

CURRICULUM VITAE

Mario Ambrosino

Integrated Plant Protection Center
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PROFESSIONAL EXPERIENCE:

January 2005 to present: Postdoctoral Research Associate with the Integrated Plant Protection Center, and the Department of Environmental and Molecular Toxicology, Oregon State University.

Presently responsible for managing all aspects of a large-scale research project investigating the conservation of parasitoids of caneberry pests in Oregon and Washington, providing farmers with advice for planning pest management and biological control programs on their farms and writing manuals that describe alternative crop pest management methods. Other activities involve managing staff and helping with the planning and facilitation of on-farm workshops for the discussion and demonstration of these topics. These activities are performed in cooperation with local alternative agriculture groups and interested farmers. Other duties with this organization have included planning and managing certain experiments associated with the projects of other investigators and assisting with the outreach activities for these experiments.

June 2002 to December 2004: Graduate Research Assistant with the Integrated Plant Protection Center, Oregon State University.

Provided farmers with advice for biological control programs on their farms, writing manuals that describe methods for habitat enhancement of natural enemies of crop pests and alternative crop pest management methods, compiling a mobile library on these subjects, producing a natural enemy identification pocket book, and constructing a database of conservation biological control examples. These projects also involved the planning and facilitation of on-farm workshops for biological control. Other duties have included the writing of crop profiles for the web that focus on the status of key pest management issues and solutions.

July 1998 to May 2000: Research Assistant with the University of California Cooperative Extension Unit, Monterey County, California.

The main duties for this position consisted of designing and implementing surveys and sampling methods for invasive and existing insect crop pests and their natural enemies, as well as designing and conducting laboratory growth study experiments for new pest species. Responsibilities also included the design and management of rearing and culturing protocols

for colonies of key pest and natural enemy species, along with the supervision of technicians. This work also involved helping other research and extension entomologists and pathologists of this county with their field, greenhouse and laboratory crop pest management research trials.

February 1998 to May 2000: Independent research project conducted at the Student Experimental Farm at the University of California, Davis and the Center for Agroecology and Sustainable Food Systems at the University of California, Santa Cruz.

My role with this project was to design and conduct experiments to improve the sampling and management of the soil arthropod crop pest *Scutigerella immaculata* (the ‘Garden Centipede’, Class: Symphyla) in organic farming systems. This project was funded by the Organic Farming Research Fund, and the principle investigator was Dr. Mark VanHorn, Director of the Student Experimental Farm at UC Davis. Other responsibilities included the development of cultures of this organism for experimentation, the statistical analysis of data, the supervision of field assistants, as well as helping with the initial grant writing and subsequent extension of this information in reports and discussions with those interested in the work.

June to October 1997: Project Field Manager with the Environmental Bamboo Foundation, Bali and Lombok Islands, Indonesia.

To follow up on a funded proposal which had identified timber resource loss in a community of villages that had been relocated from a forested area into an external buffer zone of the Gunung Rinjani National Park on Lombok Island, my responsibilities were to first initiate an assessment of the specific needs and desires of the perceived beneficiaries through participatory methods. This was then followed by the organization and implementation of meetings, interviews, plant species surveys and mapping activities with many cross-sections of the community to help prioritize among the land tenure and resource loss problems and identify solutions. Other tasks performed in cooperation with this organization in Bali and Irian Jaya included organizing a nursery of tree species and experimental comparisons of their growth with available amendments for future agroforestry resource enhancement, as well as conducting experiments to control a post-harvest beetle pest of the bamboo.

June 1996 to June 1997: Research Assistant with the University of California, Davis Agronomy Department.

Assisted with the implementation and maintenance of crop breeding and pest management field trials for the research program of Dr. Steve Temple. Specific tasks included setting up experimental layouts in the field and greenhouse, sampling and identifying arthropod specimens, harvesting, building cages, data processing, and analyzing data in statistical software.

September to December 1995: Translator and Project Proposal Planner for the organization Program for Appropriate Technology in Health (PATH), Bangkok, Thailand.

Duties included data management, translating, editing and planning small and large scale project proposals and reports as a consultant for the Bangkok branch of this organization.

March 1993 to September 1995: Field Staff Manager with the wildlife conservation organization Wildlife Fund Thailand in Kanchanaburi Province, Thailand.

Major tasks included the design, planning and implementation of animal and plant surveys, sustainable agriculture demonstration plots and other ecological research. This provided information for a larger project investigating the situation surrounding the indigenous Karen peoples' existence in the Thung Yai Wildlife Sanctuary on the western border of Thailand. Other duties included helping with participatory village and sub-district level information collection, trainings, resource modeling and mapping, and agroforestry field seminars.

October 1990 to November 1992: Agricultural Extension Worker/Peace Corps Volunteer with the U.S. Peace Corps Plant Protection Program in Chiang Mai, Thailand.

In affiliation with the Northern Thai Government Plant Pest Control Unit, the primary responsibilities of this position were the identification of crop pests and the subsequent planning and practice of integrated management plans. Additional activities included cooperative fieldwork and conducting experimental field trials of alternative pest control methods with farmers in various villages in three provinces in the northwest of the country, along with the translation and presentation of research project results to visiting international pest management professionals.

June to September 1990: Field Staff Member with the organization Window On The World, Mactan and Cebu Islands, the Philippines.

Mainly responsible for the planning and implementation of small mangrove seedling planting projects on various islands in this region of the Philippines. Other activities were the participation in temporary medical and dental clinics for these same islands.

February 1989 to June 1990: Laboratory Technician, Illinois Institute of Technology, Chicago, Illinois.

Responsibilities included dosing, weighing, detailed observation, preparing blood and tissue samples and performing necropsies on specimens in a laboratory investigating the role of food additives in reducing tumor induction in different cancer models in the laboratory of Dr. Tom Ratko. Supplementary activities at this institute included coursework in Immunology and Molecular Biology in the evenings.

July 1987 to January 1989: Pest Control Operator, Anderson Pest Control, Chicago, Illinois.

This position involved the inspection, location, identification and solving of pest problems in mostly skyscraper, restaurant, food plant and factory settings in downtown Chicago.

September 1985 to May 1987: Laboratory Technician, part time, Department of Genetics, University of Illinois at Champaign-Urbana.

Performed various analytical laboratory procedures on *Drosophila melanogaster* fruit flies in a research laboratory investigating the relationship between innate behaviors and their corresponding genetic and protein attributes.

January 1982 to August 1983: Museum Technician, part time, Field Museum of Natural History, Chicago, Illinois.

Duties included identifying, sorting, labeling and preparing arthropod specimens from a worldwide assortment of samples for the Museum's taxonomic research and collections.

EDUCATION:

September 2000 to March 2006: Ph.D. Department of Entomology, Oregon State University.

Research: Enhancing the predacious activity of hoverflies (Diptera: Syrphidae) with insectary plantings in broccoli. This project was an investigation of the ability of predacious hoverfly species to find and limit aphid colonies in commercial broccoli fields, and then assess the effect that select floral species have on their foraging and predatory activities in the field. Proficiency with: methods and theory in ecological data management and analysis, insect rearing, laboratory, field and greenhouse equipment, as well as with bibliographic, spreadsheet, database, graphical, and statistical computer software, has been necessary for this project.

Advisors: Dr. Paul Jepson (Integrated Plant Protection Center, Department of Environmental and Molecular Toxicology) and Dr. John Luna (Department of Horticulture)

Coursework: Methods of Data Analysis, Field Plot Techniques, Community Ecology, Model Selection and Inference, Weed Ecology and Management, Insect Ecology, Landscape Ecology, Natural Resource Data Analysis, Relational Database Management for Biological Systems.

August 1996 to June 1998: M.S. International Agricultural Development, University of California, Davis, Emphasis of Agroecology.

Research: Participatory Upland Agroforestry in Lombok, Indonesia. The main portion of this project aimed to help a group of villages in the buffer zone of the Gunung Rinjani National Park in Lombok identify, prioritize and find solutions to resource use and land tenure issues by employing some basic methods of mapping, interviews and meeting facilitation used in participatory rural appraisal and action research. Side projects on Bali and Irian Jaya involved the organization of a nursery for select agroforestry species, as well as formal experiments with these species in cooperation with the Indonesian organization Yayasan Bamboo.

Advisor: Dr. Ben Orlove (Department of Environmental Science and Policy)

Coursework: Applied Statistics in Agriculture, Ecology and Agriculture, Social Systems in Agricultural Development, Behavioral Ecology of Insects, Sustainable Development, Ecology of Tropical Latitudes, Analysis and Determinants of Cropping Systems, Plant Ecology, Soil Science, Soil Ecology, Agricultural Economics for Small Farms, Politics and Administration in Agricultural Development, Pest Management, Parasitoid Ecology.

August 1983 to June 1987: B.S. Biological Sciences, University of Illinois, Champaign-Urbana, Major in Entomology.

Advisor: Dr. Stan Freidman (Department of Entomology)

Coursework: Biology, Physical Chemistry, Organic Chemistry, Biochemistry, Calculus, Physics, Quantitative Biology, Insect Systematics, Genetics, Economics, Economic Geography, Logic and Reasoning, Entomology, Plant Taxonomy, Insect Pest Management, Microbiology, Experimental Techniques in Molecular Biology.

PUBLICATIONS:

Ambrosino, M. D., L. B. Coop, and P. C. Jepson. 2007. Enhancing the biological control of leafroller pests in caneberries with proper pesticide timing. The BCPC International Congress, Volumes 1 and 2. Proceedings of an international congress held with the XVI International Plant Protection Congress, Glasgow, Scotland, UK, 15 October 2007, British Crop Protection Council; Alton; UK.

Ambrosino, M.D., P.C. Jepson, and J.M. Luna. 2007. Hoverfly oviposition response to aphids in commercial broccoli fields. *Entomologia Experimentalis et Applicata*. 122: 99-107.

Ambrosino, M. D. 2007. Flea Beetle Pest Management Guide for Organic Potatoes. Oregon State University Extension Service and The Oregon Agricultural Experiment Station. Oregon State University, Corvallis, OR.

Ambrosino, M. D., J. M. Luna, P. C. Jepson, and S.D. Wratten. 2006. The relative frequencies of visits to selected insectary plants by predatory hoverflies (Diptera: Syrphidae), other beneficial insects and herbivores. *Environmental Entomology* 35: 394-400.

Ambrosino, M.D., L.B. Coop and P.C. Jepson. 2006. Managing leafroller pests with biological control agents and timing of soft pesticides. Proceedings of the 2006 Washington State University Small Fruit Growers' Workshop. Washington State University. Vancouver, WA.

Ambrosino, M.D. 2007. A Pocket Guide to the Common Natural Enemies of Crop and Garden Pests in the Pacific Northwest. Oregon State University Extension Service and The Oregon Agricultural Experiment Station. Oregon State University, Corvallis, OR.

Dreves, A., L.C. Coop, and M.D. Ambrosino. 2004. Biological Control. In: McGrath, D. [Ed.] Pacific Northwest Insect Management Handbook. Oregon State University, Washington State University and University of Idaho Extension Services.

Brown, M., M. Van Horn, M.D. Ambrosino, and J. Leap. 2001. Symphylans challenge growers and researchers. *The Cultivar* 19:1-3, 15.

Ambrosino, M.D. *Submitted*. Practical Guidelines for Establishing, Maintaining and Assessing the Usefulness of Insectary Plantings on Your Farm. For Oregon State University Extension Service and The Oregon Agricultural Experiment Station.

MANUSCRIPTS IN PREPARATION:

Ambrosino, M.D., P.C. Jepson, J.M. Luna, C. Pereira, and S.D. Wratten. *In Prep.*. Spatial and Temporal Distribution of Predatory Hoverflies (Diptera: Syrphidae) and Aphids (Homoptera: Aphididae) in a Flower-Enhanced Broccoli Field. For *Entomologia Experimentalis et Applicata*.

Ambrosino, M.D., P.C. Jepson, and J.M. Luna. *In Prep.* Quantifying cabbage aphid predation by hoverflies (Diptera: Syrphidae). For *Journal of Economic Entomology*

Ambrosino, M.D., L.B. Coop and P.C. Jepson. *In Prep.* The incidence and timing of the parasitoid community of the Orange Tortrix (*Argyrotaenia franciscana*) in caneberry fields with different pest management programs in Western Oregon.

Ambrosino, M.D., P.C. Jepson, and L.B. Coop. *In Prep.* Effects of insecticides commonly used in caneberry pest management on the Braconid wasp *Apanteles aristoteliae* in field and laboratory bioassays.

Ambrosino, M.D., L.B. Coop and P.C. Jepson. *In Prep.* Improving the management of the Orange Tortrix (*Argyrotaenia franciscana*) in caneberry fields with phenological models of its parasitoid community.

Andrews, N., M. Ambrosino, G. Fisher and S. Rondon. *In Prep.* Wireworm Biology and Management in Oregon. For Oregon State University Extension Service and The Oregon Agricultural Experiment Station. Oregon State University, Corvallis, OR.

TECHNICAL REPORTS NOT PUBLISHED IN ENGLISH:

Ambrosino, M. and J.F. Maxwell. 1996. Traditional uses of the different plant communities of primary forest, secondary forest, and forest fallow in the Saneh Pong Village area of the

Thung Yai Naresuan Wildlife Reserve. Technical report to Wildlife Fund Thailand. Bangkok, Thailand. [In Thai]

Ambrosino, M. 1995. Abundance and composition of the insect fauna in primary forest, different stages of fallow regrowth, and rice fields in a Karen shifting cultivation system. Technical report to Wildlife Fund Thailand. Bangkok, Thailand. [English version available]

Ambrosino, M. 1994. The effectiveness and practicality of rice straw mulching and different hand-weeding schedules for weed control in an upland rice field. Technical report to Wildlife Fund Thailand. Bangkok, Thailand. [English version available]

Ambrosino, M. and J.F. Maxwell. 1994. Comparison of the vegetative and soil characteristics of primary forest, secondary forest and forest fallow in a Karen upland rice shifting cultivation system. Technical report to Wildlife Fund Thailand. Bangkok, Thailand. [English version available]

Ambrosino, M. 1992. Control of cabbage flea beetles (Chrysomelidae: *Phyllotreta cruciferae*) with extract from dried seed of the neem tree (Meliaceae: *Azadirachta indica*). Technical research report to the Northern Region Plant Protection Center, Department of Agricultural Extension. Chiang Mai, Thailand. [In Thai]

LANGUAGES:

Fluent in English and Thai, some proficiency in Spanish, Indonesian, Malaysian, and Laotian.

SCHOLARSHIPS:

September 2002 to June 2003: Oregon Sports Lottery Scholarship, Oregon State University

September 2002 to June 2003: Oregon Supplemental Laurels Scholarship, Oregon State University

January to March 1997: International Agricultural Development Academic Scholarship, University of California, Davis

CONTRIBUTING AUTHORSHIP TO RECENTLY AWARDED GRANTS:

2005 Regional Integrated Pest Management Competitive Grants Program – Western Region: ‘Determining the potential for release of Lepidopteran parasitoids from pesticide limitation to enable biologically-based IPM in caneberries’

2005 Oregon Raspberry and Blackberry Commission and the Agricultural Research Foundation: ‘Assessing the contribution of biological control for leafroller management programs in caneberries’

2005 USDA Integrated Research, Education, and Extension Competitive Grants Program – Integrated Pest Management, Crops at Risk (CAR): ‘Enabling Transition to Biologically-based IPM for Leafrollers in Caneberries’

2005 USDA CSREES Western SARE Grant: ‘Integrated Soil and Crop Management for Organic Potato Production’

DEPARTMENTAL COMMITTEES:

November 2001 to present: Graduate Student Representative, Department of Entomology, Oregon State University.

June 1996 to June 1998: Coordinator for the Proposal Review Committee for the International Agricultural Development Research Grant, University of California, Davis.

PROFESSIONAL AFFILIATIONS:

Ecological Society of America
Entomological Society of America

TEACHING AND TRAINING EXPERIENCE:

June 2002 to present: Provided training to farmer and student groups on methods of crop pest management, conservation biological control and arthropod and plant sampling methods at many on-farm workshops throughout Western Oregon with the the Integrated Plant Protection Center, Oregon State University, Corvallis, Oregon.

October 2004: Provided training on planning and implementing integrated pest management at the Integrated Pest and Nutrient Management Options workshop of the Integrated Soil Nutrient and Pest Water Quality Education Program (iSNAP), Oregon State University, Corvallis, Oregon.

February 2004: Provided training on conservation biological control and integrated pest management for the Central Oregon Master Gardener Program, Redmond, Oregon.

September to December 2000: Teaching Assistant for an insect pest management course, Department of Entomology, Oregon State University.

November 1992: Helped to plan and implement a training on Thai agriculture and pest management for trainees in the Plant Protection Program of Peace Corps Thailand in Lampang and Chiang Mai provinces of Thailand.

SPECIAL TRAINING RECEIVED

September to November 1990: Three month cross-cultural and technical training with the Peace Corps geared towards providing knowledge necessary for performing duties as a Plant Protection Agricultural Extension Official in Thailand.

July to August 1987: Restricted use pesticide certification training for a Pest Control Operator license, State of Illinois.