

## **CURRICULUM VITAE: Philip S. Ward**

### **PERSONAL**

Department of Entomology and Nematology      Email: psward@ucdavis.edu  
University of California                              Url: <http://wardlab.wordpress.com/>  
One Shields Avenue                                  Phone: (530) 752-0486  
Davis, CA 95616, U.S.A.                              Fax: (530) 752-1537

Born: 6 April, 1952, London, U.K.      Citizenship:      Canadian (U.S. resident).

### **TERTIARY EDUCATION**

B.Sc. (Hon.)      Queen's University, Canada (1973) Biology  
Ph.D.              University of Sydney, Australia (1979) Zoology

### **ACADEMIC POSITIONS**

CSIRO Postdoctoral Fellow, University of Texas, Austin (1979-1980)  
Assistant Professor of Entomology, University of California, Davis (1981-1986)  
Associate Professor of Entomology, University of California, Davis (1986-1992)  
Professor of Entomology, University of California, Davis (1992-present)

### **HONORS AND AWARDS**

1969-73:      Alumni National Scholarship (Queen's University)  
1974-78:      Commonwealth Scholarship (held at University of Sydney)  
1979-80:      CSIRO Postdoctoral Fellowship  
1991-          Fellow, Royal Entomological Society of London  
1992-          Associate, Museum of Comparative Zoology, Harvard University  
2005-          Fellow, California Academy of Sciences  
1982-present: NSF grant support for research on ant systematics

### **RESEARCH INTERESTS**

Systematics, biogeography, and evolutionary biology of ants. Evolution of ant/plant mutualisms. Biodiversity patterns and conservation. Species concepts and speciation.

## PUBLICATIONS

1. Ward, P. S.; Hebert, P.; Harmsen, R. 1973. A note on the distribution of *Oeneis chryxus strigulosa* (Lepidoptera: Satyridae). *Canadian Entomologist* **105**:1373-1374. doi: 10.4039/Ent1051373-10
2. Harmsen, R.; Hebert, P.; Ward, P. S. 1974. On the origin of austral elements in the moth fauna of south-eastern Ontario, including a number of species new for Canada. *Journal of Research on Lepidoptera* **12**:127-134.
3. Ward, P. S.; Harmsen, R.; Hebert, P. 1974. An annotated checklist of the macroheterocera of south-eastern Ontario. *Journal of Research on Lepidoptera* **13**:23-42.
4. Hebert, P.; Ward, P. S.; Harmsen, R. 1974. Diffuse competition in Lepidoptera. *Nature* **252**:389-391. doi:10.1038/252389a0
5. Hebert, P.; Ward, P. S.; Harmsen, R. 1975. Competition and species abundance - Reply. *Nature* **257**:160-161. doi:10.1038/257161a0
6. Ward, P. 1976. Probing ponerine ants. *Australian Natural History* **18**:384-387.
7. Ward, P. S. 1980. A systematic revision of the *Rhytidoponera impressa* group (Hymenoptera: Formicidae) in Australia and New Guinea. *Australian Journal of Zoology* **28**:475-498. doi:10.1071/ZO9800475
8. Ward, P. S. 1980. Genetic variation and population differentiation in the *Rhytidoponera impressa* group, a species complex of ponerine ants (Hymenoptera: Formicidae). *Evolution* **34**:1060-1076. doi:10.2307/2408288
9. Ward, P. S.; Taylor, R. W. 1981. Allozyme variation, colony structure, and genetic relatedness in the primitive ant *Nothomyrmecia macrops* Clark (Hymenoptera: Formicidae). *Journal of the Australian Entomological Society* **20**:177-183. doi:10.1111/j.1440-6055.1981.tb01026.x
10. Ward, P. S. 1981. Ecology and life history of the *Rhytidoponera impressa* group (Hymenoptera: Formicidae). I. Habitats, nest sites, and foraging behavior. *Psyche* **88**:89-108. doi:10.1155/1981/82408
11. Ward, P. S. 1981. Ecology and life history of the *Rhytidoponera impressa* group (Hymenoptera: Formicidae). II. Colony origin, seasonal cycles, and reproduction. *Psyche* **88**:109-126. doi:10.1155/1981/39593
12. Ward, P. S.; Boussy, I. A.; Swincer, D. E. 1982. Electrophoretic detection of enzyme polymorphism and differentiation in three species of spider mites (*Tetranychus*) (Acari: Tetranychidae). *Annals of the Entomological Society of America* **75**:595-598. doi:10.1093/aesa/75.6.595
13. Ward, P. S. 1983. Genetic relatedness and colony organization in a species complex of ponerine ants. I. Genotypic and phenotypic composition of colonies. *Behavioral Ecology and Sociobiology* **12**:285-299. doi:10.1007/BF00302896
14. Ward, P. S. 1983. Genetic relatedness and colony organization in a species complex of ponerine ants. II. Patterns of sex ratio investment. *Behavioral Ecology and Sociobiology* **12**:301-307. doi:10.1007/BF00302897
15. Ward, P. S. 1984. A revision of the ant genus *Rhytidoponera* (Hymenoptera: Formicidae) in New Caledonia. *Australian Journal of Zoology* **32**:131-175. doi:10.1071/ZO9840131
16. Ward, P. S. 1985. The Nearctic species of the genus *Pseudomyrmex* (Hymenoptera: Formicidae). *Quaestiones Entomologicae* **21**:209-246.
17. Ward, P. S. 1985. Taxonomic congruence and disparity in an insular ant fauna: *Rhytidoponera* in New Caledonia. *Systematic Zoology* **34**:140-151. doi:10.2307/sysbio/34.2.140
18. Tibayrenc, M.; Ward, P.; Moya, A.; Ayala, F. 1986. Natural populations of *Trypanosoma cruzi*, the agent of Chagas' disease, have a complex multiclonal structure. *Proceedings of the National Academy of Sciences U. S. A.* **83**:115-119.
19. Ward, P. S. 1986. Functional queens in the Australian greenhead ant, *Rhytidoponera metallica* (Hymenoptera: Formicidae). *Psyche* **93**:1-12. doi:10.1155/1986/89482
20. Ward, P. S. 1987. Distribution of the introduced Argentine ant (*Iridomyrmex humilis*) in natural habitats of the lower Sacramento Valley, and its effects on the indigenous ant fauna. *Hilgardia* **55**(2):1-16.
21. Ward, P. S. 1988. Mesic elements in the western Nearctic ant fauna: taxonomic and biological notes on *Amblyopone*, *Proceratium*, and *Smithistruma* (Hymenoptera: Formicidae). *Journal of the Kansas Entomological Society* **61**:102-124.
22. Ward, P. S. 1989. Genetic and social changes associated with ant speciation. Pp. 123-148 in: Breed, M. D.; Page, R. E. (eds.). *The genetics of social evolution*. Boulder, Colorado: Westview Press, 213 pp.

23. Ward, P.S. 1989. Systematic studies on pseudomyrmecine ants: revision of the *Pseudomyrmex oculatus* and *P. subtilissimus* species groups, with taxonomic comments on other species. *Quaestiones Entomologicae* **25**:393-468.
24. Ward, P.S. 1990. The ant subfamily Pseudomyrmecinae (Hymenoptera: Formicidae): generic revision and relationship to other formicids. *Systematic Entomology* **15**:449-489. doi:10.1111/j.1365-3113.1990.tb00077.x
25. Ward, P.S. 1991. Phylogenetic analysis of pseudomyrmecine ants associated with domatia-bearing plants. Pp. 335-352 in: Cutler, D. F.; Huxley, C. R. (eds.) *Ant/plant interactions*. Oxford: Oxford Univ. Press, xviii + 601 pp.
26. Frumhoff, P.C.; Ward, P.S. 1992. Individual-level selection, colony-level selection, and the association between polygyny and worker monomorphism in ants. *American Naturalist* **139**:559-590. doi:10.1086/285344
27. Baroni Urbani, C.; Bolton, B.; Ward, P.S. 1992. The internal phylogeny of ants (Hymenoptera: Formicidae). *Systematic Entomology* **17**:301-329. doi:10.1111/j.1365-3113.1992.tb00553.x
28. Ward, P.S. 1992. Ants of the genus *Pseudomyrmex* (Hymenoptera: Formicidae) from Dominican amber, with a synopsis of the extant Antillean species. *Psyche* **99**:55-85. doi:10.1155/1992/19146
29. Gullan, P. J.; Buckley, R. C.; Ward, P. S. 1993. Ant-tended scale insects (Hemiptera: Coccidae: *Myzolecanium*) within lowland rainforest trees in Papua New Guinea. *Journal of Tropical Ecology* **9**:81-91. doi:10.1017/S0266467400006994
30. Ward, P. S. 1993. Systematic studies on *Pseudomyrmex* acacia-ants (Hymenoptera: Formicidae: Pseudomyrmecinae). *Journal of Hymenoptera Research* **2**:117-168.
31. Ward, P. S. 1994. *Adetomyrma*, an enigmatic new ant genus from Madagascar (Hymenoptera: Formicidae), and its implications for ant phylogeny. *Systematic Entomology* **19**:159-175. doi:10.1111/j.1365-3113.1994.tb00585.x
32. Rejmánek, M.; Ward, P. S.; Webster, G. L.; Randall, J. M. 1994. Systematics and biodiversity. [Correspondence.] *Trends in Ecology and Evolution* **9**:228-229. doi:10.1016/0169-5347(94)90252-6
33. Olson, D. M.; Ward, P. S. 1996. The ant fauna (Hymenoptera: Formicidae) of Kirindy Forest (tropical dry forest) in western Madagascar. Pp. 161-164 in Ganzhorn, J. U.; Sorg, J.-P. (eds.). *Ecology and economy of a tropical dry forest in Madagascar. Primate Report 46-1*. Göttingen: German Primate Center (DPZ), 382 pp.
34. Ward, P. S.; Bolton, B. B.; Shattuck, S. O.; Brown, W. L., Jr. 1996. A bibliography of ant systematics. *University of California Publications in Entomology* **116**:1-417.
35. Ward, P. S. 1996. A new workerless social parasite in the ant genus *Pseudomyrmex* (Hymenoptera: Formicidae), with a discussion of the origin of social parasitism in ants. *Systematic Entomology* **21**:253-263. doi:10.1046/j.1365-3113.1996.d01-12.x
36. Ward, P. S. 1997. Ant soldiers are not modified queens. *Nature* **385**:494-495. doi:10.1038/385494b0
37. Ward, P. S. 1999a. Deceptive similarity in army ants of the genus *Neivamyrmex* (Hymenoptera: Formicidae): taxonomy, distribution and biology of *N. californicus* (Mayr) and *N. nigrescens* (Cresson). *Journal of Hymenoptera Research* **8**:74-97. doi:10.5281/zenodo.26381 [3 May 1999]
38. Gadau, J.; Brady, S. G.; Ward, P. S. 1999. Systematics, distribution, and ecology of an endemic California *Camponotus quercicola* (Hymenoptera: Formicidae). *Annals of the Entomological Society of America* **92**:514-522. doi:10.1093/aesa/92.4.514
39. Ward, P. S. 1999b. Systematics, biogeography and host plant associations of the *Pseudomyrmex viduus* group (Hymenoptera: Formicidae), *Triplaris*- and *Tachigali*-inhabiting ants. *Zoological Journal of the Linnean Society* **126**:451-540. doi:10.1111/j.1096-3642.1999.tb00157.x
40. Wetterer, J. K.; Ward, P. S.; Wetterer, A. L.; Longino, J. T.; Trager, J. C.; Miller, S. E. 2000. Ants (Hymenoptera: Formicidae) of Santa Cruz Island, California. *Bulletin. Southern California Academy of Sciences* **99**:25-31.
41. Ward, P. S. 2000a. On the identity of *Pheidole vaslitii* Pergande (Hymenoptera: Formicidae), a neglected ant from Baja California. *Journal of Hymenoptera Research* **9**:85-98.
42. Ward, P. S. 2000b. Broad-scale patterns of diversity in leaf litter ant communities. Pp. 99-121 in: Agosti, D.; Majer, J. D.; Alonso, L. E.; Schultz, T. R. (eds.) *Ants. Standard methods for measuring and monitoring biodiversity*. Washington: Smithsonian Institution Press, xix + 280 pp.

43. Brady, S. G.; Gadau, J.; Ward, P. S. 2000. Systematics of the ant genus *Camponotus* (Hymenoptera: Formicidae): a preliminary analysis using data from the mitochondrial gene cytochrome oxidase I. Pp. 131-139 in: Austin, A. D.; Downton, M. (eds.) *Hymenoptera. Evolution, biodiversity and biological control*. Collingwood, Victoria: CSIRO Publishing, xi + 468 pp.
44. Ward, P. S. 2001. Taxonomy, phylogeny and biogeography of the ant genus *Tetraponera* (Hymenoptera: Formicidae) in the Oriental and Australian regions. *Invertebrate Taxonomy* **15**:589-665. doi:10.1071/IT01001
45. Gronlund, C. J.; Deangelis, M. D.; Pruett-Jones, S.; Ward, P. S.; Coyne, J. A. 2002. Mate grasping in *Drosophila pegasus*. *Behaviour* **139**:545-572. doi:10.1163/15685390260136005
46. Johnson, R. A.; Ward, P. S. 2002. Biogeography and endemism of ants (Hymenoptera: Formicidae) in Baja California, Mexico: a first overview. *Journal of Biogeography* **29**:1009-1026. doi:10.1046/j.1365-2699.2002.00746.x
47. Boulton, A. M.; Ward, P. S. 2002. Ants. Pp. 112-128 in Case, T. J., Cody, M. L. & Ezcurra, E. (eds.) *A new island biogeography of the Sea of Cortés*. Oxford: Oxford University Press, xvii + 669 pp.
48. Ward, P. S.; Boulton, A. M. 2002. Checklist of the ants of the Gulf of California islands. Pp. 545-553 in Case, T. J., Cody, M. L. & Ezcurra, E. (eds.) *A new island biogeography of the Sea of Cortés*. Oxford: Oxford University Press, xvii + 669 pp.
49. Ward, P. S.; Brady, S. G. 2003. Phylogeny and biogeography of the ant subfamily Myrmeciinae (Hymenoptera: Formicidae). *Invertebrate Systematics* **17**:361-386. doi:10.1071/IS02046
50. Ward, P. S. 2003. Subfamilia Pseudomyrmecinae. Pp. 331-333 in Fernández, F. (ed.) *Introducción a las hormigas de la región Neotropical*. Bogotá, Colombia: Instituto de Investigación de Recursos Biológicos Alexander von Humboldt, xxvi + 398 pp.
51. Kaspari, M.; Ward, P. S.; Yuan, M. 2004. Energy gradients and the geographic distribution of local ant diversity. *Oecologia* **140**:407-413. doi:10.1007/s00442-004-1607-2
52. Ward, P. S.; Downie, D. A. 2005. The ant subfamily Pseudomyrmecinae (Hymenoptera: Formicidae): phylogeny and evolution of big-eyed arboreal ants. *Systematic Entomology* **30**:310-335. doi:10.1111/j.1365-3113.2004.00281.x
53. Boulton, A. M.; Davies, K. F.; Ward, P. S. 2005. Species richness, abundance, and composition of ground-dwelling ants in northern California grasslands: role of plants, soil, and grazing. *Environmental Entomology* **34**:96-104. doi:10.1603/0046-225X-34.1.96
54. Ward, P. S. 2005. A synoptic review of the ants of California (Hymenoptera: Formicidae). *Zootaxa* **936**:1-68. doi:10.11646/zootaxa.936.1.1
55. Ward, P. S.; Brady, S. G.; Fisher, B. L.; Schultz, T. R. 2005. Assembling the ant "Tree of Life" (Hymenoptera: Formicidae). *Myrmecologische Nachrichten* **7**:87-90.
56. Brady, S. B.; Ward, P. S. 2005. Morphological phylogeny of army ants and other dorylomorphs (Hymenoptera: Formicidae). *Systematic Entomology* **30**:593-618. doi:10.1111/j.1365-3113.2005.00290.x
57. Suarez, A. V.; Holway, D. A.; Ward, P. S. 2005. The role of opportunity in the unintentional introduction of nonnative ants. *Proceedings of the National Academy of Sciences U. S. A.* **102**:17032-17035. doi:10.1073/pnas.0506119102
58. van der Hammen, T.; Ward, P. S. 2005. Ants from the Ecoandes expeditions: diversity and distribution. *Studies on Tropical Andean Ecosystems* **6**:239-248.
59. Ward, P. S. 2006a. Ants. *Current Biology* **16**:R152-R155. doi:10.1016/j.cub.2006.02.054
60. Ward, P. S. 2006b. The ant genus *Tetraponera* in the Afrotropical region: synopsis of species groups and revision of the *T. ambigua*-group (Hymenoptera: Formicidae). *Myrmecologische Nachrichten* **8**:119-130.
61. Brady, S. G.; Fisher, B. L.; Schultz, T. R.; Ward, P. S. 2006. Evaluating alternative hypotheses for the early evolution and diversification of ants. *Proceedings of the National Academy of Sciences U. S. A.* **103**:18172-18177. doi:10.1073/pnas.0605858103
62. Bolton, B.; Alpert, G.; Ward, P. S.; Naskrecki, P. 2007. *Bolton's Catalogue of Ants of the World*. Cambridge, Mass.: Harvard University Press. CD-ROM. ISBN 13: 978-0-674-02151-8.
63. Ward, P. S. 2007a. Edward O. Wilson and his contributions to ant systematics. *Memoirs of the American Entomological Institute* **80**:3-7.

64. Ward, P. S. 2007b. The ant genus *Leptanilloides*: discovery of the male and evaluation of phylogenetic relationships based on DNA sequence data. *Memoirs of the American Entomological Institute* **80**:637-649.
65. Ward, P. S. 2007c. Phylogeny, classification and species-level taxonomy of ants. *Zootaxa* **1668**:549-563.
66. Kautz, S.; Lumbsch, H. T.; Ward, P. S.; Heil, M. 2009. How to prevent cheating: a digestive specialization ties mutualistic ants to their ant-plant partners. *Evolution* **63**:839-853. doi:10.1111/j.1558-5646.2008.00594.x
67. Ward, P. S.; Brady, S. G. 2009. Rediscovery of the ant genus *Amyrmex* Kusnezov (Hymenoptera: Formicidae) and its transfer from Dolichoderinae to Leptanilloidinae. *Zootaxa* **2063**:46-54.
68. Ward, P. S. 2009. The ant genus *Tetraponera* in the Afrotropical region: the *T. grandidieri* group (Hymenoptera: Formicidae). *Journal of Hymenoptera Research* **18**:285-304.
69. Wernegreen, J. J.; Kauppinen, S. N.; Brady, S. G.; Ward, P. S. 2009. One nutritional symbiosis begat another: phylogenetic evidence that the ant tribe Camponotini acquired *Blochmannia* by tending sap-feeding insects. *BMC Evolutionary Biology* **9**:292. doi:10.1186/1471-2148-9-292.
70. Ward, P. S. 2009. Taxonomy, phylogenetics and evolution. Pp. 3-17 in: Lach, L.; Parr, C. L.; Abbott, K. (eds). *Ant ecology*. Oxford: Oxford University Press, xvii + 410 pp. doi:10.1093/acprof:oso/9780199544639.003.0001
71. Ward, P. S.; Brady, S. G.; Fisher, B. L.; Schultz, T. R. 2010. Phylogeny and biogeography of dolichoderine ants: effects of data partitioning and relict taxa on historical inference. *Systematic Biology* **59**:342-362. doi:10.1093/sysbio/syq012
72. Lucky, A.; Ward, P. S. 2010. Taxonomic revision of the ant genus *Leptomyrmex* Mayr (Hymenoptera: Formicidae). *Zootaxa* **2688**:1-67.
73. Roura-Pascual, N.; Hui, C.; Ikeda, T.; Leday, G.; Richardson, D. M.; Carpintero, S.; Espadaler, X.; Gómez, C.; Guénard, B.; Hartley, S.; Krushelnycky, P.; Lester, P. J.; McGeoch, M. A.; Menke, S. B.; Pedersen, J. S.; Pitt, J. P. W.; Reyes, J.; Sanders, N. J.; Suarez, A. V.; Touyama, Y.; Ward, D.; Ward, P. S.; Worner, S. P. 2011. The relative roles of climatic suitability and anthropogenic influence in determining the pattern of spread in a global invader. *Proceedings of the National Academy of Sciences U. S. A.* **108**:220-225. doi:10.1073/pnas.1011723108
74. Ward, P. S. 2011. Integrating molecular phylogenetic results into ant taxonomy. *Myrmecological News* **15**:21-29.
75. Ward, P. S.; Sumnicht, T. P. 2012. Molecular and morphological evidence for three sympatric species of *Leptanilla* (Hymenoptera: Formicidae) on the Greek island of Rhodes. *Myrmecological News* **17**:5-11.
76. Seltmann, K. C.; Yoder, M. J.; Mikó, I.; Forshage, M.; Bertone, M. A.; Agosti, D.; Austin, A. D.; Balhoff, J. P.; Borowiec, M. L.; Brady, S. G.; Broad, G. R.; Brothers, D. J.; Burks, R. A.; Buffington, M. L.; Campbell, H. M.; Dew, K. J.; Ernst, A. F.; Fernández-Triana, J. L.; Gates, M. W.; Gibson, G. A. P.; Jennings, J. T.; Johnson, N. F.; Karlsson, D.; Kawada, R.; Krogmann, L.; Kula, R. R.; Mullins, P. L.; Ohl, M.; Rasmussen, C.; Ronquist, F.; Schulmeister, S.; Sharkey, M. J.; Talamas, E.; Tucker, E.; Vilhelmsen, L.; Ward, P. S.; Wharton, R. A.; Deans, A. R. 2012. A hymenopterists' guide to the Hymenoptera Anatomy Ontology: utility, clarification, and future directions. *Journal of Hymenoptera Research* **27**:67-88. doi:10.3897/JHR.27.2961
77. Johnson, B. R.; Borowiec, M. L.; Chiu, J. C.; Lee, E. K.; Atallah, J.; Ward, P. S. 2013. Phylogenomics resolves evolutionary relationships among ants, bees, and wasps. *Current Biology* **23**:2058-2062. doi:10.1016/j.cub.2013.08.050
78. Brady, S. G.; Fisher, B. L.; Schultz, T. R.; Ward, P. S. 2014. The rise of army ants and their relatives: diversification of specialized predatory doryline ants. *BMC Evolutionary Biology* **14**:93. doi:10.1186/1471-2148-14-93.
79. Ward, P. S. 2014. The phylogeny and evolution of ants. *Annual Review of Ecology Evolution and Systematics* **45**:23-43. doi:10.1146/annurev-ecolsys-120213-091824
80. Ward, P. S.; Brady, S. G.; Fisher, B. L.; Schultz, T. R. 2015. The evolution of myrmicine ants: phylogeny and biogeography of a hyperdiverse ant clade (Hymenoptera: Formicidae). *Systematic Entomology* **40**:61-81. doi:10.1111/syen.12090
81. Chomiccki, G.; Ward, P. S.; Renner, S. 2015. Macroevolutionary assembly of ant/plant symbioses: *Pseudomyrmex* ants and their ant-housing plants in the Neotropics. *Proceedings of the Royal Society B* **282**:20152200. doi:10.1098/rspb.2015.2200.

82. Blaimer, B. B.; Brady, S. G.; Schultz, T. R.; Lloyd, M. W.; Fisher, B. L.; Ward, P. S. 2015. Phylogenomic methods outperform traditional multi-locus approaches in resolving deep evolutionary history: a case study of formicine ants. *BMC Evolutionary Biology* **15**:271. doi:10.1186/s12862-015-0552-5.
83. Ward, P. S.; Blaimer, B. B.; Fisher, B. L. 2016. A revised phylogenetic classification of the ant subfamily Formicinae (Hymenoptera: Formicidae), with resurrection of the genera *Colobopsis* and *Dinomyrmex*. *Zootaxa* **4072**:343-357. doi:10.11646/zootaxa.4072.3.4
84. Boudinot, B. E.; Probst, R. S.; Brandão, C. R. F.; Feitosa, R. M.; Ward, P. S. 2016. Out of the Neotropics: newly discovered relictual species sheds light on the biogeographic history of spider ants (*Leptomyrmex*, Dolichoderinae, Formicidae). *Systematic Entomology* **41**:658-671. doi:10.1111/syen.12181
85. Ward, P. S.; Fisher, B. L. 2016. Tales of dracula ants: the evolutionary history of the ant subfamily Amblyoponinae (Hymenoptera: Formicidae). *Systematic Entomology* **41**:683-693. doi:10.1111/syen.12186
86. Ward, P. S.; Brady, S. G.; Fisher, B. L.; Schultz, T. R. 2016. Phylogenetic classifications are informative, stable and pragmatic: the case for monophyletic taxa. *Insectes Sociaux* **63**:489-492 doi: 10.1007/s00040-016-0516-9
87. Ward, P. S. 2017. A review of the *Pseudomyrmex ferrugineus* and *Pseudomyrmex goeldii* species groups: acacia-ants and their relatives (Hymenoptera: Formicidae). *Zootaxa*, in press.
88. Ward, P. S.; Branstetter, M. G. 2017. The acacia ants revisited: convergent evolution and biogeographic context in an iconic ant/plant mutualism. *Proceedings of the Royal Society B* **284**: 20162569. doi: 10.1098/rspb.2016.2569
89. Branstetter, M. G.; Longino, J. T.; Ward, P. S.; Faircloth, B. C. 2017. Enriching the ant tree of life: enhanced UCE bait set for genome-scale phylogenetics of ants and other Hymenoptera. *Methods in Ecology and Evolution* doi: 10.1111/2041-210X.12742
90. Ward, P. S. 2017. Subfamilia Pseudomyrmecinae. In: Fernández, F., Guerrero, R. & Delsinne, T. (Eds.), *Hormigas de Colombia*. Universidad Nacional de Colombia, Bogotá, in press.