

Gadi V. P. Reddy

Superintendent and Associate Professor
of Entomology and Insect Ecology
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Personal History and Professional Experience

Educational background

Postdoctoral Fellow (1996), IACR-Rothamsted, Harpenden, United Kingdom. Dissertation title: Integration of sex pheromones and entomopathogenic fungi *Zoophthora radicans* for the control of diamondback moth, *Plutella xylostella*.

Ph.D. (1991), Department of Entomology, University of Agricultural Sciences, Bangalore, India. Dissertation title: Studies with sex pheromones in the management of diamondback moth, *Plutella xylostella*.

Citizenship

United States of America

Current interests

Teaching: Pest management, biological control, behavioral and chemical ecology.

Research: Development of pest-management strategies, particularly synthetic pheromones and host volatiles for use in integrated pest management (IPM); behavioral and chemical ecology of multitrophic interactions (plant-insect/predatory-prey/host-parasitoid); management of invasive species; insecticide evaluation and its use in pest-management programs.

Extension: Assistance to agricultural producers in identifying pest problems and recommendation of environmentally sound, sustainable solutions. Close association with agricultural growers in the field also affords me the opportunity to identify and respond to research needs in my areas of expertise.

List of academic positions since final degree

Associate Professor (Entomology and Insect Ecology) and Superintendent (June 2012–present), (65% research, 25% administration, 10% outreach/Service); Western Triangle Agricultural Research Center, Montana State University, Conrad, MT, USA. Developing management practices for wheat stem sawfly, wireworms on wheat and barley and insect pests on canola.

Associate Professor (Chemical Ecologist/Entomologist) (August 2011–May 2012), Western Pacific Tropical Research Center, University of Guam, USA. Developing chemical ecology methods for sweetpotato weevil, biological control of invasive weeds and teaching “General Entomology” and “Ecology” courses to the undergraduate and graduate students.

Assistant Professor (Chemical Ecologist/Entomologist) (July 2007–July 2011), Western Pacific Tropical Research Center, University of Guam, USA. Research focused on USDA and USEPA funded projects on the developing IPM programs for cabbage and eggplant. Program also incorporated identification of pest problems in farmers’ fields and providing suggestions for control methods.

Research Scientist (contractual) (July 2002–June 2007), Western Pacific Tropical Research Center, University of Guam, USA. Research focused on USDA funded projects dealing with semiochemical-based pheromone trapping of the sugarcane weevil, banana borer, and household pests and biological control of insect pests (papaya and hibiscus mealy bugs, scales) and weeds, in addition to control of the ivy gourd and siam weed.

Visiting Scientist/Lise Meitner Scientist (April 2002–June 2002), Department of Evolutionary Biology, Institute of Zoology, University of Vienna, Vienna, Austria, under the Austrian Science Fund (FWF). Identified primer pheromones with a function in the regulation of reproduction in the primitively eusocial bumblebees.

Visiting Scientist (July 2001–March 2002), Department of Ecology and Environmental Science, University of Kuopio, Finland, under special grants from the Academy of Finland. Evaluated the alterations of tritrophic signaling between cruciferous crop plants, insect herbivores (*P. xylostella* and *Spodoptera littoralis*), and their natural enemies (parasitoid *Cotesia plutellae* and spined soldier bug *Podisus maculiventris*) under stress caused by elevated atmospheric carbon dioxide concentrations.

Visiting Scientist (July 1999–June 2001), Institute of Chemical and Environmental Research-CSIC, Barcelona, Spain. Research dealt with the inhibition of pheromone behavioral responses in economically important maize borers, *Sesamia nonagrioides*, as well as in the polyphagous pest *S. littoralis* by trifluoromethyl ketones.

Humboldt Research Fellow (January 1998–June 1999), Institute of Animal Ecology-II, University of Bayreuth, Bayreuth, Germany, under the Alexander von Humboldt Fellowship. Work based on the chemical ecology of longhorned beetle, *Hylotrupes bajulus*.

Associate Professor of Entomology (October 1997–December 1997), Haramaya University (formerly Alemaya Agricultural University), Ethiopia, East Africa. Taught insect toxicology and pest management to graduate students under the UNDP program.

Assistant Professor of Entomology (April 1996–September 1997) (60% research, 10% teaching, 30% extension) and Acting Farm Superintendent and Campus Head (Administration),

University of Agricultural Sciences, Hagari, India. Developed an IPM package for mites on eggplant.

Postdoctoral Investigator (March 1995–March 1996), Rothamsted Experimental Station, Harpenden, United Kingdom. Investigated the impact of infection by a fungal entomopathogen (*Zoophthora radicans*) on the behavioral responses associated with pheromone production and reception by the diamondback moth.

Assistant Professor of Entomology (February 1992–February 1995; 60% research, 10% teaching, 30% extension) and Acting Farm Superintendent and Campus Head (Administration), University of Agricultural Sciences, Hagari, India. Development of an IPM program for bollworms on cotton and diamondback moth on cabbage.

Other professional employment

Technical Advisory Member, Shenzhen Bioglobal Agricultural Sciences Co. Ltd (China), September 2012–present.

Director for the Western Pacific Biocontrol Quarantine Laboratory (WPBQL) at the University of Guam and interact with commodity producers and regulatory agency personnel in all import permits related issues, 06/2006–05/2012.

Consultant to Guam’s Department of Agriculture Forestry Protection Group. Advised on methods for maintaining healthy forest trees and established biocontrol agents for invasive plant species that suppress native plants, 2003–05/2012.

Technical Advisory Panel Member, BioGlobal Limited, Wacol, Qld 4076 (Australia), Jan 2010–May 2012.

Certified Senior Ecologist, Ecological Society of America, Washington, DC 20036 (June, 2010–present).

Technical Advisor to Mr. Francisco Atalig, producer and project coordinator for the project “Neem Tree Production for Alternative Pesticides, Nematode Control and Fertilizers”, Rota, Northern Mariana Islands. Farmer/Rancher Grant: FW07-001 was funded by Western SARE, 2007–2009.

Honors, Recognitions, and Outstanding Achievements

2010 Award for Excellence in Research by Western Association of Agricultural Experiment Station Directors, in recognition of Outstanding Contributions to Western Region Multistate Research.

Lise Meitner Fellowship (Austrian Science Fund, FWF) for 2002–03.
Competitive grants from the Academy of Finland for 2001–02.

Spanish International Fellowship for 1999–01.
 Alexander von Humboldt Fellowship for 1998–99.
 Rothamsted International Fellowship for 1995–96.
 National: "Crop Research Award-1997" for outstanding contributions in the field of vegetable entomology, by the National Agricultural Information Center.
 List of Scientists ranked as excellent at the University of Guam for outstanding contributions.
 Biological control program on ivy gourd; G. V. P. Reddy; cited at <http://www.wptrc.org/article.asp?artID=35>.
 University Merit Scholarship during doctoral study.

Professional Service

Editorships

Subject Editor, *Environmental Entomology*, 2008–present

Subject Editor, *Annals of the Entomological Society of America*, 2008–present.

Associate Editor, *Florida Entomologist*, 2005–present.

Editorial Member, *Journal of Biofertilizers & Biopesticides*, 2011–present.

Memberships

Asia-Pacific Association of Chemical Ecologists (2009-present)

Biological Control in Pest Management Systems of Plants: W2185 (2009-2012)

Ecological Society of America (2009-present)

Entomological Society of America (2005-present)

Florida Entomological Society (2006-present)

International Association for the Plant Protection Sciences (2006-present)

International Organization for Biological Control of Noxious Animals and Plants (2012-present).

International Society of Chemical Ecology (2005-present)

International Working Group for Diamondback Moth (2000-present)

Sigma Xi, The Scientific Research Society (2010-present)

Systematic and Applied Acarology Society (2002-present)

The Weed Science Society of Japan (WSSJ) (2010-present)

Weed Science Society of America (WSSA) (2010-present)

Grant Activity:

As PI/Co-PI \$2,429,710 extramural and \$471,842 intramural grants were obtained.

Publications

110 publications in peer-reviewed journals/book chapters/edited book.

Invited Lectures and Conference Presentations

Fifty five presentation and invited talk in international conferences/meetings.