

PRASHANT P. SHARMA

UNIVERSITY OF WISCONSIN-MADISON ·
DEPARTMENT OF INTEGRATIVE BIOLOGY ·
441 BIRGE HALL · 430 LINCOLN DRIVE · MADISON, WI 53706
PHONE (608) 890 2346 · EMAIL PSHARMA37@WISC.EDU

EDUCATION

Ph.D. Harvard University, Organismic and Evolutionary Biology May 2012
Thesis dissertation: “Systematics, evolution, and development in Opiliones”

A.B. Harvard University, Biology, *summa cum laude* June 2006

APPOINTMENTS

2022-present Director, Zoology Museum, University of Wisconsin-Madison, Department of Integrative Biology

2022-present Associate Professor, University of Wisconsin-Madison, Department of Integrative Biology

2015-2022 Assistant Professor, University of Wisconsin-Madison, Department of Integrative Biology

2016-present Zero-time faculty associate, University of Wisconsin-Madison, Department of Entomology

2016-present Cellular and Molecular Biology graduate program trainer, University of Wisconsin-Madison

2015-present J.F. Crow Institute for the Study of Evolution faculty member, University of Wisconsin-Madison

2012-2015 National Science Foundation Postdoctoral Fellow, American Museum of Natural History, Division of Invertebrate Zoology

2007-2012 Post-graduate (PhD) student, Harvard University, Department of Organismic and Evolutionary Biology

2003-2006 Undergraduate research assistant, Harvard University, Department of Organismic and Evolutionary Biology

TEACHING EXPERIENCE

INSTRUCTOR

2024 Zoology 957: Frontiers in Invertebrate Biology

2023 Introductory Biology 152 (UW-Madison)

2023 Zoology 300: Invertebrate Biology and Evolution (UW-Madison)

2023 Zoology 301: Invertebrate Biology and Evolution Lab (UW-Madison)

2022 Zoology 301: Invertebrate Biology and Evolution Lab (UW-Madison)

2021 Introductory Biology 152 (UW-Madison)

2021 Zoology 300: Invertebrate Biology and Evolution (UW-Madison)

2020 Introductory Biology 152 (UW-Madison)

2020 Zoology 957: The Evolution of Phylogenetic Methods

2019 Introductory Biology 152 (UW-Madison)

2019 Zoology 300: Invertebrate Biology and Evolution (UW-Madison)
 2019 Zoology 301: Invertebrate Biology and Evolution Lab (UW-Madison)
 2018 Introductory Biology 152 (UW-Madison)
 2018 Zoology 300: Invertebrate Biology and Evolution (UW-Madison)
 2018 Zoology 301: Invertebrate Biology and Evolution Lab (UW-Madison)
 2017 Zoology 957: Topics in the Evolutionary Developmental Biology of Animals (UW-Madison; graduate level)
 2017 Zoology 400: Topics in the Evolutionary Developmental Biology of Animals (UW-Madison; undergraduate level)
 2017 Taxonomy of Opiliones (Israeli Taxonomy Initiative, Hebrew University of Jerusalem, Israel)
 2017 Zoology 300: Invertebrate Biology and Evolution (UW-Madison)
 2017 Zoology 301: Invertebrate Biology and Evolution Lab (UW-Madison)
 2016 Introductory Biology 152 (UW-Madison)

TEACHING ASSISTANT

2012 OEB 141: Biogeography (Harvard University)
 2011 OEB 275r: Phylogeography and Geographic Variation in the Era of Genomics (Harvard University)
 2010 OEB 141: Biogeography (Harvard University)
 2009 SLS 12: Understanding Darwinism (Harvard University)

GRANTS, FELLOWSHIPS AND HONORS

GRANTS

Total research funds raised at UW-Madison: \$2,794,677

2021-2024 U.S.-Egypt Science and Technology Joint Fund, Cycle 20 (\$162,935)
 2020-2024 National Science Foundation-Binational Science Foundation (NSF-BSF), Division of Integrative and Organismal Systems (NSF IOS-2016141; \$1,798,568 [UW-Madison: \$1,476,836])
 2020-2023 Binational Science Foundation (BSF-2019216; \$240,000 [UW-Madison: \$118,100])
 2020-2022 Supplement to National Science Foundation Faculty Early Career Development Program, Division of Integrative and Organismal Systems (NSF IOS-1552610; \$79,979)
 2019-2021 Fall Research Competition, Wisconsin Alumni Research Foundation, University of Wisconsin-Madison, for pilot study on transgenic tools in spiders (\$78,407)
 2019 Company of Biologists for symposium “Growth, morphogenesis, and developmental genetics” at the 21st International Congress of Arachnology (£3,000)
 2018-2019 National Geographic Society grant for exploratory fieldwork in Israel (NGS-271R-18; \$24,167)
 2016-2022 National Science Foundation Faculty Early Career Development Program, Division of Integrative and Organismal Systems (NSF IOS-1552610; \$850,000)
 2012-2015 National Science Foundation Postdoctoral Research Fellowship in Biology, Competitive Area 2 (Intersections of Biology and Mathematical and Physical Sciences) for work on computational biogeography (NSF DBI-1202751; \$189,000)

HONORS AND AWARDS

2023 Honored Instructor, University Housing, Fall 2023
 2023 Whitman Fellow, Woods Hole Marine Biological Laboratory
 2023 Class of 1955 Teaching Excellence Award
 2022 Honored Instructor, University Housing, Fall 2022
 2021 Honorific species: *Troglosiro sharmai* Giribet and Baker, 2021
 2019 Plenary speaker at the 3rd Pan-American Society of Evolutionary Developmental Biology conference, Miami [2 August 2019]
 2019 Plenary speaker at the 21st International Congress of Arachnology, Christchurch, New Zealand [February 15, 2019]
 2016 Honorific species: †*Petrobunoides sharmai* Selden et al. 2016 (oldest known fossil of the arachnid suborder Laniatores)
 2015 Honorific species: *Austropurcellia sharmai* Boyer & Quay, 2015
 2014 Plenary speaker at the 4th Congreso Latinoamericano de Aracnología, Morelia, México (given in Spanish) [July 21, 2014]
 2013 Invited speaker at the 9th Annual University of Michigan Early Career Scientists Symposium [March 16, 2013]
 2012 Harvard University Certificate of Teaching Excellence [Fall 2011 semester]
 2012 2nd place prize for student presentation, Division of Phylogenetic and Comparative Biology, Annual Meeting of the Society for Integrative and Comparative Biology
 2010 Harvard University Certificate of Teaching Excellence [Spring 2010 semester]
 2010 2nd place prize for student presentation, 18th International Congress of Arachnology
 2010 Willi Hennig Award (1st place student presentation), Willi Hennig Society
 2008 Lars Brundin Award (2nd place student presentation), Willi Hennig Society
 2006 Phi Beta Kappa, Alpha Iota chapter [inducted June 2006]

FELLOWSHIPS

2023 Woods Hole MBL Whitman Fellowship
 2013 National Geographic Society grant for exploratory fieldwork in the Philippines
 2011 Research exchange grant, Evo-Devo-Eco Network (EDEN), for work on developmental techniques in arachnids (NSF IOS-0955517)
 2011 Student grant for attending the 3rd Latin-American Congress of Arachnology
 2011 Deakin-Royce Fellowship for study in Australia, Australian Studies Committee, Harvard University
 2010 Marie Stopes Travel Award, Willi Hennig Society
 2009 Putnam Expedition Grant, Museum of Comparative Zoology, Harvard University
 2008 Marie Stopes Travel Award, Willi Hennig Society
 2008 Putnam Expedition Grant, Museum of Comparative Zoology, Harvard University
 2008 National Science Foundation Graduate Research Fellowship, honorable mention
 2006 Exploration Fund Award, Explorers Club
 2006 Goelet Award Fund, Harvard University
 2006 Deutscher Akademischer Austausch Dienst Hochschulsommerkurs program for language study in Germany

PUBLICATIONS

†Undergraduate co-author.

PEER-REVIEWED

123. Setton, E.V.W., Ballesteros, J.A., †Błaszczuk, P.O., Klementz, B.C., **Sharma, P.P.** (in revision) A taxon-restricted duplicate of *Iroquois3* is required for patterning the spider waist. *PLoS Biology*.

122. Steiner, H.G., Aharon, S., Ballesteros, J.A., Gainett, G., Gavish-Regev, E., **Sharma, P.P.** (in review) Applying machine learning approaches to evaluate microendemism and conservation risk in cave-dwelling arachnofauna. *Conservation Genetics*.
121. de Miranda, G.S., Kulkarni, S.S., Tagliatela, J., Baker, C.M., Giupponi, A.P.L., Labarque, F.M., Gavish-Regev, E., Rix, M.G., Carvalho, L.S., Fusari, L.M., Wood, H.M., **Sharma, P.P.** (in press) The rediscovery of a relict unlocks the first global phylogeny of whip spiders (Amblypygi). *Systematic Biology*.
120. Gerges, M.M., Mehana, A.E., Rahmy, T.R., **Sharma, P.P.**, Abdel-Rahman, M.A. (2024) Cytotoxic activity and mechanism of action of Smp43 scorpion peptide against colorectal cancer cell line HCT-116. *Toxin Reviews*. (doi: doi: 10.1080/15569543.2024.2344471)
119. Gainett, G., Klementz, B.C., †Błaszczuk, P.O., Setton, Emily V.W.S., Murayama, G.P., Willemart, R., Gavish-Regev, E., **Sharma, P.P.** (2024) Vestigial organs alter fossil placements in an ancient group of terrestrial chelicerates. *Current Biology* 34:1258–1270. [Cover article][Featured in *The New York Times*][Featured on *Wisconsin Public Radio*][Featured in *Smithsonian Magazine*][Featured in *The Daily Cardinal*]
118. Gainett, G., Klementz, B.C., Setton, E.V.W., Simian, C., Iuri, H., Edgecombe, G.D., Peretti, A.V., **Sharma, P.P.** (2024) A plurality of morphological characters need not equate with phylogenetic accuracy: A rare genomic change refutes the placement of Solifugae and Pseudoscorpiones in Haplocnemata. *Evolution & Development* e12467.
117. Kulkarni, S.S., Yamasaki, T., Phung, L.T.H., Karuera, N., Daniels, S., Gavish-Regev, E., **Sharma, P.P.** (2024) Phylogenomic data reveal three new families of poorly studied camel spiders. *Molecular Phylogenetics and Evolution* 191:107989.
116. Klementz, B.C., **Sharma P.P.** (2023) New species of *Paktongius* (Opiliones: Laniatores: Assamiidae) and convergent evolution of the gonyleptoid-like habitus in Southeast Asian Assamiidae. *Zootaxa* 5389:34–54.
115. Warburg, S., Aharon, S., Armiach Steinpress, I., **Sharma, P.P.**, Harms, D., Gavish-Regev, E. (2023) Pseudoscorpions of Israel: Annotated checklist and key, with new records of two families (Arachnida: Pseudoscorpiones). *Taxonomy* 3:466–495.
114. Kulkarni, S.S., Steiner, H.G., Garcia, E.L., Iuri, H., Jones, R.R., Ballesteros, J.A., Gainett, G., Graham, M.R., Harms, D., Lyle, R., Ojanguren-Affilastro, A.A., Santibañez-López, C.E., Silva de Miranda, G., Cushing, P.E., Gavish-Regev, E., **Sharma, P.P.** (2023) Neglected no longer: Phylogenomic resolution of higher-level relationships in Solifugae. *iScience* 26:107684.
113. Santibañez-López, C.E., Ojanguren-Affilastro, A.A., Graham, M.R., **Sharma, P.P.** (2023) Congruence between ultraconserved element-based matrices and phylotranscriptomic datasets in the scorpion tree of life. *Cladistics* 39:533–547.
112. **Sharma, P.P.** (2023) The impact of whole genome duplication on the evolution of the arachnids. *Integrative and Comparative Biology* 63:825–842.
111. Gainett, G., Klementz, B.C., †Błaszczuk, P.O., Bruce, H.S., Patel, N.D., **Sharma, P.P.** (2023) Dual functions of *labial* resolve the Hox logic of chelicerate head segments. *Molecular Biology and Evolution* 40: msad037.

110. **Sharma, P.P.** (2023) Duplication and evolution of Hox clusters in Chelicerata (Arthropoda). In: Ferrier, D.E.K., Hall, B.K. (editors). *Hox modules in Evolution and Development*. Boca Raton, FL: CRC Press, Taylor Francis Group, pp. 77–102.
109. Aharon, S., Ballesteros, J.A., Gainett, G., **Sharma, P.P.**, Hawlena, D., Gavish-Regev, E. (2023) In the land of the blind: Exceptional subterranean speciation of cryptic troglobitic spiders of the genus *Tegenaria* (Araneae: Agelenidae) in Israel. *Molecular Phylogenetics and Evolution* 183: 107705.
108. Bartel, C., Dunlop, J.A., **Sharma, P.P.**, Selden, P.A., Tarasov, P.E., Ren, D. (2023) Four new laniatorean harvestmen (Arachnida: Opiliones) from mid-Cretaceous Burmese amber. *PalaeoWorld* 32: 124–135.
107. Palmieri, L., Giribet, G., **Sharma, P.P.** (2023) Too early for the ferry: The biogeographic history of the Assamiidae of southeast Asia (Chelicerata: Opiliones, Laniatores). *Molecular Phylogenetics and Evolution* 78: 107647.
106. Palmieri, L., Pavarini, R., **Sharma, P.P.** (2022) Draft genome sequence of *Candidatus Nardonella dryophthoridicola* NARMHE1, endosymbiont of *Metamasius hemipterus* (Coleoptera, Curculionidae, Dryophthorinae). *Microbiology Resource Announcements* 11: 11.
105. Palmieri Rocha, L., Chamorro, M.L., **Sharma, P.P.** (2022) Phylogenetic assessment of the *Metamasius hemipterus* species complex (Coleoptera, Curculionidae, Dryophthorinae). *Molecular Phylogenetics and Evolution* 175: 107589.
104. Baker, C.M., Ballesteros, J.A., Aharon, S., Gainett, G., Armiaich Steinpress, I., Wizen, G., **Sharma, P.P.**, Gavish-Regev, E. (2022) Recent speciation and phenotypic plasticity within a parthenogenetic lineage of Levantine whip spiders (Chelicerata: Amblypygi: Charinidae). *Molecular Phylogenetics and Evolution* 175: 107560.
103. Santibáñez-López, C.E., Aharon, S., Baker, C.M., Ballesteros, J.A., Gainett, G., González-Santillán, E., Harvey, M.S., Hassan, M.K., Monod, L., Ojanguren-Affilastro, A., Pinto-da-Rocha, R., Zvik, Y., Gavish-Regev, E., **Sharma P.P.** (2022) Phylogenomics of scorpions reveal contemporaneous diversification of scorpion mammalian predators and mammal-specific sodium channel toxins. *Systematic Biology* 71: 1281–1289.
102. *Gainett, G., *†Crawford, A.R., †Klementz, B.C., †So, C., Baker, C.M., Setton, E.V.W., **Sharma, P.P.** (2022) Eggs to longlegs: Embryonic staging of the harvestman *Phalangium opilio* (Opiliones), an emerging model arachnid. *Frontiers in Zoology* 19: 11. (*equal author contribution)
101. Ballesteros, J.A., Santibáñez-López, C.E., Baker, C.M., Benavides, L.R., Cunha, T.J., Gainett, G., Ontano, A.Z., Setton, E.V.W., Arango, C.P., Gavish-Regev, E., Harvey, M.S., Wheeler, W.C., Hormiga, G., Giribet, G., **Sharma, P.P.** (2022) Comprehensive species sampling and sophisticated algorithmic approaches refute the monophyly of Arachnida. *Molecular Biology and Evolution* 39: msac21. [Featured in *The New York Times*]
100. Ontano, A.Z., †Steiner, H.G., **Sharma P.P.** (2022) How many long branch orders occur in Chelicerata? Opposing effects of Palpigradi and Opilioacariformes on phylogenetic stability. *Molecular Phylogenetics and Evolution* 168: 107378.
99. **Sharma, P.P.**, Ballesteros, J.A., Santibáñez-López, C.E. (2021) What is an “arachnid”? Consensus, consilience, and confirmation bias in the phylogenetics of Chelicerata. *Diversity* 13: 568. [Highlighted by the journal as Editor’s Choice]

98. Gainett, G., González, V.L., Ballesteros, J.A., Setton, E.V.W., Baker, C.M., †Barolo Gargiulo, L., Santibáñez-López, C.E., Coddington, J.A., **Sharma, P.P.** (2021) The genome of a daddy-long-legs (Opiliones) illuminates the evolution of arachnid appendages and chelicerate genome architecture. *Proceedings of the Royal Society B* 288: 20211168. [Featured in *Science*] [Featured in *Nature*] [Featured in *The New York Times*] [Featured in *The Atlantic*] [Featured on *National Public Radio*]
97. Cotoras, D.D., de S. Castanheira, P., **Sharma, P.P.** (2021) A cheliceral axial duplication in the long-jawed orb-weaving spider *Tetragnatha versicolor* (Araneae: Tetragnathidae). *Development Genes and Evolution* 231: 131–139.
96. Baudouin Gonzalez, L., Schoenauer, A., Harper, A., Blakeley, G., Seiter, M., Arif, S., Sumner-Rooney, L., Russell, S., **Sharma, P.P.**, McGregor, A.P. (2021) The evolution of Sox gene repertoires and regulation of segmentation in arachnids. *Molecular Biology and Evolution* 38: 3153–3169.
95. Ontano, A.Z., Gainett, G., Aharon, S., Ballesteros, J.A., Benavides, L.R., †Corbett, K.F., Gavish-Regev, E., Harvey, M.S., Monsma, S., Santibáñez-López, C.E., Setton, E.V.W., †Zehms, J.T., Zeh, J.A., Zeh, D.W., **Sharma, P.P.** (2021) Taxonomic sampling and rare genomic changes overcome long-branch attraction in the phylogenetic placement of pseudoscorpions. *Molecular Biology and Evolution* 38: 2446–2467.
94. Setton, E.V.W., **Sharma, P.P.** (2021) A conserved role for *arrow* in the posterior segmentation of Arthropoda. *Developmental Biology* 475: 91–105.
93. *Ballesteros, J.A., *Setton, E.V.W., *Santibáñez-López, C.E., Arango, C.P., Brenneis, G., Brix, S., Cano-Sánchez, E., †Corbett, K.F., †Dandouch, M., Dilly, G.F., Eleaume, M.P., Gainett, G., Gallut, C., †McAtee, S., †McIntyre, L., Moran, A.L., †Moran, R., López-González, P.J., Scholtz, G., Williamson, C., Woods, H.A., †Zehms, J.T., Wheeler, W.C., **Sharma, P.P.** (2021) Phylogenomic resolution of sea spider diversification through integration of multiple data classes. *Molecular Biology and Evolution* 38: 686–701. (*equal author contribution) [Featured in *Science*]
92. Giribet, G., Baker, C.M., **Sharma, P.P.** (2021) A revised phylogeny of the New Caledonian endemic genus *Troglosiro* (Opiliones: Cyphophthalmi: Troglosironidae) with the description of four new species. *Invertebrate Systematics* 35: 59–89.
91. Bartel, C., Dunlop, J.A., **Sharma, P.P.**, Selden, P.A., Ren, D., Shi, C. (2021) Laniatorean harvestmen (Arachnida: Opiliones) from Late Cretaceous Burmese amber. *Cretaceous Research* 119: 104703.
90. Dehnert, G.K., Freitas, M., **Sharma, P.P.**, Barry, T., Karasov, W.H. (2021) Impacts of subchronic exposure to a commercial 2,4-D herbicide on developmental stages of multiple freshwater fish species. *Chemosphere* 263: 127638.
89. Gainett, G., Ballesteros, J.A., Kanzler, C.R., †Zehms, J.M., †Zern, J.M., Aharon, S., Gavish-Regev, E., **Sharma, P.P.** (2020) Systemic paralogy and function of retinal determination network homologs in arachnids. *BMC Genomics* 21: 811.
88. Gainett, G., Willemart, R.H., Giribet, G., **Sharma, P.P.** (2020) Convergent evolution of sexually dimorphic glands in an amphi-Pacific harvestmen family. *Invertebrate Systematics* 34: 871–892.

87. Brenneis, G., Arango, C.P., **Sharma, P.P.**, Schwentner, M. (2020) The more the merrier: unparalleled sympatric species richness in a sea spider genus (Pycnogonida, Callipallenidae, Meridionale) from Tasmanian waters. *Invertebrate Systematics* 34: 837–870. **[Cover article]**
86. Gainett, G., **Sharma, P.P.** (2020) Genomic resources and toolkits for developmental study of whip spiders (Amblypygi) provide insights into arachnid genome evolution and antenniform leg patterning. *EvoDevo* 11: 18.
85. †Schmidt, S.M., Clouse, R.M., **Sharma, P.P.** (2020) A new *Miopsalis* from Mindanao supports a biogeographic umbilicus between Borneo and the southern Philippines (Arachnida: Opiliones: Cyphophthalmi: Stylocellidae). *Zootaxa* 4779: 379–390.
84. Cano-Sánchez, E., **Sharma, P.P.**, López-González, P.J. (2020) Postembryonic development of *Nymphon australe* Hodgson, 1902 (Pycnogonida, Nymphonidae) from Antarctica. *Polar Biology* 43: 207–223.
83. Santibáñez-López, C.E., Ojanguren-Affilastro, A.A., **Sharma, P.P.** (2020) Another one bites the dust: Taxonomic sampling of a key genus in phylogenomic datasets reveals more nonmonophyletic groups in traditional scorpion classification. *Invertebrate Systematics* 34: 133–143.
82. Nolan, E.D., Santibáñez-López, C.E., **Sharma P.P.** (2020) Developmental gene expression as a phylogenetic data class: Support for the monophyly of Arachnoplumonata. *Development Genes and Evolution* 230: 137–153. **[Cover article]**
81. Ballesteros, J.A., Santibáñez-López, C.E., Kovác, L., Gavish-Regev, E., **Sharma, P.P.** (2019) Ordered phylogenomic subsampling enables diagnosis of systematic errors in the placement of the enigmatic, long branch arachnid order Palpigradi. *Proceedings of the Royal Society B* 286: 20192426.
80. Santibáñez-López, C.E., Graham, M.R., **Sharma, P.P.**, Ortiz, E., Possani, L.D. (2019) Hadrurid scorpion toxins: Evolutionary conservation and selective pressures. *Toxins* 11: 637. **[Cover article]**
79. Aharon, S., Ballesteros, J.A., †Crawford, A.R., †Friske, K., Gainett, G., Langford, B., Gavish-Regev, E., **Sharma, P.P.** (2019) The anatomy of an unstable node: a Levantine relict precipitates phylogenomic dissolution of higher-level relationships of the armoured harvestmen (Arachnida: Opiliones: Laniatores). *Invertebrate Systematics* 33: 697–717. **[Cover article]**
78. Setton, E.V.W., Hendrixson, B.E., **Sharma, P.P.** (2019) Embryogenesis in a Colorado population of *Aphonopelma hentzi* (Girard, 1854). *Journal of Arachnology* 47: 209–216. **[Cover article]**
77. Santibáñez-López, C.E., González-Santillán, E., Monod, L., **Sharma, P.P.** (2019) Phylogenomics facilitates stable scorpion systematics: Reassessing the relationships of Vaejovidae and a new high-level classification of Scorpiones (Arachnida). *Molecular Phylogenetics and Evolution* 135: 22–30.
76. Gainett, G., **Sharma, P.P.**, Fernandes, N., Pinto-da-Rocha, R., Giribet, G., Willemart, R.H. (2019) Evolution of a sensory cluster on the legs of Opiliones (Arachnida) informs multi-level phylogenetic relationships. *Zoological Journal of the Linnean Society* 187: 143–165.
75. Ballesteros, J.A., **Sharma, P.P.** (2019) A critical appraisal of the placement of Xiphosura (Chelicerata) with account of known sources of phylogenetic error. *Systematic Biology* 68: 896–917. **[Cover article] [Featured in National Geographic]**

74. **Sharma, P.P.** (2019) Integrating morphology and phylogenomics supports a terrestrial origin of insect flight. *Proceedings of the National Academy of Sciences of the USA* 116: 2796–2798.
73. †Schmidt, S.M., Buenavente, P.A.C., Blatchley, D.D., Diesmos, A.C., Diesmos, M.L., General, D.E.M., Mohagan, A.B., Mohagan, D.J., Clouse, R.M., **Sharma, P.P.** (2019) A new species of Tithaeidae (Arachnida: Opiliones: Laniatores) from Mindanao reveals contemporaneous colonization of the Philippines by Sunda Shelf opiliofauna. *Invertebrate Systematics* 33: 237–251.
72. Santibáñez-López, C.E., Kriebel, R., Ballesteros, J.A., Rush, N., Witter, Z., Williams, J., Janies, D., **Sharma, P.P.** (2018) Integration of phylogenomics and molecular modeling reveals lineage-specific diversification of toxins in scorpions. *PeerJ* 6: e5902.
71. Zhang, C., Zhang F., **Sharma, P.P.** (2018) Two new species of *Petrobunus* Sharma & Giribet, 2011 from China (Opiliones: Laniatores: Petrobunidae). *Zootaxa* 4524: 51–64.
70. †March, L.M., †Smaby, R.M., †Setton, E.V.W., **Sharma, P.P.** (2018) The evolution of selector gene function: Expression dynamics and regulatory interactions of *tiptop/teashirt* across Arthropoda. *Evolution and Development* 20: 219–232.
69. Sharma, P.P. (2018) Chelicerates. *Current Biology* 28: R761–R783.
68. †Oberski, J.T., **Sharma, P.P.**, †Jay, K.R., †Coblens, M.J., †Lemon, K.A., †Johnson, J.E., Boyer, S.L. (2018) A dated molecular phylogeny of mite harvestmen (Arachnida: Opiliones: Cyphophthalmi) elucidates ancient diversification dynamics in the Australian Wet Tropics. *Molecular Phylogenetics and Evolution* 127: 813–822.
67. Leite, D.J., Baudouin-Gonzalez, L., Iwasaki-Yokozawa, S., Lozano-Fernandez, J., Turetzek, N., Akiyama-Oda, Y., Pisani, D., Oda, H., **Sharma, P.P.**, McGregor, A.P. (2018) Homeobox gene duplication and divergence in arachnids. *Molecular Biology and Evolution* 35: 2240–2253.
66. Gainett G., **Sharma P.P.**, Giribet, G., Willemart, R.H. (2018) The sensory equipment of a sandokanid: the extreme case of tarsal reduction in a harvestman (Arachnida, Opiliones). *Journal of Morphology* 279: 1206–1223.
65. Di, Z., Edgecombe, G.D., **Sharma, P.P.** (2018) Homeosis in a scorpion supports a telopodal origin of pectines and book lungs. *BMC Evolutionary Biology* 18: 73.
64. Santibáñez-López, C.E., Ontano, A.Z., Harvey, M.S., **Sharma, P.P.** (2018) Transcriptomic analysis of pseudoscorpion venom reveals a unique cocktail dominated by enzymes and protease inhibitors. *Toxins* 10: 207.
63. †Setton, E.V.W., **Sharma, P.P.** (2018) Cooption of an appendage patterning gene cassette in the head segmentation of arachnids. *Proceedings of the National Academy of Sciences of the USA* 115: E3491–E3500.
62. Gainett, G., **Sharma, P.P.**, Giribet, G., Willemart, R.H. (2018) Putative adhesive setae on the walking legs of the Australian harvestman *Metibalonius* sp. (Arachnida: Opiliones: Podoctidae). *Journal of Arachnology* 46: 62–68.
61. **Sharma, P.P.**, Baker, C.M., Cosgrove, J.G., †Johnson, J.E., †Oberski, J.T., Raven, R.J., Harvey, M.S., Boyer, S.L., Giribet, G. (2018) A revised dated phylogeny of scorpions: Phylogenomic support

for ancient divergence of the temperate Gondwanan family Bothriuridae. *Molecular Phylogenetics and Evolution* 122: 37–45.

60. Garb, J.E., **Sharma, P.P.**, Ayoub, N.A. (2018) Recent progress and prospects for advancing arachnid genomics. *Current Opinions in Insect Science* 25: 51–57.

59. Lewis, S.H., Quarles, K.A., Yang, Y., Tanguy, M., Frézal, L., Smith, S., **Sharma, P.P.**, Cordaux, R., Gilbert, C., Giraud, I., Collins, D.H., Zamore, P.D., Miska, E.A., Sarkies, P., Jiggins, F.M. (2018) Panarthropod evolutionary analysis identifies somatic piRNAs as an ancestral TE defence module. *Nature Ecology and Evolution* 2: 174–181.

58. Daniels, S.R., Dreyer, M., **Sharma, P.P.** (2017) Contrasting the population genetic structure of two velvet worm taxa (Onychophora: Peripatopsidae: *Peripatopsis*) in forest fragments along the southeastern Cape, South Africa. *Invertebrate Systematics* 31: 781–796.

57. **Sharma, P.P.** (2017) Chelicerates and the conquest of land: A view of arachnid origins through an evodevo spyglass. *Integrative and Comparative Biology* 57: 510–522.

56. *Schwager, E.E., ***Sharma, P.P.**, *Clarke, T., *Leite, D.J., *Wierschin, T., Pechmann M., Akiyama-Oda, Y., Esposito, L., Arensbürger, P., Bechsgaard, J., Bilde, T., Buffry, A., Chao, H., Dinh, H., Doddapaneni, H., Dugan, S., Eibner, C., Extavour, C.G., Funch, P., Garb, J., Gonzalez, V.L., Griffiths-Jones, S., Han, Y., Hayashi, C., Hilbrant, M., Hughes, D.S.T., Janssen, R., Lee, S.L., Maeso, I., Murali, S.C., Muzny, D.M., da Fonseca, R.N., Qu, J., Ronshaugen, M., Schomburg, C., Schönauer, A., Stollewerk, A., Torres-Oliva, M., Turetzek, N., Vanthournout, B., Werren, J., Wolff, C., Worley, K.C., Gibbs, R.A., Coddington, J., Oda, H., Stanke, M., Ayoub, N.A., Damen, W.G.M., Prpic, N.-M., Flot, J.-F., Posnien, N., Richards, S., McGregor, A.P. (2017) The house spider genome reveals a whole genome duplication during arachnid evolution. *BMC Biology* 15: 62. (*equal author contribution)

55. †Setton, E.V.W., †March, L.E., †Nolan, E.D., Jones, T.E., Cho, H., Wheeler, W.C., Extavour, C.G., **Sharma, P.P.** (2017) Expression and function of *spineless* orthologs correlate with distal deutocerebral appendage morphology in Arthropoda. *Developmental Biology* 430: 224–236.

54. Clouse, R.M., Branstetter, M.G., Buenaente, P.A.C., Crowley, L.M., Czekanski-Moir, J., General, D.E.M., Giribet, G., Harvey, M.S., Janies, D.A., Mohagan, A.B., **Sharma, P.P.**, Wheeler, W.C. (2017) First molecular phylogeny of two arachnid orders (Schizomida and Uropygi) supports a tropical Pangean origin and mid-Cretaceous diversification. *Journal of Biogeography* 44: 2660–2672. [Cover article]

53. **Sharma P.P.**, Oberski, J.T., †Santiago, M.A., Ricardo Kriebel, †Savana M. Lipps, Buenaente, P.A.C., Diesmos, A.C., Janda, M., Boyer, S.L., Clouse, R.M., Wheeler, W.C. (2017) There is no evidence that Podocetidae carry eggs of their own species: Reply to Machado and Wolff (2017). *Molecular Phylogenetics and Evolution* 129: 349–353.

52. Santibañez-López, C.E., Kriebel, R., **Sharma, P.P.** (2017) *eadem figura manet*: Measuring morphological convergence in diplocentrid scorpions (Arachnida: Scorpiones: Diplocentridae) under a multilocus phylogenetic framework. *Invertebrate Systematics* 31: 233–248. [Cover article]

51. Fernández, R., **Sharma, P.P.**, Tourinho, A.L.M., Giribet, G. (2017) The Opiliones Tree of Life: shedding light on harvestmen relationships through transcriptomics. *Proceedings of the Royal Society of London B: Biological Sciences* 284: 20162340.

50. **Sharma P.P.**, †Santiago, M.A., Kriebel, R. †Lipps, S.M., Buenavente, P.A.C., Diesmos, A.C., Janda, M., Boyer, S.L., Clouse, R.M., Wheeler, W.C. (2017) A multilocus phylogeny of Podoctidae (Arachnida, Opiliones, Laniatores) reveals the disutility of subfamily nomenclature in armored harvestman systematics. *Molecular Phylogenetics and Evolution* 106: 164–173.
49. Iyer, H., Issigonis, M., **Sharma, P.P.**, Extavour, C.G., Newmark, P.A. (2016) A novel pre-meiotic function for *boule* in the planarian *Schmidtea mediterranea*. *Proceedings of the National Academy of Sciences of the USA* 113: E3509–E3518.
48. †Jay, K.R., Popkin-Hall, Z.R., †Coblens, M.J., †Oberski, J.T., **Sharma, P.P.**, Boyer, S.L. (2016) New species of *Austropurcellia*, cryptic short-range endemic mite harvestmen (Arachnida, Opiliones, Cyphophthalmi) from Australia's Wet Tropics biodiversity hotspot. *Zookeys* 586: 37–53.
47. **Sharma, P.P.**, Clouse, R.M., Wheeler, W.C. (2016) Hennig's semaphoront concept and the use of ontogenetic stages in phylogenetic reconstruction. *Cladistics* 33: 93–108.
46. Daniels, S.R., Kunaka, C., Klaus, S., **Sharma, P.P.** (2016) Spectacular cryptic diversity in a widespread ancient panarthropod (Onychophora: Peripatopsidae: *Opisthopatus cinctipes*) reveals the intricacies of delineating species boundaries. *Cladistics* 32: 506–537. [Cover article]
45. Giribet, G., Boyer, S.L., Baker, C.M., Fernández, R., **Sharma P.P.**, de Bivort, B.L., Daniels, S.R., Harvey, M.S., Neethling, J.A., Griswold, C.E. (2016) A molecular phylogeny of the temperate Gondwanan family Pettalidae (Arachnida, Opiliones, Cyphophthalmi) and the limits of taxonomic sampling. *Zoological Journal of the Linnean Society* 178: 523–545.
44. Pérez-González, A., **Sharma, P.P.**, Proud, D.N. (2016). Morphological tricks and blessed genitalia: rectifying the familial placement of *Fijicolana tuberculata* (Opiliones: Laniatores: Zalmoxidae). *Zootaxa* 4061: 253–260.
43. Clouse, R.M., **Sharma, P.P.**, †Stuart, J.C., Davis, L.R., Giribet, G., Sarah, S.L., Wheeler, W.C. (2016) Phylogeography of the harvestman *Metasiro* (Arthropoda, Arachnida, Opiliones) reveals a potential solution to the Pangean paradox. *Organisms, Diversity and Evolution* 16: 167–184.
42. **Sharma, P.P.**, †Santiago, M.A., González-Santillán, E., Monod, L., Wheeler, W.C. (2015) Evidence of duplicated Hox genes in the most recent common ancestor of extant scorpions. *Evolution and Development* 17: 347–355.
41. Clouse, R.M., Janda, M., Blanchard, B., **Sharma, P.**, Hoffman, B.D., Andersen, A.N., Czekanski-Moir, J.E., Krushelnycky, P., Rabeling, C., Wilson, E.O., Economo, E.P., Sarnat, E.M., General, D.M., Alpert, G.D., Wheeler, W.C. (2015) Molecular phylogeny of Indo-Pacific carpenter ants (Hymenoptera: Formicidae: *Camponotus*) reveals waves of dispersal and colonization from diverse source areas. *Cladistics* 31: 424–437. [Cover article]
40. Schwager, E.E., Schönauer, A., Leite, D.J., **Sharma, P.P.**, McGregor, A.P. (2015) Chelicerata. In: Wanninger, A. (editor) *Evolutionary Developmental Biology of Invertebrates, Vol. 3: Ecdysozoa I: Non-Tetraconata*. Heidelberg: Springer.
39. **Sharma, P.P.**, Tarazona, O.A., Lopez, D.H., Schwager, E.E., Cohn, M.J., Wheeler, W.C., Extavour, C.G. (2015) A conserved genetic mechanism specifies deutocerebral appendage identity in insects and arachnids. *Proceedings of the Royal Society of London B: Biological Sciences* 282: 20150698.

38. **Sharma, P.P.**, Fernández, R., Esposito, L., González-Santillán, E., Monod, L. (2015). Phylogenomic resolution of scorpions reveals multilevel discordance with morphological phylogenetic signal. *Proceedings of the Royal Society of London B: Biological Sciences* 282: 20142953.
37. Giribet, G., **Sharma, P.P.** (2015) Evolutionary biology of harvestmen (Arachnida, Opiliones). *Annual Reviews of Entomology* 60: 157–175.
36. **Sharma, P.P.**, Kaluziak, S.T., Pérez-Porro, A.R., González, V.L., Hormiga, G., Wheeler, W.C., Giribet, G. (2014) Phylogenomic interrogation of Arachnida reveals systemic conflicts in phylogenetic signal. *Molecular Biology and Evolution* 31:2963–2984.
35. **Sharma, P.P.**, Wheeler, W.C. (2014) Cross-bracing uncalibrated nodes in molecular dating improves congruence of fossil and molecular age estimates. *Frontiers in Zoology* 11:57.
34. **Sharma, P.P.**, Schwager, E.E., Extavour, C.G., Wheeler, W.C. (2014) Hox gene duplications correlate with posterior heteronomy in scorpions. *Proceedings of the Royal Society of London B: Biological Sciences* 281:20140661.
33. **Sharma, P.P.**, Giribet, G. (2014) A revised, dated phylogeny of the arachnid order Opiliones. *Frontiers in Genetics* 5: 255.
32. Fernández, R., Vahtera, V., Laumer, C.E., Libro, S., Kaluziak, S.T., **Sharma, P.P.**, Pérez-Porro, A.R., Edgecombe, G.D., Giribet, G. (2014) Evaluating topological conflict in centipede phylogeny using transcriptomic data sets. *Molecular Biology and Evolution* 31: 1500–1513.
31. *Garwood, R., ***Sharma, P.P.**, Dunlop, J.A., Giribet, G. (2014) A Paleozoic Stem Group to Mite Harvestmen Revealed through Integration of Phylogenetics and Development. *Current Biology* 24: 1017–1023. (*equal author contribution) [Featured in *National Geographic*]
30. Bieler, R., Mikkelsen, P.M., Collins, T.M., Glover, E.A., González, V.L., Graf, D.L., Harper, E.M., Healy, J., Kawauchi, G.Y., **Sharma, P.P.**, Staubach, S., Strong, E.E., Taylor, J.D., Temkin, I., Zardus, J.D., Clark, S., Guzmán, A., McIntyre, E., Sharp, P., Giribet, G. (2014) Investigating the Bivalve Tree of Life—an exemplar-based approach combining molecular and novel morphological characters. *Invertebrate Systematics* 28: 32–115. [Cover article]
29. **Sharma, P.P.**, Gupta, T., Schwager, E.E., Wheeler, W.C., Extavour, C.G. (2014) Subdivision of arthropod *cap-n-collar* expression domains is restricted to Mandibulata. *EvoDevo* 5: 3.
28. †Gainett, G., **Sharma, P.P.**, Pinto-da-Rocha, R., Giribet, G., Willemart, R.H. (2014) Walk it off: Predictive power of appendicular characters toward inference of higher-level relationships in Laniatores (Arachnida: Opiliones). *Cladistics* 30: 120–138. [Cover article]
27. Riesgo, A., Novo, M., **Sharma, P.P.**, †Peterson, M., Maldonado, M., Giribet, G. (2014) Inferring the ancestral sexuality and reproductive condition in sponges (Porifera). *Zoologica Scripta* 43: 101–117.
26. **Sharma, P.P.**, Zardus, J.D., Boyle, E.E., González, V.L., Jennings, R.M., McIntyre, E., Wheeler, W.C., Etter, R.J., Giribet, G. (2013) Into the deep: A phylogenetic approach to the bivalve subclass Protobranchia. *Molecular Phylogenetics and Evolution* 69: 188–204.
25. Clouse, R.M., **Sharma, P.P.**, Giribet, G., Wheeler, W.C. (2013) Elongation factor-1 α , a putative

single-copy nuclear gene, has divergent sets of paralogs in an arachnid. *Molecular Phylogenetics and Evolution* 68: 471–481.

24. **Sharma, P.P.**, Wheeler, W.C. (2013) Revenant clades in historical biogeography: the geology of New Zealand predisposes endemic clades to root age shifts. *Journal of Biogeography* 40: 1609–1618.

23. **Sharma, P.P.**, Schwager, E.E., Giribet, G., Jockusch, E.L., Extavour, C.G. (2013) *Distal-less* and *dachshund* pattern both plesiomorphic and apomorphic structures in chelicerates: RNA interference in the harvestman *Phalangium opilio* (Opiliones). *Evolution and Development* 15: 228–242. [Cover article]

22. Riesgo, A., Andrade, S.C.S., **Sharma, P.P.**, Novo, M., Pérez-Porro, A.R., Vahtera, V., González, V.L., Kawauchi, G.Y., Giribet, G. (2012) Comparative description of ten transcriptomes of newly sequenced invertebrates and efficiency estimation of genomic sampling in non-model taxa. *Frontiers in Zoology* 9: 33.

21. **Sharma, P.P.**, Schwager, E.E., Extavour, C.G., Giribet, G. (2012) Evolution of the chelicera: a *dachshund* domain is retained in the deutocerebral appendage of Opiliones (Arthropoda, Chelicerata). *Evolution and Development* 14: 522–533. [Recommended by Faculty of 1000]

20. **Sharma, P.P.**, Schwager, E.E., Extavour, C.G., Giribet, G. (2012) Hox gene expression in the harvestman *Phalangium opilio* reveals divergent patterning of the chelicerate opisthosoma. *Evolution and Development* 14: 450–463.

19. **Sharma, P.P.**, González, V.L., Kawauchi, G.Y., Andrade, S.C.S., Guzmán, A., Collins, T.M., Glover, E.A., Harper, E.M., Healy, J.M., Mikkelsen, P.M., Taylor, J.D., Bieler, R., Giribet, G. (2012) Phylogenetic analysis of four protein-encoding genes largely corroborates the traditional classification of Bivalvia (Mollusca). *Molecular Phylogenetics and Evolution* 65: 64–74.

18. **Sharma, P.P.**, Giribet, G. (2012) Out of the Neotropics: Late Cretaceous colonization of Australasia by American arthropods. *Proceedings of the Royal Society of London B: Biological Sciences* 279: 3501–3509. [Featured in the *Harvard Gazette*] [Highlighted in *Nature*]

17. **Sharma, P.P.**, Buenavente, P.A.C., Clouse, R.M., Diesmos, A.C., Giribet, G. (2012) Forgotten gods: Zalmoxidae of the Philippines and Borneo (Opiliones: Laniatores). *Zootaxa* 3280: 29–55.

16. **Sharma, P.P.** (2012) New Australasian Zalmoxidae (Opiliones: Laniatores) and a new case of male polymorphism in Opiliones. *Zootaxa* 3236: 1–35.

15. Kawauchi, G.Y., **Sharma, P.P.**, Giribet, G. (2012) Sipunculan phylogeny based on six genes, with a new classification and the descriptions of two new families. *Zoologica Scripta* 41: 186–210.

14. Giribet, G., **Sharma, P.P.**, Benavides, L.R., Boyer, S.L., Clouse, R.M., de Bivort, B.L., Kawauchi, G.Y., Murienne, J., Schwendinger, P.J. (2012) Evolutionary and biogeographic history of the harvestman suborder Cyphophthalmi (Arachnida, Opiliones) – an ancient and global group of arachnids. *Biological Journal of the Linnean Society* 105: 92–130.

13. **Sharma, P.P.**, Prieto, C.E., Giribet, G. (2011) A new family of Laniatores (Arachnida: Opiliones) from the Afrotropics. *Invertebrate Systematics* 25: 143–154.

12. **Sharma, P.P.**, Giribet, G. (2011) The evolutionary and biogeographic history of the armoured harvestmen—Laniatores phylogeny based on ten molecular markers, with the description of two new families of Opiliones (Arachnida). *Invertebrate Systematics* 25: 106–142. **[Cover article]**
11. **Sharma, P.P.**, Vahtera, V., Kawauchi, G., Giribet, G. (2011) Running wILLD: The case for exploring mixed parameter sets in sensitivity analysis. *Cladistics* 27: 538–549.
10. **Sharma, P.P.**, Kury, A.B., Giribet G. (2011) The Zalmoxidae (Arachnida: Opiliones: Laniatores) of the Paleotropics: a catalogue of Southeast Asian and Indo-Pacific species. *Zootaxa* 2972: 37–58.
9. Giribet, G., Vogt, L., González, A.P., **Sharma, P.**, Kury, A.B. (2010) A multilocus approach to harvestmen (Arachnida: Opiliones) phylogeny with emphasis on biogeography and the systematics of Laniatores. *Cladistics* 26: 408–437.
8. **Sharma, P.**, Giribet, G. (2009) Sandokanid phylogeny based on eight molecular markers—The evolution of a southeast Asian endemic family of Laniatores (Arachnida, Opiliones). *Molecular Phylogenetics and Evolution* 52: 432–447.
7. **Sharma, P.**, Giribet, G. (2009) A relict in New Caledonia: phylogenetic relationships of the family Troglósironidae (Opiliones: Cyphophthalmi). *Cladistics* 25: 279–294.
6. **Sharma, P.**, Karunarathna, I., Giribet, G. (2009) On the endemic Sri Lankan genus *Pettalus* (Opiliones, Cyphophthalmi, Pettalidae) with the description of a new species and a discussion on the magnitude of its diversity. *The Journal of Arachnology* 37: 60–67.
5. **Sharma, P.P.**, Giribet, G. (2009) The family Troglósironidae (Opiliones: Cyphophthalmi) of New Caledonia. In: Zoologia Neocaledonica 6, Systematics and Biodiversity in New Caledonia. *Mémoires du Muséum National d'Histoire Naturelle* 196: 83–123.
4. Giribet, G., **Sharma, P.P.**, Bastawade, D. (2007) A new genus and species of Cyphophthalmi (Arachnida, Opiliones) from the north-eastern states of India. *Zoological Journal of the Linnean Society* 151: 663–670.
3. Boyer, S.L., Clouse, R.M., Benavides, L.R., **Sharma, P.**, Schwendinger, P.J., Karunarathna, I., Giribet, G. (2007) Biogeography of the world: a case study of globally distributed arachnids. *Journal of Biogeography* 34: 2070–2085.
2. **Sharma, P.**, Giribet, G. (2006) A new *Pettalus* species (Opiliones, Cyphophthalmi, Pettalidae) from Sri Lanka with a discussion on the evolution of eyes in Cyphophthalmi. *The Journal of Arachnology* 34: 331–341.
1. **Sharma, P.**, Giribet, G. (2005) A new *Troglósiro* species (Opiliones, Cyphophthalmi, Troglósironidae) from New Caledonia. *Zootaxa* 1053: 47–60.

PRESENTATIONS

INVITED LECTURES

- 2023 22st International Congress of Arachnology, Montevideo, Uruguay, symposium speaker (“Solifugae: current knowledge and future directions”) [March 2023]

- 2023 Annual Meeting of the Society of Integrative and Comparative Biology, Austin, TX, symposium speaker (“Paths to adulthood: How early life experiences shape organismal form and function”) [January 2023]
- 2022 Ecology and Evolutionary Biology Seminar Series, Indiana University, Bloomington, IN [December 2022]
- 2022 European Congress of Arachnology, Greifswald, Germany, symposium speaker (“Phylogeny and Evolution of Chelicerata”) [September 2022]
- 2022 Entomology seminar series, Cornell University, NY [September 2022]
- 2022 Evolutionary Biology Seminar Series, University of Bristol, Bristol, UK [June 2022]
- 2022 Ecology and Evolutionary Biology seminar series, Cornell University, NY [February 2022]
- 2021 Biology Colloquium, University of Wisconsin-Madison, WI (tenure talk) [September 2021]
- 2021 School of Biological Sciences Seminar Series, University of Nebraska-Lincoln, Lincoln, NE [September 2021]
- 2021 Entomology Seminar Series, Department of Entomology, University of Wisconsin-Madison, WI [February 2021]
- 2020 VI Latin American Congress of Arachnology, virtual symposium: *Evolutionary Developmental Biology (Evo-Devo) in Arachnida* [December 2020]
- 2020 I Meeting of the Society for Systematics, Biogeography, and Evolution, virtual symposium: *Diversity and phenotypic evolution* [July 2020]
- 2019 Department of Genetics retreat, University of Wisconsin-Madison, WI [September 2019]
- 2019 Biology Seminar Series, University of Alabama, Tuscaloosa, AL [August 2019]
- 2019 3rd Pan-American Society of Evolutionary Developmental Biology meeting, University of Miami, FL (plenary speaker) [August 2019]
- 2019 Biology Seminar Series, Lawrence University, Appleton, WI [May 2019]
- 2019 21st International Congress of Arachnology, Christchurch, New Zealand (keynote address) [February 2019]
- 2017 EEOB Department Seminar, Ohio State University, Columbus, OH [September 2017]
- 2017 Biology Seminar Series, Western Australian Museum, Perth, Australia [August 2017]
- 2017 Biology Seminar Series, Department of Ecology, Evolution and Behavior, Hebrew University of Jerusalem, Israel [June 2017]
- 2017 Annual Meeting of the Society of Integrative and Comparative Biology, New Orleans, LA, symposium participant (“The Evolution of Arthropod Body Plans”) [January 2017]
- 2016 Genetics Seminar Series, Department of Genetics, University of Wisconsin-Madison, WI [December 2016]
- 2016 qBio Seminar Series, Systems Biology Cluster, University of Wisconsin-Madison, WI [November 2016]
- 2016 Wisconsin Ecology 20th Annual Fall Symposium, University of Wisconsin-Madison, WI [October 2016]
- 2016 Evolution Seminar Series, J.F. Crow Institute, University of Wisconsin-Madison, WI [April 2016]
- 2016 Entomology Seminar Series, Department of Entomology, University of Wisconsin-Madison, WI [April 2016]
- 2015 Biology Colloquium, University of Wisconsin-Madison, WI [November 2015]
- 2015 Fourth Tuesday scientists group, Madison, WI [September 2015]
- 2015 OEB 141: Biogeography, Harvard University [March 2015]
- 2015 Bioinformatics and Genomics Departmental Seminar Series, University of North Carolina-Charlotte [February 6, 2015]

- 2014 MCZ Lunch Seminar Series, Harvard University [November 2014]
- 2014 Biology Seminar Series, George Washington University [October 2014]
- 2014 4th Congreso Latinoamericano de Aracnología, Morelia, México (keynote address, given in Spanish) [July 21, 2014]
- 2014 University of Santo Tomas, Manila, Philippines [May 2014]
- 2014 Biology Colloquium, University of Wisconsin-Madison, WI [March 2014]
- 2014 AMNH Comparative Biology Seminar, New York, NY [February 2014]
- 2013 Gilder Graduate School, American Museum of Natural History, New York, NY [December 2013]
- 2013 9th Annual University of Michigan Early Career Scientists Symposium, Ann Arbor, MI [March 2013]
- 2013 First International SpiderWeb meeting for the annotation of the *Parasteatoda* genome, Oxford Brookes University, UK [February, 2013]
- 2012 Biology Colloquium, University of Massachusetts at Lowell, MA [October 2012]
- 2012 AMNH Comparative Biology Seminar, New York, NY [October 2012]
- 2012 OEB 141: Biogeography, Harvard University [February 2012]
- 2011 3rd Latin-American Congress of Arachnology, Armenia, Colombia [December 2011]
- 2010 Marine Lab, University of Guam [September 2010]
- 2010 Palawan State University, Puerto Princesa, Philippines [August 2010]
- 2010 OEB 141: Biogeography, Harvard University [February 2010]
- 2010 VI Meeting of the Southern Connection Congress, Argentina [February 2010]

CONFERENCE PRESENTATIONS

- 2024 Annual Meeting of the Society of Integrative and Comparative Biology, Seattle, Washington (one talk)
- 2023 Annual Meeting of the Society of Integrative and Comparative Biology, Austin, Texas (one talk)
- 2022 Annual Meeting of the Society of Integrative and Comparative Biology, Phoenix, Arizona (one talk)
- 2021 Annual Meeting of the American Arachnological Society, virtual (one talk)
- 2020 Annual Meeting of the Society of Integrative and Comparative Biology, Austin, Texas (one talk)
- 2019 21st International Congress of Arachnology, Christchurch, New Zealand (keynote address, one contributed talk, one poster)
- 2018 Annual Meeting of the Society of Integrative and Comparative Biology, San Francisco, California (one talk)
- 2016 20th International Congress of Arachnology, Golden, CO, USA (one talk)
- 2016 Annual Meeting of the Society of Integrative and Comparative Biology, Portland, Oregon (one talk)
- 2015 Annual Meeting of the Society of Integrative and Comparative Biology, West Palm Beach, Florida (one talk)
- 2014 4th Congreso Latinoamericano de Aracnología, Morelia, México (one talk)
- 2013 World Congress of Malacology 2013, Ponta Delgada, Azores, Portugal (one talk)
- 2013 19th International Congress of Arachnology, Kenting, Taiwan (three talks)
- 2013 Annual Meeting of the Society of Integrative and Comparative Biology, San Francisco, California (one talk)
- 2012 Annual Meeting of the American Arachnological Society, Green Bay, Wisconsin (one talk)
- 2012 Annual Meeting of the Society of Integrative and Comparative Biology, Charleston, South Carolina (one talk, one poster)
- 2011 3rd Latin-American Congress of Arachnology, Armenia, Colombia (three talks)

2010	18 th International Congress of Arachnology, Siedlce, Poland (two talks)
2010	XXIX Meeting of the Willi Hennig Society, Honolulu, Hawaii (two talks)
2008	XXVII Meeting of the Willi Hennig Society, Tucumán, Argentina (one talk)
2007	17 th International Congress of Arachnology, São Pedro, Brazil (one talk)

MENTORSHIP AND ADVISING

POSTDOCTORAL FELLOWS

2022-2024	Siddharth S. Kulkarni (currently: Ramanujan Fellow, India)
2020-2022	Caitlin M. Baker (currently: IT consultant, Performance Architects)
2017-2022	Luciano Palmieri Rocha (honorary fellow)
2017-2021	Jesus A. Ballesteros Chávez (currently: Assistant Professor, Kean University)
2016-2018	Carlos Eduardo Santibañez-López (currently: Assistant Professor, Western Connecticut State University)

GRADUATE STUDENTS

2022-present	Kaitlyn Abshire (Integrative Biology Ph.D. program, UW-Madison)
2022-present	Benjamin C. Klementz (Integrative Biology Ph.D. program, UW-Madison)
2018-present	Emily V.W. Setton (Integrative Biology Ph.D. program, UW-Madison)
2017-present	Guilherme Gainett (Integrative Biology Ph.D. program, UW-Madison)
2016-2021	Andrew Z. Ontano (Integrative Biology Ph.D. program, UW-Madison)
2016-2017	Holly Cho, M.A. (Cellular and Molecular Biology training program, Masters student, UW-Madison)

GRADUATE COMMITTEES

2023-present	Patricia Zito (iBio Ph.D. program, Lee laboratory, UW-Madison)
2020-present	Jo Jo Sardina (Genetics Ph.D. program, Currie laboratory, UW-Madison)
2020-present	Roberto Carrera Martínez (Zoology Ph.D. program, Schoville laboratory, UW-Madison)
2020-present	Jacob Fredette-Roman (iBio Ph.D. program, Lee laboratory, UW-Madison)
2020-2022	Charlotte R. Kanzler (Cell and Molecular Biology Ph.D. program, Sheets laboratory, UW-Madison)
2019-present	Aaron Kufner (Geosciences Ph.D. program, Peters laboratory, UW-Madison)
2017-present	Nancy Lo Man Hung (Biology Ph.D. program, Departamento de Genética e Biologia Evolutiva, Universidade de São Paulo)
2017-2023	José Cruz-Arzon (iBio Masters program, Blair laboratory, UW-Madison)
2017-2022	Umair Khan (Cell and Molecular Biology Ph.D. program, Newmark laboratory, UW-Madison)
2017-2022	W. Grant Morton (Botany Ph.D. program, Cameron laboratory, UW-Madison)
2017-2022	Yi-Ming Weng (Entomology Ph.D. program, Schoville laboratory, UW-Madison)
2016-2020	Stefan Kaluziak, Ph.D. (Biology Ph.D. program, Vollmer laboratory, Northeastern University)

UNDERGRADUATE AND POST-BACCALAUREATE STUDENTS

2023-present	Faye Nichols (undergraduate, UW-Madison)
2023-present	Ethan Laumer (undergraduate, UW-Madison)
2023-present	Charlotte Wood (undergraduate, UW-Madison)

2023-present	Sophie Neu (undergraduate, UW-Madison)
2021-2022	Grace Hareid (undergraduate, UW-Madison)
2021	Andrew Rukavina (undergraduate, UW-Madison)
2021-2022	Pola Błaszczyk (undergraduate, UW-Madison)
2021-2022	Benjamin Klementz (undergraduate, UW-Madison)
2021	Alison Gregorian (undergraduate, UW-Madison)
2021-present	Hugh Steiner (undergraduate, UW-Madison)
2020-2021	James Guskov (undergraduate, UW-Madison)
2020	Yaseen Najeeb (undergraduate, UW-Madison)
2019	Maanasa Devabhaktuni (undergraduate, UW-Madison)
2019-2020	Simon Rosenblum (undergraduate, UW-Madison)
2019-2020	Kevin Corbett (undergraduate, UW-Madison)
2019-2020	Leonardo Barolo Gargiulo (undergraduate, UW-Madison)
2019-present	Jakob Zehms (undergraduate, UW-Madison)
2019	John MacGregor Zern (undergraduate, UW-Madison)
2018-2019	Mahad Siad (undergraduate, UW-Madison)
2018	Josephine Hall (undergraduate, UW-Madison)
2018	Paula Thuo (undergraduate, UW-Madison)
2017-2018	Keyton Friske (undergraduate, UW-Madison)
2017-2018	Audrey Crawford (undergraduate, UW-Madison)
2017	Calvin So (undergraduate, UW-Madison)
2017-2019	Rachel Smaby (undergraduate, UW-Madison)
2016-2018	Logan March (undergraduate, UW-Madison)
2016-2018	Stephanie Schmidt (undergraduate, UW-Madison)
2016-2017	Erik Nolan (undergraduate thesis writer, Biology major, UW-Madison)
2016-2017	Jill T. Oberski (post-baccalaureate, Macalester College)
2016	A. Kenji Shoemaker (post-baccalaureate, Macalester College)
2016	Alejandra Torres Diaz (undergraduate, UW-Madison)
2016	Savana M. Lipps (undergraduate, UW-Madison)
2015-2018	Emily V.W. Setton (undergraduate, UW-Madison)
2014-2015	Marc A. Santiago (post-baccalaureate, Susquehanna University)
2013	Kevaughn Gordon (undergraduate, City University of New York)
2012	Guillermo Gainett (undergraduate, Universidade de São Paulo)
2010-2012	Alexander Kim (undergraduate, Harvard University)

INTRODUCTORY BIOLOGY RESEARCH MENTORING

2023	Raferty Todd (undergraduate, UW-Madison)
2020	Yaseen Najeeb (undergraduate, UW-Madison)
2019	Simon Rosenblum (undergraduate, UW-Madison)
2019	Kevin F. Corbett (undergraduate, UW-Madison)
2019	John MacGregor Zern (undergraduate, UW-Madison)
2018	Josephine Hall (undergraduate, UW-Madison)
2017	Rachel Smaby (Biology 152 independent research program, UW-Madison)
2016	Logan March (Biology 152 independent research program, UW-Madison)
2016	Stephanie Schmidt (Biology 152 independent research program, UW-Madison)
2016	Alejandra Torres-Diaz (Biology 152 independent research program, UW-Madison)

OUTREACH

2023	UW-Madison High School Science Expo, Madison East High School.
------	--

- 2023 Guest lecturer for BioHouse Learning Community, an on-campus residential network for biology majors.
- 2023 Guest instructor for the AP Summer Institute for high school AP Biology teachers. Activities: BLAST lab and sequence data in the classroom.
- 2023 Guest lecturer for Office of College Admissions, Celebration of Admitted Multicultural Students events (two).
- 2022 Guest lecturer for BioHouse Learning Community, an on-campus residential network for biology majors.
- 2022 Guest lecturer for Office of College Admissions, Celebration of Admitted Multicultural Students events (two).
- 2022 Guest instructor for the AP Summer Institute for high school AP Biology teachers. Activities: BLAST lab and sequence data in the classroom.
- 2021 Guest lecturer for Aracnología Curso de Extensão, Red de Aracnología Emergente Latina, a network for communication and mentoring of Latinx arachnologists
- 2021 Guest lecturer for BioHouse Learning Community, an on-campus residential network for biology majors.
- 2021 Guest instructor for the AP Summer Institute for high school AP Biology teachers. Activities: BLAST lab and sequence data in the classroom.
- 2020 Guest lecturer for BioHouse Learning Community, an on-campus residential network for biology majors.
- 2020 Annual Darwin Day event, UW-Madison. Activities: Arthropods booth.
- 2019 Panelist, “Grad School 101”, BioScience Summer Research Program.
- 2019 Lab visit to CentroHispano (6th-8th grade science students), Madison, WI. Activities: Live arthropod show-and tell.
- 2019 Annual Darwin Day event, UW-Madison. Activities: Arthropods booth.
- 2019 Host to visit from AP Biology class of Reedsburg High School, Wisconsin.
- 2018 Annual Darwin Day event, UW-Madison. Activities: Arthropods booth.
- 2017 Host to visit from Freshman Interest Group (taught by David Baum, Department of Botany). Activities: A day in the life of an arthropod evo-devo lab.
- 2017 Annual Darwin Day event, UW-Madison. Activities: Arthropods booth.
- 2016 Student sponsor for the Pre-college Enrichment Opportunity Program for Learning Excellence (PEOPLE). Student: Danielle Differt.
- 2010 Lecture/tour on arthropods and phylogenetics to Harvard Museum of Natural History Volunteers program.

FIELDWORK

- 2024 South Carolina (USA)
- 2023 Cypress Creek, Austin, Texas (USA)
- 2022 Sde Boker, several cave sites in central Israel (Israel)
- 2021 National grasslands range, Colorado (USA)
- 2020 Cypress Creek, Austin, Texas (USA)
- 2019 Arthur Pass, South Island (New Zealand)
- 2018 Golan Heights, Sde Boker (Israel)
- 2018 National grasslands range, Colorado (USA)
- 2017 Stirling Range, Walpole, and Pemberton (Australia)
- 2017 Golan Heights, Sde Boker (Israel)
- 2016 Channel Islands, California (USA)
- 2015 Queensland (Australia)
- 2014 Queensland (Australia)
- 2014 Panay and Luzon (Philippines)
- 2014 Khammouane (Laos)

2013	Kenting (Taiwan)
2011	Northern Territory and Queensland (Australia)
2010	Koror and Babeldaob (Palau)
2010	Chuuk, Pohnpei, and Yap (Federated States of Micronesia)
2010	Palawan and Luzon (Philippines)
2010	Florida, Georgia, and South Carolina (USA)
2008	Efate and Erromango (Vanuatu)
2008	Viti Levu, Vanua Levu, and Taveuni (Fiji)
2007	Le Grande Terre and Île des Pins (New Caledonia)
2004	Southern Sri Lanka

PROFESSIONAL SERVICE

EDITORIAL SERVICE

Associate Editor, *Molecular Phylogenetics and Evolution* (2022-present)

Associate Editor, *Invertebrate Systematics* (2015-present)

Associate Editor, *Cladistics* (2015-2017)

PANEL AND GRANT PROPOSAL REVIEW SERVICE

Ad hoc reviewer, Dutch Research Council (Netherlands), December 2021

Ad hoc reviewer, Biotechnology and Biological Sciences Research Council (UK), November 2021

Ad hoc reviewer, Deutsche Forschungsgemeinschaft (Germany), October 2021

UW-Madison College of Agriculture and Life Sciences Hatch program, November 2019

National Science Foundation Integrative and Organismal Systems (Evolution of Developmental Mechanisms panel), March 2017

National Science Foundation Doctoral Dissertation Improvement Grant (Systematics and Biodiversity Science Cluster), December 2014

Ad hoc reviewer, National Science Foundation, 2014-present

DEPARTMENTAL SERVICE

Chair, Subcommittee for Faculty Structure and Governance (2023-2024)

Member, Steering Committee for iBio/Botany Departmental Reorganization (2023-2024)

Chair, Academic Program Review of Botany undergraduate programs (2023)

Student Assessment Learning (SLA) program reporting, Integrative Biology Ph.D. program (2017-2023)

Student Assessment Learning (SLA) program reporting, Integrative Biology M.A./M.S. program (2017-2023)

SERVICE TO ACADEMIC SOCIETIES

Chair, Division of Evolutionary Developmental Biology (DEDB), Society of Integrative and Comparative Biology, January 2024 to present

Annual Meeting of the Society of Integrative and Comparative Biology, January 2024, Seattle, WA (judge, DEDB Best Student Presentation competition)

Chair-Elect, Division of Evolutionary Developmental Biology (DEDB), Society of Integrative and Comparative Biology, January 2023 to January 2024

Annual Meeting of the American Arachnological Society, June 2021, virtual (session chair)

Annual Meeting of the Society of Integrative and Comparative Biology, January 2021, virtual (judge, student poster presentations)
Annual Meeting of the Society of Integrative and Comparative Biology, January 2020, Austin, TX (session chair; judge, student oral and poster presentations)
3rd Pan-American Society of Evolutionary Developmental Biology conference, August 2019, University of Miami, Miami, FL (judge, student poster presentations)
Education and Professional Training Officer, Pan-American Society of Evolutionary Developmental Biology, August 2019-August 2021
Secretary, Division of Evolutionary Developmental Biology (DEDB), Society of Integrative and Comparative Biology, January 2019-January 2021
Secretary-Elect, Division of Evolutionary Developmental Biology (DEDB), Society of Integrative and Comparative Biology, January 2018 to January 2019
Annual Meeting of the Society of Integrative and Comparative Biology, January 2017, New Orleans, LA (session chair; judge, student poster presentations)
Annual Meeting of the Society of Integrative and Comparative Biology, January 2016, Portland, OR (session chair)
Annual Meeting of the Society of Integrative and Comparative Biology, January 2015, West Palm Beach, FL (session chair; judge, student oral presentations)
Annual Meeting of the Society of Integrative and Comparative Biology, January 2013, San Francisco, CA (session chair; judge, student oral presentations)
International Congress of Arachnology, June 2013, Kenting, Taiwan (session chair; symposium organizer)
World Congress of Malacology 2013, July 2013, Ponta Delgada, Azores, Portugal (judge, student poster presentations)
American Arachnological Society, June 2012, Green Bay, WI (judge, student oral presentations)

ORGANIZING COMMITTEES

21st International Congress of Arachnology, symposium organizer, “Growth, morphogenesis, and developmental genetics”, 10-15 February 2019, Christchurch, New Zealand
20th International Congress of Arachnology, symposium organizer, “Scorpion biology in the 21st century”, 2-9 July 2016, Golden, CO
19th International Congress of Arachnology, symposium organizer, “The biology of harvestmen”, 23-28 June 2013, Kenting National Park, Taiwan
2nd International Congress on Invertebrate Morphology, 20-23 June 2011, Harvard University

PROFESSIONAL DEVELOPMENT

Workshop: “Education and teaching in evolutionary developmental biology”. 1 August 2019, 3rd Pan-American Society for Evolutionary Developmental Biology conference, University of Miami.
Workshop: “How to become a more productive author”. 8 May 2015, Richard Gilder Graduate School, American Museum of Natural History (with Sara Ruane)

LANGUAGE EDITING SERVICE

Zootaxa (2011-present)

SOCIETY MEMBERSHIPS

American Arachnological Society; International Society for Arachnology (lifetime); International Society of Invertebrate Morphology; Pan-American Society for Evolutionary Developmental Biology; Society of Integrative and Comparative Biology