

JUANITA RODRIGUEZ

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Education

- 2008 - 2014 Ph.D., Biology, Utah State University, Department of Biology
(Dr. James P. Pitts & Dr. Carol D. von Dohlen, advisors)
- 2006 - 2008 M.Sc., Systematics & Taxonomy, Universidad Nacional de
Colombia, Department of Biology
(Dr. Fernando Fernandez, advisor)
- 2000 - 2005 B.S., Biology, Universidad Nacional de Colombia, Department of
Biology, mention of honor.

Professional Experience

- 2016 - Present Senior Research Scientist and curator of Hymenoptera. Australian
National Insect Collection.
- 2017 - Present Invited Lecturer. Australian National University.
- 2014 - 2016 Postdoctoral fellow. Millipede Systematics: Developing
phylogenomic, classification, and taxonomic resources for the
future. Auburn University.
- 2008 - 2013 Graduate Research Assistant: Evolution of Behavior, Biogeography
and Phylogeny of Pompilidae based on morphology and molecular
data. Utah State University.
- 2009 – 2014 Graduate Teaching Assistant: Department of Biology, Utah State
University.

Funding (* indicates mentored student or postdoctoral fellow)

- 2023 CSIRO Postgraduate Plus Scholarship, Mollie-Rosae Slater-Baker*,
Juanita Rodriguez, Erinn Fagan-Jeffries, \$51000.
- 2020 CSIRO Postgraduate Plus Scholarship, Madalene Giannotta*,
Juanita Rodriguez, Craig Moritz, \$51000.
- 2019 CSIRO FSP, Uncovering the Biodiscovery Potential of Natural
History Collections, Juanita Rodriguez PI, \$850000
- 2019 CSIRO Postgraduate Plus Scholarship, Alana Delaine*, Juanita
Rodriguez, Andrew Austin, \$51000

- 2019 CSIRO Early Career Researcher Fellowship, Juanita Rodriguez PI, \$315000
- 2019 CBA Synthesis Group Grant, Juanita Rodriguez PI, Saul Cunningham Co-PI, Simon Tierney Co-PI, \$25000
- 2019 CBA Ignition Grant, Juanita Rodriguez PI, Claudia Schipp* Co-PI, Thekla Pleines Co-PI, Renee Catullo* Co-PI, \$15,000.
- 2018 CSIRO Postgraduate Plus Scholarship, Mahin Chavoshi-Jolfaei*, Juanita Rodriguez PI, \$51000.
- 2018 CBA Ignition Grant, Juanita Rodriguez PI, Bob Mesibov Co-PI, Hannah Zurcher* Co-PI, \$5,000.
- 2016 CSIRO FSP, Pollinator metabarcoding in the Australian Alpine area, Francisco Encinas-Viso PI, Alexander Schmidt-Lebun Co-PI, Andreas Zwick Co-PI, Bryan Lessard Co-PI, Juanita Rodriguez Co-PI, \$45,000.
- 2018 CSIRO Future Science Platforms, Merging spatial, genomic and trait data using the ALA spatial portal, Sarah Matthews PI, Juanita Rodriguez Co-PI, Craig Moritz Co-PI, \$120,000.
- 2013 Utah State University, Office of Research and Graduate Studies, Dissertation Completion Grant, Juanita Rodriguez, \$20,000.
- 2013 Utah State University Center of Women and Gender Research Grant: Historical Biogeography of *Ceropales* (Hymenoptera: Pompilidae), Juanita Rodriguez PI, James Pitts Co-PI (Utah State University), Carol von Dohlen Co-PI (Utah State University), \$500.
- 2010 Utah State University Center of Women and Gender Research Grant: Historical Biogeography of the tribe Aporini (Hymenoptera: Pompilidae), Juanita Rodriguez PI, James Pitts Co-PI (Utah State University), Carol von Dohlen Co-PI (Utah State University), \$500.

Awards and Honours

- 2021 Society of Australian Systematic Biologists Early Career Researcher Award
- 2019 CSIRO Digital National Facilities Collections Women in Science Career Award
- 2012 First Place Paper Competition- Systematics Evolution and Biodiversity Section, Entomological Society of America Meeting.
- 2012 Second Place Oral Presentation Competition. International Society of Hymenopterists Meeting.
- 2010 First Place Biology Poster Competition. USU Graduate Research

	Symposium.
2010	Second Place Ph.D. Poster Competition. Entomological Society of America Pacific Branch Meeting.
2010	First Place Paper Competition- Systematics Evolution and Biodiversity Section, Entomological Society of America Meeting.
2000	Mention of honour (grado de honor), Universidad Nacional.

Editorial and Society positions

2021 - Present	President-elect. International Society of Hymenopterists
2021 - Present	Editorial board member. Current in insect science
2020 - Present	Council member. Society of Australian Systematic Biology
2018 - Present	Subject editor. Austral Entomology

Publications (asterisks for supervised student and postdoc publications)

Colombo, W.D., **Rodriguez, J** & Waichert, C. (2023): A puzzling spider wasp: description of an extinct species of *Paleogenia* Waichert and Pitts (Hymenoptera: Pompilidae) from the upper Eocene, *Historical Biology*, DOI: 10.1080/08912963.2023.2189109

*Yuan D, Beckman J, Florez Fernandez J, **Rodriguez J**. Nest Ecology and Prey Preference of the Mud Dauber Wasp *Sceliphron formosum* (Hymenoptera: Sphecidae). 2023, *Insects*, 9;13(12):1136. doi: 10.3390/insects13121136.

*Dashevsky, D.; Baumann, K.; Undheim, E.A.B.; Nouwens, A.; Ikonopoulou, M.P.; Schmidt, J.O.; Ge, L.; Kwok, H.F.; **Rodriguez, J.**; Fry, B.G. Functional and Proteomic Insights into Aculeata Venoms. *Toxins* 2023, 15, 224. <https://doi.org/10.3390/toxins15030224>

Mawalagedera, Sundara M. U. P., Cecile Gueidan, Matthew Taylor, Andrew C. Warden, and Juanita Rodriguez. 2022. "Testing the Suitability of Preserved Insect Collections for Biodiscovery Using Liquid Chromatography Mass Spectrometry" *Medical Sciences Forum* 14, no. 1: 145. <https://doi.org/10.3390/ECMC2022-12914>

J Rodriguez, O Evangelista. 2022. *Ctenostegus hansonii* sp. nov., a new species of spider wasp endemic to Lord Howe Island (Hymenoptera: Pompilidae). *Austral Entomology* 61 (3), 323-339. <https://doi.org/10.1111/aen.12616>

Encinas-Viso, F., Bovill, J., Albrecht, D. E., Florez-Fernandez, J., Lessard, B., Lumbers, J., **Rodriguez, J.**, Schmidt-Lebuhn, A., Zwick, A., & Milla, L. (2022). Pollen DNA metabarcoding reveals cryptic diversity and high spatial turnover in alpine plant–pollinator networks. *Molecular Ecology*, 00, 1– 17. <https://doi.org/10.1111/mec.16682>

*F Fernández, **J Rodriguez**, C Waichert, B Decker, J Pitts. 2022. Twenty two years later: An updated checklist of Neotropical spider wasp (Hymenoptera: Pompilidae). *Zootaxa* 5116 (4), 451-503

PE Marek, BA Buzatto, WA Shear, JC Means, DG Black, MS Harvey, **J Rodriguez**. 2021. The first true millipede—1306 legs long. *Scientific Reports* 11 (1), 1-8

BD Lessard, N Kurucz, **J Rodriguez**, J Carter, CM Hardy. 2021. Detection of the Japanese encephalitis vector mosquito *Culex tritaeniorhynchus* in Australia using molecular diagnostics and morphology. *Parasites & vectors* 14 (1), 1-11

*D Dashevsky, **J Rodriguez**. 2021. A Short Review of the Venoms and Toxins of Spider Wasps (Hymenoptera: Pompilidae). *Toxins* 13 (11), 1-17

*CB Freelance, SM Tierney, **J Rodriguez**, DM Stuart-Fox, B Wong, MA Elgar. 2021. The eyes have it: dim-light activity is associated with the morphology of eyes but not antennae across insect orders. *Biological Journal of the Linnean Society*, 2.

J Shimizu, A., Pitts, J. P., **Rodriguez, J.**, Wahis, R. and Yoshimura (2021) Systematics and convergent evolution in three Australian genera of Pepsinae spider wasps (Hymenoptera: Pompilidae). *Austral Entomology*

***J Rodriguez**, J., Bank, S., Waichert, C., von Dohlen, C. D & Pitts. (2021) Around the world in 10 million years: rapid dispersal of a kleptoparasitoid spider wasp (Pompilidae: Ceropales). *Journal of Biogeography*. <https://doi.org/10.1111/jbi.14103>

KDL Saunders, M.E., Barton, P.S., Bickerstaff, J.R.M., Frost, L., Latty, T, **Rodriguez, J.** White, T.E., Umbers, K (2021) Limited understanding of bushfire impacts on Australian invertebrates. *Insect Conservation and Diversity*, 2

*Zhou, Y., **Rodriguez, J.**, Fisher, N. & Catullo, R.A. (2020) Ecological drivers and sex-based variation in body size and shape in the Queensland fruit fly, *Bactrocera tryoni*

(Diptera: Tephritidae). *Insects*, 11 (6), 390. <https://doi.org/10.3390/insects11060390>

Mesibov, R. & **Rodriguez, J.** (2020) A new genus and species of narrowrange millipede (Diplopoda, Polydesmida, Dalodesmidae) from Tasmania, Australia. *ZooKeys*, 966, 1–8. <https://doi.org/10.3897/zookeys.966.56308>

*Decker, B., Pitts, J.P., Yuan, D., **Rodriguez, J.** (2020) Re-examination of Australian and Oriental species of *Minagenia* Banks, 1934 (Hymenoptera: Pompilidae), with a new record for the genus in Australia and a new species description. *Zootaxa*, 4768 (3), 383–394. <https://doi.org/10.11646/zootaxa.4768.3.5>

*Yuan D, Rodriguez J. 2020. Three new species of *Epipompilus* Kohl (Hymenoptera, Pompilidae, Pepsinae) from Australia. *Zootaxa*.;4743(4):zootaxa.4743.4.7. doi: 10.11646/zootaxa.4743.4.7. PMID: 32230315.

Waichert, C., **Rodriguez, J.**, Rapoza, M. & Wappler, T. (2019) The oldest species of Pompilidae to date, a new fossil spider wasp (Hymenoptera: Pompilidae). *Historical Biology*. <https://doi.org/10.1080/08912963.2019.1675056>

*Li, X., Yuan, D., **Rodriguez, J.**, & Yeates, D.K. (2019) Sand wasp (Hymenoptera: Crabronidae) parasites emerging from mud wasp nests (Hymenoptera: Sphecidae)—a reliable host record of *Thraxan* Yeates & Lambkin (Diptera: Bombyliidae: Anthracinae) with description of the pupal exuviae of three *Thraxan* species. *Zootaxa*, 4609 (1), 149–159. <http://dx.doi.org/10.11646/zootaxa.4609.1.7>

Kendall, L.K., Rader, R., Gagic, V., Cariveau, D.P., Albrecht, M., Baldock, K.C.R., Freitas, B.M., Hall, M., Holzschuh, A., Molina, F.P., Morten, J.M., Pereira, J.S., Portman, Z.M., Roberts, S.P.M., **Rodriguez, J.**, Russo, L., Sutter, L., Vereecken, N.J., & Bartomeus, I. (2019) Pollinator size and its consequences: Robust estimates of body size in pollinating insects. *Ecology and evolution*, 9, 1702–1714

Koch JB, **Rodriguez J**, Pitts JP, Strange JP. 2018. Phylogeny and population genetic analyses reveals cryptic speciation in the *Bombus fervidus* species complex (Hymenoptera: Apidae). *PLoS ONE* 13(11): e0207080.

Rodriguez, J., Jones, T.H., Sierwald, P., Marek, P.E., Shear, W.A., Brewer, M.S., Kocot, K.M., Bond, J.E., 2018. Step-wise evolution of complex chemical defenses in millipedes: a phylogenomic approach. *Sci. Rep.* 8, 3209. doi:10.1038/s41598-018-19996-6

Rodriguez, J., Waichert, C., von Dohlen, C. D. & Pitts, J.P. 2017.

The geological record

and phylogeny of spider wasps (Hymenoptera: Pompilidae): A revision of fossil species and their phylogenetic placement. PlosOne: 12(10): e0185379.

<https://doi.org/10.1371/journal.pone.0185379>

*Waichert, C., Fernández, F., Castro-Huertas, V., **Rodriguez, J.**, Pitts JP. 2017. More new records of spider wasps from Colombia (Hymenoptera, Pompilidae). ZooKeys 658: 89–95.

Rodriguez, J., Pitts, J. P., Florez, J. A., Bond, J. E. and von Dohlen, C. D. 2016. Molecular phylogeny of Pompilinae (Hymenoptera: Pompilidae): evidence for rapid diversification and host shifts in spider wasps. Molecular Phylogenetics and Evolution 94: 55-64.

doi:10.1016/j.ympev.2015.08.014

Garrison, N., **Rodriguez J.**, Agnarsson, I., Griswold, C., Hamilton, C. A., Hedin, M., Ledford, J., Bond, J. E. Untangling the Spider Tree of Life. PeerJ.

Folt, B., Garrison, N., Guyer, Craig., Rodriguez, J., Bond, J. E. Phylogeography and Evolution of the Red Salamander (*Pseudotriton ruber*). Molecular Phylogenetics and Evolution.

Rodriguez, J., Waichert, C., von Dohlen, C. D., Poinar Jr., G. and Pitts, J. P. Eocene and not Cretaceous origin of spider wasps (Pompilidae): fossil evidence from amber. Acta Palaeontologica Polonica. doi:http://dx.doi.org/10.4202/app.00073.2014

Waichert, C., **Rodriguez, J.**, Wasbauer, M. S., von Dohlen, C. D. and Pitts, J. P. 2015. Molecular phylogeny and systematics of spider wasps (Hymenoptera: Pompilidae): redefining subfamily boundaries and the origin of the family. Zoological Journal of the Linnean Society 175: 271-287.

Rodriguez, J., Pitts, J. P., von Dohlen, C. D. and Wilson, J. S. 2014. Müllerian mimicry as a result of codivergence between velvet ants and spider wasps. Plos One 9(11): e112942. doi:10.1371/journal.pone.0112942

Rodriguez, J., von Dohlen, C. D. and Pitts, J. P. 2014. Historical biogeography of the recently diverged widespread spider wasp tribe Aporini (Hymenoptera: Pompilidae). Journal of Biogeography 42: 495-506. doi:10.1111/jbi.12430

Rodriguez, J., von Dohlen, C. D. and Pitts, J. P. 2014. Assessing Species Boundaries and Sex-Associations in the Genus *Drepanaporus* (Hymenoptera: Pompilidae), With Comparison of the Utility of Cytochrome C Oxidase I and a Nuclear Molecular Marker. *Annals of the Entomological Society of America* 107(4): 1-12.

Waichert, C., **Rodriguez, J.**, and Pitts, J. P. 2014. New additions to the Honduran fauna of spider wasps (Hymenoptera: Pompilidae) with the description of two species. *Zootaxa* 5: 590-600. doi:10.11646/zootaxa.3873.5.8

*Castro-Huertas, A. V., Pitts, J. P., **Rodriguez, J.**, Waichert, C. and Fernandez, F. 2014.

New

records of spider wasps (Hymenoptera, Pompilidae) from Colombia. *Zookeys* 443: 35-44. 2011

Leavengood, J. M., Waichert, C and **Rodriguez, J.** 2011. A distributional checklist of the spider wasps (Hymenoptera: Pompilidae) of Florida. *Insecta Mundi* 0161: 1-8. 2010

Rodriguez, J., von Dohlen, C. D. and Pitts, J. P. 2010. The genus *Psorthaspis* (Hymenoptera: Pompilidae) in Colombia. *Caldasia* 32 (2): 407-413.

Books

Fernandez, F., Castro-Huertas, A. V., **Rodriguez, J.**, Waichert, C. and Pitts, J. P. 2018. *Avispas Cazadoras de Arañas de Colombia*. Fauna de Colombia, Universidad Nacional de Colombia.

Book Chapters

Rodriguez, J. 2007. *Odontomachus*, In Jiménez, E., Fernández, F., Arias, T.M. & Lozano-Zambrano, F. H. 2007. *Sistemática, biogeografía y conservación de las hormigas cazadoras de Colombia*. Instituto de Investigación de Recursos Biológicos Alexander von Humboldt. Bogotá D.C., Colombia 622 p.

http://www.humboldt.org.co/publicaciones/uploads/192_HORMIGAS_CAZADORAS.pdf