

César R. Nufio

*Postdoctoral fellow, Entomology
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EDUCATION

University of Arizona.

Ph.D. in IDP Insect Sciences, Minor department: Entomology, 2001; Dissertation: Host Utilization patterns of the walnut fly, *Rhagoletis juglandis*, and their implications for female and offspring fitness. Advisor: Daniel R. Papaj.

University of Costa Rica.

Tropical Biology: An Ecological Approach. Organization for Tropical Studies. University of Costa Rica, 1998.

University of California at Santa Cruz.

B.A. in Biology and Environmental Studies (combined degree), 1994.

RESEARCH POSITIONS HELD

Diversity, Equity Postdoctoral Fellowship, University of Colorado, Boulder. August 2007-present. *Understanding Climate Change and its affects on regional grasshoppers.* Advisor: Dr. Deane Bowers.

Entomology Section, Museum of Natural History, University of Colorado, Boulder: Researcher & Co-PI: *The Gordon Alexander Collections Improvement Grant.* March 2005-June 2007.

Entomology Section, CU Museum of Natural History, University of Colorado, Boulder: Curator Adjoint and Research Associate. June 2001-present.

Entomology Section, Museum of Natural History, University of Colorado, Boulder: Acting Curator of Entomology. January 2003-April 2004

Research Assistant. Collaborator on research project designed to examine “social facilitation” in walnut flies. PI Dr. R. Prokopy. University of Massachusetts, Amherst Entomology. May 1999 – September 1999.

National Museum of Natural History Intern, Smithsonian Institution. January 1995 – March 1995. Completed project on herbivory patterns in an ancient fossil flora. Advisor: Dr. C. Labandeira

Natural History Internship Program, Smithsonian Institution. June 1994 – August 1994. Herbivory levels of the Big Cedar Ridge Flora (Maastrichtian) of Wyoming. Advisor: Dr. C. Labandiera.

Minority Undergraduate Research Program, Illinois State University. June 1993 – September 1993. Factors affecting diet breath in the lubber grasshopper *Romelia guttata*. Advisor: Dr. D. Whitman.

Rocky Mountain Summer Internship Program, Rocky Mountain Biological Laboratory. June 1992 – August 1992. Factors correlated with the productivity and distribution of ants in the genus *Myrmica*. Advisor: Dr. J. Evans.

Minority Summer Research Internship Program, University of California, Irvine. June 1991 – August 1991. Evolutionary Theories of Senescence. Advisor: Dr. M. Rose.

PROFESSIONAL MEMBERSHIPS (*activity within last five years*)

Entomological Society of America

Ecological Society of America

The Orthopterists' Society

RESEARCH AND GRANTS

PUBLICATIONS

Refereed Publications

- Nufio, C.R.**, J. McClenahan and E.G.Thurston. 2009. Determining the effects of habitat fragmentation on grasshopper species density and richness: a test of proportional and uniform sampling methods. *Journal of Insect Conservation and diversity*. 2:295-304.
- Nufio, C.R.**, Lloyd, K., Bowers, M.D., Guralnick, R. 2008. Gordon Alexander, Grasshoppers, and Climate Change. *American Entomologist*. 55(1):10-13.
- D.M. Smith, A. Cook and **C.R. Nufio**. 2006. How physical characteristics of beetles affect their fossil preservation. *Palaios*. 21(3):305-310.
- Nufio, C.R** and D.R. Papaj. 2004. Host preference of the walnut fly, *Rhagoletis juglandis*, and its implications for female and offspring performance. *Oecologia*. 141 (3): 460-467
- Smith, D.M and **C.R. Nufio**. 2004. Levels of herbivory in two Costa Rican rainforests: Implications for studies of fossil herbivory. *Biotropica*. 36 (3): 318-326 Sep 2004
- Nufio, C.R** and D.R. Papaj. 2004. Host marking behavior as a quantitative signal of infestation levels in host use by the walnut fly, *Rhagoletis juglandis*. *Journal of Ecological Entomology*. 29 (3): 336-344.
- Nufio, C.R** and D.R. Papaj. 2001. Host marking behavior in phytophagous insects and parasitoids. *Entomologia Experimentalis et Applicata*. 99. 273-293.
- Nufio, C. R.**, Papaj, D.R. and H. Alonso-Pimentel. 2000. Host utilization by the walnut fly, *Rhagoletis juglandis* (Diptera: Tephritidae). *Environmental Entomology*. 93:994-1001.
- Alonso-Pimentel, H., Korner, J. B., **Nufio, C.** and Papaj, D. R. 1999. Role of colour and shape in host-enhanced oogenesis in the walnut fly, *Rhagoletis juglandis*. *Physiological Entomology*. 22:97-104.

Other Publications

- Grasshoppers and climate change website. 2008. <http://ghopclimate.colorado.edu/>
- Bowers, M.D. and C.R. Nufio. 2008. The Gordon Alexander grasshopper collection: Newly curated and available on-line. *Newsletter of the Orthopterists' Society* 27(2): 6 - 8.
- Nufio, C. R.**, Schmidt B. and E. Stone. Principles of Ecology lab manual. EBIO 2040. Summer 2005.
- Nufio, C.R. 2002. Host utilization patterns of the walnut fly *Rhagoletis juglandis*, and their implications for female and offspring fitness. University of Arizona. Dissertation
- Nufio, C.R.**, J. McClenahan and E.G.Thurston. 2009. Determining the effects of habitat fragmentation on grasshopper species density and richness: a test of proportional and uniform sampling methods. *Journal of Insect Conservation and diversity*. *In press*.

Abstracts

- Nufio, C. R.** and M.D. Bowers. 2008. The effects of climate change on the grasshoppers of the southern Rocky Mountains of Colorado. *Ecological Society of America*. Milwaukee, Wisconsin.
- Nufio, C. R.** and D.R. Papaj. 1999. The Ecology of superparasitism and host marking in the walnut fly, *Rhagoletis juglandis*. XII International Entomophagous Insect Workshop. Asilomar, California.
- Nufio, C. R.** and D.R. Papaj. 1998. Host Utilization and the use of marking pheromones by the walnut fly, *Rhagoletis juglandis*. *Entomological Society of America*, Las Vegas, Nevada.
- Nufio, C. R.** and D.R. Papaj. 1996. Host fruit utilization by the walnut infesting fruit fly, *Rhagoletis juglandis*. *Animal Behavior Society*. Flagstaff, Arizona.
- Nufio, C. R.** and C. C. Labandiera. 1994. An analysis of herbivory patterns in the Late Cretaceous: an inferential assessment of plant/insect interactions. *Southwestern Association of Biologist*. Abiquiu, New Mexico.

- Nufio, C. R.** and J. Evans. 1994. Factors correlated with the productivity and distribution of temperate ants in the genus *Myrmica*. Society for the Advancement of Chicanos and Native American in Science, Chicago, Illinois.
- Nufio, C. R.** 1993. Factors correlated with the productivity and distribution of temperate ants in the Genus *Myrmica*. Entomological Society of America, Indianapolis, Indiana.

INVITED COLLOQUIA

- “Measuring the effects of climate change on the World’s flora and fauna.” Western Interior Paleontological Society, Colorado Springs, CO. March 2007
- “The West Nile Virus: Who, what, where, and when?” University of Colorado at Boulder Natural History Museum. August 2005.
- “Host marking behavior and competition in the boxing fly, *Rhagoletis Juglandis*”. Department of Ecology, Population and Organismic Biology - Colloquium, University of Colorado, Boulder, CO. September 2002.

GRANT ACTIVITY

Funded Grants

NSF – Ecological Biology Cluster. C. Nufio (PI), D. Bowers and R. Guralnick (co-PIs). *A Multi-Species Study of Grasshopper Phenology, Distribution, and Body Size Responses to Climate Changes in the Front Range of Colorado*. Dates: March 2007 – March 2012. Amount: \$392,029.

NSF - Biological Research Collections. D. Bowers (PI), C. Nufio and R. Guralnick (co-PIs). *Improvement of the Gordon Alexander Orthoptera Collection at the University of Colorado*. Dates: March 2005 – March 2007. Amount: \$202,201.

Awards and Fellowships prior to arrival at CU Boulder

- Arizona Research Laboratories Fellowship.** University of Arizona. 1999.
- National Science Foundation Minority Graduate Research Fellowship.** June 97 – June 99.
- Minority Graduate Fellowship.** 1994. Department of Entomology, University of Arizona.
- OTS - Research Grant.** 1998. Organization for Tropical Studies.
- Grant in Aid of Research.** 1997. Sigma Xi.
- Minority Graduate Research Scholarship.** 1997. University of Arizona, Tucson.
- Analysis of Biological Diversification - Research Training Group Grant.** 1995. University of Arizona.
- The Laurence A. Carruth Scholarship.** 1994. University of Arizona, Tucson.

TEACHING EXPERIENCE

Courses Taught

- Guest Lecturer, Plant Ecology, EBIO 4140.** Fall 2008. Department of Ecology and Evolutionary Biology, University of Colorado, Boulder
- Guest Lecturer, Community ecology, EBIO 3110.** Fall 2007, 2008. Department of Ecology and Evolutionary Biology, University of Colorado,
- Guest Lecturer, Museum Filed Methods in Zoology and Botany, EBIO 5795.** Fall 2008. Department of Ecology and Evolutionary Biology, University of Colorado, Boulder
- Guest Lecturer, Parasitology, MUSM 53630.** Spring 2005, 2007. Department of Ecology and Evolutionary Biology, University of Colorado, Boulder
- Instructor. Insect Biology EBIO 4660/ 4660.** Fall 2003, Spring 2004, Spring 2005, Spring

2007, Fall 2009. Department of Ecology and Evolutionary Biology, University of Colorado, Boulder

Instructor, Introductory Biology EBIO 1210. Fall 2004.
Department of Ecology and Evolutionary Biology, University of Colorado, Boulder

Laboratory coordinator, Environmental Biology EBIO 2040. Fall 2003.
Department of Ecology and Evolutionary Biology, University of Colorado, Boulder

Coordinator, OTS: Tropical Biology: An Ecological Approach. Spring 2001, Spring 2002, Spring 2003. Organization for Tropical Studies, University of Costa Rica, San Jose, Costa Rica.

Co-coordinator, OTS: Tropical Biology: An Ecological Approach. Summer 2001.
Organization for Tropical Studies, University of Costa Rica, San Jose, Costa Rica.

Resource instructor, OTS: Tropical Biology: An Ecological Approach. Spring 2005, Summer 2004, Spring 2000, Spring 1999, Summer 1999, Summer 2003, Spring 2004, Summer 2009.
Organization for Tropical Studies, University of Costa Rica, San Jose, Costa Rica.

Guest Lecturer, Field Research: Basic Methods and New Technologies MUSM 5916. Fall 2001. Museum Studies Program, University of Colorado, Boulder

Guest Lecturer, Practicum in Entomology, MUSM 5916. Fall 2001. Museum Studies Program, University of Colorado, Boulder

Other Teaching & Training

Designed the lab manual for Principles of Ecology, EBIO 2040. Summer 2005.
Department of Ecology and Evolutionary Biology, University of Colorado, Boulder.

Parasitic Hymenoptera Training Session XI. June 2000. University of Maryland, College Park. Attended week long session emphasizing identification, systematics, evolution and identification of parasitic Hymenoptera

PROFESSIONAL SERVICE AND OUTREACH

Lecturer. Summer Research workshop for elementary to high school teachers. Sponsored by the University of Colorado's Biological Sciences Initiative. 2008.

Panelist. Climate and Policy Summit. Peek-to-Peek Charter school. 2008.

Middle school Science Program Advisor. Majestic View Nature Center of Arvada CO. 2008.

Chair of the CU Museum's Burt and Van Riper Grants and Scholarships Committee. 2006-2008.

CU Entomology Section Group Coordinator for the Colorado Rocky Flats' BioBlitz. 2004

Curator of the 'Clyde Butcher: Seeing the Light' exhibit. CU Museum. 2004

Manuscripts Reviewed for the following journals

Animal Behavior, Biological Journal of the Linnaean Society, Chemical Ecology, Environmental Entomology, Entomologia Experimentalis Et Applicata, Oecologia, Journal of Insect Behavior