEpithet: lesquereuxi; locationID: PA116; continent: North America; country: United States; stateProvince: Wyoming; county: Sweetwater County; locality: Little Mountain-Wilkins Peak; individualCount: 1; preparations: leaf; catalogNumber: 153071; occurrenceDetails: <https://search.idigbio.org/v2/view/records/d957ac64-ce51-4d40-801e-670b345aa7b6>; recordedBy: MacGinitie, H.D.; modified: 22/02/2010 13:42; rights: <http://vertnet.org/resources/norms.html>; institutionCode: UCMP; collectionCode: P; basisOfRecord: FossilSpecimen; informationWithheld: Location data available to qualified researchers on request.; occurrenceID: BDJ\_5985\_2

### *Bassaricyon neblina*

MaterialsDownload as CSV

Other material:

a. scientificName: Bassaricyon neblina herskovitzi; higherClassification: Animalia Chordata Mammalia Carnivora Procyonidae; kingdom: Animalia; phylum: Chordata; class: Mammalia; order: Carnivora; family: Procyonidae; nomenclaturalCode: ICZN; genus: Bassaricyon; specificEpithet: neblina; higherGeography: South America, Colombia, Huila, San Agustin: San Antonio; continent: South America; country: Colombia; stateProvince: Huila; county: San



# Step 2: Three ways to import specimen occurrence records into a manuscript

▲ Acer lesquereuxi

Taxon name

External Links

Nomenclature

**Materials**

Treatment sections

Edit Materials

Browse OR Add Manually

[Download a template](#) XLS file (DarwinCore Compliant)

💡 In case you import your own spreadsheet, please ensure that:

- The first row contains column labels that match exactly the [Darwin Core terms](#) (see template )
- The content of the column corresponds to its label
- Each occurrence record is in a separate row
- The column typeStatus contains one of the following (without the quotes): "Other material", "Holotype", "Paratype", "Hapantotype", "Syntype", "Isotype", "Neotype", "Lectotype", "Paralectotype", "Isoparatype", "Isolectotype", "Isoneotype", "Isosyntype".

OR

You may place multiple ID's separated by "|" here

Add

☒ BOLD record ID (example: ACRJP618-11 | ACRJP619-11)

☐ BOLD BIN (example: BOLD:AAA5125 | BOLD:AAA5126)

☐ GBIF via Occurrence ID (example: urn:catalog:HYO:ENT:B1367540 | 4b7b4bb4-0db7-4592-b3f9-1b15b6235360)

☐ GBIF ID (example: 1061574007 | 240843113)

☐ iDigBio UUID (example: 1db58713-1c7f-4838-802d-be784e444c4a | d957ac64-ce51-4d40-801e-670b345aa7b6)

☐ PlutoF Specimen ID (example: AT2000123 | TAM00000007)

Save

Close

## Step 3: Import from iDigBio (or GBIF, or BOLD, or PlutoF) using record ID(s)

OR

You may place multiple ID's separated by "|" here

- ☐ BOLD record ID (example: ACRJP618-11 | ACRJP619-11)
- ☐ BOLD BIN (example: BOLD:AAA5125 | BOLD:AAA5126)
- ☐ GBIF via Occurrence ID (example: urn:catalog:HYO:ENT:B1367540 | 4b7b4bb4-0db7-4592-b3f9-1b15b6235360)
- ☐ GBIF ID (example: 1061574007 | 240843113)
- ☒ iDigBio UUID (example: 1db58713-1c7f-4838-802d-be784e444c4a | d957ac64-ce51-4d40-801e-670b345aa7b6)
- ☐ PlutoF Specimen ID (example: AT2000123 | TAM0000007)

Save

Close




# Where to take record IDs from iDigBio?

The screenshot shows a web browser window with the iDigBio Portal. The address bar displays the URL: <https://www.idigbio.org/portal/records/878769e0-e4c9-4ead-9540-29987fadb428>. The browser's toolbar includes links to Apps, Google Calendar, Inbox - vsendero, Trello, github, Feedly, and Twitter. The iDigBio logo is in the top left, and navigation links for About iDigBio, Research, Technical Information, and Education are in the top right. A green navigation bar contains links for iDigBio Home, Portal Home, Search Records, Tutorial, Data, Research Tools, and Feedback. The main content area is titled "Specimen Record" and shows a taxonomic path: Animalia > Chordata > Mammalia > Chiroptera > Vespertilionidae. The species name *Nyctalus lasiopterus* (Schreber, 1780) is displayed, along with its source: From Museum of Comparative Zoology, Harvard University. A table of specimen data is shown, including Continent (Asia), Country (Japan), State/Province (Nagano Prefecture), Locality (Shinshu (abbreviation Of Shinano Province)), Institution Code (MCZ), Collection Code (Mamm), Catalog Number (6929), Collected By (Alan Owston), and Date Collected (1906-10-22). A "Contents" sidebar on the right lists Summary, Attribution, and All Data. Below the table, a section titled "From Recordset" provides information about the Museum of Comparative Zoology, Harvard University, including a link to <http://mczbase.mcz.harvard.edu/> and a brief description of the museum's history and collections.

iDigBio Portal x iDigBio Portal x

← → ↻ <https://www.idigbio.org/portal/records/878769e0-e4c9-4ead-9540-29987fadb428> 🔍 ☆ 🔄 📄 🔒 ☰

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## Specimen Record

[Animalia](#) > [Chordata](#) > [Mammalia](#) > [Chiroptera](#) > [Vespertilionidae](#)

### *Nyctalus lasiopterus* (Schreber, 1780)


From [Museum of Comparative Zoology, Harvard University](#)

Continent	Asia	Institution Code	MCZ
Country	Japan	Collection Code	Mamm
State/Province	Nagano Prefecture	Catalog Number	6929
Locality	Shinshu (abbreviation Of Shinano Province)	Collected By	Alan Owston
		Date Collected	1906-10-22

#### From Recordset

[Museum of Comparative Zoology, Harvard University](#)

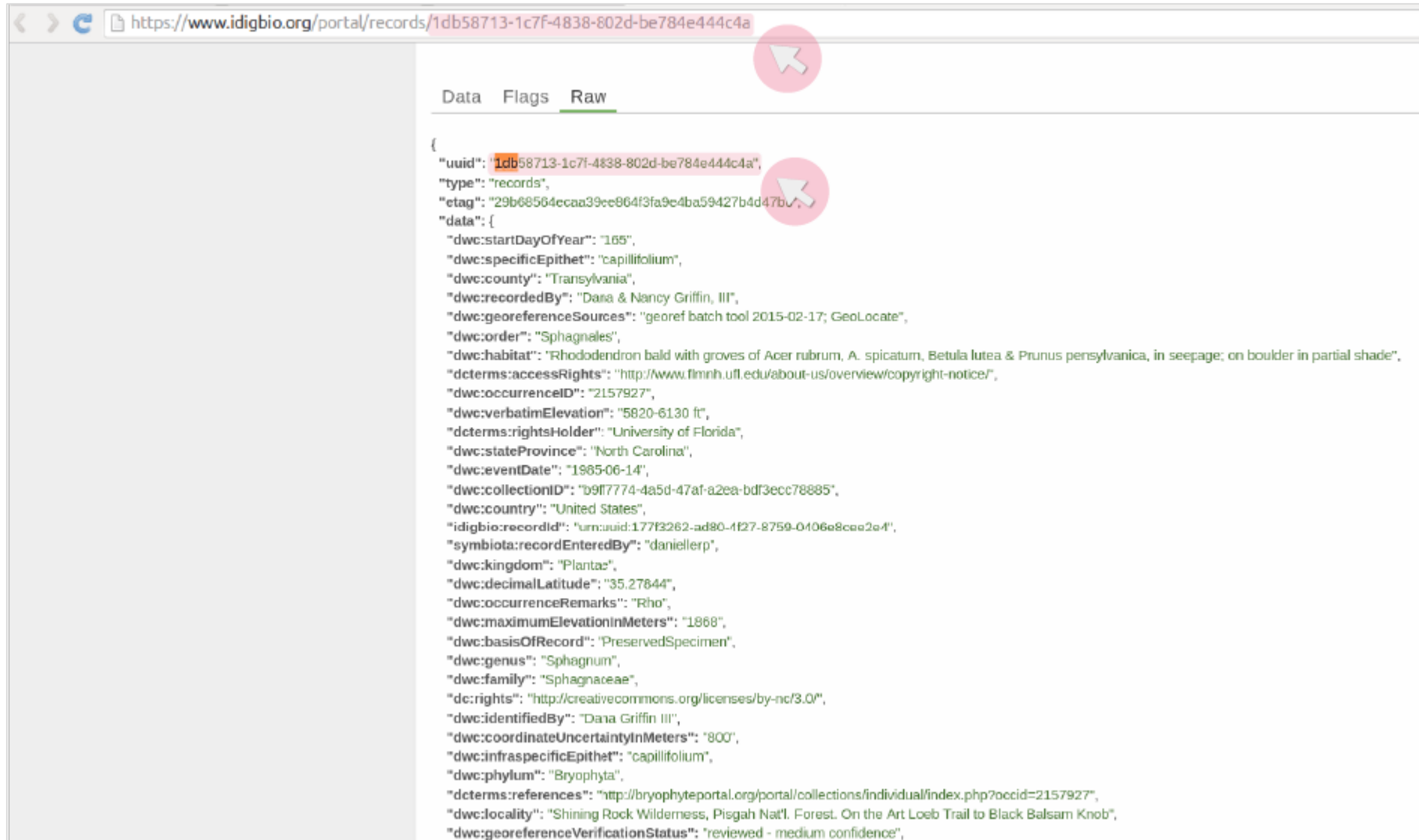
<http://mczbase.mcz.harvard.edu/>

 The Museum of Comparative Zoology was founded in 1859 on the concept that collections are an integral and fundamental component of zoological research and teaching. This more than 150-year-old commitment remains a strong and proud tradition for the MCZ. The present-day MCZ contains over 21-million specimens in ten research collections which comprise one of the world's richest and most varied resources for studying the diversity

#### Contents

- Summary
- Attribution
- All Data

# Where to take record IDs from iDigBio?




The screenshot shows a web browser window with the URL <https://www.idigbio.org/portal/records/1db58713-1c7f-4838-802d-be784e444c4a>. The page has three tabs: "Data", "Flags", and "Raw". The "Raw" tab is selected, displaying a JSON record. Two red circles with white arrows point to the record ID in the URL and the "uuid" field in the JSON data.

```
{
  "uuid": "1db58713-1c7f-4838-802d-be784e444c4a",
  "type": "records",
  "etag": "29b68564ecaa39ec864f3fa9c4ba59427b4d47b6",
  "data": {
    "dwc:startDayOfYear": "165",
    "dwc:specificEpithet": "capillifolium",
    "dwc:county": "Transylvania",
    "dwc:recordedBy": "Dana & Nancy Griffin, III",
    "dwc:georeferenceSources": "georef batch tool 2015-02-17; GeoLocate",
    "dwc:order": "Sphagnales",
    "dwc:habitat": "Rhododendron bald with groves of Acer rubrum, A. spicatum, Betula lutea & Prunus pensylvanica, in seepage; on boulder in partial shade",
    "dcterms:accessRights": "http://www.flmnh.ufl.edu/about-us/overview/copyright-notice/",
    "dwc:occurrenceID": "2157927",
    "dwc:verbatimElevation": "5820-6130 ft",
    "dcterms:rightsHolder": "University of Florida",
    "dwc:stateProvince": "North Carolina",
    "dwc:eventDate": "1985-06-14",
    "dwc:collectionID": "b9f7774-4a5d-47af-a2ea-bdf3ecc78885",
    "dwc:country": "United States",
    "idigbio:recordId": "urn:uuid:177f3262-ad80-4f27-8759-0406e8cae2e4",
    "symbiota:recordEnteredBy": "daniellerp",
    "dwc:kingdom": "Plantae",
    "dwc:decimalLatitude": "35.27644",
    "dwc:occurrenceRemarks": "Rho",
    "dwc:maximumElevationInMeters": "1868",
    "dwc:basisOfRecord": "PreservedSpecimen",
    "dwc:genus": "Sphagnum",
    "dwc:family": "Sphagnaceae",
    "dc:rights": "http://creativecommons.org/licenses/by-nc/3.0/",
    "dwc:identifiedBy": "Dana Griffin III",
    "dwc:coordinateUncertaintyInMeters": "800",
    "dwc:infraspecificEpithet": "capillifolium",
    "dwc:phylum": "Bryophyta",
    "dcterms:references": "http://bryophyteportal.org/portal/collections/individual/index.php?occid=2157927",
    "dwc:locality": "Shining Rock Wilderness, Pisgah Nat'l. Forest. On the Art Loeb Trail to Black Balsam Knob",
    "dwc:georeferenceVerificationStatus": "reviewed - medium confidence",
  }
}
```

# WHY import & publish specimen records in this way?

- Avoid re-typing errors and save time
- Tracking (provenance) information is saved in *occurrenceDetails*
- Mobilization, peer-review and publication of small data
- Data downloadable anytime as CSV file
- Machine-readable and harvestable (from the XML version of the published article)
- Automatically exported in Darwin Core Archive
- Automatically exported to and indexed by GBIF on the day of the publication
- Interoperable in DarwinCore standard
- Re-usable (new opportunities for collaboration)
- Increase discoverability, visibility, and citation of authors' work

# This is how data look like in the published paper



Biodiversity Data Journal 1: e987 (16 Sep 2013)  
doi: 10.3897/BDJ.1.e987

Andhra Pradesh), Sri Lanka and Ceylon, east to Thailand, Vietnam, and Sabah. It has previously been recorded from Guangdong in China. The new data are additional records from Nanling Reserve in Guangdong and Hangzhou in Zhejiang Province of eastern China. Link to dynamic distribution map: <http://hol.osu.edu/map-large.html?id=5010>

*Oxyscelio convergens* Burks, 2013

- Hymenoptera Name Server [http://lsid.tdwg.org/urn:lsid:biosci.ohio-state.edu:osuc\\_concepts:275500](http://lsid.tdwg.org/urn:lsid:biosci.ohio-state.edu:osuc_concepts:275500)
- ZooBank [urn:lsid:zoobank.org:act:E03A3DFC-3859-4097-9D95-508F16CF1C04](http://lsid:zoobank.org:act:E03A3DFC-3859-4097-9D95-508F16CF1C04)
- Species-ID [http://species-id.net/wiki/Oxyscelio\\_convergens](http://species-id.net/wiki/Oxyscelio_convergens)


**Nomenclature**

*Oxyscelio convergens* Burks et al. 2013

**Materials**

a. scientificName: *Oxyscelio convergens*; taxonID: urn:lsid:biosci.ohio-state.edu:osuc\_names:275500; country: China; stateProvince: Zhejiang; locality: Gutianshan National Nature Reserve, Zhejiang Prov, China; locationRemarks: label transliteration: "Zhejiang, Gutianshan, 2005.07.03, Shi Min"; [浙江古田山, 2005.07.03, 时敏]; decimalLatitude: 29.2636; decimalLongitude: 118.1339; georeferenceProtocol: GEOnet; eventID: urn:lsid:biosci.ohio-state.edu:osuc\_occurrences:SCAU\_\_2011000646; samplingProtocol: none specified; eventDate: 2005-07-03; individualCount: 1; sex: female; lifeStage: adult; catalogNumber: SCAU 2011000646; recordedBy: Shi Min; identifiedBy: Norman F. Johnson; dateIdentified: 2012; modified: 2013-07-17T11:04:01Z; language: en; collectionID: urn:lsid:biocol.org:col:34252; collectionCode: Insects; basisOfRecord: PreservedSpecimen; source: <http://hol.osu.edu/spmInfo.html?id=SCAU%202011000646>


b. scientificName: *Oxyscelio convergens*; taxonID: urn:lsid:biosci.ohio-state.edu:osuc\_names:275500; country: China; stateProvince: Zhejiang; locality: Mt Qingliangfeng, Zhejiang Prov., China; locationRemarks: label transliteration: "Zhejiang, Qingliangfeng, 2005.08.09, Zhang Hongying"; [浙江清凉峰 2005.08.09 张红英]; decimalLatitude: 30.0703; decimalLongitude: 118.8944; georeferenceProtocol: Google Earth; georeferenceRemarks: GPS coords. adjusted to place within Zhejiang Prov.; eventID: urn:lsid:biosci.ohio-state.edu:osuc\_occurrences:SCAU\_\_2011000621; samplingProtocol: none specified; eventDate: 2005-08-09; individualCount: 1; sex: female; lifeStage: adult; catalogNumber: SCAU 2011000621; recordedBy: Zhang Hong-Ying; identifiedBy: Norman F. Johnson; dateIdentified: 2012; modified: 2013-07-17T11:04:01Z; language: en; collectionID:

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Contents Article info Citation Metrics Share Review it

Map Taxa Data References

Map Satellite



Google


Terms of


☒ All [Clear](#)



☒ All taxa

- ☒ Oxyscelio arvi
- ☒ Oxyscelio ceylonensis
- ☒ Oxyscelio convergens
- ☒ Oxyscelio cordis
- ☒ Oxyscelio crebritas
- ☒ Oxyscelio cuculli
- ☒ Oxyscelio dermatoglyphes
- ☒ Oxyscelio dauman

# Mapping & visualization


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 Biodiversity Data Journal 2: e1054 (04 Feb 2014)  
doi: 10.3897/BDJ.2.e1054

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Address is approximate

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☒ All taxa

☒ *Homotrysis macleayi*

[Clear](#)

**Taxonomic paper**

## Evidence for the continued presence in New Zealand of *Homotrysis macleayi* (Borchmann, 1909) (Coleoptera: Tenebrionidae: Alleculinae)

[Stephen E. Thorpe](#)

### Abstract

The first detailed specimen records are presented for the Australian beetle *Homotrysis macleayi* (Borchmann, 1909) in New Zealand. Evaluation of this evidence clearly indicates that the species is fully established in the wild in New Zealand. It is therefore recommended that the species be added to the New Zealand Organisms Register (NZOR), as exotic and present in the wild. Some general comments are offered on the importance of data and evidence in faunistics.

### Keywords


*Homotrysis macleayi*, NZOR, Auckland, New Zealand, Australia, faunistics, data, evidence


### Introduction



In 2004, I collected what is probably the first New Zealand specimen of the Australian beetle *Homotrysis macleayi* (Borchmann, 1909). Although I immediately recognised it as a species of alleculine tenebrionid unknown in New Zealand, it was not identified until I found others in 2012. These were identified as *H. macleayi* by Australian tenebrionid expert Dr. Eric Matthews (South Australian Museum). The species was validated new to N.Z., based on this material identified by Matthews, by [Ministry for Primary Industries 2013](#). Only scant details were published by MPI (i.e. insect, *Homotrysis macleayi* (tenebrionid beetle), *Acacia* sp. (wattle), Auckland, General Surveillance). Nothing more has been published regarding the presence of this beetle in New Zealand. There is currently no record of it on the New Zealand Organisms Register (NZOR). It is therefore somewhat unclear what the status is of the species in New Zealand. Is it a permanently established member of the New Zealand fauna? Faunistics is the study



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 Biodiversity Data Journal 2: e1071 (10 Mar 2014)  
doi: 10.3897/BDJ.2.e1071

**Taxonomic paper**

## Review of the genus *Namadytes* Hesse, 1969 (Insecta: Diptera: Mydidae: Syllegomydinae)


▼ [Torsten Dikow, Stephanie Leon](#)

### Abstract

The *Mydidae* genus *Namadytes* Hesse, 1969 is reviewed. It is known from five species, primarily occurring in Namibia. The study of newly available material from both Namibia and South Africa deposited in several natural history collections results in the recognition of three species and new synonymy of two, *i.e.*, *Namadytes pallidus* Hesse, 1972 is a new junior synonym of *Namadytes maculiventris* (Hesse, 1969) and *Namadytes prozeskyi* Hesse, 1969: 282 is a new junior synonym of *Namadytes vansonii* Hesse, 1969: 280. All three species are re-described and comments on sexual dimorphism and intraspecific variation are made, a dichotomous key for their identification is presented, and illustrations and photographs are provided to support the descriptions and facilitate future identification. Distribution, occurrence in [biodiversity hotspots sensu Conservation International](#), and seasonal incidence with associated weather and climatic data are discussed for all species. A morphological structure ventral to the halter and posterior to the metathoracic spiracle, the infra-halter sclerite, is here newly termed.

### Keywords


Diptera, Mydidae, Syllegomydinae, *Namadytes*, Afrotropical Region, ta


 **Encyclopedia of Life**

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**Figures** **Tables** **Map** **Taxa** **Data** **References**

Tables and Figures, if present, can be downloaded from the article.

 [Download all occurrences as Darwin Core Archive](#)

 [Download all treatments as Darwin Core Archive](#)

#### Supplementary material 1

##### Natural-language species descriptions in SDD format

Authors: Dikow, T. and Leon, S.  
Data type: morphological  
Brief description: The XML file includes the natural-language species descriptions in SDD (Structure of Descriptive Data) format.  
Filename: namadytes\_dikow+leon\_2014.sdd  
[Download file](#) (238.32 kb)

#### Supplementary material 2


##### Average annual temperature at Aus

Authors: World Weather Online  
Data type: image, graph  
Brief description: Average temperature Aus  
Filename: worldweatheronline\_aus\_temp\_2013-10-06.png  
[Download file](#) (77.71 kb)

#### Supplementary material 3

##### Average annual rainfall at Aus

Authors: World Weather Online  
Data type: image, graph





# Live demo

➤ Data :

<https://docs.google.com/spreadsheets/d/1dpzq54F9LmjQZG9Ljuh5-V3shRBaQOnql5HHqSs1mYQ/edit?usp=sharing>

➤ Open “iDigBio Test Paper”

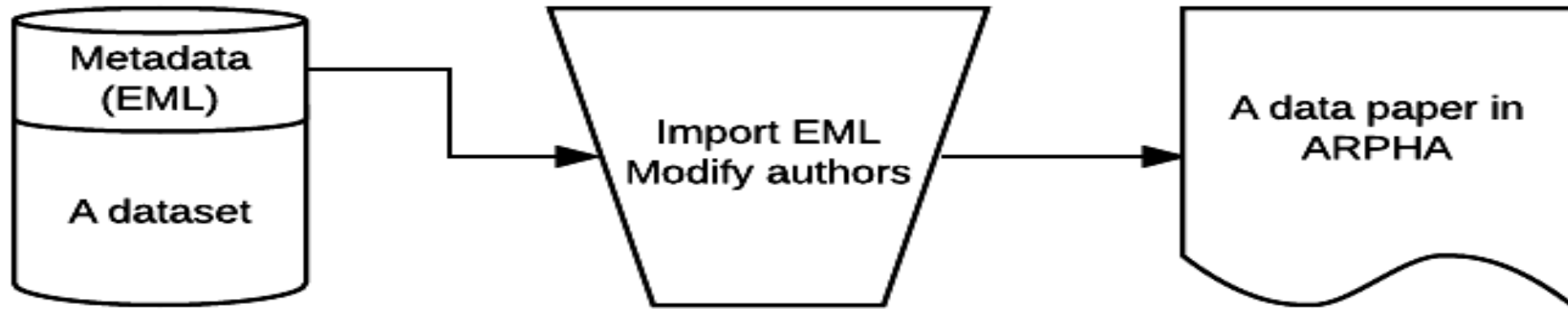
➤ Import specimens for *Acer lesquerexi* (some sort of prehistoric plant)  
– just click on most recent things

➤ Import specimens for *Bassaricyon neblina* (raccoon-like mammal)

➤ Import specimens for *Nyctalus lasiopterus* (a bat species)

➤ Show how to delete materials, import bulk with “|”, import from BOLD BIN

# Can we generate and import an **entire manuscript**?



DataONE



GBIF

LTER



Name	Email	Include	Is Submitting
Viktor Senderov	<a href="mailto:datascience@pensoft.net">datascience@pensoft.net</a>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>
NoName PleaseChange	<a href="mailto:NoName@PleaseChange.This">NoName@PleaseChange.This</a>	<input type="checkbox"/>	<input type="radio"/>
Oscar Schofield	<a href="mailto:oscar@marine.rutgers.edu">oscar@marine.rutgers.edu</a>	<input type="checkbox"/>	<input type="radio"/>

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Biodiversity Data Journal : Data Paper (Biosciences)

Print

**Photosynthetic pigments of water column samples analyzed using High Performance Liquid Chromatography (HPLC), sampled during Palmer LTER field season at Palmer Station Antarctica, 1991 - 2009.**

Oscar Schofield <sup>‡</sup>

<sup>‡</sup> Rutgers University, ..

Corresponding author: Oscar Schofield ([oscar@marine.rutgers.edu](mailto:oscar@marine.rutgers.edu))

© 2016 Oscar Schofield.

Citation: () , doi:

OPEN ACCESS

# Live demo

- <https://search.dataone.org/#view/https://pasta.lternet.edu/package/metadata/eml/knb-lter-pal/130/2>
- Photosynthetic pigments of water column samples analyzed using High Performance Liquid Chromatography (HPLC), sampled during Palmer LTER field season at Palmer Station Antarctica, 1991 - 2009.. U.S. LTER Network.

# For developers and data managers: Pensoft API

➤ <http://arpha.pensoft.net/dev/>

➤ Allows to import different types of manuscripts from XML. E.g.:

- Software Description
- Taxonomic Paper
- Data paper

➤ For collaborations please contact us at [info@pensoft.net](mailto:info@pensoft.net)

# Our sincere thanks are due to

- Pensoft developers team
- European Commission: EUBON FP7 Project
- European Commission: PhD Financed through the EU Marie-Sklodowska-Curie Program Grant Agreement Nr. 642241
- Slavena Peneva (drawings and design)



# I Open Science!

