



AMERICAN
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Annual Meeting Reports

2019 AAS Meeting Summary Report by Amy Bianco

From the perspective of a newbie and hobbyist, the AAS 2019 meeting was an amazing experience! Of the 112 people who attended the meeting, there were about twenty newbies attending along with me. I was

grateful for Alex Berry's First Time Attendees meeting. We were able to introduce ourselves, share a brief background, and ask questions. There was a lot of laughing as we all warmed up and the connections we made lasted for the duration of the week as we checked in with one another at the different events.

The welcome reception was exciting as I greeted the only two people I knew in person (via a Spider Biology course at my university) and the many I admired through social media and/or reading journals. It was really cool seeing everyone reuniting and smiling over hors d'oeuvres and drinks. After the event, having met so many enthusiastic, friendly people, I felt settled in and eager to wake up bright-eyed and bushy-tailed for the first day of talks!

Overall, the meeting was extremely well organized. There was a very nice flow to the entire schedule that didn't leave me feeling burned out. I thoroughly enjoyed the presentations and learned more than I could imagine. The schedule was set up so every talk could be attended without having to pick and choose. The poster session provided a fun, intimate way to engage. The breadth of knowledge on each topic in both the poster session and the daily talks was inspiring!

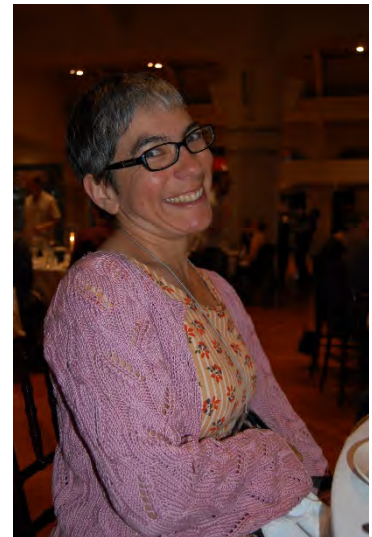
The mini-symposium honoring William Shear gave me a glimpse of the passion AAS members hold, not only in their areas of study, but for their mentors and predecessors. I was pleasantly surprised to realize I was sitting directly behind William Shear, Fred Coyle, and their spouses during this session. It was heart-warming to see the affection they reflected in their smiles and whispered comments. The Highlands Biological Station's Spider Biology class isn't just a course, it's a legacy.

The social gathering at Great Valley Farms Brewery was well-timed after the first and longest talks of the week. The view at the brewery was absolutely gorgeous with rolling farm fields surrounded by hills in the distance. It was cool to casually mingle and share stories with the day's presenters over a good Belgium stout!

Casual Night with Arachnids brought things back to basics sharing photos, videos, and website info about arachnids. It proved that, for many, arachnids are a way of life, not just an area of study. The true wonder over simple observations, the questions they pose, and the thirst for more understanding is what ties us all together!

The banquet was the grand finale of the event! After having spent three days together, I definitely felt a kinship, like I had found my people! This is when the winners of the student competition and poster session were announced and one could see how much support and respect were shared in the room for all attendees. I could not stop laughing during the live auction! I'd come back to every meeting just for that. What a fun group of people! The food was great and the caterers did a fantastic job. They also had a heck of a time getting us to stop dancing so they could clean up!

I would like to thank our host, Nadia Ayoub and her students, for being so enthusiastic and helpful! Washington and Lee University campus was lovely as was the town of Lexington. As a newbie, hobbyist, I was welcomed with open arms. No one spoke of "amateur" in a negative light. Instead, the importance of being able to connect a general audience and the science was applauded and held in high regard. When it comes down to it, "the purpose of the American Arachnological Society is to further the study of arachnids, foster closer cooperation and understanding between amateur and professional arachnologists, and to publish the *Journal of Arachnology*." I'm very proud to be a member of this supportive society!



Nadia Ayoub, AAS meeting host.



Natural Bridge State Park.

It was a sunny, hot morning when our bus rolled into the welcome center. Although I've heard this is a popular tourist spot, the parking lot was not crowded at this time (11 am). The park entrance started out through a small, stone structure and then descended steps that followed Cascade Falls, which rolls along the stairs over moss covered rocks. We didn't get very far, stopping just past the structure to look for spiders and get photos of damselflies. The main attraction, a 215 feet high rock bridge, was still all the way down those steps and to the right. It's there that a ranger is waiting to take your ticket. If you don't have an eye for spiders and other insects, it would normally take about 8 minutes to reach the ranger, but there was so much to see on those steps, it may have taken us an hour to get there!

Eventually, we spread out. I was torn between looking for spiders and exploring the park and ended up spending a good bit of time along Cedar Creek towards the falls. Docile queen snakes draped themselves among the branches of creekside shrubbery, sometimes four or five to one plant. The atmosphere was cathedral-like with the towering limestone arch and the relaxing sound of moving water. My pace slowed at times to just sit and take it all in. Of course, that's when you notice the little things, like mating Endoplagnaths (that's a guess) and

cryptic *Dolomedes*. While on the rocks in the middle of the creek, a male, Western Lynx spider, *Oxyopes scalaris*, appeared on my knee. He wouldn't hold still for a good photo! I ventured through Monacan Indian village and spent time checking out the structures, garden, and pelts. Interpreters were present, in traditional Monacan dress, to welcome you and talk about their customs. The park is just over 1500 acres and 6 miles of hiking and there is a lot to see even in four hours. Other sites to see were Saltpeter Cave and Lace Falls, a beautiful, multi-tiered fall about a mile from the trailhead. I would definitely recommend checking out Natural Bridge State Park if you are in the area. Although there is not a lot of deep woods action, if you're looking for the smaller critters, there are plenty to see. However, there is so much geologic wonder happening, you have to remember to look UP every now and then!

American Arachnological Society Election Results

The governing board, or Executive Committee (EC), of the AAS consists of a President, President Elect, three Directors (including the past-President), a Secretary, a Treasurer, the editor of the *Journal of Arachnology*, an Archivist, a Parliamentarian, and a Graduate Student Representative. Each year we elect new members to the EC. In 2019, the society voted for Andy Roberts as our new President Elect and voted for Mercedes Burns as a new Director.

The AAS EC is always looking for members who are interested in getting more involved in society leadership. If any member is interested in being considered for a position on the EC, let any current member of the committee know of your interest. The members of the EC and the AAS Constitution with the roles of each position explained can be found on the society website at: <http://www.americanarachnology.org/>.

Recognition Presented to Former Webmaster, Jan Weaver



The American Arachnological Society is pleased to recognize Jan Weaver for her extraordinary service as AAS Webmaster from 2011 – 2019. The AAS Executive Committee voted unanimously to present Jan with a plaque recognizing her service. This plaque was created in time for the 2019 AAS meeting held in Lexington, Virginia and was sent to Jan (who was not present at the 2019 meeting) with the society’s thanks and gratitude. Jan is shown to the left proudly holding the plaque thanking her for her service. More information about the future of the AAS website can be found later in this newsletter.

AAS Student Research Grants Recipients

The AAS has two funds to support research by student members of the society (undergraduates or graduate students):

- The Arachnological Research Fund (ARF) provides awards of up to \$1,000 to support projects related to any aspect of the behavior, ecology, physiology, or evolution of any of the arachnid groups.
- The Vincent Roth Fund for Systematics Research (VRF) provides awards of up to \$1,000 to support projects focused on the taxonomy or systematics of any arachnid group.

In 2019, there were 25 applications submitted to these committees. Sixteen applications were considered for ARF funding and 9 for VRF funding. Congratulations to the following recipients of these AAS research grants:

Arachnological Research Fund Awards:

- Samuel Oswaldo Aguilar Arguello, PhD student, University of Canterbury. (\$1000) (Title: Making a quick escape: trade-offs between time and risk in solving mazes)
- Karly Mae Garrett, Undergraduate student, University of Arizona. (\$525) (Title: Investigating the antimicrobial properties of pseudoscorpion silk)
- Verónica Gonnet Cendán, Masters student, Instituto de Investigaciones Biológicas Clemente Estable. (\$1000) (Title: Sexual dimorphism and mating interactions in a wolf spider from Uruguayan grasslands: A taxonomical, molecular and behavioral approach)
- Mindy Sarah Gruzin, Undergraduate student, Penn State York. (\$750) (Title: Influence of developmental starvation on octopamine and serotonin modulation in the common house spider, *Parasteatoda tepidariorum*)
- Carolina Guerra, Undergraduate student, Universidad Nacional del Sur. (\$750) (Title: A new exception challenging rules? Testing sex role reversal hypotheses in a South American spider)
- Julieta Ledda, Undergraduate student, IADIZA-CCT Mendoza. (\$675) (Title: Influence of the structure of the habitat in the abundance of spiders and predation of egg sacs)
- Makenzie Rae Nolt, Undergraduate student, Penn State York. (\$500) (Title: Behavioral and genetic analysis of the circadian rhythm of *Parasteatoda tepidariorum*)

- Ogonna Daniel Nwankwo, PhD student, Federal University Oye-Ekiti. (\$425) (Title: National survey of Arachnids: A checklist of the spiders (Arachnida, Araneae) of the six geopolitical zones of Nigeria)
- Bryan Andres Ospina Jara, Masters student, Universidad del Valle. (\$1000) (Title: From the Andean páramos to the tropical rain forest: A ciberdiversity approach to orb-weaving spider diversity in Southwestern Colombia)
- Justina Panchuk, Undergraduate student, Universidad Nacional del Sur. (\$600) (Title: Ecology and conservation of *Mecicobothrium thorelli* Holmberg, 1882 (Araneae: Mecicobothriidae) in natural grasslands of Argentina)
- Victoria Anne Rayno, Masters student, San Diego State University. (\$750) (Title: The evolution of substrate-matching cryptic coloration in *Habronattus* jumping spiders)
- Nishant Singh, PhD student, University of Toronto Scarborough. (\$1000) (Title: Early social transitions in a solitary Theridiid)

Vincent Roth Fund Awards:

- David Chamé Vázquez, PhD student, El Colegio de la Frontera Sur. (\$455) (Title: A search for the male of *Phonotimpus separatus* Gertsch & Davis, 1940 (Araneae: Phrurolithidae) with the circumscription of the genus *Phonotimpus* Gertsch & Davis, 1940)
- Juan Manuel de Luna González, Masters student, Universidad Autonoma de Nuevo Leon campus de Ciudad Universitaria. (\$800) (Title: The hooded tick-spiders (Ricinulei: Ricinoididae: Pseudocellus Platnick, 1980) of Nuevo Leon, Mexico)
- Mariana Griotti, PhD student, Centro Científico y Tecnológico (IADIZA, CCT). (\$920) (Title: Taxonomical revision and phylogeny of the genus *Petrichus* Simon (Araneae: Philodromidae))
- Nancy Lo-Man-Hung, PhD student, Universidade de São Paulo. (\$480) (Title: Natural history notes and description of a new species of *Cryptocellus* (Arachnida, Ricinulei) from the deforestation arch between Amazon rainforest and the Brazilian savanna (Cerrado))
- Kiran Marathe, PhD student, University of British Columbia. (\$1000) (Title: Systematics of Indian jumping spiders (Araneae: Salticidae))
- Brittney Oleniacz, PhD student, University of Kansas. (\$845) (Title: Pseudoscorpions in Turonian-aged New Jersey amber)
- Troy Daniel Olsen, Masters student, Portland State University. (\$500) (Title: Systematics and phylogeography of a leaf litter dwelling arachnid)

AAS HLMFAR Grant Winners

The Herb Levi Memorial Fund for Arachnological Research (HLMFAR) was established by the AAS in 2015 to support non-student AAS members (including post-docs) who receive little to no institutional support for their research programs. Current AAS membership is required to apply to this program. The HLMFAR grant is primarily meant to provide seed money to fund fieldwork and to gather preliminary data for future grant proposals. Grants up to \$2000 are awarded. Submission Deadline: February 15th each year. Application forms for this grant can be found at:

http://www.americanarachnology.org/grants_and_awards/research_grants.html.

In 2019, the HLMFAR committee received eight applications. The recipients of the awards for 2019 were:

- Andrea Albin, postdoc from the Instituto de Investigaciones Biológicas Clemente Estable (IIBCE), Montevideo, Uruguay, for her project, “Molecular detection and nutritional aspects of the diet of two South American coastal wolf spiders with priority for conservation.”

- Guillermo Ibarra Núñez, Investigador Titular from El Colegio de la Frontera Sur, (ECOSUR), Chiapas, Mexico, for his project “First trial to sequencing venom-related genes of *Phonotimpus spiders* (Phrurolithidae) from Chiapas, Mexico.”
- Jessica Petko, Assistant Professor from Penn State University, State College, Pennsylvania, US for her project, “Spidey sexes: elucidating the sex determination pathway of the common house spider, *Parasteatoda tepidariorum*.”
- Sarah Stellwagen, postdoc from the University of Maryland, College Park, Maryland, US for her project, “The Spider Library: genomic DNA and silk gland collection for spidroin sequencing projects.”

AAS Travel Grant Recipients

The AAS provides travel support for high school, undergraduate or graduate student members of the AAS who have limited or no funding support, but plan to be presenting authors on a poster or oral presentation at the upcoming AAS meetings. The recipients of the AAS student travel grants to the 2019 AAS meeting and their presentation titles were:

- Jessica Cote, “Dear ticks, do you have metal? An elemental analysis of the hard bodied tick’s exoskeleton.”
- Brittany Damron, “Phylogenetic analysis of the family Cosmetidae (Opiliones, Arachnida) using a total evidence approach.”
- Erika Garcia, “Investigating the poly-paraphyly of North American camel spiders (Solifugae: Eremobatidae: Therobatinae) and their unique movable palpal spines.”
- (Richard) Ryan Jones, “Morphology of male abdominal ctenidia in North American Solifugae.”
- Jonathan MacDougall, “Whole-collection CO1 barcoding and species delimitation of New Zealand and South American neopilionid harvestmen (Opiliones).”
- Callum McLean, “Why the long pedipalps? Quantifying prey capture performance across amblypygid species.”
- Makenzie Nolt, “Addiction-like behaviors in *Parasteatoda tepidariorum*.”
- Laura Rosenwald, “A novel bacterial symbiont manipulates the reproduction of a linyphiid spider, *Mermessus fradeorum*.”
- Madison Winkowski, “Pharmacology of duplicated receptors in the common house spider *Parasteatoda tepidariorum*.”
- Fatima Manalastas, “A comparative study of the behavior of the scorpion *Centruroides vittatus* in the Tamaulipan Biotic Region of south Texas in relation to microhabitat use and temperature.”

The AAS also provides travel support to aid non-student and emeritus scientists interested in attending the annual meetings of the American Arachnological Society. The Schlinger Travel Grant has been generously provided by the Schlinger Foundation. Awards are awarded to active professional arachnologists or retired arachnologists with limited or no funding support who are presenting authors on a poster or oral presentation at the meeting. The 2019 recipients of the Schlinger Travel Grants were:

- Rachael Alfaro, “Comparative spigot ontogeny across the spider tree of life” (co-authored with Charles Griswold and Kelly Miller).
- Jessica Petko, “Developmental expression of the Doublesex sex determination genes in the common house spider, *Parasteatoda tepidariorum*”.
- Will Wiggins, “Macronutrient effects on juvenile jumping spider growth (co-authored with Shawn Wilder).

Winners of Student Presentations 2019 AAS Meeting

At every AAS annual meeting student presenters are judged by a panel of senior scientists and awards are presented to the best oral presentations and the best poster presentations. The criteria used for judging student presentations can be found at:

http://www.americanarachnology.org/grants_and_awards/documents/student-paper-guidelines-2017.pdf

The winners of the 2019 oral student presentations were:

- First place, Laura Rosenwald, University of Kentucky (co-author Jennifer A. White): “A novel bacterial symbiont manipulates the reproduction of a linyphiid spider.
- Runner up, Lacie Newton, University of California, Davis (co-authors Jason Bond, James Starrett, Brent Hendrixson): “Species delimitation of the *Antrodiaetus unicolor* species complex using a 3RAD approach.”

The winners of the 2019 poster presentations were:

- First place, Rebecca Godwin, University of California, Davis (co-author Jason Bond): “Revision of New World *Ummidia* (Mygalomorphae, Halonoproctidae).”
- Runner up, Ariel Onyak, University of Akron (co-authors Angela M. Alicea-Serrano, Ali Dhinojwala, Todd Blackledge): “Exploring the relationship between *Lariniodes cornutus* viscoid silk, humidity, and highly textured substances: does over-lubricated glue stick better to insects?”



2019 winners of the student presentation competitions (clockwise from upper left): Laura Rosenwald, Rebecca Godwin, Lacie Newton, and Ariel Onyak. Awards presented by Greta Binford and Rich Bradley.

Increased Membership Dues for 2020

By Brian Patrick, AAS Membership Secretary

As announced at the 2019 annual meeting at Washington and Lee University in Lexington, VA, the Executive Committee of the American Arachnological Society has voted to increase membership dues by \$5.00 USD for Regular and Student members. The new membership dues will be \$60.00 USD for Regular members, and \$35.00 USD for student members. The increased dues will take effect November 15, 2019 when the AAS website is updated with the new prices. Life Membership prices will not change, and we do not anticipate increasing the cost of a Life Membership in the foreseeable future.

Membership fees have not been raised in over 15 years. Since that time, the Society has increased its support of members through the following programs:

- The AAS and Vince Roth research grant programs.
- AAS travel grants for students and retirees.
- The Herb Levi Memorial Fund for Arachnological Research (HLMFAR) program for early career arachnologists.
- Society support for the revision of the *Spiders of North America: an identification guide*.
- \$2,000 per year Society support for the annual meeting.

In addition, the Society continues to accrue yearly costs related to:

- Publication of the *Journal of Arachnology*.
- Website maintenance.
- PayPal payment site fees.

And the Society plans to embark on two new investments:

- Creation of a new website for the society (with an associated cost of about \$12,000 USD) (see a report about this later in the newsletter).
- \$5,000 USD investment per year to support the World Spider Catalog (WSC).

As always, the AAS is sensitive to the financial strains of society memberships. Even at \$60.00 USD and, in particular, \$35.00 USD for students, our membership costs are low compared to most other societies that offer a journal, grants, and other support for arachnologists and students. We hope that you understand the need to increase these dues, and that you will continue your support of the AAS because it's members like you that make this such a wonderful, vibrant, and welcoming society!

Job Posting

Jonathan Pruitt's Lab will be hiring multiple postdocs starting summer-fall 2020. Initial appointments will be for one year but can be extended up to three years. Each position will come with an annual research and discretionary fund of \$6,000 USD. Postdoctoral positions are available in any subfield of behavioral ecology, population biology, or evolutionary ecology. Applicants may choose to work on any organism they wish, but existing laboratory infrastructure can support research on invertebrates (40 species of cavity-dwelling ants), small terrestrial vertebrates (lizards, frogs), and fish (freshwater or marine). Interested applicants should submit a brief cover letter containing the contact information of three references, a CV, and a one-page proposal describing their proposed research including intended system information and hypotheses. Unorthodox, ambitious, or crazy ideas are particularly encouraged.

Please send these documents to pruittlabsearch2020@gmail.com. Review of applications will start November 1st 2019 and decisions will be rendered by mid-November.

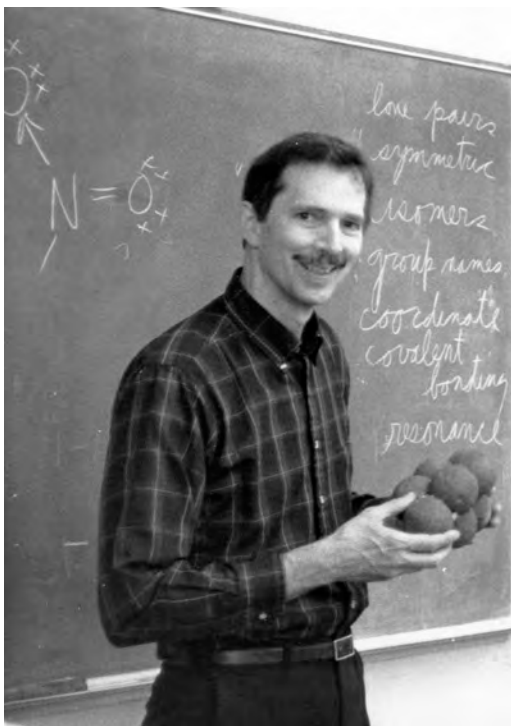
AAS Website Update

With the departure of our society Webmaster, Jan Weaver, the AAS Executive Committee agreed to hire PSBrands company (the same company that redesigned the International Society of Arachnology website) to redesign the AAS website. The society has also recruited a new Webmaster, Daniel Gloor. The new society President, Greta Binford, is heading up this effort. As we move forward on this website redesign, we will ensure that the current functionalities of the website are maintained and we will improve readability and accessibility on mobile phones and other electronic devices. Updates about this website redesign will be distributed to members by our Membership Secretary in the coming months.

In Memoriam

Dr. Thomas S. Briggs (1938-2019) (submitted by Darrell Ubick)

Thomas S. Briggs was born on 16 February 1938 in San Francisco, where he worked and lived for most of his life, and died in Redwood City on 3 August 2019. During his life he was an explorer, teacher and scientist who made important discoveries in both physical and biological sciences



Tom Briggs was interested in natural history from childhood, when he started collecting insects and had a home chemistry lab. In 1955, at age 17, he won an award in a national science fair for a project on solifuges, where he scored in the top 10 contenders, got a trip to Washington D.C. and met with President Eisenhower. He worked on this project at the California Academy of Sciences, where he later became a Research Associate.

He then attended SF City College followed by UC Berkeley, where he received a BA in 1959, with a Chemistry major and Entomology minor. In the following year he earned a teaching credential and began working as a chemistry teacher, first at Galileo High School (1960- 1974) and then at Lowell High School (1974-1998) in San Francisco. At Galileo, Tom taught natural history after school hours through the Lux Laboratory Science program (1960-1970), sponsored the high school science club, and exposed scores of urban students to nature study and field biology.

Tom took breaks from teaching to continue his education and earned a M.Sc. from Cornell (1964) and a Ph.D. from UC Berkeley (1980), both in Chemistry. He published about a dozen papers in chemistry between 1960 and 1991

and studied hydrides of antimony and boron, higher oxidation states of manganese, the chemistry of liquid ammonia, and oscillating reactions. His discoveries include new compounds, two of boron and two of manganese, and he is the co-discoverer of an oscillating reaction, the Briggs-Rauscher Reaction (1973), which currently has many practical applications in medicine and other fields.

Tom was a naturalist who enjoyed field trips and was knowledgeable on geology and botany, as well as entomology. His favorite organisms turned out to be arachnids when, in 1965, he and his students collected some unusually tiny armored harvestmen (Opiliones: Laniatores). The specimens were new species of *Sitalcina* (Phalangodidae), which he described in 1966. Subsequent trips continued to produce new species, including those from the more primitive Travunioidea, in an unending stream which kept Tom busy studying and publishing until 2008. In all, he produced 33 papers on laniatorid taxonomy and natural history and described 120 new species, 13 new genera, and 2 new families. This was, indeed, a completely unknown fauna, which was collected largely by Tom and field assistants.

Tom was also an active spelunker and visited numerous caves in California and the West and described many cave species. Of particular interest are the two species of *Banksula* from McLean's Cave which temporarily stopped construction of the New Melones Dam. Once an inventory of the surrounding caves showed that the two species were widespread, the dam project would continue, but only after the fauna of McLean's Cave were transplanted into a nearby limestone mine, a project which Tom oversaw (1975). The New Melones cave surveys produced many new species and distributional data which were compiled as a manuscript back in 1979 and finally updated and published in 2017, and was Tom's last co-authored publication.

- Briggs, T.S. & K. Hom. 1966. Five new species of Phalangodidae from California (Opiliones). *Pan-Pacific Entomologist* 42: 262-269.
- Briggs, T.S. & W.C. Rauscher. 1973. An oscillating iodine clock. *Journal Chemical Education* 50: 496.
- Briggs, T.S. 1975. Biological Transplant Project, New Melones Lake, California. Final report. U.S. Army Corps of Engineers, Sacramento. 5 pp.
- Briggs, T.S. 1980. Kinetic and synthetic studies on boron-nitrogen hydrides (Ph.D. thesis). Published for the U. S. Department of Energy under contract W-7405-ENG-48, 41 pp.
- Ubick, D., & T.S. Briggs. 2008. The harvestman family Phalangodidae. 6. Revision of the *Sitalcina* complex (Opiliones: Laniatores). *Proceedings of the California Academy of Sciences, Fourth Series*, 59: 1-108.
- Elliott, W.R., J.R. Reddell, D. Craig Rudolph, G.O. Graening, T.S. Briggs, D. Ubick, R.L. Aalbu, J. Krejca, and S.J. Taylor. 2017. The Cave Fauna of California. *Proceedings of the California Academy of Sciences (Ser 4, Vol 64, Sup 1)*: 1-311.

What's in a Common Name? Revitalized Common Names Committee

By Sarah J. Rose



Figure 1: Banana Spiders? *Trichonephila clavipes* and *Argiope aurantia*, neither of which has the assigned common name of "banana spider," but both are often referred to as such.

Anyone who has interacted with the public in regards to spiders has faced that all too common response of "what is its common name?", or "English please". The American Arachnological Society (AAS) has a committee dedicated to providing you with an answer to that question, well...at least some of the time.

The first list of approved common names was published in 1995 to compliment the Entomological Society of America's (ESA) Common Names of Insects and Related Organisms, which can be found on the ESA's website. There were several iterations of the common names list, but since 2003 the committee was

dormant. This year the committee has been resurrected. The new committee members are Sarah J Rose PhD (chair), Richard A. Bradley PhD, Kari McWest MS, Susan Riechert PhD, and Louis Sorkin BCE.

The committee is already hard at work adding additional species to the previous common names list. The committee has also edited the rules and guidelines, in order to make them more streamlined. These changes will be posted once the new AAS website is operational. Additionally, with the upcoming upgrade to the AAS website you can plan on seeing much more information about the committee, the guidelines, and easily accessible common name information on the site.

Have an idea for a common name? Here is a summary of a few of the guidelines to consider:

1. It must be found in the Americas or present in museum collections or the pet trade in sufficient numbers to warrant a common name.
2. It must be common, medically significant, economically significant, or threatened or endangered.
3. The common name should contain the fewest number of words possible.
4. You can include proper and geographical names in the common name.
5. You can include scientific names in the common name.
6. Hyphenation is rare; combining words is one option to avoid hyphenation.
7. You can request a common name by emailing the chair of the common names committee, and watch for an online option to do this from the website in the near future.

One of the main reasons for having a common names committee and an approved list of common names is to provide clarity and meaning to those common names. I am sure many of you have been asked questions regarding a spider where the person seeking information either uses a common name that you are not familiar with or one that is commonly used for multiple species. The prime example of this is Daddy-long-legs, which can be used to refer to any Opiliones, Pholcidae, or Tipulidae. Another very common example is Banana spider (Fig 1), which I have seen used to refer to *Phoneutria*, *Trichonephila* and *Trichonephila*, *Argiope*, and I am sure there are others. Without a way to consistently have common names refer to only one (or a specific group) or organisms they just add to the confusion. The committee wants to provide a standardized list of common names such that identifications made using common names can provide consistent and meaningful information. You will still get those questions from the public that refer to common names not on the list, but when we, as a community, provide information it would be helpful for it to be consistent, and we can then refer those people that are interested to the list of approved common names for their reference.

In addition to working just within the American Arachnological Society the committee works with the Entomological Society of America, and plans to reach out to other platforms such as BugGuide and iNaturalist to provide additional consistency. Please encourage your universities, colleagues, extension offices, and park districts to adopt the standardized common names as outlined by the committee, and please submit recommendations of new common names as necessary. The committee looks forward to getting suggestions for additional common names, and any feedback you would like to provide. Send these to committee chair, Sarah Rose at srose891@gmail.com.

Request for *Pholcus phalangioides*

By L. Brian Patrick

I have started a project investigating the bacterial microfauna associated with a typically common pholcid, *Pholcus phalangioides*. The main idea of the project is comparing the internal and external microfauna between different populations. To complete the project, I need freshly-collected specimens from as many populations throughout its Cosmopolitan range as possible. I would like specimens from across the USA and Canada, as well as from anywhere in the world where this species is found!

If possible, I prefer to have at least 10 specimens (20 or more is ideal), preferably mature or penultimate stages, though I will take however many someone can find and at whatever life stage. Only one specimen

per vial, please to minimize cross-contamination of external microfauna. Preferably, the specimens are preserved in high percentage (i.e., > 95%) EtOH and kept cold to help minimize DNA degradation, but, again, I will take what I can get and I realize that cold shipping is not always an option.

Specimens should include basic metadata such as latitude and longitude, collector(s), collecting date, habitat information, etc...

I can cover the costs of shipping, if necessary.

I will happily accept specimens at any time, though I prefer they be sent before Dec 15, 2019, if possible. Please contact me via email (brian.patrick@dwu.edu) to answer any questions, and for shipping information. Thank you and I appreciate any effort that anyone puts into helping me gather these specimens!

Request for Herb Levi Bio Information

By Joel Greenberg

Greetings. I am a research associate at the Field Museum and am the author of several books on natural history including *A Feathered River Across the Sky: The Passenger Pigeon's Flight to Extinction* (Bloomsbury, 2014). My current book project involves writing detailed biographies of selected deceased naturalists. One of the people I wish to include is Herbert Levi. I hope to talk to as many people as possible who knew Herb and or have thoughts on his work. If anyone would be willing to share anecdotes or insights, please email me at joelgreenberg@gmail.com. I would be most grateful.

Does the Dark Cardiac Mark on Spider Abdomens have an Ecophysiological Function?

By Hank Guarisco

I have often wondered whether the brown or black, lanceolate mark, which lies directly above the heart on the anterior dorsal aspect of the abdomen, enables spiders to warm themselves quickly. Being poikilotherms, invertebrates and reptiles have behavioral and physiological mechanisms to control body temperature. Maintaining an optimal body temperature is important for optimal immune system function, proper digestion of ingested prey items, surviving extremely warm and cold weather, and extending the active period during which hunting, courtship and predator avoidance can occur.

The function of disruptive coloration, such as the dark stripes of tigers, has been documented in many animal taxa. Contrasting dark and light markings break up the outline of the body and face, making its possessor very difficult to recognize, which confers a distinct advantage to both predators and potential prey possessing these markings. Spiders have a vast array of cryptic and disruptive patterns which make them extremely hard to detect.

One such contrasting mark that is present in a phylogenetically diverse array of spiders, is the "cardiac mark." It usually consists of a brown or black, lance-like marking with sharp edges located precisely above the heart, as in *Thanatus formicinus* (Philodromidae) (Fig. 1). Sometimes it is incorporated into a much longer medial stripe extending the length of the body, as in the wolf spider, *Rabidosa rabida* (Lycosidae) (Fig. 2). The cardiac mark is most prevalent in some genera of wolf spiders (Lycosidae), such as *Rabidosa*, *Schizocosa* and *Hogna*, and absent in other genera including *Arctosa*, *Gladicosa*, *Pardosa*, *Pirata*, *Trochosa*, and *Varacosa*.



Fig. 1. Cardiac mark on *Thanatus formicinus* (Philodromidae).



Fig. 2. *Rabidosa rabida*.



Fig. 3. *Herpyllus ecclesiasticus*.



Fig. 4. *Castianeira crocata*.

Sometimes the cardiac mark or medial stripe is white or very pale, as in *Herpyllus ecclesiasticus* (Fig. 3), *H. propinquus*, and several members of the genus *Cesonia*. *Castianeira descrita* and *C. crocata* (Fig. 4) have a red medial stripe. Could the pale stripe above the heart assist in preventing overheating?

The dark cardiac mark appears to be more prevalent in species that occupy open areas, such as prairies, old fields, pastures and woodland edges. A cursory examination of species in the genus *Schizocosa* for a correlation between microhabitat and the presence or absence of a dark cardiac mark is particularly enlightening. *S. aulonia* (Fig. 5) lives in open, sandy areas, *S. avida* (Fig. 6) and *S. mccooki* (Fig. 7) are



Fig. 5. *Schizocosa aulonia*.



Fig. 6. *Schizocosa. avida*.



Fig. 7. *Schizocosa mccooki*.



Fig. 8. *Schizocosa stridulans*.



Fig. 9. *Schizocosa. Saltatrix*.



Fig. 10. *Tigrosa annexa*.

found in prairies; while *S. ocreata*, *S. stridulans* (Fig. 8), and *S. saltatrix* (Fig.9) occur in woodlands. When I first encountered *Tigrosa annexa* (Fig.10) in short grass in the Florida Panhandle I thought it was *S. avida* until I examined the palp under the microscope. They occupy similar microhabitats.

There are many other interesting examples that could be investigated. The nurseryweb spider, *Pisaurina mira* (Pisauridae), which frequents the open forest and forest edges has two basic color morphs: a striped form (Fig.11) and a pale orange or gray form that lacks a dark, central stripe (Fig.12). Do they warm or cool at different rates? Do they occupy slightly different microhabitats?



Fig. 11. *Pisaurina mira*.

The presence of the cardiac mark or a central abdominal stripe is so widespread that it could have more than one adaptive function. In addition to assisting in camouflage, it could be important in thermoregulation. Field and laboratory studies should provide answers to this interesting question.



Fig. 12. *Pisaurina mira*, pale form.

Documenting Range Expansions of Two Species Using Community Science Participants

By Janet Kempf

In 2002, the Natural History Museum of Los Angeles County began the Los Angeles Spider Survey (LASS), inviting the public to participate as community scientists by collecting spiders in their homes and backyards. Over 6,000 spiders have been submitted to the survey to date. In 2012, the museum began the Biodiversity Science: City and Nature (BioSCAN) project. Community Scientists throughout the greater Los Angeles area were invited to join the museum's urban nature research project. Participants observe and record their observations on a monthly schedule. Each year 20 sites also hosted a malaise trap and allowed bimonthly collection of spiders at the site. The iNaturalist app and online platform have been important components of the project, allowing photo documentation of many species. Enthusiastic participation by the community has provided thousands of records from areas otherwise inaccessible to museum researchers, greatly increasing the data on urban diversity. In many cases, this has led to the identification of new species, and documented the introduction of non-native species and their range extensions over time. Two spider species, recently introduced into Southern California, have extended their ranges since they were first observed.

In 2012, *Steatoda nobilis* (Thorell 1875) (Araneae: Theridiidae; Fig. 1) was recorded in several locations in Ventura County (Vetter 2012). Since then, specimens of this species, native to the Canary Islands and now found in Great Britain, have been collected by LASS participants, during bimonthly BioSCAN spider collections and during surveys at Wind Wolves Preserve in Kern County (WWP) and the Hedrick Ranch Nature Area (HRNA) in Ventura County (see Table 1).

Steatoda nobilis has now been collected throughout the greater Los Angeles area, south to San Pedro and Gardena and east to Eagle Rock, as well as in Kern County. In addition, since the spider has a characteristic dorsal pattern, it is easy to identify from photos. Users of iNaturalist have posted over 200 photos of the spider, documenting its presence throughout the Los Angeles basin. Based on observations on iNaturalist, it appears that *S. nobilis* has expanded its range along the coast of California north to San Francisco (Fig. 2).

| Table 1. <i>Steatoda nobilis</i> Collection Data | | |
|---|-------------|--------------------|
| Location | Date | Specimens |
| Thousands Oaks | Dec-04 | 2 females |
| San Pedro | Dec-15 | 1 female |
| WWP | May-16 | 1 female, 1 imm. |
| WWP | Jun-16 | 5 females |
| Silverlake | Sep-16 | 1 male |
| WWP | Mar-17 | 2 males |
| HRNA | Apr-17 | 3 females, 1 imm. |
| Canoga Park | May-17 | 1 female |
| Hancock Park | Sep-17 | 1 female |
| Torrance | Nov-17 | 1 female |
| So. Los Angeles | Nov-17 | 1 male, 1 female |
| So. Los Angeles | Jan-18 | 1 male, 1 female |
| WWP | May-18 | 1 male, 2 females |
| Gardena | Dec-18 | 2 males, 2 females |
| Inglewood | Apr-19 | 1 female |
| Los Feliz | May-19 | 1 imm. |
| Eagle Rock | Jun-19 | 1 imm. |
| Los Feliz | Jun-19 | 1 male |
| San Pedro | Apr-19 | 1 imm. |
| Gardena | Jun-19 | 4 imm. |
| Compton | | 2 imm. |



Figure 1 *Steatoda nobilis*

The spiders have been found in habitats favored by *Steatoda grossa* and *Latrodectus hesperus* and *L. geometricus*, in both backyards and in natural areas. Wind Wolves Preserve, a Tule Elk reserve in the southern part of Kern County, extends into the northern slopes of the Tehachapi Mountains and is surrounded by natural areas and agricultural fields. Prior to 2016, *S. nobilis* was not observed in the preserve. It was first collected in 2016 on fences at a relatively isolated campground about 4 miles into a canyon where numerous *L. hesperus* had previously been observed in large numbers. Since the first *S. nobilis* were collected in 2016 very few *L. hesperus* have been observed. This was true again in 2017 and 2018. *S. nobilis* has also been collected at a second campground in the Preserve, along fences and wooden structures.

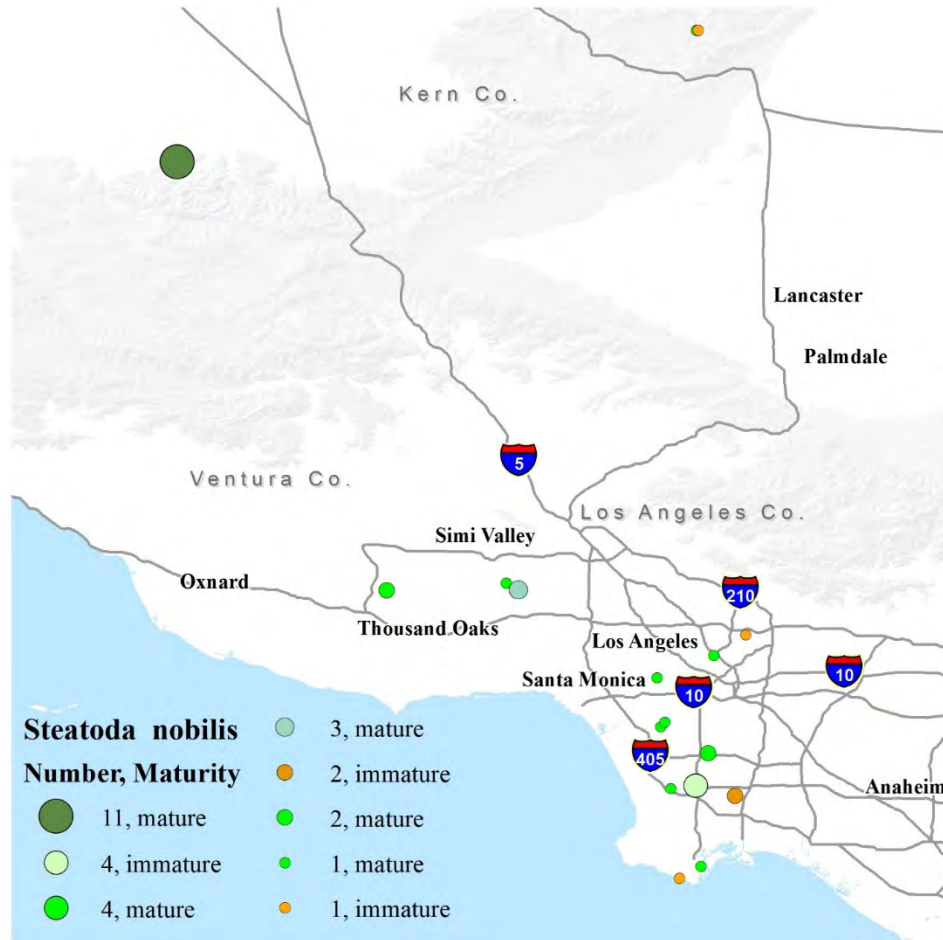


Figure 2 *Steatoda nobilis* Range Map

A second species, *Falconina gracilis* (Keyserling 1891) (Corinnidae) (Fig. 3) was first recorded in the southeastern portion of Los Angeles County and in Orange and San Diego Counties (Vetter 2103). This spider is native to South America and although it has a characteristic dorsal pattern, it is more difficult to identify from a photo. Only three records appear on iNaturalist.

Starting in 2016, sixteen spiders, 10 adults and 6 juveniles, have been collected as part of the BioSCAN project. Spiders collected in Chino Hills, La Mirada and Compton are close to the areas where the spiders were originally

collected, however the museum's Nature Garden appears to have a resident population; adults and juveniles have been collected continually since 2017 (Table 2). *F. gracilis* has been collected under boards and rocks and in leaf litter. Three probable records are posted on iNaturalist: from Long Beach, Downey and Glendale (Fig. 4).

| Location | Date | Specimens |
|-------------|--------|-----------------|
| La Mirada | Mar-16 | 1 female |
| Chino Hills | Oct-16 | 2 imm. |
| NHM | Jul-17 | 4 females |
| NHM | Jul-18 | 1 male |
| NHM | Aug-18 | 3 males, 1 imm. |
| NHM | Mar-19 | 2 males |
| Compton | Apr-19 | 1 male |
| NHM | May-19 | 1 imm. |



Fig. 3. Close-up of *Falconina gracilis*.



Figure 4. *Falconina gracilis* Range Map

Community Science projects and the iNaturalist app have the potential to greatly increase the numbers of observations of organisms as well as expanding the areas where the observations are made. Enthusiastic participants have helped document species not previously recorded, as well as newly introduced non-native species and their range expansions over time. Researchers are able to use these data to confirm identifications and direct further research.

LITERATURE CITED

- Vetter, R. S. & M. K. Rust. 2012. A large European combfoot spider, *Steatoda nobilis* (Thorell, 1875) (Araneae: Theridiidae) newly established in Ventura County, California. *The Pan-Pacific Entomologist* 88:92-97.
- Valle, S. J., C. B. Keiser, L. S. Vincent, R. S. Vetter. 2013. A South American spider, *Falconina gracilis* (Keyserling 1891) (Araneae: Corinnidae), newly established in southern California. *The Pan-Pacific Entomologist* 89(4): 259-263.

***Oecobius maculatus* Simon 1870 Distribution in North America**

By KR Schneider, S Vitanza, H Kameda and J Hollenbeck

Based on three specimens from southern and central California and images of a fourth from southern Arizona (Fig. 1), we document the presence of *Oecobius maculatus* Simon 1870 in North America and find that it appears to be widespread in at least the southwestern United States. Although three specimens were

found on or within human habitations, one was found under a rock in rural central California, greater than one kilometer from the nearest building, showing that this species is not an obligate synanthrope here. As far as we are aware, these are the first records of this species for the Western Hemisphere. We suggest that collecting *Oecobius* from other locations in North America may be useful in order to document the extent of this introduced species distribution. Diagnostic images are in Fig. 2.



Fig. 1. *Oecobius maculatus* habitus images. See under Specimens Examined for details about locales. Left: male from San Bernardino County (CASENT 9063270, KRS-2019-83); Middle: male from Colusa County (CASENT 9063271, KRS-2019-84); Right: female (CASENT 9091964, KRS-2019-104).

Specimens examined:

Oecobius maculatus: CALIFORNIA. San Bernardino Co.: Barstow, Lenwood Road, on wall, 31 May 2019, 1 ♂, KR Schneider (CASENT 9063270, KRS-2019-83). Colusa Co.: Leesville Road, N 39.1446 deg, W -122.3292 deg, under rock, 7 April 2019, 1 ♂, reared in captivity, KR Schneider (CASENT 9063271, KRS-2019-84). Santa Clara Co.: San Jose, under rug on patio, 25 August 2019, 1 ♀, H Kameda (CASENT 9091964, KRS-2019-104). ARIZONA. Santa Cruz County: Nogales, on shower curtain in home, 23 March 2019, 1 ♂, S Vitanza, images at <https://bugguide.net/node/view/1644759>, specimen discarded.

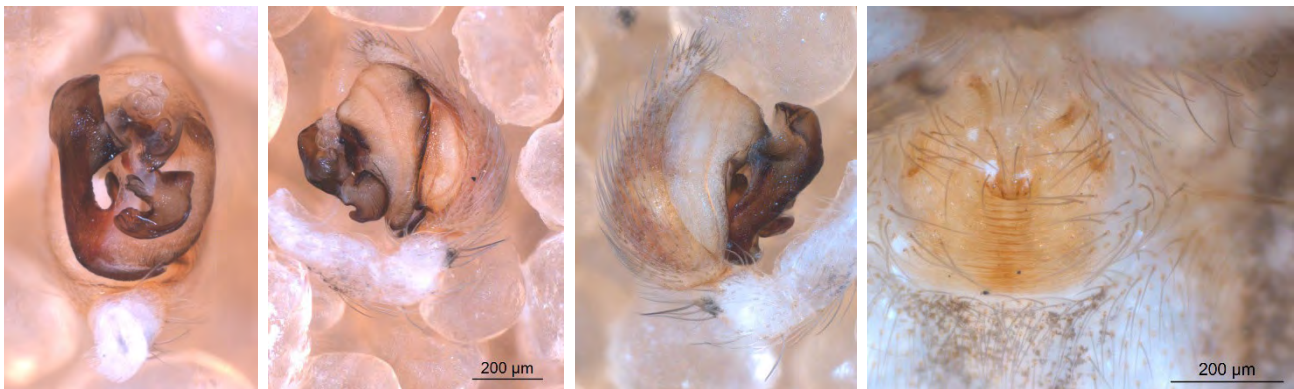


Fig. 2. Diagnostic images of *O. maculatus* genitalia from left to right: Male palp, ventral view; male palp, prolateral view; male palp, retrolateral view (CASENT 9063271, KRS-2019-84); female epigynum (CASENT 9091964, KRS-2019-104).

We thank D Ubick for help with the identification process and J Wunderlich for confirming the identification of one of the males as *O. maculatus*.

Ongoing Work on *Atypus snetsingeri*

By Sebastian Echeverri

I'd like to share the work of Steve Tessler on *Atypus snetsingeri*. He has been working with volunteer scientists to study America's only *Atypus* species, and has developed an app that allows anyone to go out

and help map the distribution of purseweb spiders: <http://www.mapthespider.com/> I encourage you to share the app with your colleagues, especially if you are in the greater Philadelphia region. I wrote a story about Tessler and *A. snetsingeri* while at the Philly Inquirer this summer: (<https://www.inquirer.com/science/volunteer-scientists-philadelphia-rare-pennsylvanian-purseweb-spider-mystery-animal-atypus-snetsingeri-20190824.html>), and it got a lot of readership in the area. While Steve was not able to make it to the 2019 AAS meeting, we should definitely invite him to the next conference! He is a passionate arachnologist and a fun person.

Arachno-Files & #SpiderTwitter

By Sebastian Echeverri

A group of professional and amateur arachnologists, including myself, have started a group blog about our favorite organisms, named Arachno-Files: <https://medium.com/arachnofiles>. We write accessible stories about arachnid research, particular species, and arachnologists themselves. Another regular feature is ArachNews, wherein Neville Park (@Neville_Park on Twitter), gathers all the news, social media, art, and research on arachnids from the past month. I think many AAS member may be interested in giving it a read, as well as sharing any items we may have missed. We welcome any AAS member interested in some science communication experience to get in touch if they would like to contribute a post, be it short or long. I can suggest some ideas, and will be there to edit your story along the way. You can email me at spiderdaynightlive@gmail.com for more info!

I would also encourage more AAS members to enjoy the wonderful community of arachnid enthusiasts on Twitter (#SpiderTwitter). Each Sunday, many of us share observations of our local arachnids with the hashtag #SpiderSunday, and throughout October, many of us are sharing arachnid photos and facts with the hashtag #Arachtober. If you are new to the platform, message me and I will introduce you to many of the fellow arachnologists already there. My Twitter is @SpiderdayNight

Newsletter Items

Send newsletter articles, announcements, and questions to Paula Cushing (Paula.Cushing@dmns.org), Secretary of the American Arachnological Society.