



- 1992-2001 University of Arkansas: Insect Identification, Immature Insects, Seminar on Coevolution; Principles of Systematics (with S. A. Cameron), Insect Diversity & Taxonomy I & II, Seminar on Parasitoid Biology, seminar on Biodiversity, Special Problems in Cladistic Biogeography
- May 1995 Course on Identification of New World Braconid Genera, San Jose, Costa Rica.
- March 1996 Short Course on The Use of Molecular Genetics in Systematics and Behavior, Universidade Federal de Uberlandia, Brazil.
- 1988-1990 University of Missouri, St. Louis: General Biology, Invertebrate Biology, Seminar on Insect Conservation, General Genetics.
- 1988-1990 Washington University, St. Louis: Insects & Human Affairs, General Biology.

## GRANTS, CONTRACTS AND AWARDS

### EXTERNAL

- 2006-2008 **NSF MRAC NCSA/TeraGrid Allocations**, “Supercomputer phylogenetic analysis of a rapid evolutionary radiation of insect parasitoids, DEB 060003, 60,000 service units per year (renewable)
- 2006 **Allan Wilson Centre for Molecular Ecology and Evolution**, Sabbatical Leave Grant, “Network Methods for Exploring Polydnavirus Gene Family Evolution”, NZ\$10,000 over 1 year
- 2005-2008 **NSF, Biological Research Collections**, “Hymenopteran Biodiversity Informatics at the Illinois Natural History Survey” (with C. Favret, S. Cameron, A Suarez, J. Marlin), \$436, 558 over 3 years
- 2004-2005 **NSF, Doctoral Dissertation Improvement Grant** (for Andrew R. Deans), “Systematics of the Enigmatic Wasp Family Evaniidae”, \$9,902 over 2 years
- 2004-2007 **NSF, Biotic Surveys and Inventories**, “Collaborative Research: Caterpillars and Parasitoids in the eastern Andes of Ecuador” (with L. Dyer, P. J. DeVries, T. Walla, S. Shaw) (\$78,000 over 3 years)
- 2004-2007 **NSF, Animal Behavior**, “Collaborative Research: The evolutionary transition from solitary to gregarious development in parasitoid wasps” (with P. J. Ode, North Dakota State Univ., G. E. Heimpel, Univ. Minnesota, L. E. M. Vet, Wageningen Univ.) (\$73,700 over 3 years)
- 2003-2005 **NSF, Systematic Biology**, “Origin and Evolution of the Bracovirus-Braconid Wasp Symbiosis” (\$162,940 over 2 years)
- 2003-2006 **U.S.D.A. NRI, Biologically Based Pest Management**, “Systematic Revision and Phylogeny of New World *Microplitis* Wasps (Hymenoptera: Braconidae), Including Those Important in Biological Control” (renewal) (\$70,000 over 2 years)
- 2003-2004 **NSF/NCSA – Small Allocation Project – “Phylogenetics of Braconid**

- Parasitoid Wasps and their Symbiotic Viruses” (10,000 service units on supercomputing clusters)
- 2002-2004 **U. S. D. A. NRI, Biologically Based Pest Management**, “Identification Keys to the Economically Important Species of Parasitic Wasps of the Genus *Cotesia* (Hymenoptera, Braconidae)” (with M. J. Sharkey, Univ. Kentucky) (\$148,000 over 2 years)
- 2002-2003 **Australian Research Council – Linkage International**, “Evolution of Host Relationships among the Parasitic Wasps Inferred from Morphology, DNA Sequences and Mitochondrial Genome Organisation” (with A. D. Austin, Adelaide Univ.), A\$14,000 over 2 years
- 2001-2002 **Society of Systematic Biologists**, funding for 2002 SSB Symposium “Visualizing the Phylogenetic Complexity of Species Radiations” (with P. J. Lockhart, S. A. Cameron),. \$4,000
- 2001-2003 **U.S.D.A. National Research Initiative, Competitive Grants Program**, “Systematic Revision and Phylogeny of New World *Microplitis* Wasps (Hymenoptera: Braconidae), Including Those Important in Biological Control”, (\$99,265 over 2 years)
- 1999-2000 **U. S. Forest Service** – “Resampling Phase II Sites in Ouachita National Forest to Determine Treatment Effects on Braconid Wasp Faunas” (with C. N. Lewis) (\$11,000)
- 1999-2001 **National Science Foundation, Systematic Biology Program** – “Evolution of Polydnavirus Genes in Microgastroid Braconid Parasitoid Wasps” – (\$110,000 over 2 years)
- 1997-1999 **National Science Foundation, International Programs** - “Collaborative Project on Phylogeny of Microgastrine Braconid Wasps Using Morphology and DNA Sequences” - (\$6,507 over 2 years)
- 1995-1997 **National Science Foundation, Research Collections in Systematics and Ecology** - "Improvement of the University of Arkansas Arthropod Museum Facilities" - (\$51,920 over 2 years).
- 1995-1997 **U.S.D.A. National Research Initiative, Competitive Grants Program** "Systematics of the Microgastrine Braconidae (Hymenoptera) Using Morphology and Molecular Data", (\$100,000 over 2 years).
- 1995-1998 **U. S. Forest Service and Missouri Department of Conservation** "A Field Guide to Caterpillars Feeding on Oaks in the Missouri Ozarks", with R. J. Marquis, Univ. Missouri- St. Louis. (\$15,000 over 3 years)
- 1993-1996 **National Science Foundation, Systematic Biology Program** - Biodiversity Panel, "Identification Manual for the New World Genera of the Family Braconidae", with R.A.Wharton, S.R. Shaw, P.M. Marsh & J. W. Johnson (\$285,000 over 3 years)

- 1993-1994      **Arkansas Science and Technology Authority**, Basic Research Grant, "Phylogenetic Interrelationships between Polydnviruses and *Glyptapanteles* Parasitoid Wasps" (\$27,500 over 1.5 years)
- 1993            **Distinguished Visiting Scholarship, University of Adelaide** for work on microgastrine braconids and polydnviruses (\$3,000)
- 1991            **National Science Foundation, Systematic Biology** SGER "Co-phylogenetic Studies of Braconid Wasps and Polydnviruses" (\$39,823)
- 1991            **Missouri Department of Conservation** "Seasonal and Geographic Variation in the Herbivore Fauna of Oaks (*Quercus* spp.) in Missouri Oak-Hickory Forests", with R.J. Marquis (\$20,000)
- 1990            **Natural Products Sciences Research Grant** "Comparative Studies of Rogadine Braconid Wasp Venoms" (\$2,000)
- 1989            **Missouri Prairie Foundation** "The Braconid and Proctotrupoid Faunas of Missouri Tallgrass Prairies" (\$800)
- 1985-1986      **NATO Postdoctoral Fellowship in Science** "Comparative Studies of Braconidae (Hymenoptera) Attacking Leafmining Lepidoptera" (\$18,000)
- 1983, 1981      **Sigma Xi Grants-in Aid of Research** field studies of leafminer parasitoids in the southeastern U.S. (\$500)
- 1978-79        **Hilgard Graduate Scholarship**, University of California, Berkeley (\$12,000)

*INTERNAL*

- 2002            **UIUC Research Board** (with A. R. Deans)- Exploring the Evolution of an Enigmatic Group of Wasps, the Evaniidae (Hymenoptera) (\$23,002)
- 1998            **Dale Bumpers College of Agricultural, Food and Life Sciences Research Incentives Program-** Research Bridging Grant "Phylogeny of Microgastrine Braconidae Using Molecular and Morphological Data" (\$10,000)
- 1994            **University of Arkansas Teaching Academy**, "Enhancement of the Entomology Teaching Program Using a Microprojector" (\$900)

**COLLABORATOR ON THE FOLLOWING FUNDED GRANTS:**

**National Science Foundation, Biotic Surveys and Inventories DEB 0072702-**  
“Arthropod Biodiversity from Rainforest to Cloudforest, Project ALAS Phase IV” (PI G. S. Hartshorn, Duke University), (\$959,075 over 5 years)

**National Science Foundation, Biotic Surveys and Inventories DEB 0072730-**  
“Inventory of the Lepidoptera Larvae, their Parasitoids, and their Gut Microbes of a Costa Rican Tropical Dry Forest, Cloud Forest, and Rainforest”.(PIs D. H. Janzen and W. Hallwachs, University of Pennsylvania) (\$1,919,400 over 5 years)

**U. S. D. A. National Research Initiative/National Science Foundation Joint RFP in Microbial Genomes -** “Genome Evolution of Mutualistic Insect Viruses” (PIs M. R. Strand, University of Wisconsin, B. A. Webb, University of Kentucky)(\$919,388 over 3 years)

**National Science Foundation, Assembling the Tree of Life DEB0337220-**  
“Large Scale Phylogeny of Hymenoptera” (PIs M. J. Sharkey, University of Kentucky, M. E. Engel, University of Kansas, J. M. Carpenter, American Museum of Natural History \$1,379,725 over 5 years)

## **PUBLICATIONS:**

### *BOOKS/BOOK CHAPTERS*

Whitfield, J.B. 1994. Mutualistic viruses and the evolution of host ranges in endoparasitoid Hymenoptera. Chapter 9, pp. 163-176 in: Hawkins, B. and W. Sheehan, eds., *Parasitoid Community Ecology*, Oxford University Press.

Whitfield, J. B. and R. A. Wharton. 1997. Subfamily Hormiinae. Chapter 22, pp. 285-301 in: Wharton, R. A., P. M. Marsh, and M. J. Sharkey, eds. *Identification Manual to the New World Genera of the Family Braconidae (Hymenoptera)*. International Society of Hymenopterists Special Publication 1. 439 pp.

Whitfield, J. B. 1997. Subfamily Adeliinae. Chapter 4, pp. 65-67 in: Wharton, R. A., P. M. Marsh, and M. J. Sharkey, eds. *Identification Manual to the New World Genera of the Family Braconidae (Hymenoptera)*. International Society of Hymenopterists Special Publication 1. 439 pp.

Whitfield, J. B. 1997. Subfamily Dirrhopinae. Chapter 15, pp. 203-204 in: Wharton, R. A., P. M. Marsh, and M. J. Sharkey, eds. *Identification Manual to the New World Genera of the Family Braconidae (Hymenoptera)*. International Society of Hymenopterists Special Publication 1. 439 pp.

Whitfield, J. B. 1997. Subfamily Mendesellinae. Chapter 26, pp. 321-323 in: Wharton, R. A., P. M. Marsh, and M. J. Sharkey, eds. *Identification Manual to the New World Genera of the Family Braconidae (Hymenoptera)*. International Society of Hymenopterists Special Publication 1. 439 pp.

Whitfield, J. B. 1997. Subfamily Microgastrinae. Chapter 29, pp. 333-364 in: Wharton, R. A., P. M. Marsh, and M. J. Sharkey, eds. *Identification Manual to the New World Genera*

*of the Family Braconidae (Hymenoptera)*. International Society of Hymenopterists Special Publication 1. 439 pp.

Whitfield, J. B. 1997. Subfamily Miracinae. Chapter 31, pp. 371-373 in: Wharton, R. A., P. M. Marsh, and M. J. Sharkey, eds. *Identification Manual to the New World Genera of the Family Braconidae (Hymenoptera)*. International Society of Hymenopterists Special Publication 1. 439 pp.

Whitfield, J. B. and P. C. Dangerfield. 1997. Subfamily Cardiochilinae. Chapter 12, pp. 177-183 in: Wharton, R. A., P. M. Marsh, and M. J. Sharkey, eds. *Identification Manual to the New World Genera of the Family Braconidae (Hymenoptera)*. International Society of Hymenopterists Special Publication 1. 439 pp.

Cameron, S. A., J. B. Whitfield, M. Cohen and N. Thorp. 1999. Novel use of walking trails by the Amazonian bumble bee, *Bombus transversalis* (Hymenoptera: Apidae). Pp. 187-193 in: Byers, G. W., R. H. Hagen and R. W. Brooks, eds., *Entomological Contributions in Memory of Byron A. Alexander*, University of Kansas Natural History Museum Special Publication 24 . 251 pp.

Whitfield, J. B. 1999. Destructive sampling and information management in molecular systematic research: an entomological perspective. Chapter 18, pp. 301-314 in: Byers, S. and D. Metsger, eds., *Managing the Modern Herbarium: An Interdisciplinary Approach*. Society for Preservation of Natural History Collections and Royal Ontario Museum. 384 pp.

Whitfield, J. B. 2000. Phylogeny of microgastroid braconid wasps, and what it tells us about polydnavirus evolution. Pp. 97-105 in: Austin, A.D. & M. Downton (Eds) *The Hymenoptera: Evolution, Biodiversity and Biological Control*. CSIRO Publishing, Melbourne.

Whitfield, J. B. 2003. Phylogenetic insights into the evolution of parasitism in Hymenoptera. In *The Evolution of Parasitism - A Phylogenetic Approach*, (T. J. Littlewood, ed.) *Advances in Parasitology* 54: 69-100.

#### MONOGRAPH IN REVIEW

(with R. J. Marquis, University of Missouri-St. Louis, and S. Passoa, USDA-APHIS, Reynoldsburg, Ohio) - sent out to reviewers 1 June 1998:

*An Illustrated Field Guide to the Immature Lepidopteran Fauna of Missouri Oaks*.  
To be published by the U. S. Forest Service in conjunction with the Missouri Department of Conservation.

#### BOOK IN REVISION

Whitfield, J. B. and A H. Purcell. *Daly and Doyen's Introduction to Insect Biology and Diversity*. Third Edition. Oxford University Press.

#### REFEREED JOURNAL ARTICLES

- Whitfield, J.B. 1985. The nearctic species of *Deuterixys* Mason (Hymenoptera: Braconidae). *Pan-Pacific Entomologist* **61**: 60-67.
- Whitfield, J. B. 1986. *Apanteles ornigis* Weed, 1887 (Insecta, Hymenoptera): proposed conservation by the suppression of *Microgaster robiniae* Fitch, 1859. Z.N.(S.) 2506. *Bulletin of Zoological Nomenclature* **43**: 96-98.
- Whitfield, J.B. 1987a. Male swarming by a microgastrine braconid, *Apanteles coniferae* (Haliday) (Hymenoptera). *Proceedings and Transactions of the British Entomological and Natural History Society* **20**: 133-135.
- Whitfield, J. B. 1987b. Comments on the proposed conservation of *Apanteles* (currently *Pholetesor*) *ornigis* Weed, 1887 (Insecta, Hymenoptera). (3) Reply by J.B. Whitfield. *Bulletin of Zoological Nomenclature* **44**: 46.
- Whitfield, J.B. 1987c. Comment on the proposed designation of *Microgaster australis* Thomson, 1895 as type species of *Microgaster* Latreille, 1804 (Insecta, Hymenoptera). *Bulletin of Zoological Nomenclature* **44**: 47.
- Whitfield, J.B. and C. van Achterberg. 1987. Clarification of the taxonomic status of the genera *Cantharoctonus* Viereck, *Noserus* Foerster and *Pseudavga* Tobias (Hymenoptera: Braconidae). *Systematic Entomology* **12**: 509-518.
- Whitfield, J.B. 1988a. Revision of the Nearctic species of the genus *Stiropius* Cameron (= *Bucculatriplex* Auct.) with the description of a new related genus (Hymenoptera: Braconidae). *Systematic Entomology* **13**: 373-385.
- Whitfield, J. B. 1988b. Taxonomic notes on Rhyssalini and Rhysipolini (Hymenoptera: Braconidae) with first nearctic records of three genera. *Proceedings of the Entomological Society of Washington* **90**: 471-473.
- Whitfield, J.B. 1988c. Two new species of *Paradelius* (Hymenoptera: Braconidae) from North America with biological notes. *Pan-Pacific Entomologist* **64**: 313-319.
- Whitfield, J.B. & S. A. Cameron. 1988. A year-long survey of the bees (Hymenoptera: Apoidea) along the Dean River at Woodfords, Cheshire). *Naturalist (Yorkshire)* **113**: 65-68.
- Whitfield, J.B. & D.L. Wagner. 1988. Patterns in host ranges within the nearctic species of the parasitoid genus *Pholetesor* Mason (Hymenoptera: Braconidae). *Environmental Entomology* **17**: 608-615.
- Whitfield, J. B., N.F. Johnson and M.R. Hamerski. 1989. Identity and phylogenetic significance of the metapostnotum in nonaculeate Hymenoptera. *Annals of the Entomological Society of America* **82**: 663-673.
- Whitfield, J.B. 1990a. Phylogenetic review of the *Stiropius* group of genera (Hymenoptera: Braconidae, Rogadinae) with description of a new Neotropical genus. *Proceedings of the Entomological Society of Washington* **92**: 36-43.

- Whitfield, J.B. 1990b. Symbiont-induced speciation and endoparasitoid insects. *Evolutionary Theory* **9**: 211-213.
- Whitfield, J.B. 1990c. Parasitoids, polydnviruses and endosymbioses. *Parasitology Today* **6**: 381-384.
- DeBenedictis, J.A., D.L. Wagner and J.B. Whitfield. 1990. Larval hosts of microlepidoptera of the San Bruno Mountains, California. *Atala* **16**: 14-35.
- Whitfield, J.B. & D.L. Wagner. 1991. Annotated keys to the genera of Braconidae (Hymenoptera) attacking leafmining Lepidoptera in the Holarctic region. *Journal of Natural History* **25**: 733-754.
- Whitfield, J.B. 1992a. The polyphyletic origin of endoparasitism in the cyclostome lineages of Braconidae (Hymenoptera). *Systematic Entomology* **17**: 273-286.
- Whitfield, J.B. 1992b. Phylogeny of the non-aculeate Apocrita and the evolution of parasitism in the Hymenoptera. *Journal of Hymenoptera Research* **1**: 3-14.
- Stoltz, D.B. and J.B. Whitfield. 1992. Viruses and virus-like entities in the parasitic Hymenoptera. *Journal of Hymenoptera Research* **1**: 125-139.
- Wharton, R.A., S.R. Shaw, M.J. Sharkey, D.B. Wahl, J.B. Woolley, J.B. Whitfield, P.M. Marsh, and J.W. Johnson. 1992. Phylogeny of the subfamilies of the family Braconidae: a reassessment. *Cladistics* **8**: 199-235.
- Whitfield, J. B. & S. A. Cameron. 1993. Comparative notes on hymenopteran parasitoids in bumble bee and honey bee colonies (Hymenoptera: Apidae) reared adjacently. *Entomological News* **104**: 240-248.
- Steinkraus, D.C. and J.B. Whitfield. 1994. Chinese vegetable worms and world record runners. *American Entomologist* **40**: 235-239.
- Whitfield, J.B. & W. R. M. Mason. 1994. Mendesellinae, a new subfamily of braconid wasps (Hymenoptera, Braconidae) with a review of relationships within the microgastroid assemblage. *Systematic Entomology* **19**: 61-76.
- Whitfield, J.B. 1995a. Checklist of the Microgastrinae (Hymenoptera: Braconidae) in America north of Mexico. *Journal of the Kansas Entomological Society* **68**: 245-262.
- Whitfield, J. B. 1995b. *Xanthapanteles*, a new genus of Microgastrinae (Hymenoptera: Braconidae) from South America. *Proceedings of the Entomological Society of Washington* **97**: 879-883.
- Cameron, S. A. & J. B. Whitfield. 1996. Use of walking trails by bees. *Nature* **379**:125.
- Cameron, S. A., J. B. Whitfield, C. Hulslander, W. A. Cresko, S. Isenberg and R. King. 1996. Nesting biology and foraging patterns of the solitary bee *Melissodes rustica* (Hymenoptera: Apidae) in northwest Arkansas. *Journal of the Kansas Entomological Society* **69** (Eickwort Memorial Publication): 260-273.

- Dangerfield, P. C., J. B. Whitfield, M. J. Sharkey, D. H. Janzen and I. Mercado. 1996. *Hansonia*, a new genus of cardiochiline Braconidae (Hymenoptera) from Costa Rica, with notes on its biology. *Proceedings of the Entomological Society of Washington* **98**: 592-596.
- Whitfield, J. B. and B. Scaccia. 1996. A new species of *Distatrix* (Hymenoptera: Braconidae) from California, with biological notes. *Proceedings of the Entomological Society of Washington* **98**: 308-313.
- Ruberson, J. R. and J. B. Whitfield. 1996. Facultative egg-larval parasitism of the beet armyworm, *Spodoptera exigua* (Lepidoptera: Noctuidae) by *Cotesia marginiventris* (Hymenoptera: Braconidae). *Florida Entomologist* **79**: 296-302.
- Lewis, C. N. and J. B. Whitfield. 1997. Seasonal distribution of Embolemidae (Hymenoptera) in the Central Highlands of Arkansas. *Entomological News* **108**: 231-235.
- Whitfield, J. B. 1997. Molecular and morphological data suggest a common origin for the polydnviruses among braconid wasps. *Naturwissenschaften* **84**: 502-507.
- Isenberg, S. B., S. A. Cameron and J. B. Whitfield. 1997. Crop storage of pollen and its functional significance in the solitary bee, *Melissodes rustica* (Hymenoptera: Apidae). *Journal of the Kansas Entomological Society* **70**: 353-358.
- Whitfield, J. B. 1998. Phylogeny and evolution of the host/parasitoid relationship in the Hymenoptera. *Annual Review of Entomology* **43**: 129-151.
- Whitfield, J. B. & S. A. Cameron. 1998. Hierarchical analysis of variation in the 16S rRNA gene among Hymenoptera *Molecular Biology and Evolution* **15**: 1728-1743.
- Mardulyn, P. and J. B. Whitfield. 1999. Phylogenetic signal in the COI, 16S and 28S genes for inferring relationships among genera of Microgastrinae (Hymenoptera: Braconidae); evidence of a high diversification rate in this group of parasitoids. *Molecular Phylogenetics and Evolution* **12**: 282-294. .
- Whitfield, J. B., R. J. Marquis and J. Le Corff. 1999. Braconid parasitoids associated with caterpillars feeding on oaks in the Missouri Ozarks. *Entomological News* **110**: 225-230.
- Spencer, L. and J. B. Whitfield. 1999. Revision of the nearctic species of *Rhysipolis* Foerster (Hymenoptera: Braconidae). *Transactions of the American Entomological Society* **125**: 295-324.
- Lewis, C. N. and J. B. Whitfield. 1999. Braconid wasp (Hymenoptera: Braconidae) diversity in forest plots under different silvicultural methods. *Environmental Entomology* **28**: 986-997.
- Dangerfield, P. C., A. D. Austin and J. B. Whitfield. 1999. Systematics of the world genera of Cardiochilinae (Hymenoptera: Braconidae). *Invertebrate Taxonomy* **13** : 917-976.
- Le Corff, J., R. J. Marquis and J. B. Whitfield. 2000. Temporal and spatial variation in the parasitoid community associated with the herbivores that feed on Missouri *Quercus*.

*Environmental Entomology* **29**: 181-194.

Valerio, A. A. and J. B. Whitfield. 2000. Taxonomic notes on Costa Rican Mendesellinae (Ichneumonoidea: Braconidae), with description of a new species of *Mendesella* Whitfield and Mason. Submitted to *Journal of Hymenoptera Research* **9**: 271-276.

Barbosa, P., A. E. Segarra, P. Gross, A. Caldas, K. Ahlstrom, R. W. Carlson, D. C. Ferguson, E. E. Grissell, R. W. Hodges, P. M. Marsh, R. W. Poole, M. E. Schauff, S. R. Shaw, J. B. Whitfield, and N. E. Woodley. 2001. Differential parasitism of macrolepidopteran herbivores on two deciduous tree species. *Ecology*. **82**: 698-704.

Whitfield, J. B. and C. N. Lewis. 2001. Analytical survey of the braconid wasp fauna (Hymenoptera: Braconidae) on six midwestern U. S. tallgrass prairies. *Annals of the Entomological Society of America* **94**: 230-238.

Whitfield, J. B., S. A. Cameron, S. R. Ramirez, K. Roesch, S. Messinger and M. Taylor. 2001. Review of the *Apanteles* species (Hymenoptera: Braconidae) attacking Lepidoptera in *Bombus* (*Fervidobombus*) (Hymenoptera: Apidae) colonies in the New World, with description of a new species from tropical South America. *Annals of the Entomological Society of America* **94**: 851-857.

Whitfield, J. B., A. Benzing and F. Ponce. 2002. Review of the *Glyptapanteles* species (Hymenoptera: Braconidae, Microgastrinae) attacking noctuids in field crops in the Neotropical Region, with descriptions of two new species from the Ecuadorian Andes. *Journal of Hymenoptera Research* **11**: 152-165.

Valerio, A. A. and J. B. Whitfield. 2002. *Epsilogaster faviolae*, a new species of Mendesellinae from Colombia (Hymenoptera: Braconidae). *Zootaxa* **41**:1-7.

Whitfield, J. B. 2002. Estimating the age of the polydnavirus/braconid wasp symbiosis. *Proceedings of the National Academy of Sciences of the USA* **99**: 7508-7513.

Whitfield, J. B., P. Mardulyn, A. D. Austin and M. Dowton. 2002. Phylogenetic analysis of relationships among microgastrine braconid wasp genera based on data from the 16S, COI and 28S genes and morphology. *Systematic Entomology* **27**: 337-359.

Gates, M. W., J. M. Heraty, M. E. Schauff, D. L. Wagner, J. B. Whitfield and D. B. Wahl. 2002. Survey of the parasitic Hymenoptera on leafminers in California. *Journal of Hymenoptera Research* **11**: 213-270.

Chen, X., J. B. Whitfield and J. He. 2002. The discovery of the genus *Gnamptodon* Haliday (Hymenoptera: Braconidae) in China, with description of one new species. *Pan-Pacific Entomologist* **78**: 184-187.

Chen, X., J. B. Whitfield and J. He. 2002. Discovery of the genus *Microtypus* Ratzeburg (Hymenoptera: Braconidae) in China, with records of three species. *Journal of the Kansas Entomological Society* **75**: 333-334.

Chen, X. and J. B. Whitfield. 2002. A new species of the rare genus *Katytermus* van Achterberg (Hymenoptera: Braconidae) from China. *Entomological News* **113**: 239-242.

- Deans, A. R., J. B. Whitfield and D. H. Janzen. 2003. Taxonomy and natural history of the microgastrine braconid genus *Alphomelon*. *Journal of Hymenoptera Research* **12**: 1-41.
- Janzen, D. H., A.K. Walker, J. B. Whitfield, G. Delvare, and I. D. Gauld. 2003. Host-specificity and hyperparasitoids of three new species of Costa Rican *Microplitis* (Braconidae: Microgastrinae), parasitoids of sphingid caterpillars. *Journal of Hymenoptera Research*. **12**: 42-76.
- Chen, X. and J. B. Whitfield. 2003. The discovery of the genus *Ecnomios* Mason (Hymenoptera: Braconidae) in China, with description of one new species. *Proceedings of the Entomological Society of Washington* **105** : 348-351.
- Whitfield, J. B. and S. Asgari. 2003. Virus or not? Phylogenetics of polydnviruses and their wasp carriers. *Journal of Insect Physiology* **49**: 397-405.
- Chen, X., Piao Meihua, J. B. Whitfield and He Junhua. 2003. Phylogenetic relationships within the Rogadinae (Hymenoptera: Braconidae) based on the D2 variable region of 28S ribosomal RNA. *Acta Entomologia Sinica* **46**: 209-217.
- Valerio, A. A. and J. B. Whitfield. 2003. A new species of the enigmatic genus *Teremys* Mason, *T. hanniae*, from Costa Rica (Hymenoptera: Braconidae). *Zootaxa* **364**: 1-9.
- Figueroa-De la Rosa, J. I., A. A. Valerio, V. Lopez M., J. B. Whitfield and M. J. Sharkey. 2003. Descriptions of two new species of *Epsilogaster* (Hymenoptera: Braconidae: Mendesellinae) from Mexico and Costa Rica. *Pan-Pacific Entomologist* **79**: 198-206.
- Chen, X., J. B. Whitfield and J. He. 2004.. Revision of the subfamily Cardiochilinae (Hymenoptera: Braconidae) in China. I. The genera *Austerocardiochiles* Dangerfield, Austin & Whitfield, *Eurycardiochiles* Dangerfield, Austin & Whitfield and *Psilommiscus* Enderlein. *Proceedings of the Entomological Society of Washington* **106**: 35-51.
- Whitfield, J. B., W.-Y. Choi and K.-I. Suh. 2004. *Andesipolis*, a puzzling new genus of Braconidae from South America. *Zootaxa*, **438**: 1-15.
- Whitfield, J. B. and M. T- Oltra Moscardo. 2004. Revision of the neotropical species of *Deuterixys* Mason (Hymenoptera: Braconidae). *Journal of Hymenoptera Research* **13**:134-148.
- Chen, X., S. A. Belokobylskij, C. van Achterberg and J. B. Whitfield. 2004. *Cornutorogas*, a new genus with four new species of the subfamily Rogadinae (Hymenoptera: Braconidae) from the Oriental Region. *Journal of Natural History* **38**: 2211-2223.
- Michel-Salzat, A. and J. B. Whitfield. 2004. Preliminary evolutionary relationships within the parasitoid wasp genus *Cotesia* (Hymenoptera: Microgastrinae): combined analysis of four genes. *Systematic Entomology* **29**: 371-382.
- Valerio, A. A., A. R. Deans and J. B. Whitfield. 2004. Review of the microgastrine braconid wasp genus *Exoryza*, with description of a new species, *E. monocavus*, from Central America. *Zootaxa* **526**: 1-11.
- Valerio, A. A., J. B. Whitfield and M. Kole. 2005. *Parapanteles roibos*, n. sp. (Hymenoptera:

Braconidae: Microgastrinae): the first record of the genus from the African continent. *Zootaxa* 855: 1-8

Valerio, A. A. and J. B. Whitfield. 2005. Two new species of the genus *Austrocotesia* Austin & Dangerfield (Hymenoptera: Braconidae) from the Andean region of South America. *Zootaxa* 888: 1-11.

Valerio, A. A., J. J. Rodriguez, J. B. Whitfield and D. H. Janzen. 2005. *Prasmodon zlotnicki*, a new Neotropical species of the genus *Prasmodon* Nixon (Braconidae: Microgastrinae) from Costa Rica, with the first host records from the genus. *Zootaxa* 1016: 29-38.

Whitfield, J. B., A. A. Valerio and W. Y. Choi. 2005. Redescription of *Pelicope yuccamica* Mason (Hymenoptera: Braconidae: Microgastrinae), with notes on its unusual biology and relationships. *Journal of Hymenoptera Research* 14: 200-205.

Choi, W. Y. and J. B. Whitfield. 2006. *Cuneogaster*, a new genus of Microgastrinae (Hymenoptera: Braconidae) from South America. *Proceedings of the Entomological Society of Washington* 108: 119-124.

Whitfield, J. B. 2006. Revision of the Nearctic Species of the Genus *Pholetesor* Mason (Hymenoptera: Braconidae). *Zootaxa* 1144: 1-94.

Huson, D. H., M. Steel and J. B. Whitfield. 2006. Reducing distortion in phylogenetic networks. *Workshop on Algorithms in Bioinformatics 2006 (Lecture Notes in Bioinformatics 4175)*: 150-161.

#### IN PRESS

Hajibabaei, M., M. A. Smith, D. H. Janzen, J. J. Rodriguez, J. B. Whitfield and P. D. N. Hebert. 2006. A minimalist barcode can identify a specimen whose DNA is degraded. *Molecular Ecology Notes*. (in press).

Banks, J. C. and J. B. Whitfield. 2006. Dissecting the ancient rapid radiation of microgastrine wasp genera using additional nuclear genes. *Molecular Phylogenetics and Evolution* (in press).

De Boer, J., P. J. Ode, L. E. M. Vet, J. B. Whitfield and G. E. Heimpel. 2006. Complementary sex determination in the parasitoid wasp *Cotesia vestalis* (= *C. plutellae*). *Journal of Evolutionary Biology* (in press).

Banks, J., A. van Buren, Y. Cherel and J. B. Whitfield. 2006. Molecular phylogeny and species delineation in rockhopper penguins, *Eudyptes chrysocome*. *Polar Biology* (in press).

#### IN REVIEW

De Boer, J. G., P. J. Ode, L. E. M. Vet, J. B. Whitfield and G. E. Heimpel. Diploid males sire triploid daughters and sons in the parasitoid *Cotesia vestalis*. Submitted to *Entomologia Experimentalis et Applicata*.

Whitfield, J. B. and P. J. Lockhart. Deciphering ancient rapid radiations. Submitted to *Trends in*

*Ecology and Evolution.*

Lapointe, R., K. Tanaka, W. Barney, J. Whitfield, J. Banks, C. Beliveau, D. Stoltz, B. Webb and M. Cusson. Genomic and morphological features of a banchine polydnavirus: a comparison with bracoviruses and ichnoviruses. Submitted to *Journal of Virology*.

Seufferheld, M., A. A. Valerio, J. B. Whitfield and R. Docampo. Vacuolar proton pyrophosphatase and aquaporin and the evolutionary origin of acidocalcisomes. Submitted to *Proceedings of the National Academy of Sciences of the USA*.

*IN PREPARATION*

Murphy, N., J. C. Banks, J. B. Whitfield and A. D. Austin. Phylogeny of the microgastrid complex of subfamilies of braconid parasitoid wasps (Hymenoptera) based on sequence data from seven genes, with an improved estimate of the time of origin of the lineage. *Molecular Phylogenetics and Evolution*.

Whitfield, J. B. and K. Kjer. Ancient rapid radiations of insects: phylogenetic challenges and progress. *Annual Review of Entomology* (for 2008 issue).

Marquis, R. J. and J. B. Whitfield. Geographical, seasonal and host species variation in herbivore abundance on oaks in the Missouri Ozarks. To be submitted to *Ecological Entomology*.

Whitfield, J. B. and C. Rasmussen. Review of the New World microgastrine braconid wasp genus *Venanus* Mason, with description of a new species attacking *Eurysacca melanocampta* (Meyrick), a pest of quinoa in Peru.

Grinter, C., J. B. Whitfield and D. H. Janzen. Review of the microgastrine braconid wasp genus *Distatrix* Mason (Hymenoptera: Braconidae), with descriptions of three new reared neotropical species.

***OTHER NON-REFEREED/REVIEW PUBLICATIONS***

Whitfield, J. B. 1994. Review of: *Parascript: Parasites and the Language of Evolution*. - D.R. Brooks and D. McLennan. 1993. Smithsonian Institution Press, Washington, D.C. *Systematic Biology* **43**: 298-299.

Whitfield, J. B. & S. A. Cameron. 1994. Museum policies concerning specimen loans for molecular systematic research. *Molecular Phylogenetics and Evolution* **3**: 268-270.

Cameron, S. A. & J. B. Whitfield. 1994. Response to Dr. Hafner. *Molecular Phylogenetics and Evolution* **3**: 271-272.

Whitfield, J. B. 1995. Review of: *The Insects: An Outline of Entomology*. P. J. Gullan and P. S. Cranston. Chapman & Hall, London, 1994. xiv + 491 pp., \$39.95 (paperback). *American Entomologist* **41**: 188-189.

Whitfield, J. B. and S. A. Cameron. 1996. Review of: *Latin American Insects and Entomology*.

- C. L. Hogue. University of California Press, 1993. xiv + 536 pp. \$85.00 (cloth). *Annals of the Entomological Society of America* **89**: 153-154.
- Whitfield, J. B. 1998. Review of: Fundamentals of Entomology, Fourth Edition, Richard J. Elzinga, Prentice Hall, Upper Saddle River, NJ, 1997, 475 pp., \$87.00, ISBN 0-13-508037-1. *American Entomologist* **44**: 52-53.
- Whitfield, J. B. 1998. Review of: The Natural History of Moths, Mark Young, Poyser Natural History, London, 1997, 271 pp. \$47.95, ISBN 0-85661-103-4. *American Entomologist* **44**: 52.
- Whitfield, J. B. 1999. Review of: Biogeography, 2nd Edition, James H. Brown and Mark V. Lomolino, Sinauer Associates, Sunderland, MA, 1998, 560 pp, \$64.95, ISBN 0-87893-073-6. *Environmental Entomology* **28**: 912-913.
- Whitfield, J. B. and A. R. Deans. 2001. Review of: Describing Species: Practical Taxonomic Procedure for Biologists, Judith E. Winston, Columbia University Press, New York, 1999, 518 pp. ISBN 0-231-06825-5. *American Entomologist* **47**: 189-190.
- Cameron, S. A. and J. B. Whitfield. 2002. Review of: Molecular Evolution: A Phylogenetic Approach, Roderic D. M. Page and Edward C. Holmes, Blackwell Science, Oxford, UK, 1998, 346 pp, \$49.95, ISBN 0-96542-889-1. *Systematic Biology* **51**: 536-538.
- Whitfield, J. B. 2003. Rapid radiation, or bad data: why is the phylogeny of microgastrine wasp genera so difficult to estimate? Abstracts from the XIII International Entomophagous Insects Workshop, *Journal of Insect Science* **3:33**: 7.
- Whitfield, J. B. 2004. Review of The Insects: An Outline of Entomology. Third Edition. P. J. Gullan and P. S. Cranston. Blackwell Publishing, Oxford, UK, 2005. 505 pp. (hardbound) ISBN 1-4051-1113-5. *American Entomologist* **50**:237-238.
- Whitfield, J. B. 2005. Review of Evolution of the Insects. David Grimaldi, and Michael S. Engel. Cambridge University Press, Cambridge, UK. 2005, 755 pp., hardcover. Price: \$75.00, ISBN-10 0-521-82149-5. *American Entomologist* **51**: 251-253.
- Whitfield, J. B. 2006. Review of Caterpillars of Eastern North America. David L. Wagner. Princeton Field Guides. Princeton University Press, Princeton, N. J. 2005, 512 pp., hardcover, Price: \$60.00, ISBN 0-691-12143-5. *American Entomologist* **52**: 121.

#### *ELECTRONIC PUBLICATIONS*

- Whitfield, J. B. 2004. Ichneumonoidea (Tree of Life web page). Accessible at: <http://tolweb.org/tree?group=Ichneumonoidea&contgroup=Apocrita>
- Whitfield, J. B., W. Y Choi, A. A. Valerio, J. J. Rodriguez and A. R. Deans. 2004. Braconidae (Tree of Life webpage). Accessible at: <http://tolweb.org/tree?group=Braconidae&contgroup=Ichneumonoidea>

## INVITED LECTURES

University of Manchester, UK, Department of Zoology (1985)

*“Patterns in Host Ranges in the Nearctic Species of the Parasitoid Genus Pholetesor Mason (Hymenoptera: Braconidae)”*

Entomological Society of America, Section A Symposium (1987):

*“On the transition from ectoparasitism to endoparasitism: a case study from the Braconidae (Ichneumonoidea)”*

The Ohio State University, Department of Entomology (1987)

*“Patterns in Host Ranges in the Nearctic Species of the Parasitoid Genus Pholetesor Mason (Hymenoptera: Braconidae)”*

North Carolina State University, Department of Entomology (1988)

*“On the transition from ectoparasitism to endoparasitism: a case study from the Rogadinae (Hymenoptera: Braconidae)”*

University of Utah, Department of Biology (1989)

*“Venoms, Viruses and the Evolution of Parasitism in Braconid Wasps”*

University of California, Riverside, Department of Entomology (1989)

*“Venoms, Viruses and the Evolution of Parasitism in Braconid Wasps”*

International Society of Hymenopterists, Sheffield, Symposium on Phylogeny of Hymenoptera (1991)

*“Phylogeny of the Non-aculeate Apocrita and the Evolution of Parasitism in Hymenoptera”*

University of Missouri, Columbia, Department of Entomology (1991)

*“Venoms, Viruses and the Evolution of Parasitism in Braconid Wasps”*

Entomological Society of America, Section C Symposium (1992):

*“Mutualistic Viruses and the Evolution of Host Ranges in Endoparasitoid Hymenoptera”*

University of Adelaide, South Australia (University-wide Lecture) (1993):

*“Evolution of the Mutualistic Association Between Braconid Wasps and Polydnaviruses”*

Waite Agricultural Research Institute, South Australia, Dept. Crop Protection (1993):

*“The Uses of Phylogenetic Information in Ecology, Physiology and Behavior”*

University of Wyoming, Dept. Plant, Soil and Insect Sciences (1993):

*“Evolution of a Remarkable Association Between Braconid Wasps and Mutualistic Viruses”*

Colorado State University, Department of Entomology (1993):

*“Evolution of a Remarkable Association Between Braconid Wasps and Mutualistic Viruses”*

Entomological Society of America, Section A Symposium (1994):

*“To Be or Not to Be a (Polydna)virus: Phylogenetic Insights into an Apparent Mutualism”*

Entomology Collections Network, Annual Meeting (1994):

*“Museum Loan and Voucher Specimen Policies for Molecular Systematics Research”*

- University of Tulsa, Department of Biology (1994):  
*"Phylogenetic Insights into the Evolution of a Mutualism Between Wasps and Viruses"*
- University of Georgia, Department of Entomology (1995):  
*"Evolution of a Remarkable Association Between Viruses and Parasitoid Wasps"*
- Society for the Preservation of Natural History Collections, Toronto (1995):  
*"Destructive Sampling and Information Management in Molecular Systematic Research: An Entomological Perspective"*
- International Society of Hymenopterists, Davis (1995), Symposium on Parasitoid Viruses:  
*"Phylogenetic Approaches to Deciphering Virus/Wasp Historical Associations"*
- Entomological Society of America, Symposium on Biological Control, Las Vegas (1995)  
*"Systematic Theory and the Practice of Biological Control"*
- University of Oklahoma, Department of Zoology (1995)  
*"Evolution of a Remarkable Association Between Viruses and Parasitoid Wasps"*
- Universidade Federal de Uberlandia, Brazil, Dept. Genetics and Biochemistry (March 1996):  
*"Evolution of the Polydnavirus/Braconid Wasp Association"*
- University of Kentucky, Department of Entomology (1996):  
*"Molecular and Morphological Data Suggest a Single Origin for the Polydnaviruses in Braconid Wasps"*
- Oregon State University, Department of Entomology (1997):  
*"Molecular and Morphological Data Suggest a Single Origin for the Polydnaviruses in Braconid Wasps"*
- University of California, Davis, Department of Entomology (1998) *"Parasitoids, Polydnaviruses and Phylogeny: An Integrative Approach to Wasp Systematics"*
- Field Museum of Natural History, Chicago (1998) *"Parasitoids, Polydnaviruses and Phylogeny: An Integrative Approach to Wasp Systematics"*
- International Society of Hymenopterists, Quadrennial Meeting, Canberra, Australia  
 -Symposium on Use of Phylogenies to Interpret Evolution of Biological Lifeways (Jan. 1999):  
*"Phylogeny of the Microgastroid Braconidae, And What It Tells Us about the Evolution of Polydnaviruses"*
- University of Uppsala, Sweden (1999) *"What exactly IS a head? – Insights into the Evolution of Arthropods from DNA Sequences, Gene Rearrangements, and Developmental Gene Expression"*
- University of Illinois, Champaign-Urbana, Department of Entomology (January 2000)  
*"Phylogeny of braconid wasps, and what it tells us about polydnavirus evolution"*
- Entomological Society of Washington (DC) (April 2000)  
*"Phylogeny of microgastroid braconid wasps, and what it tells us about polydnavirus evolution"*

- Harvard University, Organismal and Evolutionary Biology Program (October 2000)  
*"Parasitoids, Polydnviruses and Phylogeny: Evolution of a remarkable association between viruses and braconid wasps"*
- University of Arkansas, Entomology (November 2000)  
*"Estimating the Age and Evolution of the Polydnvirus-Braconid Wasp Symbiosis Using DNA, Morphology and Fossils"*
- Purdue University, Department of Entomology (October 2002)  
*"Co-phylogeny between Polydnviruses and Braconid Parasitoid Wasps"*
- Initiative in Organismal Interactions, Washington State University/University of Idaho, seminar series (April 2003)  
*"Coevolution between Bracoviruses and Braconid Parasitoid Wasps - A Phylogenetic Approach"*
- Washington State University, Department of Entomology (April 2003)  
*"Rapid Radiation or Bad Data: Why is the Phylogeny of Microgastrine Genera So Difficult to Estimate?"*
- Department of Environmental Biology, University of Adelaide (Australia)(January 2004)  
*"Coevolution between Bracoviruses and Braconid Parasitoid Wasps - A Phylogenetic Approach"*
- Symposium on Polydnvirus Biology, American Society for Virology Meeting, McGill University, Montreal (July 2004)  
*"Cophylogeny between Bracoviruses and Microgastroid Braconid Wasps"*
- NSF Partnerships for Enhancing Expertise in Taxonomy (PEET) Fifth Biennial Conference: *Spatial & Temporal Issues in Taxonomy* (September 2004)  
 (with P. S. Cranston)  
*"Workshop: Online Publishing"*  
 (with P. S. Cranston and D. K. Yeates)  
*"Workshop: Interactive Keys"*
- Department of Zoology, Southern Illinois University, Carbondale (October 2004)  
*"Cophylogeny between Bracoviruses and Microgastroid Braconid Wasps - from Order to Chaos (and Back Again)"*
- University of Kentucky, Entomology Department (Feb. 2005)  
*"A polydnvirus paradox: cophylogeny and mosaic genomes"*
- Society for Invertebrate Pathology, Symposium on Polydnviruses and Ascoviruses (August 2005)  
*"A polydnvirus paradox: cophylogeny and mosaic genomes"*
- University of Georgia, Entomology Department (October 2005)  
*"Phylogenetics of Host-Parasitoid Biology in the Hymenoptera"*
- Centre for Evolutionary Biology and Biodiversity, University of Adelaide (Australia), March 2006

*“Parasitic wasps and their immune-suppressing polydnaviruses”*

Institute of Molecular Biosciences and the Allan Wilson Centre, Massey University (New Zealand),  
March 2006

*“Parasitoids, polydnaviruses and phylogenetics: a mixed-up tale”*

## CONTRIBUTED PAPERS AT SCIENTIFIC MEETINGS

Entomological Society for America, Annual Meeting, Nov. 1984

*“Systematics and Host Ranges in the Nearctic Species of the Parasitoid Genus Pholetesor  
Mason (Hymenoptera: Braconidae)”*

Entomological Society for America, Annual Meeting, Nov. 1986

*“Phylogeny of Exothecinae and the Evolution of Endoparasitism”*

Entomological Society for America, Annual Meeting, Dec. 1989

*“The Braconid Fauna (Hymenoptera) of Tallgrass Prairies in Missouri”*

International Congress of Systematic and Evolutionary Biology, Univ. Maryland, July 1990

*“Systematic and Ecological Implications of the Mutualism Between Polydnaviruses and  
Ichneumonoid Wasps”*

Entomological Society for America, Annual Meeting, Dec. 1993 (coauthor P. C. Dangerfield):

*“Generic Reclassification of the Cardiochilinae in the New World (Hymenoptera:  
Braconidae)”*

Society for the Study of Evolution/Society of Systematic Biologists Joint Meeting, Snowbird, Utah, July  
1993

*“Phylogenetic Approaches to the Evolution of Polydnavirus-Wasp Associations”*

Eickwort Symposium, Cornell University, April 1995 (coauthors S. Cameron, C. Hulslander, S.  
Isenberg, W. Cresko, R. King and K. Sillett)

*“Nesting Biology and Foraging Patterns of the Solitary Bee *Melissodes rustica*  
(Hymenoptera: Apidae) in Northwest Arkansas”*

Society for the Study of Evolution/ Society of Systematic Biologists Meeting, St. Louis, June  
1996

(with coauthor S. A. Cameron)

*“Hierarchical Analysis of Variation in the 16S Gene Among Hymenoptera”*

Society for the Study of Evolution/ Society of Systematic Biologists Meeting, St. Louis, June  
1996

(with coauthor C. Guerber):

*“Molecular and Morphological Data Suggest a Single Origin for the Polydnaviruses in  
Braconid Wasps”*

Ecological Society of America Meetings, August, 1996 (coauthors J. le Corff, R. J. Marquis):

*“Spatial and Temporal Variation in the Parasitoid Community Associated with *Quercus*  
*Herbivores*”*

Society for the Study of Evolution/Society of Systematic Biologists Annual Meeting, Boulder, CO, June, 1997

(coauthor and presenter P. Mardulyn)

*"Phylogenetic Signal in the COI and 16S Mitochondrial Genes for Inference of Generic Relationships among Microgastrine Parasitoid Wasps"*

Society for the Study of Evolution/Society of Systematic Biologists Annual Meeting, Boulder, CO, June, 1997

(coauthor and presenter K.-I. Suh)

*"Phylogeny of the Ophionoid Subfamilies (Insecta: Hymenoptera: Ichneumonidae) Inferred from Mitochondrial DNA Sequences"*

Entomophagous Insects Workshop, Madison, WI, July, 1997

*"Phylogeny and Evolution of Host-Parasitoid Interactions In Hymenoptera"*

International Union for the Study of Social Insects, Nederland, CO, September, 1997

(coauthors S. A. Cameron, M. Cohen, N. Thorp)

*"Novel Use of Walking Trails by the Amazonian Bumble Bee, Bombus transversalis (Hymenoptera: Apidae)"*

Society for the Study of Evolution/Society of Systematic Biologists Annual Meeting, Vancouver, BC, June, 1998

(coauthor P. Mardulyn)

*"Combined Analysis of the Phylogeny of Microgastrine Braconid Wasp Genera (Hymenoptera: Braconidae) Based on Data from the 16S, COI and 28S Genes and Morphology"*

International Entomophagous Insects Workshop, Pacific Grove, CA, September, 1999

(coauthors P. Mardulyn and A. D. Austin)

*"Phylogeny of the Genera of Microgastrinae (Hymenoptera: Braconidae) Based on Morphological Data and DNA Sequence Data from 3 Genes"*

Entomological Society of America, Annual National Meeting, Atlanta, GA, Dec. 1999

(Coauthors A. R. Deans, D. H. Janzen)

*"The Biology and Taxonomy of Microgastrine Braconids Attacking Neotropical Hesperiid Larvae"*

Society for the Study of Evolution/Society of Systematic Biologists Annual Meeting, Bloomington, IN, June 2000

*"Estimating the Age of the Braconid Wasp/Polydnavirus Symbiosis"*

International Union for the Study of Social Insects, North American Section, Ozark Natural Science Center, AR, October 2000

(Coauthor S. A. Cameron)

*"A New Species of Apanteles (Hymenoptera: Braconidae) That Parasitizes Tineid Nest Associates of Bombus (Hymenoptera: Apidae) in South America"*

Natural Areas Conference, St. Louis, MO, October 2000

(Coauthor C. N. Lewis)

*"Analytical survey of the braconid wasp fauna (Hymenoptera: Braconidae) on six midwestern U. S. tallgrass prairies"*

- Entomological Society of America, Annual Meeting, Montreal, Dec. 2000  
 (with presenter W.-Y.-Choi)  
*“ Systematic Study of the Genus Diolcogaster Ashmead (Hymenoptera: Braconidae) from the Neotropical Region”*
- Entomological Society of America, Annual Meeting, Montreal, Dec. 2000  
 (with presenter A. A. Valerio)  
*“Model 69 – A New Approach to Mirax?”*  
 (with presenter A. R. Deans and D. H. Janzen)  
*“Revision of the New World Microgastrine Braconid Genus Alphonelton”*
- Society of Systematic Biologists/Society for the Study of Evolution Joint meetings, Urbana, June 2002  
 (with presenter Alice Michel-Salzat)  
*“Cophylogeny of parasitoid wasps and their symbiotic polydnaviruses.*  
 (with presenter Won-Young Choi)  
*“Systematics of the genus Diolcogaster Ashmead (Braconidae: Microgastrinae) from the New World”*  
 (with presenter Alejandro A. Valerio)  
*“ Siderion, a potential new genus of braconid wasps in the subfamily Microgastrinae”*
- Entomophagous Insects Workshop, Tucson, AZ, July 2003  
*“Rapid Radiation or Bad Data: Why is the Phylogeny of Microgastrine Genera So Difficult to Estimate?”*  
 (with A. R. Deans)  
*“Systematics of the enigmatic wasp family Evaniidae (Hymenoptera)”*
- Entomological Society of America, Annual meetings, Cincinnati, October 2003  
 (with W.-Y. Choi and M. J. Sharkey)  
*“Making Taxonomic Information about the Parasitoid Wasp Genera Cotesia and Microplitis Available to the User Community”*  
 (with A. R. Deans)  
*“Systematics of the enigmatic wasp family Evaniidae (Hymenoptera)”*
- Society for the Study of Evolution/Society of Systematic Biologists Annual Meeting, Fort Collins, CO June 2004  
 (with J. C. Banks)  
*“Rapid radiation, or bad data?: short internal branches in microgastrine wasp phylogeny”*  
 (with A. R. Deans & J. Gillespie)  
*“Estimates of relationships between ensign wasp genera (Hymenoptera: Evaniidae)”*  
 (with A. Valerio)  
*“What do we know about Parapanteles?”*
- Entomological Society of America, Annual Meetings, Salt Lake City, Utah, November 2004  
 (with J. C. Banks)  
*“Phylogenetics of microgastrine braconid wasp genera based on seven genes”*  
 (with A. R. Deans)  
*“Estimates of ensign wasp (Hymenoptera: Evaniidae) relationships and divergence times”*  
 (with W.-Y. Choi)  
*“The systematics of the Diolcogastroid complex (Microgastrinae: Braconidae: Hymenoptera)”*

(with A. A. Valerio)

*"A phylogenetic revision of the genus Hypomicrogaster Ashmead (Braconidae: Microgastrinae)"*

(with J. J. Rodriguez)

*"The Evolution and Taxonomic Utility of the Male Genitalia in the Microgastrinae (Braconidae: Hymenoptera)"*

Society for the Study of Evolution/Society of Systematic Biologists Annual Meeting, Fairbanks, AK  
June 2005

(with J. C. Banks)

*"Phylogenetics of microgastrine braconid wasp genera based on eight genes"*

(with J. C. Banks as presenter)

*"A Polydnavirus paradox: cophylogeny and mosaic genomes"*

New Zealand Phylogenetics Conference, Kaikoura (Feb. 2006)

*"A polydnavirus paradox: cophylogeny and mosaic genomes"*

Workshop on Algorithms in Bioinformatics, Zürich (Aug. 2006)

(with D. H. Huson as presenter, M. Steel)

*"Reducing distortion in phylogenetic networks"*

#### COMMITTEES (UNIVERSITY OF ILLINOIS)

##### *Departmental*

Graduate Student Admissions Committee (2002-2004; chair 2003-2004)

##### *College*

Distinction Committee (alternate 2001-2005)

Undergraduate Mentors in Evolutionary Biology (UMEB) Selection Committee

##### *School of Integrative Biology*

Integrative Biology Distinction Committee, 2004-2005

Executive Advisory Committee 2003-2005

##### *Other*

Local Organizing Committee, Evolution 2002 meetings

Search Committee, Insect Systematist, Illinois Natural History Survey, 2002-3

Steering Committee, Program in Ecology and Evolutionary Biology, 2002-3

Collections Committee, Illinois Natural History Survey, 2002-4

#### NATIONAL AND INTERNATIONAL SCIENTIFIC SOCIETIES

Entomology Collections Network, Annual Meetings, Dallas, Texas, December 1994,  
Program Committee member

Entomological Society of America, Annual Meetings, Dallas, Texas, December  
1994, Section A moderator

International Society of Hymenopterists Quadrennial Meeting, Davis, California,  
August 1995, Co-organizer of symposium on parasitoid viruses  
(with A. D. Austin, University of Adelaide)

Society of Systematic Biologists, Annual Meeting, June 2002, Co-organizer of  
symposium on the use of network methods for studying recent rapid  
radiations (with S. A. Cameron, University of Illinois and P. J. Lockhart,  
Massey University, NZ)

#### MISCELLANEOUS

Coorganizer (with D. C. Steinkraus), of the Insect (Film) Festivals,

October 1993, April 1995, October 1998, 1999, 2000 Giffels Auditorium,

Barnhill Arena, and Whitaker Pavilion, Univ. Arkansas

*REVIEWS FOR PROFESSIONAL JOURNALS*

*Animal Behaviour*  
*Annals of the Entomological Society of America*  
*Biological Control*  
*Cladistics*  
*Ecological Entomology*  
*Entomologia Experimentalis et Applicata*  
*Entomological News*  
*Environmental Entomology*  
*European Journal of Entomology*  
*Evolution*  
*Insect Molecular Biology*  
*Journal of Chemical Ecology*  
*Journal of the Entomological Society of Kansas*  
*Journal of Insect Behavior*  
*Journal of Insect Physiology*  
*Journal of the Kansas Entomological Society*  
*Journal of the Lepidopterists' Society*  
*Journal of Hymenoptera Research*  
*Journal of Molecular Evolution*  
*Journal of Natural History*  
*Molecular Biology and Evolution*  
*Molecular Phylogenetics and Evolution*  
*Natural Areas Journal*  
*Parasitology Today*  
*Proceedings of the Entomological Society of Washington*  
*Proceedings of the National Academy of Sciences of the USA*  
*Systematic Biology*  
*Systematic Entomology*  
*Trends in Ecology and Evolution*

*EDITORIAL BOARDS FOR PROFESSIONAL JOURNALS*

*Systematic Biology*, 2001-2003  
*Zootaxa*, 2002- 2004

*REVIEWS FOR GRANTING AGENCIES AND FOUNDATIONS*

National Science Foundation  
USDA NRI Competitive Grants  
USDA National Biological Control Institute Postdoctoral Fellowships  
NATO Postdoctoral Fellowships in Science  
American Philosophical Society  
Eppley Foundation  
National Science & Engineering Research Council (Canada)  
Australian Research Council  
Arkansas Science and Technology Authority  
Earthwatch Institute  
FWF- Fonds zur Förderung der wissenschaftlichen Forschung (Germany)

## *REVIEW PANELS FOR GRANTING AGENCIES AND FOUNDATIONS*

National Science Foundation, Systematic and Population Biology, Dissertation Improvement Grants, February 1999, February 2002

## *REVIEW PANELS FOR ACADEMIC PROGRAMS*

Life Sciences Consortium, Pennsylvania State University, March 1997

## **STUDENTS AND POSTDOCTORAL ASSOCIATES**

### *GRADUATE STUDENTS DIRECTED:*

Lori S. Nobles (currently L. Spencer) (M. S. 1995) – currently with the Nature Conservancy  
Carolyn N. Lewis (M. S. 1996; Ph. D. 2001) – currently at University of Arkansas (teaching associate)  
Leslie D. Price (M. S., University of Arkansas) –currently with USDA- Stoneville, MS  
Andrew R. Deans (M. S. 2000, Ph. D. May 2005)  
Won-Young Choi (Ph. D. Dec. 2005)  
Alejandro A. Valerio (Ph. D. May 2005)  
Josephine Jose Rodriguez (Ph. D., started summer 2003)

### *OTHER GRADUATE STUDENT COMMITTEE MEMBERSHIPS*

Patrick Minx (M.S., Biology, University of Missouri, St. Louis, 1990)  
Nancy Schellhorn (M.S., Biology, University of Missouri, St. Louis, 1992)  
Carol L. Trout (Ph. D., Plant Pathology, University of Arkansas, 1995)  
Paul C. Dangerfield (Ph. D. University of Adelaide, Australia, 1995)\*  
Tanya Hanano (M. S. Entomology, Univ. Arkansas, 1996)  
Azhar Saeed (Ph. D., University of Adelaide, 1996)\*  
Patrick Mathews (Ph. D., Entomology, Univ. Arkansas, 1997)  
Eddie Dry (Ph. D., Entomology, Univ. Arkansas, 1997)  
Keith Blount (M. S., Entomology, Univ. Arkansas, 1997)  
Antonio Aranguren (Ph. D., McGill University, 1998)\*  
John Jennings, (Ph. D., University of Adelaide, 1999)\*  
Dongmei Li (Ph. D., University of Adelaide, 2002)\*  
Colin Favret (Ph. D., University of Illinois, 2003)  
Kevin Holston (Ph. D., University of Illinois, 2003)  
Jamie Zahniser (M.S. University of Illinois, 2003)  
Sean Collins (Ph. D., University of Illinois, 2003)  
Jesse Albertson (M. S., University of Illinois 2004)  
Christopher Mah (Ph. D. Geology, University of Illinois, May 2005)  
Alexander Glass (Ph.D. Geology, University of Illinois, 2005)  
Ashley Bennett (M. S. Entomology, University of Illinois, 2003)  
Nick Tsovolos (M. S. Entomology, University of Illinois, 2005)

Karlene Ramsdell (Ph. D., Entomology, University of Illinois, 2004)  
Richard Glatz (Ph. D., University of Adelaide, 2003)\*  
Martin Hauser (Ph. D., University of Illinois, 2005)  
Mary Ann Feist (Ph. D., Plant Biology, University of Illinois)  
Clark Danderson (Ph. D., Plant Biology, University of Illinois)  
Ann Ray (Ph. D., Entomology, University of Illinois)  
Diana Carolina Arias (M. S., Humboldt Institute, Colombia)\*  
Lyda Castro (Ph. D., University of Wollongong, Australia, 2006)\*  
Ravikumar Gaddam (M. S., Massey University, New Zealand)\*  
Celine Serbielle (Ph. D., University of Tours, France, and EU Ph. D. Program)\*  
Kate Muirhead (Ph. D., University of Adelaide, Australia)\*

\*external examiner on dissertation/thesis

#### *POSTDOCTORAL ASSOCIATES DIRECTED:*

Patrick Mardulyn (P.h. D. Free University of Brussels, Belgium) 1996-1998  
(now FRNS faculty at Free University of Brussels)  
Kyong-In Suh (Ph. D. Yeungnam National University, Korea), 1996-1997  
(currently teaching associate at Yeungnam National University)  
Alice Michel-Salzat (Ph. D. Universite de Poitiers, France), 2000-2002  
(now assistant professor in Immunology at University of Paris 6)  
Jonathan Banks, Ph. D., Lincoln University (New Zealand), 2003-2005  
(now FRST Fellow at Waikato University, Hamilton, NZ)

## Media Coverage

Whitfield & Cameron (1994) and Cameron and Whitfield (1994) were reviewed in the news article "Molecules, Museums and Vouchers" by Richard H. Thomas in the November 1994 issue of *Trends in Ecology and Evolution*.

Cameron and Whitfield (1996) was reviewed in the following articles:

*The Christian Science Monitor* Jan. 16, 1996) "The Bees Go Marching Two by Two"

*Science News* Feb. 3, 1996) "The Bees Go Marching One by One"

*The Dallas Morning News* Jan. 15, 1996) "Scientists Describe Bumblebee Species that Creates, Maintains Walking Trails"

*Superinteressante* (Brazil) May 1996) "Abelha Peruana Anda no Chao como Formiga"

*National Geographic Magazine* (May 1997) "Happy Trails - the Case of the Walking Bees"

as well as in 3 short pieces on BBC and CBC radio

Whitfield (2002) was reviewed in the following articles:

*ScienceNow*, 28 May 2002, M. Schilthuizen: "The World's Oldest Genetic Engineers"

*Wissenschaft-Online*, 3 June 2002, J. Osterkamp, "Unmenschliche Gentechniker"

(also in a more general way in the following)

Shiga, D. 2005. Poisonous Partnership. *Science News* **167**: 136-137.

## Field Experience

1981-4	Western U. S., rearing parasitoids of leafmining moths
1982, 1983	Southeastern U. S., rearing parasitoids of leafmining moths
1985-1986	England, Scotland, Wales, rearing parasitoids of leafmining moths
1987	Ohio (Hocking Hills region), braconid wasps collecting
1989	Mexico (Tamaulipas, San Luis Potosi), s. Texas, Hymenoptera collecting
1989-1990	Midwestern U. S. tallgrass prairies – braconid wasp survey
1991	Nova Scotia, New Brunswick, bee and braconid wasp collecting
1991, 1992	Missouri Ozarks, oak parasitoid community ecology & systematics
1993	South Australia, braconid wasp collecting
1995	Costa Rica, Guanacaste Prov., braconid wasp collecting, ATBI design
1995	Peru (Madre de Dios, Tambopata Preserve), bee & braconid wasp collecting
1996	Brazil (Sao Paulo, Minas Gerais, Amazonas states) bee & braconid wasp collecting
1998, 1999	Southern, eastern Australia, braconid wasp collecting
1999	Austria, Switzerland, Italy (Alps) bee and braconid wasp collecting
2000	Ecuador (Orellana, Yasuni Scientific Station and Tiputini Biodiversity Station)
2002	China (Zhejiang, Beijing, Sichuan)
2003	Eastern Washington, Northern Idaho
2003	southern Arizona
2003	Maine coast
2004	southern Australia
2005	Central Alaska
2006	New Zealand
2006	Ecuador (Yanayacu Research Station)

### Visiting Museum Curatorial and Identification Experience

1978-1982	University of California, Berkeley; California Academy of Sciences (San Francisco)
1981	Canadian National Insect Collection (Ottawa), U. S. National Museum (Washington), American Museum of Natural History (New York), Museum of Comparative Zoology (Harvard University), Cornell University (Ithaca)
1982	North Carolina State University, University of California (Davis); California Department of Food and Agriculture (Sacramento)
1984	University of Kansas (Lawrence)
1985-1986	The Natural History Museum (London), Manchester Museum (Manchester, UK), Rijksmuseum van Natuurlijke Historie, Leiden (Netherlands)
1986-1988	The Ohio State University Insect Collection (Columbus)
1987	Canadian National Insect Collection (Ottawa)
1991	The Natural History Museum (London)
1993	Australian National Insect Collection (Canberra), University of Adelaide
1993	University of Wyoming (Rocky Mountain Systematic Entomology Lab)
1995	Instituto Nacional de Biodiversidad (San Jose, Costa Rica)
1996	Instituto Nacional Pesquisas de Amazonas (Manaus, Brazil)
1999	Australian National Insect Collection (Canberra), University of Adelaide
2000	Museum of Comparative Zoology (Harvard University)
2001	United States National Museum of Natural History (Washington, DC)
2002	United States National Museum of Natural History (Washington, DC)
2003	James Entomological Museum, Washington State University