

# Universal Chalcidoidea Database (UCD) – Status Report

TaxonWorks Together 2023

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# Superfamily Chalcidoidea

- As of today, 27,347 valid species in 53 families (3 are extinct)
- Most species are parasitoids of other insects or are associated with galls
- Very important in natural and biological control of insect pests



# Universal Chalcidoidea Database

- Created by John Noyes, Natural History Museum, London
- Served on-line by NHM
- Last updates in March 2019
- Based on 56,499 publications going back to Jan. 1, 1758
- Essential resource for taxonomists, researchers in biological control, etc.



# UCD moves to TaxonWorks

- Major support was provided by collaborative NSF award to John Heraty, Matt Yoder and myself
- Data tables ported to TW in 2019
- Extended period of debugging and ground-proofing of data by chalcidologists and TW team
- We continue to meet weekly
- The model provides a community-curated, ongoing resource
- 79 project members, about 10 have been actively curating data
- Big emphasis on training – user manual and YouTube channel with tutorials



# Literature in UCD@TW

- Contains virtually all literature from UCD @ BMNH
- Almost up to date
- Most publications have PDF files available for download
- Using tags in TW to control workflow for curators

Source unprocessed

Nomenclatural Acts

No Nomenclatural Acts

Source being processed

Source processed - Biology

Source processed - Complete

Source processed - Distribution

Source Processed Except for Figures

Source processed - Nomenclature



# Literature in UCD@TW

- 834 new papers added since move to TW
- 306 papers completely curated
- 16 in progress
- 27 papers with nomenclatural actions unprocessed (some of these may actually be in progress)
- Huge backlog of 485 papers without nomenclatural actions remains to be processed



# BBQ Concept

- Small group of people working together on-line with a common goal
- In our case, curating papers for UCD@TW
- Alternate between synchronous and asynchronous periods
- People working independently most of the time
- But chat rooms open if somebody gets stuck or has a question
- UCD group meets for two hours every other week
- Many thanks to Luke Kresslein and Debbie Paul for getting us started!





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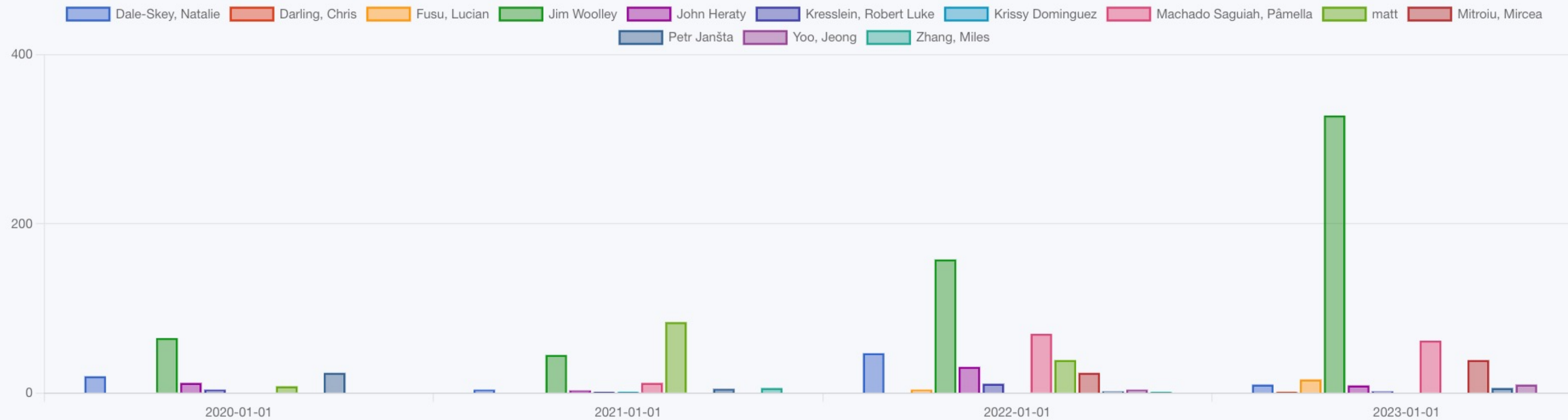
# Book-Keeping via a Google Sheet

paper	family	id	doi	author	year	title	booktitle
PMS - done	Chalcididae	108707	10.15625/0866-71	Long, Khuat Dang and Hiep,	2019	A new species of the genus <i>	
JY - done	Chalcididae	113758	10.3897/zookeys.9	Gadallah, Neveen S. and Soliman,	2020	First record of the subfamily	
JBW - done	Encyrtidae	98876		Trjapitzin, V.A.	1998	A new species of encyrtids of the	Entomologicheskoe Obozrenie
JBW - done	Encyrtidae	?????		Trjapitzin & Shuvakhina	2019	Contribution to the Knowledge of	
PMS - done	Eucharitidae	66640		Girish Kumar, P.	2019	Additions to the knowledge of the	Munis Entomology & Zoology
JMH	Eucharitidae	107457		Kumar, P. Girish and Binoy, C.	2019	FIRST REPORT OF THE GENUS	
JMH	Eucharitidae	113728	10.1080/00222933	Heraty, John M. and Baker, Austin	2020	New species of <i>Orasema</i>	
JMH	Eucharitidae	113767	10.3897/jhr.79.560	Heraty, John M. and Mbanyana, N.	2020	A new species of <i>Eucharissa</i>	
JMH	Eucharitidae	113952	10.11646/zootaxa.	Baker, Austin and Heraty, John M.	2020	The New World ant parasitoid	
RLK	Eulophidae	107671		Cassar, Thomas and Askew, Richard	2018	A new species of	
done	Eulophidae	121120	10.1134/s00138738	Kostjukov, V.V. and Kosheleva, O.V.	2018	A New Species of the	
PMS - done	Eulophidae	107202	10.1017/s0007485	Borowiec, N and LaSalle, John and	2019	<i>Ophelimus mediterraneus</i>	
PMS - done	Eulophidae	107531		Molina-Mercado, Gloria and	2019	<i>Ophelimus migdanoru</i>m	
PMS - done	Eulophidae	107945		Viggiani, G.	2020	The complex of parasitoids of	
JBW - done	Eulophidae	109727	10.3897/zookeys.9	Song, Hai-Tian and Fei, Ming-Hui	2020	A new species of <i>Oomyzus</i>	
JBW - done	Eulophidae	113666		Jamali, Mohd Majid	2020	New Record of <i>lonympha</i>	
PMS - done	Eulophidae	113725	10.1080/00222933	Gates, Michael and Chao, Yi-Min	2020	Description of two new	
PMS - done	Eulophidae	113726	10.1080/00222933	Gumovsky, Alex and Bazhenova,	2020	First record of the genus	
JBW - done	Eulophidae	113727	10.1080/00222933	Hansson, Christer	2020	<i>Lasalleisticus</i> a new genus	
done	Eulophidae	113842		Hansson, Christer	2020	The neotropical genus	
RLK	Eulophidae	113844		Majeed, Mahjoora and Jamali,	2020	Taxonomic study of Indian species	
PMS	Eulophidae	114034	10.3897/bdj.8.e59	Hansson, Christer and Schmidt,	2020	A revision of European species of	
done	Eulophidae	114141	10.3897/jhr.80.594	Gates, Michael and Zhang, Miles Y.	2020	The great greenbriers gall mystery	

# 2020-2023: 1168 taxon names created by 13 curators

## Taxon names created by member

Plots axes are number of records by created between 2020-01-01 and 2023-10-20. Click a name to toggle visibility.



## Taxon names created summary

13 people created 1168 total records over the timespan.

# Major reclassification of Chalcidoidea – phylogenomics


































WILEY

*Cladistics*

Cladistics (2023) 1–30

doi: 10.1111/cla.12561

## The Chalcidoidea bush of life: evolutionary history of a massive radiation of minute wasps

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# Revised taxonomy - completed in UCD@TW

JHR 94: 13–88 (2022)

doi: 10.3897/jhr.94.94263

<https://jhr.pensoft.net>

RESEARCH ARTICLE



## **From hell's heart I stab at thee! A determined approach towards a monophyletic Pteromalidae and reclassification of Chalcidoidea (Hymenoptera)**

Roger Burks<sup>1</sup>, Mircea-Dan Mitroiu<sup>2</sup>, Lucian Fusu<sup>2</sup>, John M. Heraty<sup>1</sup>,  
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Paul Hanson<sup>17</sup>, Lars Krogmann<sup>4,18</sup>, Jean-Yves Rasplus<sup>14</sup>

# “Ghost names”

- Orphaned names without author, year or identifier
- Usually duplicates of names in database
- Several sources
  - Host information assigned to names as strings in UCD/London
  - Misspelled names in original UCD
  - Misspelled names in original publication
  - Nomina nuda
  - Others
- Ghost-busting mostly completed, the refractory cases remain



(Ghostbusters logo)



# UCD @ TaxonWorks – What's next?



- Images of primary types
- Curation of papers on natural history, biology, faunistics, economic entomology and biological control, etc.
- Roger Burks has produced an excellent public interface to UCD, will be demonstrated by John Heraty on Thursday morning



# Thanks!

