

# A system to automatically generate annotated checklists

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- Dr Connal Eardley: A whole career of collecting, interpreting and categorizing citations of bee names (in addition to taxonomy)
- Catalogue of Afrotropical Bees (Eardley and Urban 2010): A typical ‘annotated checklist’
- The above model is outdated because increasingly machines, rather than humans, exchange data with each other
- Hence the need for semantically enriched information (i.e. consistent and rich meaning denoted by standardized terms)

# Catalogue of Afrotropical Bees



- Scientific names, citations, references, authors imported into Specify 6 in 2010
- Data-cleansing and verification (2010-2013)
- Development of a system to transform these raw data in Specify into enriched biodiversity information, specifically a Darwin Core Archive which is displayed as a GBIF 'checklist dataset'

- Biodiversity information **MUST** be standardized i.e. use particular, accepted vocabularies of terms, mostly originating from TDWG
- Darwin Core is one of the most significant and widely used, ratified standards for sharing biodiversity data

CHECKLIST DATASET | REGISTERED 22 SEPTEMBER 2011

# Catalogue of Afrotropical Bees

Published by [Agricultural Research Council](#)

✉ Connal Eardley • Willem Coetzer • Willem Coetzer

DATASET TAXONOMY STATS ACTIVITY [DOWNLOAD](#)

17,117 OCCURRENCES

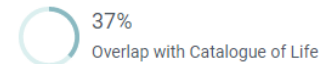
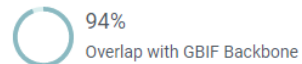
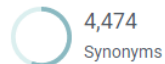
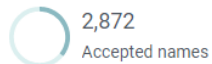
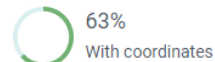
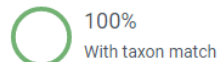
8,031 RECORDS

The purpose of this catalogue is to list the valid names, nomenclatorial history of, and references citing, the described bees of sub-saharan Africa and the western Indian Ocean islands, excluding the honey bee (*Apis mellifera* Linnaeus). The countries in which species occur are listed, as well as the type specimens/species of species/genera. Some ecological information is provided, namely flowers visited, plants used as nests, parasitic bees and host bees.

Last Modified: 30 August 2016

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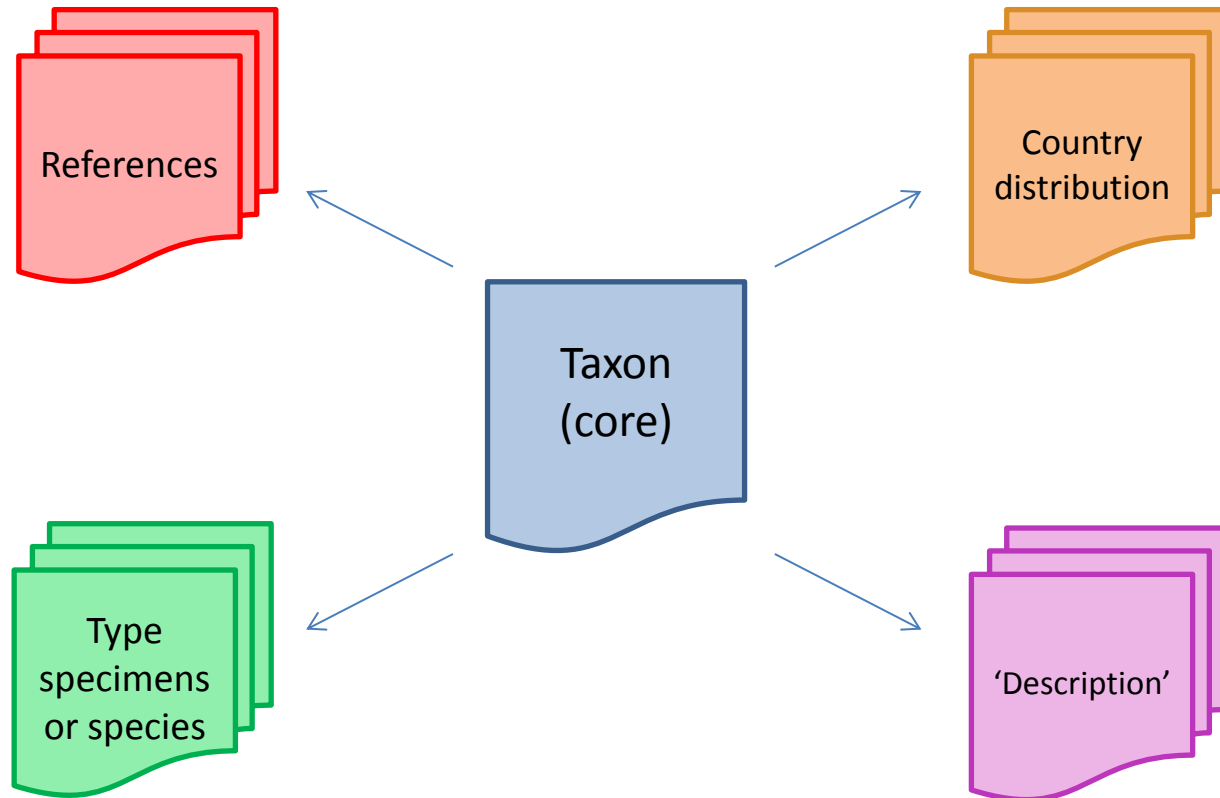
[How to cite](#) [DOI](#) [10.15468/u9ezbh](#)



10,869 GEOREFERENCED RECORDS



# Structure of a Darwin Core Archive





# References

# Taxon

# Distribution

Core ID	105763	Core ID	105763
Core ID	105763	Code	BF, BI, BJ, BW, CD, CF, CM, ET, KE, MW, NA, NG, SN, TZ, ZA, ZW
Core ID	105763	mentMeans	native
Core ID	105763		Eardley, C.D. and R.P. Urban. 2010. Catalogue of Afrotropical bees (Hymenoptera: Apoidea: Apiformes). Zootaxa 2455: 1-548
bibliographicCitation	Medler, J.T. 1980. Insects of Nigeria—Checklist and bibliography. Memoirs of the American Entomological Institute 30: 1-919		
title	Insects of Nigeria—Checklist and bibliography		
date	1980		
subject			Ecology
groups			
date	1985		
subject			Visits flowers of: Acacia nilotica, Acacia tortilis, Aloe berhana, Borreria verticillata, Harungana madagascariensis, Pterolobium stellatum, Veronica auriculifera, Ziziphus mauritiana
		description	

# Type specimens

# Description

## References

## Taxon

## Distribution



Core ID	105756
bibliographicCitation	Alfken, J.D. 1914. Zur Kenntnis der Afrikanischen Prosopis-Arten. (Hym.). Deutsche Entomologische Zeitschrift 2: 183-197
title	Zur Kenntnis der Afrikanischen Prosopis-Arten. (Hym.)
date	1914
subject	Nomenclature

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Core ID	105756
typestatus	lectotype
typeDesignationType	
typeDesignatedBy	Dathe, H.H. 2014. Studies on the systematics and taxonomy of the genus Hylaeus F. (8) Revision of the Afrotropic subgenus Hylaeus (Deranchylaeus) Bridwell (Hymenoptera: Anthophila, Colletidae). Zootaxa 3874: 1-84
scientificName	Prosopis xanthostoma
taxonRank	species
bibliographicCitation	
collectionCode	MNHU
locality	Democratic Republic of the Congo
sex	female

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## Type specimens

## Description



# Structure of a Darwin Core Archive

Synonym → Accepted Name

References	Taxon	Distribution
Core ID	105756	
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title	Zur Kenntnis der Afrikanischen Prosopis-Arten. (Hym.)	
date	1914	
subject	Nomenclature	
Core ID	105756	
typestatus	lectotype	
typeDesignationType	Dathe, H.H. 2014. Studies on the systematics and taxonomy of the genus <i>Hylaeus</i> F. (8) Revision of the Afrotropic subgenus <i>Hylaeus</i> ( <i>Deranchylaeus</i> ) Bridwell (Hymenoptera: Anthophila, Colletidae). Zootaxa 3874: 1-84	
typeDesignatedBy	Prosopis xanthostoma species	
scientificName	Prosopis xanthostoma species	
taxonRank	species	
bibliographicCitation	Alfken, J.D. 1914. Zur Kenntnis der afrikanischen Prosopis-Arten. (Hym.). Deutsche Entomologische Zeitschrift 2: 183-197	
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sex	female	

Type specimens

Description

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title	Insects of Nigeria—Check list and bibliography	native
date	1980	Eardley, C.D. and R.P. Urban. 2010. Catalogue of Afrotropical bees (Hymenoptera: Apoidea: Apiformes). Zootaxa 2455: 1-548
subject		descriptions of new genera
Core ID	105763	105763
typestatus		Ecology
typeDesignationType		Visits flowers of: <i>Acacia nilotica</i> , <i>Acacia tortilis</i> , <i>Aloe berhana</i> , <i>Borreria verticillata</i> , <i>Harungana madagascariensis</i> , <i>Pterolobium stellatum</i> , <i>Veronica auriculifera</i> , <i>Ziziphus mauritiana</i>
typeDesignatedBy		
scientificName		
taxonRank		
bibliographicCitation		
collectionCode		
locality		
sex		

Type specimens

Description

## [Darwin Core Archive Validator](#)

Thank you