



GELECHIOIDS IN COLLECTIONS
PAGES 7 & 13



PATRICIA ESTHER CORRO CHANG
PAGE 3



JAMES D. YOUNG
PAGE 6



USNM MICROLEP COLLECTION DATABASE
PAGE 17

I.N. G.A.

NEWSLETTER OF THE INTERNATIONAL NETWORK OF GELECHIOID AFICIONADOS



Photo by
Craig Nieminski

Dear Gelechioid Aficionados,

Time flies. It seems like it was only yesterday that the 6th issue of I.N.G.A. newsletter was distributed, but here we are again with the latest issue. Unfortunately, time flew so fast that this issue comes out little late, but better late than never.

This issue offers a peek into two museum collections, provides guidance on using the USNM microlepidoptera collection database and introduces two gelechioid aficionados, one from Panama, Patricia Esther Corro Chang, and one from the US, James D. Young.

The year 2017 also brought sad news. The grand old man of the Gelechioidea, Ron Hodges, passed away in December. With him we lost a lifetime of irreplaceable experience and knowledge. The gelechioid community will miss the major Gelechioid Aficionado. His obituary, kindly provided by his son, can be found on page 21. Also, do read his “aficionado” text in the second issue of I.N.G.A. newsletter, published in 2013 ([I.N.G.A. 2 2013.pdf](#)).

Again, we welcome any contributions from the community to be published in the coming issues and greatly thank Patricia Esther Corro Chang, Jason Dombroskie, Chris Grinter, Steven Hodges, Mark Metz, Craig Nieminski, Bruce Walsh and James D. Young for providing texts and images for the current newsletter.

We wish many happy moments with gelechioids to all!

I.N.G.A. team

*Gorgeous
Gelechioid from
Sandstone
Shrubland,
Northern
Territory,
Australia*



Cover image and two images above are kind courtesy of Craig Nieminski

<https://www.flickr.com/photos/nieminski/>



Gelechioid Aficionado:

Patricia Esther Corro Chang

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I am a Ph. D. student in the Instituto de Entomología, Universidad de Panamá in República de Panamá. I study systematics of the Central American Gnorimoschemini. My professional background is diverse, and valuable to my current research objectives and ultimate professional objectives. I also have authored eight papers on forensic entomology, systematics, ecology on Hymenoptera and Lepidoptera. Fundamental studies of Gnorimoschemini are needed to define this tribe and to recognize possible homologies of their morphology. This work is vital to investigate origins of the tribe and their possible ancestral relationships as well as to document and protect the endangered diversity in the world. I have been inspired by the rich and exotic diversity in the neotropics and the important contributions made by Dálibor Povolný, Vladimir Piskunov, Aleksander Stekolnikov, Sergey Sinev, Margarita Ponomarenko, Ole Karsholt, and Peter Huemer to the systematics of the group. I have also received the greatest motivation from my professors at the Instituto de Entomología, especially Prof. Ing. Cheslavo Korytkowski, and Dr. John Heppner who kindly invited

me to the University of Florida (UF), during summer of 2011. I had the opportunity to meet the amazing staff of entomologists at the UF and the McGuire Lepidoptera Center.

I have traveled all the Panamanian isthmus studying the different habitats, crops varieties and control strategies applied to deal with different lepidopteran pests.

The expeditions to the agricultural areas of Panamá provided biological records about impacts of Lepidoptera to annual crops. I was able to describe particular behaviours of well known pests such as *Tuta absoluta* and *Tecia solanivora* in the field and to make videos of these pests under lab conditions. A collateral product from this research was the preparation of a field guide, including frequent plant diseases in Panamanian crops. This work shows the main damages caused by members of the tribe Gnorimoschemini and many other pests in annual crops. This work also justifies the real situation in Central America and the need to establish efficient monitoring programs.

With many disadvantages on my side, I have decided to follow my dream of becoming a microlepidopterist against all the adversity! During this amazing journey, I have had the opportunity to meet great entomologists, and lepidopterists from all over the world that become really influential through my professional career. A memorable moment in my career was to fortunately meet J-F Landry, Mark Metz, and Vazrick Nazari, and I am so glad to have them as my mentors in the study of tropical Gnorimoschemini.

The preliminary work in non- cultivated areas provided valuable biological information about the status of uncommon species, behavioral notes and new host plants of Panamanian micro moths. We expect that this work represents just the beginning of wide international and institutional collaborations to know more about the micro moths in Central American countries and their possible adaptations to particular ecosystems.

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Gelechioid Aficionado:

James D. Young

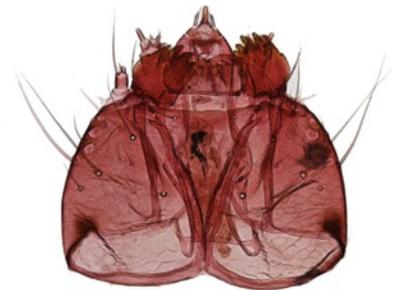
Jim.d.young@aphis.usda.gov

Microlepidoptera larvae are my thing, the smaller the better!! You are likely to find a copy of Stehr, Peterson, Zagulajev or Kristensen open on my desk if you ever come visit. My journey into the world of microlepidoptera began with studying the biology, morphology and control of *Rhyacionia frustrana* (Scudder in Comstock 1880) at the University of Georgia -

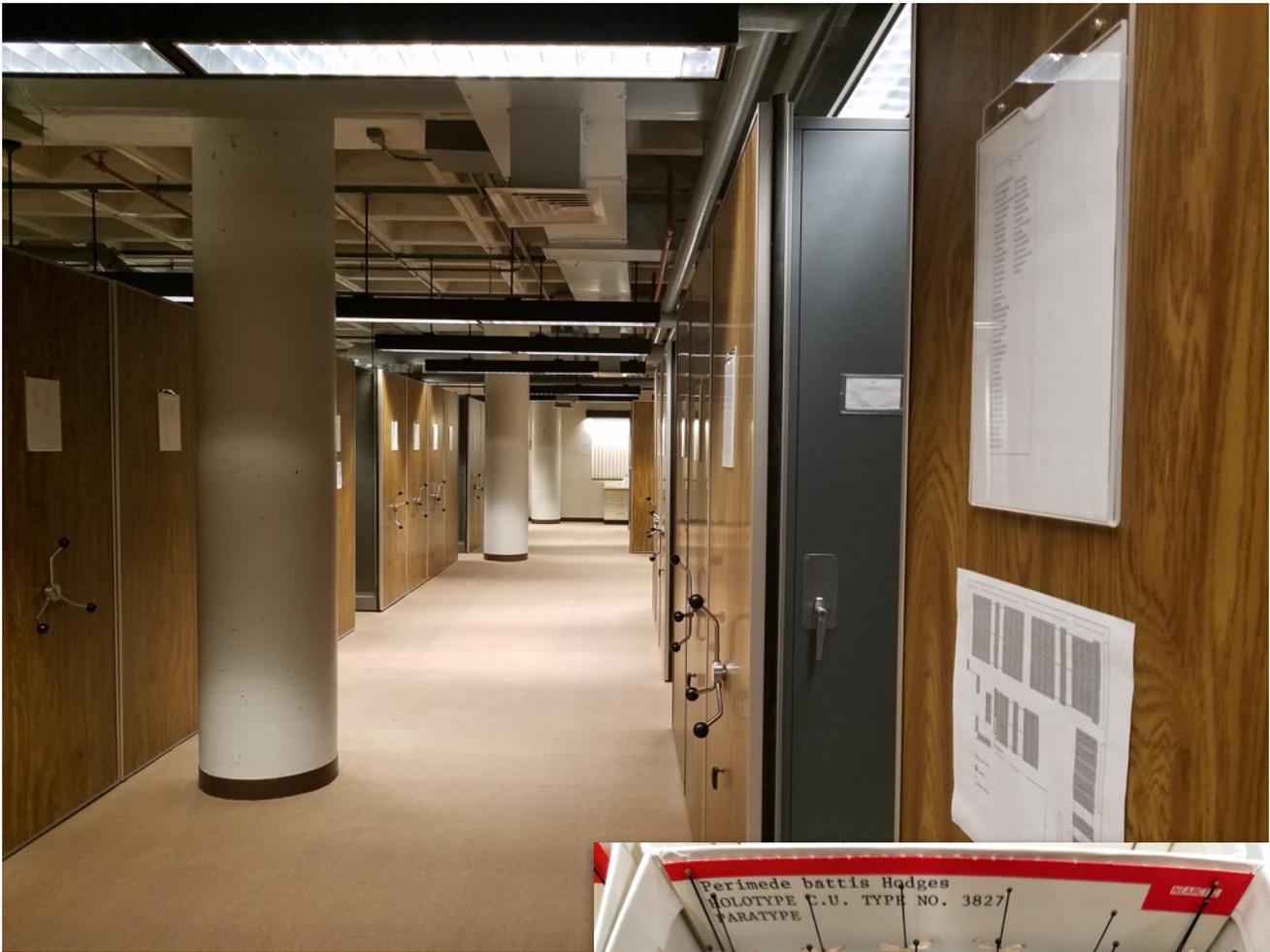
Athens for my dissertation. I spent 3 years collecting thousands of pupae, weighing them, measuring them and individually tracking each one until it eclosed so it could be dissected. After graduating in 2006, I ran Oregon State University's Insect Identification Clinic and taught both undergraduate and graduate courses at the University of Oregon and Oregon State University. In 2009, I was hired by U.S. Department of Agriculture- Animal & Plant Health Inspection Service- Plant Protections and Quarantine (PPQ) as the Entomologist Identifier in Baltimore, MD and served as PPQ co-lateral specialist for Gelechoidea from 2012-2017. This involved the identification of the Gelechoidea that are intercepted in passenger baggage from all ports of entry in the US (on average ~300 per year). Additionally, as part of my ongoing training I identified all other Lepidoptera groups, with the exception of Tortricidae, Pyralidae and Crambidae, under the supervision of PPQ National Specialist Dr. Steven Passoa.

Due to the nature of my position with APHIS, my work and experience has largely focused on larval morphology and identification. To both facilitate my work, and the work of the other PPQ identifiers, I have been developing a key of the frequently intercepted microlepidoptera larvae and an accompanying key to the commonly intercepted Gelechiidae larvae. Preliminary versions of these keys were presented and recorded during the 2016 Lepidoptera Workshop held at the University of Florida: Gainesville (<https://www.youtube.com/playlist?list=PLkbmLVCWoCj8PP6YEb51sNqOu6wtzQyYp>).

In January 2017, I successfully interviewed for one of 4 newly created National Specialist positions with PPQ's National Identification Service and became the second PPQ National Specialist of Lepidoptera. Since January, I have been working in temporary space reducing the backlog of specimens that have accumulated over the past decade due to staffing shortages. This December, I will be relocating to my permanent office at the Smithsonian National Museum of Natural History in Washington, D.C. where my research and curatorial duties are still to be determined. I frequently can be found behind the scope preparing larval skins and head capsules for slide mounting and dissecting mature pupae. If you visit the museum, please stop by and say hello.



Dichomeris sp.



The Gelechioidea Holdings of the Cornell University Insect Collection

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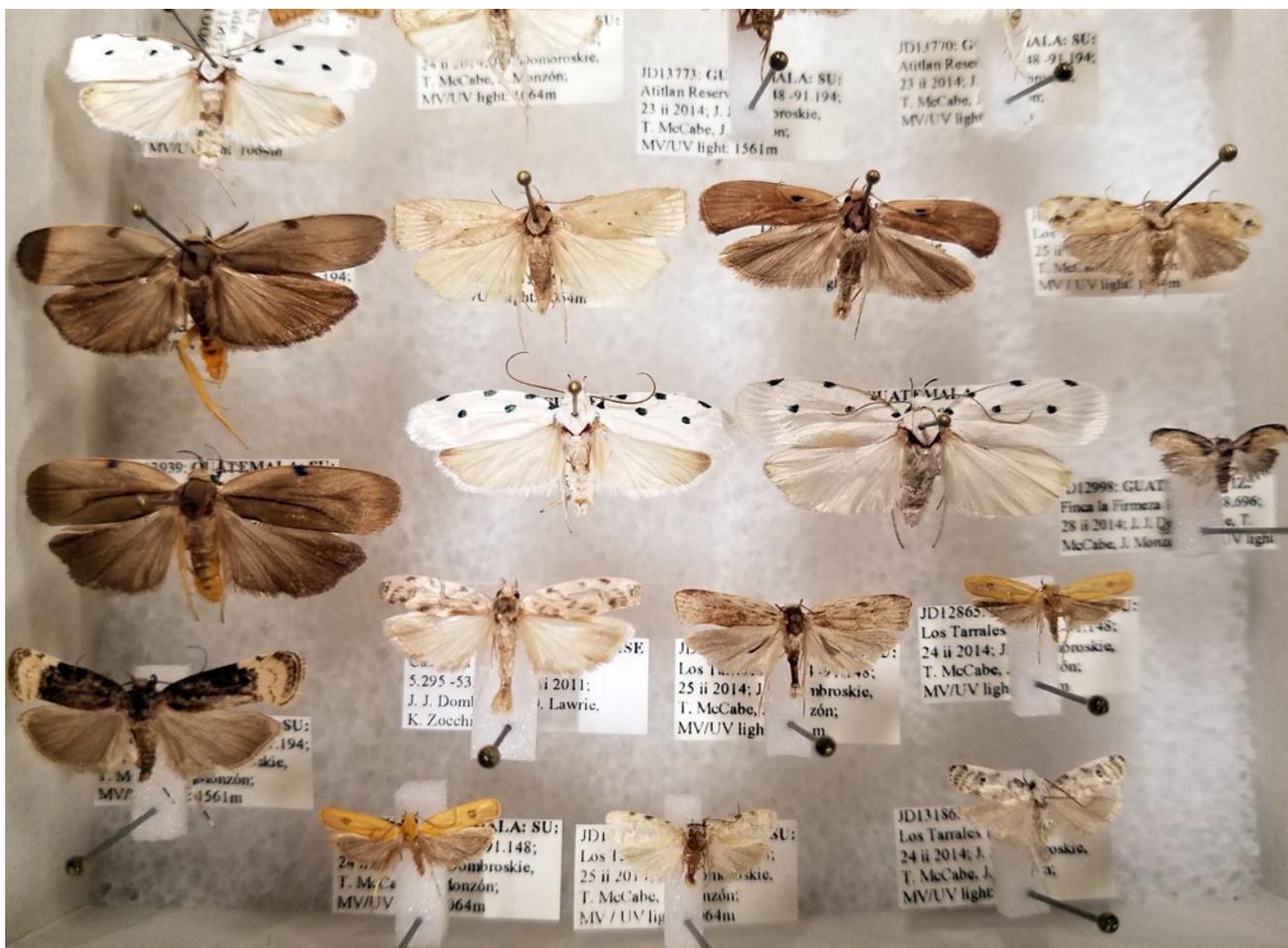


The Cornell University Insect Collection (CUIC) was established in Ithaca, NY, USA in the 1870's by J. H. Comstock and H. H. Smith with an initial focus on economically important species in New York State. Since then, the focus has expanded with acquisitions of international collections and expeditions across the globe. Over 800 curation years have gone into the collection along with visits from numerous researchers making it a relatively highly determined collection. Currently, the collection contains about 7 million specimens of 200 000 species, roughly 35% of which are



Ethmia spp.

Lepidoptera. The early work of Wm. T. M. Forbes built a strong global collection in Lepidoptera and the Macrolepidoptera and Zygaenoidea s.l. were greatly amplified by J. G. Franclemont. Many researchers, especially the current curator J. K. Liebherr (Coleoptera), collection manager J. J. Dombroskie (Lepidoptera), and associate curators B. Danforth (Hymenoptera), A. Hajek (invasive species), P. O’Grady (Diptera), and B. Reed (Lepidoptera) are actively building the collection to increase our global holdings. We have a long history of training quality entomologists, and that tradition continues to this day with a large cohort of undergraduate and graduate students active in the collection. More recently, we’ve been reaching out to the amateur lepidopterist community, and they have been providing valuable growth to the CUIC holdings.



Undetermined Stenomatinae.

Table 1: Number of determined species in the CUIC summarized by family and zoogeographic region (NEA = Nearctic, NEO = Neotropical, PAL = Palearctic, ETH = Ethiopian, ORI = Oriental, AUS = Australasian).

	drawers	determined species						
		total	NEA	NEO	PAL	ETH	ORI	AUS
Autostichidae	3	39	16	6	16			
Lecithoceridae	1	15	2		5		3	5
Oecophoridae	4	92	23	10	58			4
Depressariidae	19	305	81	156	69		4	3
Cosmopterigidae	6	127	91	13	20		2	4
Gelechiidae	32	485	278	54	157	1	4	6
Elachistidae	3	66	16	4	49			
Coleophoridae	7	109	43	1	70			
Batrachedridae	1	15	12	1	2			1
Scythrididae	2	43	13		31	1	1	
Xyloryctidae	1	12			1	1	1	9
Blastobasidae	3	27	20	4	3			
Stathmopodidae	1	10	2		2		6	2
Momphidae	2	21	16	1	10			
Schistonoeidae	1	1		1				
Lypusidae	1	6			6			
misc. Gelechioidea	2							
TOTAL	89	1373	613	251	499	3	21	34

The Gelechioidea are housed in 89 Cornell-style drawers and were recently curated. A taxon list will be posted online in the coming months once the curation of the microlepidoptera is completed. A summary of the determined species and quantity of undetermined material is summarized in tables 1



Some of the Hodges types in the CUIC type collection.

& 2. Our type holdings are summarized in table 3, and are predominantly from the work of R. W. Hodges in the Cosmopterigidae and Gelechiidae. All our types are searchable on our website <http://cuic.entomology.cornell.edu/>

We welcome any researchers who are interested in visiting the CUIC and will do our best to accommodate your needs. For students interested in curation, we can usually offer accommodation and transportation to and from nearby transportation hubs. On your next visit to microlepidoptera collections in the northeastern US, consider visiting the

CUIC. By car we are 4 hours from the American Museum of Natural History, 4 hours from the Canadian National Collection, 5.5 hours from the Carnegie Museum of Natural History, 5.5 hours from the National Museum of Natural History.

For holdings, loan, and visiting inquiries, please contact Jason Dombroskie (jjd278@cornell.edu).

Table 2: Approximate number of undetermined specimens in the CUIC summarized by family and zoogeographic region, abbreviations as in table 1.

	undetermined specimens						
	NEA	NEO	PAL	ETH	ORI	AUS	TOTAL
Autostichidae	69	7					76
Lecithoceridae					8	69	77
Oecophoridae	11	2	10		1	11	35
Depressariidae	800	400	8	2	18	8	1236
Cosmopterigidae	75	43			18		136
Gelechiidae	4000	700	8	1	14	12	4735
Elachistidae	80	22	4	1		25	132
Coleophoridae	800	37	4			1	842
Batrachedridae	2	5					7
Scythrididae	30						30
Xyloryctidae					1	1	2
Blastobasidae	1000	100	5		2	5	1112
Stathmopodidae		1			3	1	5
Momphidae	130	3					133
Schistonoeidae							0
Lypusidae							0
misc. Gelechioidea	170	500	4	3	120	300	1097
TOTAL	7167	1820	43	7	185	433	9655

Table 3: Gelechioidea type holdings in the CUIC.

	Holotypes	Allotypes & Paratypes
Oecophoridae	1	4
Depressariidae	9	89
Cosmopterigidae	55	271
Gelechiidae	43	425
Elachistidae	1	3
Coleophoridae		4
Batrachedridae	3	13
TOTAL	112	809



The 2018 Lepidoptera Course Announcement

The 2018 Lep course will be held 7 - 17 August at the Southwestern Research Station (SWRS) in the Chirichahua Mountains of Southeastern Arizona (a 2 1/2 hour drive from Tucson), USA. With its extensive series of Sky-Island mountain ranges, SE Arizona is a hot spot for the highest Lepidoptera diversity in North America. With low desert scrub oak and mixed oak-pine woodland, lush riparian, juniper, Douglas fir, and mountain meadow habitats all within a 40 minute drive from the station, the SWRS is an ideal location from which to sample this diversity of both habitats and species.

The emphasis of the Lep Course is to train graduate students, post-docs, faculty, and serious citizen-scientists in the classification and identification of adult lepidoptera and their larvae. The course includes lectures, field trips and labs. Topics to be covered include an extensive introduction into adult and larval morphology with a focus on taxonomically important traits, extensive field work on both adults and larvae, collecting and curatorial techniques, genitalic dissection, larval classification, and general issues in Lepidoptera systematics, ecology, and evolution.

Top left: Richard Brown demonstrating how to spread leps. Photo by Chris Grinter 2015. Top right: John Brown and Michelle DaCosta sorting through a bucket trap sample and identifying families of Lepidoptera. Photo by Bruce Walsh 2017. Bottom left: Field trip for caterpillars. Ray Nagle holding beating net. Photo by Chris Grinter 2014. Bottom right: Jennifer Bundy showing caterpillars. Photo by Chris Grinter 2014.

Details and an application form can be found online (<http://www.amnh.org/our-research/southwestern-research-station/education/lepidoptera-course/>) or e-mail (swrs@amnh.org). Visit <https://lepcourse.wikispaces.com/> and <http://nitro.biosci.arizona.edu/lep/course.html> for course information and photos from previous courses.



Top left: Southwestern Research Station. Photo © Bruce Walsh 2017. Top right: Night collecting. Photo © Chris Grinter 2017. Bottom left: 2015 Course Group Photo. Photo © Chris Grinter 2015. Bottom right: 2017 Course Group Photo. Photo © Chris Grinter 2017.



The Gelechioid collections at the California Academy of Sciences

Christopher C. Grinter
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Through the long history of the California Academy of Sciences in San Francisco there has never been a curator of Lepidoptera, and in general very few curatorial assistants or part-time researchers specializing in Lepidoptera. In spite of this conspicuous gap in one of the most diverse and economically important groups of insects, the CAS Lepidoptera collection has managed to grow to over 675,000 specimens in roughly 6,000 drawers. While butterflies naturally take up much of the volume of the holdings, there are important microlepidoptera collections that shouldn't be overlooked.

The entire collection is housed in a state of the art facility that opened to the public in the fall of 2008. On average there is an existing 40% growth capacity, with room for an additional 4,000 drawers in the Lepidoptera alone. Thanks to an NSF funded effort in the 90's (award 9024215), 100% of our pinned collection was rehoused and inventoried. All species names, countries, US states, and California counties of every specimen were recorded and the inventory made available online

(monarch.calacademy.org). This total inventory of the pinned collection accounts for just under 7 million insects (out of the 15-20 million across pinned, fluid, slide, and inventoried backlog holdings) and drives much of the loan traffic we see on a weekly basis. Loan requests are typically filled within two weeks; I encourage readers to browse our inventory and contact me if there is anyone interested in borrowing specimens.

The Gelechioidea are pending modern curation, but account for about 40 drawers and just under 13,000 specimens. Our most significant holdings are from the collection of Hartford H. Keifer, the earliest and one of the most important microlepidoptera workers in the western USA who had a



Fig. 1. Holotype, *Leucogoniella californica* (Keifer, 1930) (Gelechiidae). Fig. 2. Holotype, *Aristotelia urbaurea* Keifer, 1933 (Gelechiidae).

particular interest in the Gelechioidea. His collections were briefly made in a 10-15 year period in the late 1920's, and according to Powell (1990) 87% of these specimens were reared. Keifer's specimens and subsequent descriptions were flawlessly prepared. Nearly all of the primary types from this work were deposited at the CAS (Fig. 1-2), along with long series of reared specimens. Most of the 20 drawers of Gelechiidae are Keifer specimens, or from his exchanges for eastern specimens received from Braun and Busck. Powell reported the bulk of the Keifer collection was donated to the California Department of Food and Agriculture, but it is very likely that most of this material was transferred to the CAS in 1970's, as was the practice at the time (Epstein, pers. comm.).

Additional holdings of gelechioids are varied, including some significant specimens collected by Albert Koebele (1851-1924), Tom Davies (Fig. 3), Bob Langston, David Rentz, and Jerry Powell (Fig. 4). Out of the 296 primary Lepidoptera types, 47 are Gelechioidea. An additional 17 drawers of pro-tem

microlepidoptera from various geographic regions are in need of sorting, as well as a much larger backlog of 250 drawers of field-pinned general Lepidoptera. Visitors are welcome and I can even offer my couch for brief stays near the museum. I'd like to thank the Academy for the opportunity to spend the rest of my career in this collection, and look forward to lots of help from the community in expanding this microlepidoptera collection!

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Fig. 3. *Philarista* sp. (Xylorictidae). Fig. 4. Holotype, *Ethmia chemsaki* Powell, 1959 (Depressariidae).



Societas Europaea Lepidopterologica

Combined Annual Meeting of The Lepidopterists' Society and Societas Europaea Lepidopterologica

Carleton University
Ottawa, Ontario, Canada
11-15 July 2018

Preliminary Announcement: Mark Your Calendars!

The 67th Annual Meeting of The Lepidopterists' Society will take place **July 11-14, 2018** as a combined meeting with Societas Europaea lepidopterologica (SEL) at Carleton University in Ottawa. The meeting will be followed by excursions on July 15. The venue is within a 30 minute walk from the Canadian National Collection (CNC), the largest insect and Lepidoptera collection in Canada.

The 2018 meeting will follow the **Third North American Microlepidopterists' meeting**, to be held on **July 10, 2018**, at the K.W. Neatby Building in Ottawa which houses the CNC. Registration for both meetings will open by **March 2018**. Deadlines for abstract submission for oral or poster presentations will be announced at that time.

International travel support is available for LepSoc and SEL members upon application (Bryant Mather Award); <https://www.lepsoc.org/content/awards>.

For additional information or inquiries please contact the organizers at lepsoc2018@gmail.com.

Réunion annuelle combinée de la Société des Lépidoptéristes et de la Societas Europaea Lepidopterologica

Université Carleton
Ottawa, Ontario, Canada
11-15 juillet 2018

Annonce préliminaire: marquez vos calendriers!

La 67e réunion annuelle de la Société des Lépidoptéristes aura lieu du **11 au 14 juillet 2018**, en tant que réunion combinée avec la Societas Europaea Lepidopterologica à l'Université Carleton à Ottawa. La réunion sera suivie d'excursions le 15 juillet. Le site se trouve à 30 minutes à pied de la Collection nationale canadienne (CNC), la plus grande collection d'insectes et de lépidoptères au Canada.

La réunion de 2018 suivra la **troisième réunion de Microlépidoptéristes en Amérique du Nord**, qui se tiendra le **10 juillet 2018**, à l'édifice K.W. Neatby à Ottawa qui abrite la CNC. L'inscription pour les deux réunions débutera en **mars 2018**. Les dates limites pour la soumission des présentations orales ou par affiche seront annoncées à ce moment-là.

Le soutien pour les déplacements internationaux sera disponible pour les membres de LepSoc et SEL sur demande (Prix Bryant Mather); <https://www.lepsoc.org/content/awards>.

Pour toute question ou demande d'information, veuillez contacter les organisateurs à lepsoc2018@gmail.com.

The growing USNM microlepidoptera collection database

Mark A. Metz

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National Museum of Natural History
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At the Second North American Microlepidopterists' Meeting, August 2, 2017, Tucson, Arizona, USA; I gave a very short "public service announcement" about accessing on-line entomology collection data from the United States National Museum of Natural History (USNM). This article is a written and visual representation of the information I presented at the meeting, so forms what, hopefully, is an easy to follow tutorial on how to use the on-line USNM Entomology Collection database. I expect for most of you these instructions will become unnecessary after using the database only a few times. I do my best to update and add new specimen and taxon data when I can along with associated media (e.g., images), especially for primary types. I am happy to entertain requests to make additions to the on-line database as my time and resources allow, so feel free to contact me.

The USNM Entomology Collection on-line Specimen Database can be accessed at <https://collections.nmnh.si.edu/search/ento/> (Fig. 1). This takes you to the default search page for the site.

The search interface is fairly straight-forward and intuitive, but I'll point out a few aspects to get you started. Just below the header, "Search the Department of Entomology Collections," there is a row of blue, search category tabs (Fig. 2). Each search tab provides a screen with one or more fields that allow you to enter categorical text that can be used to filter or selectively include

Figure 1. Landing page for the USNM Department of Entomology Collections on-line portal (<https://collections.nmnh.si.edu/search/ento/>).

Search the Department of Entomology Collections

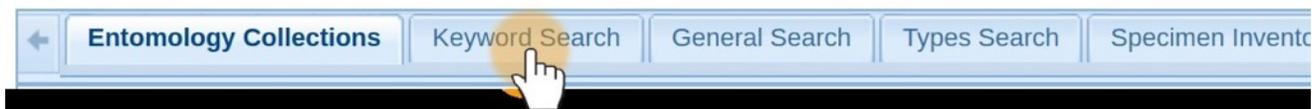


Figure 2. Close up of search tabs available on the search screen. Cursor and orange outline indicate selecting a “Keyword Search.” Cursor designed by Vexels.com.

records from the database that match your entered text. The least restrictive search is by “Keyword,” so start by clicking that tab with your mouse cursor (Fig. 2). Now you get a single field for entering search terms (Fig. 3). The term(s) can be as narrow as a specific epithet or as broad as a geographic region, but note that the maximum number of records returned by the on-line tool is 5,000. Below the search field are a set of radio buttons to select how many records are visible on the screen when the search is complete. The broader the search, the more records you might want to view at a time so you don’t have to page through hundreds of records only five at a time. You can combine terms in a search. Just use spaces between each term. You can also use “OR” between search terms to combine results and enclose your search text in quotation marks for an exact text match. Let’s do a keyword search for the text string “Gelechiidae” asking for 10 records/page to be displayed and click the “Search” button (Fig. 3).



Figure 3. Keyword search bar. Orange outlines and cursors indicate the search term being entered for search, selecting the number of records that will be displayed per page in the search results, and the “Search” button to click when the search is ready to execute. Cursor designed by Vexels.com.

A search for “Gelechiidae” resulted in 2,182 matching records and the screen shows the first ten records as we asked (Fig. 4). Note that not all records are in the same category. The seventh record in the list is from a “Catalog” called “Species Inventory.” It indicates that there are holdings in the USNM of the species *Adelomorpha ritsemae* Snellen, 1885. It doesn’t tell us how many specimens, only that at least one specimen is there. The eighth record in the list is from the “Entomology Types Catalog” and indicates that the holotype of *Aerotypia pleurotella* Walsingham, 1911 is in the USNM. So, it’s possible for a species to be listed more than once in results of any search. Using the “right arrow” to click down to the tenth page of records (Fig. 5), you’ll notice that the “plus sign” box is blue in front of some of the row. Let’s click to the tenth page and look at the row for the holotype record of *Anarsia aspera* Park, 1995. The blue “plus sign” box indicates that there is media in the database

Catalog#	Kind of Object	Catalog	Order	Family	Scientific Name	Type Status	Country
	Taxonomic Lot	Species Inventory	Lepidoptera	Gelechiidae	Acompsia angulifera Walsingh...		
	Taxonomic Lot	Species Inventory	Lepidoptera	Gelechiidae	Acompsia cinerella Clerck, 1760		
	Taxonomic Lot	Species Inventory	Lepidoptera	Gelechiidae	Acompsia maculosella (Staint...		
	Taxonomic Lot	Species Inventory	Lepidoptera	Gelechiidae	Acompsia psoricopterella (Wal...		
	Taxonomic Lot	Species Inventory	Lepidoptera	Gelechiidae	Acompsia tripunctella (Denis ...		
	Taxonomic Lot	Species Inventory	Lepidoptera	Gelechiidae	Acompsia vinitincta (Walsingh...		
	Taxonomic Lot	Species Inventory	Lepidoptera	Gelechiidae	Adelomorpha ritsemæ Snelle...		
	Specimen/Lot	Entomology Types	Lepidoptera	Gelechiidae	Aerotypia pleurotella Walsingh...	Holotype	Mexico
	Taxonomic Lot	Species Inventory	Lepidoptera	Gelechiidae	Aerotypia pleurotella Walsingh...		
	Taxonomic Lot	Species Inventory	Lepidoptera	Gelechiidae	Agathactis toxocosma Meyrick...		

Figure 4. Page one results of keyword search for Gelechiidae. Orange outlines indicate different types of catalog records and the total records and number of records currently viewed.

Catalog#	Kind of Object	Catalog	Order	Family	Scientific Name	Type Status	Country
	Taxonomic Lot	Species Inventory	Lepidoptera	Gelechiidae	Anacampsis tristrigella (Walsin...		
	Specimen/Lot	Entomology Types	Lepidoptera	Gelechiidae	Anacampsis unistrigella Busck...	Holotype	Panama
	Specimen/Lot	Entomology Types	Lepidoptera	Gelechiidae	Anacampsis ursula Walsingha...	Syntype	Mexico
	Taxonomic Lot	Species Inventory	Lepidoptera	Gelechiidae	Anarsia acerata Meyrick, 1913		
	Specimen/Lot	Entomology Types	Lepidoptera	Gelechiidae	Anarsia aspera Park, 1995	Holotype	Taiwan
	Taxonomic Lot	Species Inventory	Lepidoptera	Gelechiidae	Anarsia aspera Park, 1995		
	Taxonomic Lot	Species Inventory	Lepidoptera	Gelechiidae	Anarsia bipinnata (Meyrick, 19...		
	Specimen/Lot	Entomology Types	Lepidoptera	Gelechiidae	Anarsia chaonella Park, 1995	Holotype	Taiwan
	Taxonomic Lot	Species Inventory	Lepidoptera	Gelechiidae	Anarsia chaonella Park, 1995		
	Taxonomic Lot	Species Inventory	Lepidoptera	Gelechiidae	Anarsia elongata Park, 1995		

Figure 5. Page ten results of keyword search for Gelechiidae. Cursor and orange outlines indicate the blue “plus sign” box for the record of *Anarsia aspera* Park, 1995 and the page of records. Cursor designed by Vexels.com.

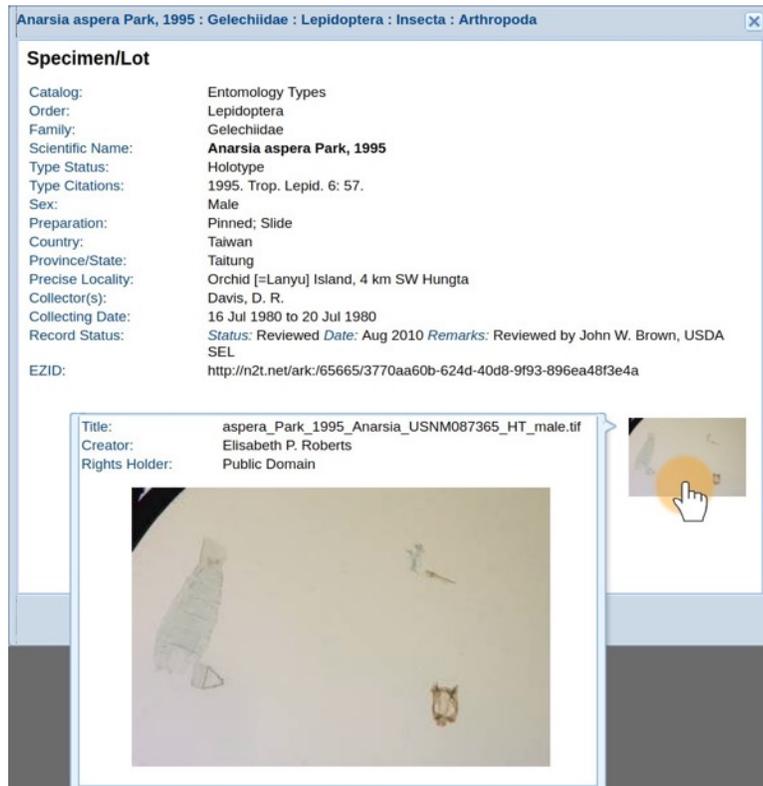
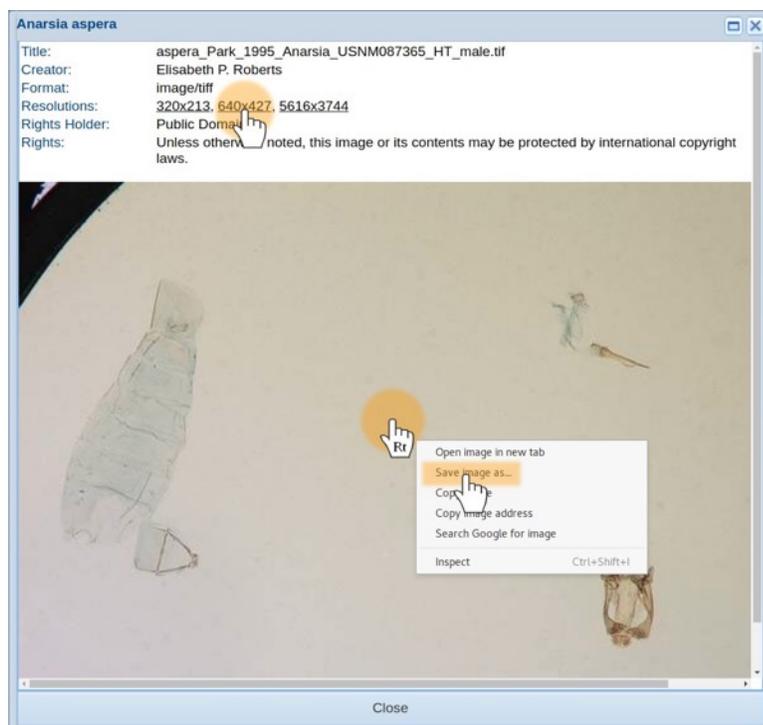


Figure 6. Pop-up window as a result of clicking the “plus sign” box for the record of *Anarsia aspera* Park, 1995. The window shows details of metadata associated with the record. Cursor and orange outline indicate the resulting thumbnail preview when mousing over the image. Cursor designed by Vexels.com.



associated with that record. Click the blue “plus sign” box for the record for *Anarsia aspera* Park, 1995. This will give you a fly-out window showing you the image files associated with the record (Fig. 6). You can get a larger thumbnail if you place your mouse cursor over the image, but that’s just a preview. Image files may be the best resources you can get from the on-line portal. Click the image thumbnail. This gives us details about the image and gives us different resolutions to pick for download. I’ve clicked the “640X427” resolution option (Fig. 7). Now if I right-click on the image, I get a menu pop-up with an option to “Save Image as . . .” If I choose that option, the file will start downloading to my “Downloads” folder (Note: The file may download to a different location on your computer or ask you to navigate to a download location depending on your operating system and your browser.).

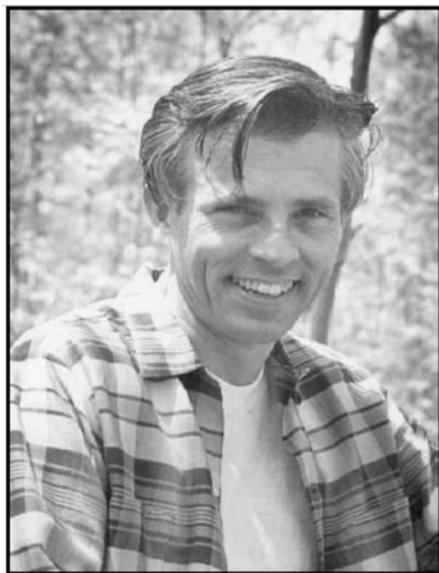
There are many other ways to search data in the USNM Entomology Collections on-line portal, so explore. I will leave you with two caveats. First, when downloading media be aware of the usage rights associated with the files. The example above for the dissection of *Anarsia aspera* Park, 1995 is public domain so rights are

Figure 7. Pop-up window as a result of clicking the image thumbnail of the media file associated with the record of *Anarsia aspera* Park, 1995. Cursors and orange outlines indicate selecting the image resolution for download, right-clicking the image area, and the menu option to “Save image as . . .” Cursor designed by Vexels.com.

unrestricted, but other media files may have limited usage rights. Pay attention to these and don't misuse content. Second, keep in mind the differences between nomenclature, species, and specimens when planning your search strategy and when viewing search results. For example, a keyword search for the species "trophella" results in two records (Fig. 8). One is the record for the lectotype specimen of *Gelechia trophella* Busck, 1903. The other is for the presence of the species *Chionodes trophella* in the collection, the current combination for Busck's original name. These could be the same specimens in the collection despite having separate records in the database. Happy hunting!



Figure 8. Search results for the keyword search “trophella.” The difference in database Catalogs and nomenclature are indicated in orange.



In memoriam

Ronald William “Ron” Hodges

By Steven Hodges

Ronald William Hodges, 83, died at his home in Eugene, Oregon, on Sunday, December 10, 2017. He was preceded in death by his wife, Elaine Rita Snyder Hodges, after 39 years of marriage.

Ron was born on August 7, 1934, in Lansing, MI, an only child to parents Elma and Lester Hodges, and became interested in Lepidoptera at age six upon finding a freshly emerged Luna moth in the backyard of his Michigan home. He stated his intent to update Holland’s “Moth Book” as a ninth grader. He received his BS degree in 1956 and his MS degree in 1957 from Michigan State University, where he was strongly influenced by Roland Fischer. He went to Cornell University to work with John Franclemont. During this period he did extensive field work in New York, North Carolina, Florida, Arizona, and Ecuador. He became deeply interested in the microlepidoptera, particularly the Gelechioidea, and was awarded a PhD degree in

1961. He received a National Science Foundation Postdoctoral Fellowship and commenced to work on genera of Gelechiidae. This project was interrupted when he accepted a position with the Systematic Entomology Laboratory at the U.S. Department of Agriculture, Agricultural Research Service located in the Smithsonian National Museum of Natural History, Washington, D.C. He had several roles in the Laboratory, including laboratory chief. He stepped down from this position to continue field and laboratory research on gelechioid moths. At the Smithsonian, he met Elaine, a scientific illustrator, and they married in 1967; Ron adopted her two sons, Steven and Larry.

He was a member of the American Association for the Advancement of Science, American Association for Zoological Nomenclature (president 1993-95), American Entomological Society, Entomological Society of America, Entomological Society of Canada, Entomological Society of Ontario, Entomological Society of Washington (honorary member, 1999), Michigan Entomological Society, the Lepidoptera Research Foundation, the Lepidopterists' Society (president 1975-76), Maryland Entomological Society (president 1973-74), Ohio Lepidopterists, Northwest Lepidoptera Society, Sigma Xi, and Societas Europaea Lepidopterologica. He received the Thomas Say Award from the Entomological Society of America for his editorial oversight of *Moths of North America* in 1990, the Karl Jordan Medal from the Lepidopterists' Society for research on gelechioid moths in 1997, and he was elected an honorary member of the Entomological Society of Washington in 1999.

Ron was active until retirement in the Washington Biologists' Field Club since being elected in 1963. He was president from 1976 to 1979 and participated on various committees and work and field days.



Ron at his house in Eugene, Oregon (his little dog is on the left edge of the picture) in late October 2016. Photo by Alma Solis.

He was for many years the lead cook in the kitchen. In 1997, Ron and Elaine retired to Eugene, Oregon, where he continued to work on moths (an illustrated, annotated key to genera of North American Gelechiidae) and, until 2011, to edit and publish *The Moths of America North of Mexico*. Gardening with a highly diverse array of plants and developing and maintaining a collection of mainly pleurothallid orchids also have interested him in retirement. In his spare time, Ron gardened a highly diverse array of plants, enjoyed classical music and paired gourmet meals and wonderful wines.

Survivors include Steven and Susan Hodges of Santa Barbara, California, and Lawrence Hodges of Germantown, Maryland; two grandchildren; two great-grandchildren; his cousin Ann Haseltine of Ishpeming, MI; and Elaine's siblings and their families; . Ron will be remembered for his big heart and generosity. He loved to share his garden, food, wine, music passions with his many friends and family. Sensitive to every dangling participle, "can I?" and "may I?" were distinguished, as were the salad and dinner forks. He is missed.



Gelechioidea Symposium at the 20th European Congress of Lepidopterology

April 24th - 30th 2017, Podgora, Croatia

The first Gelechioid symposium was held at the 20th SEL congress in beautiful Croatia last spring. The symposium provided a diverse program of seven talks, varying from local to global taxa and covering many gelechioid families. All abstracts are available from <http://sel2017.conferenceatnet.com>

The symposium also included a discussion led by Vazrick Nazari concerning forming a global database for the Gelechioidea. Jurate de Prins kindly offered to give an introduction to the topic by showing examples from the Global taxonomic database of Gracillariidae <http://www.gracillariidae.net>

The I.N.G.A. team would like to acknowledge all presenters, organizers of the congress and other people for contributing towards the symposium.

Symposium program:

Session opening: **Lauri Kaila:** Recent development in gelechioid systematics and progress in understanding their life history evolution (Skype presentation)

Bernard Landry: Diversity of the Gelechioidea of the Galápagos Islands, Ecuador

David Adamski: Status on constructing a "natural" phylogenetic- classification for the world Blastobasidae (Gelechioidea) based on macromorphological features of the adult

Ole Karsholt, Peter Huemer: Some considerations toward preparing a review of Gelechiidae from Crete Island

Mari Kekkonen, Marko Nieminen, Paul D. N. Hebert: Distance matters – the use of the BIN system for identifying gelechioids



David Adamski. All photos by Mari Kekkonen.

Daniel Rubinoff, William Haines: Remarkable evolution in the carnivorous clades of Hawaiian Fancy Case caterpillars (*Hyposmocoma*: Cosmopteridgidae)

Vazrick Nazari, Jean-François Landry: The Nearctic Gnorimoschemini: An overview



Ole Karsholt.



The small room of the conference venue was nearly filled by interested gelechioid aficionados.

Recent Publications on Gelechioidea

Compiled by Maria Heikkilä

Articles dealing with pest or biocontrol issues are not included.

2016 additions

Please, see I.N.G.A. issue n. 6 for other articles published in 2016: http://mississippientomologicalmuseum.org.msstate.edu/Researchtaxapages/Lepidoptera/Gelechioidea/INGA_newsletter.html

Baldizzone, G. (2016) *Coleophora curictae* Baldizzone: a new species of the *C. zelleriella* Heinemann, 1854 group. Contribution to the knowledge of the Coleophoridae. CXXXVI (Lepidoptera: Coleophoridae). *SHILAP Revista de Lepidopterología* 44 (175): 455–462.

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Kim, S. & Lee, S. (2016) First review of subfamily Periacminae (Lepidoptera: Xyloryctidae s.l.) from Korea: Newly recorded genus including two new descriptions. *Journal of Asia-Pacific Entomology* 20 (2): 387–394. <http://dx.doi.org/10.1016/j.aspen.2016.12.016>

King, G.E. & Viejo Montesinos, J. L. (2016) *Mompha epilobiella* (Denis & Schiffermüller, 1775) (Momphidae) on the edge of its range in the Iberian Peninsula. *SELepidoptera News* 58: 13–14.

Lvovsky A.L. (2016) A new species of the genus *Buvatina* (Lepidoptera: Oecophoridae) from the Russian Far East. *Zoosystematica Rossica* 25 (2): 314–317.

Park, K.-T. (2016) Three new species of genus *Gonaepa* Walker, 1866 from the Philippines (Lepidoptera: Gelechioidea, Lecithoceridae). *SHILAP Revista de Lepidopterología* 44 (176): 675–680.

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Urta, F. (2016) Redescrición y registros geográficos de *Teresita diffinis* (Felder & Rogenhofer) (Lepidoptera: Oecophoridae). *Biodiversity and Natural History* 2 (1): 46–49.

Urta, F. (2016) Una nueva especie de *Corita* Clarke (Lepidoptera: Oecophoridae) de Chile Central. *Revista Chilena de Entomología* 41 (1): 5–10.

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