

PRASHANT P. SHARMA

AMERICAN MUSEUM OF NATURAL HISTORY ·
DIVISION OF INVERTEBRATE ZOOLOGY ·
CENTRAL PARK WEST AT 79TH ST · NEW YORK, NY 10024
PHONE 212.313.7622 · EMAIL PSHARMA@AMNH.ORG

EDUCATION

- Ph.D. Harvard University, Organismic & Evolutionary Biology May 2012
Thesis dissertation: "Systematics, evolution, and development in Opiliones"
- B.A. Harvard University, Biology, *Summa cum laude* June 2006

RESEARCH EXPERIENCE

- 2012-present 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

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)

FELLOWSHIPS AND HONORS

FELLOWSHIPS AND GRANTS

- 2013 National Geographic Society grant for exploratory fieldwork in the Philippines
- 2012 National Science Foundation Postdoctoral Research Fellowship in Biology, Competitive Area 2 (Intersections of Biology and Mathematical and Physical Sciences) for work on computational biogeography (3 year fellowship)
- 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

HONORS AND AWARDS

- 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]

PUBLICATIONS

PEER-REVIEWED

38. Giribet, G. & **Sharma, P.P.** (in press) Evolutionary biology of harvestmen (Arachnida, Opiliones). *Annual Reviews of Entomology*. [Scheduled for publication in 2015.]
37. Clouse, R.M., Janda, M., Blanchard, B., **Sharma, P.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. (in press) Molecular phylogeny of an Indo-Pacific carpenter ant (Hymenoptera: Formicidae, *Camponotus*) reveals waves of dispersal and colonization from diverse sources. *Cladistics*.
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*. doi:10.1093/molbev/msu235.
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) Integration of fossils, phylogenetics, and development identifies of stem-group Paleozoic arthropods. *Current Biology* 24: 1017–1023. (*equal author contribution)
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 *dachsband* 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. [Highly accessed]

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 Paletropics: 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.

†Undergraduate co-author.

BOOK CHAPTERS

1. Schwager, E.E., Schönauer, A., Leite, D.J., **Sharma, P.P.** & McGregor, A.P. (in press) Chelicerata. In: Wanninger, A. (editor) Invertebrate EvoDevo. Heidelberg: Springer.

PRESENTATIONS

INVITED LECTURES

- | | |
|------|--|
| 2014 | 4 th Congreso Latinoamericano de Aracnología, Morelia, México (given in Spanish) [July 21, 2014] |
| 2014 | University of Santo Tomas, Manila, Philippines [May 2014] |
| 2014 | AMNH Comparative Biology Seminar, New York, NY [February 2014] |
| 2013 | Gilder Graduate School, American Museum of Natural History [December 2013] |
| 2013 | 9 th Annual University of Michigan Early Career Scientists Symposium, Ann Arbor, MI [March 2013] |
| 2013 | First International SpiderWeb meeting for the annotation of the <i>Parasteatoda</i> 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] |
| 2011 | 3 rd 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

- 2014 4th Congreso Latinoamericano de Aracnología, Morelia, México (one talk) [July 22, 2014]
 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 & 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 & Comparative Biology, Charleston, South Carolina (one talk, one poster)
 2011 3rd Latin-American Congress of Arachnology, Armenia, Colombia (three talks)
 2010 18th 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 17th International Congress of Arachnology, São Pedro, Brazil (one talk)

EDUCATIONAL OUTREACH

- 2014-present Mentor to Marc Santiago (post-baccalaureate student) on molecular phylogenetics
 2013-present Mentor to Kevaghn Gordon (undergraduate student) on methods in biogeography
 2012-present Mentor to Guillaume Gainett (undergraduate student) on Laniatores morphology and comparative methods in phylogenetics
 2010-2012 Mentor to Alexander Kim (undergraduate student) on crustacean biogeography
 2010 Lecture/tour on arthropods and phylogenetics to Harvard Museum of Natural History Volunteers program

FIELDWORK

- 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)

PROFESSIONAL SERVICE

REFEREE SERVICE

Annals of the Entomological Society of America (2013-present); *BioMed Research International* (2013-present); *Cladistics* (2010-present); *Frontiers in Ecology and Evolution* (2014-present); *Frontiers in Zoology* (2013-present); *Invertebrate Systematics* (2009-present); *Journal of Biogeography* (2012-present); *Journal of Insect Behavior* (2011-present); *Journal of Molluscan Studies* (2013-present); *Lethaia* (2014-present); *Molecular Phylogenetics and Evolution* (2011-present); *Naturwissenschaften* (2014-present); *Proceedings of the National Academy of Sciences of the USA* (2012-present); *Zookeys* (2012-present); *Zoological Journal of the Linnean Society* (2014-present); *Zoological Studies* (2014-present); *Zootaxa* (2011-present)

LANGUAGE EDITING SERVICE

Zootaxa (2011-present)

SOCIETY MEMBERSHIPS

American Arachnological Society; International Society for Arachnology; International Society of Invertebrate Morphology; Society of Integrative and Comparative Biology; Unitas Malacologica; Willi Hennig Society

SERVICE TO ACADEMIC SOCIETIES

American Arachnological Society, June 2012, Green Bay, WI (judge, student oral presentations)
Annual Meeting of the Society of Integrative & 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)

ORGANIZING COMMITTEES

2nd International Congress on Invertebrate Morphology, 20-23 June 2011, Harvard University
19th International Congress on Arachnology, Harvestmen symposium, 23-28 June 2013, Kenting National Park, Taiwan