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Curriculum Vitae

Royce T. Cumming

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EDUCATION

Ph.D. Student, Evolutionary Biology, City University New York

American Museum of Natural History. Advisor <u>James Carpenter</u>. Fellowship in Insect Systematics working on the revision of the Phylliidae within the Richard Gilder Graduate School. Fall, 2019–present. CUNY Science Scholar Recipient.

Master of Science Degree in Applied Ecology (emphasis Forensic Entomology)

Transferred from Saint Joseph's College, Indiana after school closure to the University of Nebraska, Lincoln. Graduated, April 2019.

Bachelor of Science Degree in Business Administration

San Diego State University, San Diego, California. Graduated, December 2015. Major: Business Administration, Emphasis on Entrepreneurship.

PROFESSIONAL EXPERIENCE

- **Associate Researcher, Montreal Insectarium,** Quebec, Canada. (October 2017–Present). Working with Stephane Le Tirant, on the revision of the family Phylliidae (Phasmida).
- Curator/ Head Entomologist on Development Team, <u>Butterfly Palladium</u>, Buena Park, California. (August 2015–Present). Member of the development team working with the city of Buena Park, investors, and architects to design a 19,000 square foot live butterfly exhibit. All designs and work done under the careful scrutiny of the United States Department of Agriculture guidelines for containment of agricultural pests.
- **Technical Support Manager, BioQuip,** Rancho Dominguez, California. (February–July 2019). Assisted walk-in, phone, and email inquiries from customers for entomology equipment. Managed chemical product production. Head of California Prop 65 compliancy.
- **CA Forensic Entomologist,** California. Sole Proprietorship. Established August 2017. Offering forensic entomology case work as a private contractor to law enforcement professionals throughout the state and teaching to homicide departments.
- **Viewed/Assisted with 23 autopsies** Terre Haute Regional Hospital, Indiana. (Jan.–April 2017). Under direction of forensic pathologist Dr. Rohland Kohr,
- **Shadowed Dr. Neal H. Haskell** with four forensic entomology cases learning how to receive, log, and care for insect evidence, assist with identifications, and write case reports. (Fall, 2016).
- **Shadowed David K. Faulkner** with four forensic entomology cases in Southern California. Identifying specimens, reviewing cases files, and report writing. (2017–Present.)
- **Volunteer Entomologist,** San Diego Museum of Natural History, San Diego, California (August 2012–December 2015). Lepidopterist: duties include sorting incoming specimens and working with previously catalogued specimens searching for errors in identification or labeling inaccuracies due to current research.

PUBLICATIONS (https://www.researchgate.net/profile/Royce_Cumming)

- Cumming RT, Le Tirant S (2021). Review of the Cretaceous †Archaeatropidae and †Empheriidae and description of a new genus and species from Burmese amber (Psocoptera). *Faunitaxys* 9(16)
- Cumming RT, Bank S, Bresseel J, Constant J, Le Tirant S, Dong Z, Sonet G, Bradler S (2021). *Cryptophyllium*, the hidden leaf insects – descriptions of a new leaf insect genus and thirteen species from the former celebicum species group (Phasmatodea, Phylliidae). <u>ZooKeys</u> 1018: 179.
- Cumming RT, S. Le Tirant, S. N. Teemsma, F. H. Hennemann, L. Willemse, T. H. Buscher (2020). Lost lovers linked at long last: elusive female *Nanophyllium* mystery solved after a century of being placed in a different genus (Phasmatodea, Phylliidae). <u>ZooKeys</u> 969: 43–84.
- Cumming RT, Thurman J. H., Youngdale S. & Le Tirant S. (2020). *Walaphyllium* subgen. nov., the dancing leaf insects from Australia and Papua New Guinea with description of a new species (Phasmatodea, Phylliidae). *ZooKeys* 939: 1–28.
- Cumming RT, Baker E., Le Tirant S. & Marshall J. (2020). On the *Phyllium* Illiger, 1798 of Palawan (Philippines), with description of a new species (Phasmida: Phyllidae). *Faunitaxys*, 8(6): 1–9.
- Cumming RT & Le Tirant S. (2020). A new species of *Phyllium* Illiger, 1798, from the *celebicum* species group native to Laos (Phasmida: Phylliidae). *Faunitaxys*, 8(4): 1–9.
- Cumming RT, Bank S, Le Tirant S & Bradler S. (2020). Notes on the leaf insects of the genus *Phyllium* of Sumatra and Java, Indonesia, including the description of two new species with purple coxae (Phasmatodea, Phylliidae). *ZooKeys* 913, 89–126.
- Cumming RT, S. Le Tirant, F. H. Hennemann, (2019). A new leaf insect from Obi Island (Wallacea, Indonesia) and description of a new subgenus within *Phyllium* Illiger, 1798 (Phasmatodea: Phylliidae: Phylliinae). *Faunitaxys* 7(13): 1–9.
- Cumming RT, S. Le Tirant, F. H. Hennemann, (2019). Review of the *Phyllium* Illiger, 1798 of Wallacea, with description of a new subspecies from Morotai Island (Phasmatodea: Phylliidae: Phylliinae). *Faunitaxys* 7(4): 1–25.
- Cumming RT (2019). Spatial and Temporal Distribution of the Forensically Significant Blow Flies of Los Angeles County, California, United States (Diptera: Calliphoridae). Master's Thesis published by the Graduate College of the University of Nebraska-Lincoln, May 15th, 2019.
- Cumming RT, P. Valero Riquelme, S. N. Teemsma, (2018). Description of *Phyllium (Phyllium) conlei*, new species, and a first look at the Phylliidae (Phasmatodea) of the Lesser Sunda Islands, Indonesia. *Insecta Mundi* 0677: 1–9.
- Cumming RT, S. Le Tirant, S. N. Teemsma, (2018-b). Northern Australia record of *Nanophyllium pygmaeum* Redtenbacher, 1906, now recognized as a new species, *Nanophyllium australianum* n. sp. (Phasmida, Phylliidae): *Faunitaxys*, 6(9): 1–5.
- Cumming RT & S. N. Teemsma, (2018-b). A new species of *Phyllium* (*Phyllium*) from Micronesia, Yap Island (Phasmida: Phylliidae) representing a range expansion for the family: *Insecta Mundi* 0650: 1–9.
- Cumming RT & S. N. Teemsma, (2018-a). *Phyllium (Phyllium) letiranti* sp. nov. (Phasmida, Phylliidae) a new leaf insect from Peleng Island, Indonesia: *Insecta Mundi* 0618: 1–16.

PUBLICATIONS (continued)

- Cumming RT, S. Le Tirant, & S. N. Teemsma, (2018-a). On the *Phyllium* of Peninsular Malaysia and Sumatra, Indonesia, with range expansions for currently known species, description of the previously unknown *Phyllium* (*Pu.*) *abdulfatahi* Seow-Choen female, and description of the new species *Phyllium* (*Ph.*) *rubrum* n. sp. from Peninsular Malaysia (Phasmida: Phylliidae). *Faunitaxys*, 6(2): 1 21.
- Cumming RT & Le Tirant S., (2018). *Phyllium shurei* n. sp., a third species of leaf insect from Java, Indonesia (Phasmida, Phylliidae). *Faunitaxys*, 6(1): 1–5.
- Cumming RT, J. V. Leong, D. J. Lohman, (2017-b). Leaf insects from Luzon, Philippines, with descriptions of four new species, the new genus *Pseudomicrophyllium*, and redescription of *Phyllium* (*Phyllium*) *geryon* Gray, 1843, (Phasmida: Phylliidae): *Zootaxa* 4365 (2): 101–131.
- Cumming RT, S. Le Tirant, S. N. Teemsma, (2017-a). *Phyllium (Phyllium) brossardi* sp. nov. (Phasmida, Phylliidae), a new species of leaf insect from northern Borneo. *Insecta Mundi* 0596.
- Cumming RT (2017-b). A new species of *Phyllium (Phyllium)* Illiger, 1798 from Mindanao, Philippines (Phasmida, Phylliidae). *Zootaxa* 4303 (2): 297–300.
- Cumming RT (2017-a). A second new species of *Nanophyllium* Redtenbacher, 1906 from the northern coast of New Guinea (Phasmida, Phylliidae). Zootaxa 4238 (2): 246–248.
- Cumming RT (2016). A new species of *Nanophyllium* Redtenbacher, 1906 from the northern coast of New Guinea (Phasmida, Phylliidae). *Zootaxa* 4147 (1): 089–091.

POSTERS

"A tree of leaves" by Sarah Bank, Royce Cumming, & Sven Bradler.

112th Annual Meeting of the German Zoological Society: September 2019. Jena, Germany. Won 1st place in systematics and 2nd for all posters.

GRANT FUNDING RECEIVED

- **CUNY DSRG (Doctoral Student Research Grant).** Received \$1,465 to travel to the Bishop Museum, Hawaii to work within their collection; Spring 2021
- **PSC-CUNY** Internal Research Grant. Received \$3,500 received to purchase carotenoid standards for doctoral research chapter; Spring 2021

LECTURES

Phylliidae: History, Etymology, and Taxonomy

- -Phasmid Study Group, London: United Kingdom. January 2019. 40+ members present.
- -Royal Belgium Institute of Natural Sciences, Brussels, April 2019, 82 members present.
- -Lorquin Entomological Society, Los Angeles, California. April 2019. 40+ members present.

The Multidisciplinary use of Insects in Science

- -University of the Philippines Los Banos, Museum of Natural History. 90+ attendees [link]
- -Lehman College (CUNY) biological Sciences Research Seminars. 80 attendees

ACTIVITIES/ ORGANIZATIONS/ HONORS

- Eagle Scout/Assistant Scout Master/Merit Badge Councilor. Boy Scouts of America, Troop 101 King City, California. Eagle rank earned April 2012. Currently volunteer Assistant Scoutmaster and merit badge counselor for the insect study merit badge and personal management.
- International Association of Butterfly Exhibitors and Suppliers (<u>IABES</u>). Member and delegate to the international conferences in Marinduque, Philippines, Nov. 2015 and Mombasa, Kenya, Nov. 2018.
- **President of San Diego State Men's Crew.** Managed the largest sports club on campus with 50+ athletes, two paid coaches and 100-thousand-dollar budget. Collegiate Athlete Fall 2012-Spring 2016. President Fall 2014–Fall 2015.
- North America Forensic Entomology Association (NAFEA). Student Member (2016–Present).
- **Volunteer Master of Ceremonies** Annual San Diego Crew Classic Award Ceremonies (March 2015–April 2018).
- Phasmid Study Group PSG. Member (2020–Present). January 2019 meeting attendee
- International Union for Conservation of Nature <u>IUCN</u>; Species Survival Commission. Member "Grasshopper Specialist Group" (2021–Present).
- Entomology Society of America <u>ESA</u>. Member (2016–Present).

 Attendee of the ICE conference in St. Louis 2019 attendee, St. Louis Missouri, USA
- Entomological Collections Network <u>ECN</u>. Member (2018–Present) Attendee, St. Louis Missouri, USA (2019)

TEACHING EXPERIENCE

Dr. Haskell "Maggot School" at the "From Cradle to Cane: Investigation of Crimes Against Vulnerable Victims" in Charleston, South Carolina (March 23rd, 2017): gave indoor collection techniques lecture and taught the outdoor workshop to 13 various professionals.

University of California Riverside Extension, Forensic Entomology 3-day course. Assisting David Faulkner with lecturing and outdoor crime scene workshop. July 2016, 2017, 2018, 2019.

ICI Homicide Course, California. 2-hour indoor lecture and 1 hour outdoor practical. Includes various professions, including CHP, investigators, and other law enforcement technicians. January 2018–Present. Roseville, Seaside, Blue Lake, San Diego, and Gilroy locations. Average class size 35–40 individuals. Three to six classes per year.

5th **Grade Science Camp**, King City, California. Designed and taught a kid-friendly class on forensic entomology along with hands on learning to 200+ students. Spring, 2018 & 2019.

LAB MEETINGS

Participant in <u>Dr. David Lohman Lab</u> weekly meetings, City University New York. Weekly discussions on recently published genetic articles and weekly lectures of systematics and biogeography. From August 2019 to Present. Programs include: Sequence Matrix, BEAST, IQ-Tree, FigTree, AliView, PAUP, seaview, Mesquite, CIPRES, etc.

EPONYMY

PHASMIDA: Phylliidae; Phylliini

Phyllium (Phyllium) cummingi Seow-Choen, 2017

COLEOPTERA: Cerambycidae; Torneutini

Gigantotrichoderes cummingi Botero, Le Tirant, and Santos-Silva, 2018

CERTIFICATIONS

From Cradle to Cane: Investigation of Crimes Against Vulnerable Victims Held March 21–22nd, 2017, in Charleston, South Carolina.

Peace Officer Standards and Training (POST): Certified by the Regional Training Center, San Diego, California. Phase I: October 2017; Phase II: November 2017; Phase III: January 2018

PRESS RELEASES ABOUT MY WORK

New York Times. Imbler, S. (2020) He was a stick, she was a leaf; together they made history.

<u>Espace pour la vie Montreal, Science Blog</u>. Montreal Insectarium (2020) A 114-year-old mystery in the leaf insect world has now been solved.

Le Journal De Montreal. (2020) L'Insectarium resout un mystere de 114 ans.

Montreal Gazette. Dunlevy, T. (2020) Montreal entomologist's passion for leaf insects leads to important discovery.

WellBeing International. Rowan A., Rowan K. (2021) Unrequited Love among the Leaves! An Almost Valentine's Tale?

ENGLISH EDITOR FOR

Dufek, M. I., E. B. Oscherov, M. P. Damborsky, & P. R. Mulieri. (2019). Calliphoridae (Diptera) in Human-Transformed and Wild Habitats: Diversity and Seasonal Fluctuations in the Humid Chaco Ecoregion of South America. *Journal of Medical Entomology*, 56(3), 725–736.

Dufek, M. I., D. D. Larrea, M. P. Damborsky, & P. R. Mulieri (2020). The Effect of Anthropization on Sarcophagidae (Diptera: Calyptratae) Community Structure: An Assessment on Different Types of Habitats in the Humid Chaco Ecoregion of Argentina. *Journal of Medical Entomology*, 1–12.

PEER REVIEWER FOR

Hennemann, F. H., & O. V. Conle (2020). Studies on Neotropical Phasmatodea XXVI: *Andeocalynda* n. gen., a new genus of Andean stick insects, with the descriptions of nine new species from Colombia and Ecuador (Phasmatodea: "Anareolatae": Diapheromeridae: Diapheromerinae). *Zootaxa*, 4896 (3), 301–341.