# Ivan Milosavljević

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#### **Positions Held**

2020-present	Supervisory Project Scientist, Dept. of Entomology, University of California Riverside
2016-2020	Postdoctoral Researcher, Dept. of Entomology, University of California Riverside
2015-2016	Postdoctoral Researcher, Dept. of Entomology, Washington State University
2012-2015	Research Assistant, Dept. of Entomology, Washington State University

#### Education

Ph.D.	Washington State University, Pullman, WA, Entomology, Aug. 2015
M.Sc.	University of Belgrade, Serbia, College of Agriculture, Phytomedicine, Jan. 2013
B.Sc.	University of Belgrade, Serbia, College of Agriculture, Phytomedicine, Mar. 2011

#### Grants and Development Funds

2020-2023	Taking Chlorpyrifos out of Citrus: Maximizing IPM of Argentine Ant and Sap Sucking Pests
	with Biodegradable Hydrogels, Infra-Red Sensors, and Cover Crops. CDPR Pest
	Management (PI; Co-PIs: M.S. Hoddle, F. Byrne, E Keogh, S Singh) (\$499,839)
2020-2021	Neudorff hydrogel treatment study. Neudorff, USA (PI; Co-PIs: M.S. Hoddle) (\$500)
2020-2021	Marrone Bio Innovations hydrogel treatment study. Marrone Bio Innovations, USA (PI; Co-
	PIs: M.S. Hoddle and F. Byrne) (\$2,700)
2016-2019	Improving Integrated Pest Management of Wireworms in Cereal Crops. USDA NIFA Crop
	Protection and Pest Management (co-PI, PI: D.W. Crowder) (\$324,983)
2014-2016	Wireworm control in wheat-based cropping systems. Washington Grain Commission (co-PI,
	PI: D.W. Crowder) (\$187,234)
2014	REACCH summer mentorship. Regional Approaches to Climate Change (REACCH)
	Mentorship Program (co-PI, PI: D.W. Crowder) (\$5,200)
2013	REACCH summer mentorship. Regional Approaches to Climate Change (REACCH)
	Mentorship Program (co-PI, PI: D.W. Crowder) (\$5,200)
2013	Chemtura seed treatment study. Chemtura AgroSolutions (co-PI, PI: A Esser) (\$6,000)
2013	Valent seed treatment study. Valent, USA (co-PI, PI: A Esser) (\$18,000)
2013	Syngenta seed treatment study. Syngenta Seed (co-PI, PI: A Esser) (\$6,000)

#### Awards and Honors

2017	California Department of Pesticide Regulation IPM Achievement Award (Team member)
2015	WSU CAHNRS Team Interdisciplinary Award (Team member)
2015	WSU President's Leadership and Engagement Award of Distinction (Team member)
2014	WSU Entomology Louis W. Getzin Memorial Scholarship (\$600)
2014	WSU Entomology Research Award (\$500)
2014	WSU President's Award for Leadership (Team member)
2012-2013	WSU Graduate & Professional Student Association (GPSA) Travel Grants (\$1,250)
2012	WSU Entomology H. S. Telford Scholarship (\$550)
2012-2015	WSU Entomology Research Assistantship (\$19,000/yr)
2011	Scholarship from the Ministry of Education, Republic of Serbia (\$2,150)
2001	University of Belgrade Academic Scholarship (\$6,000)

# **Book Chapters**

Milosavljević I, Hoddle MS (2019) Advances in classical biological control in IPM. In M Kogan and EA Heinrichs (Eds.) Integrated management of insect pests: Current and Future Developments in IPM. Burleigh Dodds Science Publishing, Cambridge, UK. pp. 415-450. doi:10.19103/AS.2019.0047.13

#### **Publications**

Peer-reviewed:

- 22. **Milosavljević I**, Morgan DJW, Massie RE, Hoddle MS (2021) Density dependent mortality, climate, and Argentine ants affect population dynamics of an invasive citrus pest, *Diaphorina citri*, and its specialist parasitoid, *Tamarixia radiata*, in Southern California, USA. Biological Control 159, 104627.
- 21. Furlan L, **Milosavljević I**, Chiarini F, Benvegnù I (2021) Effects of conventional tillage versus no-tillage systems on the population dynamics of elaterid pests and the associated damage at establishment of maize crops. Crop Protection 148, 105751
- 20. Furlan L, Contiero B, Chiarini F, Bottazo M, **Milosavljević I** (2021) Risk factors and strategies for integrated management of bird pests affecting maize establishment. Crop Protection 148, 105744
- 19. **Milosavljević I**, Hoddle MS (2021) Laboratory screening of selected synthetic and organic insecticides for efficacy against Argentine ants when incorporated into alginate hydrogel beads, 2021. Arthropod Management Tests 46, doi:10.1093/amt/tsab072.
- Hoddle MS, Hoddle CD, Milosavljević I (2021) Quantification of the lifetime flight capabilities of the South American palm weevil, *Rhynchophorus palmarum* (L.) (Coleoptera: Curculionidae). Insects 12, 126. doi:10.3390/insects12020126
- 17. **Milosavljević I**, Hoddle CD, Mafra-Neto A, Gómez-Marco F, Hoddle MS (2020) Use of digital video cameras to determine the efficacy of two trap types for capturing *Rhynchophorus palmarum* (Coleoptera: Curculionidae). Journal of Economic Entomology 113, 3028-3031.
- 16. **Milosavljević I**, Hoddle CD, Mafra-Neto A, Gómez-Marco F, Hoddle MS (2020) Effects of food bait and trap type on captures of *Rhynchophorus palmarum* (Coleoptera: Curculionidae) and trap bycatch in Southern California. Journal of Economic Entomology 113, 2407-2417.
- 15. Hoddle MS, Hoddle CD, **Milosavljević I** (2020) How far can *Rhynchophorus palmarum* (Coleoptera: Curculionidae) fly? Journal of Economic Entomology 113, 1786-1795.
- 14. Veres A, Wyckhuys KAG, Kiss J, Tóth F, Burgio G, Pons X, Avilla C, Vidal S, Razinger J, Bažok R, Matyjaszczyk E, **Milosavljević I**, Le XV, Zhou W, Zhu ZR, Tarno H, Hadi B, Lundgren J, Bonmatin JM, van Lexmond MB, Aebi A, Rauf A, Furlan L (2020) An update of the Worldwide Integrated Assessment (WIA) on systemic pesticides. Part 4: Alternatives in major cropping systems. Environmental Science and Pollution Research 27, 29867–29899.
- Milosavljević I, Esser AD, Rashed A, Crowder DW (2020) The composition of soil-dwelling pathogen communities mediates effects on wireworm herbivores and wheat productivity. Biological Control 149, 104317.
- 12. **Milosavljević I**, McCalla KA, Morgan DJW, Hoddle MS (2020) The effects of constant and fluctuating temperatures on development of *Diaphorina citri* (Hemiptera: Liviidae), the Asian citrus psyllid. Journal of Economic Entomology 113, 633-645.
- 11. **Milosavljević I**, McCalla KA, Bistline-East AJ, Hoddle MS (2020) Threshold temperatures and thermal requirements of *Psyllaphycus diaphorinae* (Hymenoptera: Encyrtidae), a hyperparasitoid of *Diaphorencyrtus aligarhensis* (Hymenoptera: Encyrtidae) and *Tamarixia radiata* (Hymenoptera: Eulophidae). Florida Entomologist 103, 23-31.
- 10. McCalla KA, Keçeci M, **Milosavljević I**, Ratkowsky DA, Hoddle MS (2019) The influence of temperature variation on life history parameters and thermal performance curves of *Tamarixia radiata*, a parasitoid of the Asian citrus psyllid. Journal of Economic Entomology 112, 1560-1574.

- 9. **Milosavljević I**, McCalla KA, Ratkowsky DA, Hoddle MS (2019) Effects of constant and fluctuating temperatures on development rates and longevity of *Diaphorencyrtus aligarhensis* (Hymenoptera: Encyrtidae). Journal of Economic Entomology 112, 1062-1072.
- 8. **Milosavljević I**, Esser AD, Murphy KM, Crowder DW (2019) Effects of imidacloprid seed treatments on crop yields and economic returns of cereal crops. Crop Protection 119, 166-171.
- 7. **Milosavljević I**, El-Shafie HAF, Faleiro JR, Hoddle CD, Lewis M, Hoddle MS (2019) Palmageddon: the wasting of ornamental palms by invasive palm weevils, *Rhynchophorus* spp. Journal of Pest Science 92, 143-156.
- 6. **Milosavljević I**, Amrich R, Strode V, Hoddle MS (2018) Modeling the phenology of Asian citrus psyllid (Hemiptera: Liviidae) in urban southern California: effects of environment, habitat, and natural enemies. Environmental Entomology 47, 233-243.
- 5. **Milosavljević I**, Schall KA, Hoddle CD, Morgan DJW, Hoddle MS (2017) Biocontrol program targets Asian citrus psyllid in California's urban areas. California Agriculture 71, 169-177.
- 4. **Milosavljević I**, Esser AD, Crowder DW (2017) Seasonal population dynamics of wireworms in wheat crops in the Pacific Northwestern United States. Journal of Pest Science 90, 77-86.
- 3. **Milosavljević I**, Esser AD, Bosque-Perez NA, Crowder DW (2016) The identity of belowground herbivores, not herbivore diversity, mediates impacts on plant productivity. Scientific Reports 6, 39629.
- 2. Milosavljević I, Esser, AD, Crowder DW (2016) Effects of environmental and agronomic factors on soildwelling pest communities in cereal crops. Agriculture, Ecosystems & Environment 225, 192-198.
- 1. Esser AD, **Milosavljević I**, Crowder DW (2015) Effects of neonicotinoids and crop rotation for managing wireworms in wheat crops. Journal of Economic Entomology 108, 1786-1794.

Manuscripts submitted or in late stages of preparation (manuscripts available on request):

- Hoddle MS, Hoddle CD, Milosavljević I, Grisales VD, Estrada-Venegas EG, Equihua-Martínez A (2021) Oviposition Biology and Behavior of Heilipus laurii (Coleoptera: Curculionidae). Annals of the Entomological Society of America. (in preparation).
- Hoddle MS, Hoddle CD, Milosavljević I, Grisales VD, Estrada-Venegas EG, Equihua-Martínez A (2021) Assessment of gender, mating status, and age on single and repeat flight capabilities of *Heilipus lauri* (Coleoptera: Curculionidae). Journal of Insect Science (in review)

# Extension:

- 7. **Milosavljević I**, Hoddle CD, Hoddle MS (2020) Trapping protocols for South American palm weevil in California. *In* CAPCA Adviser, October, 48-53.
- 6. **Milosavljević I**, Morgan DJW, Hoddle MS (2017) Building a coalition: Biocontrol of Asian citrus psyllid by *Tamarixia radiata* and *Diaphorencyrtus aligarhensis* in California. *In* Citrograph 8, 58-63.
- Milosavljević I, Hoddle MS (2017) Teaming up against Asian citrus psyllids: The natural enemies Diaphorencyrtus aligarhensis and Tamarixia radiata may have a future together in California. In Citrus Industry Magazine 32-35.
- 4. Crowder DW, **Milosavljević I**, Esser AD (2016) Know your wireworms! Different species do different damage. *In* Wheat Life 53-55.
- 3. **Milosavljević I**, Esser AD, Crowder DW (2015) Identifying wireworms in cereal crops. Washington State University Extension, FS175E.
- 2. Crowder DW, Esser, AD, **Milosavljević I** (2014) Wireworm biology and ecology in Washington cereal crops. *In* Regional Approaches to Climate Change for Pacific Northwest Agriculture 38-39.
- 1. Esser AD, Crowder DW, **Milosavljević I** (2014) Wireworms take bite out of winter wheat crop. *In* Wheat Life 68-69.

Presentations	
Academic:	
2020	Entomological Society of America (Symposium: "Synergy in Biological Control of invasive insects: Utilizing the Ecology and Behavior of Natural Enemies"), Orlando, FL *virtual talk
2019	Pacific Branch of the Entomological Society of America (Symposia: "Innovative Technologies and Methods in Insect Pest Management" and "Big or Small She'll Parasitize Them All: Tales and Applications of Host-Parasitoid Relationships"), San Diego, CA (2 Talks) *invited talks
	University of California Davis, Department of Entomology and Nematology, Davis, CA
2018	Entomological Society of America (Symposium: From Genes to Communities: Quantifying Diverse Responses of Pollinators to Multiple Anthropogenic Stressors), Vancouver, Canada
	Entomological Society of America (Organized meeting: SOGA weevils workers), Vancouver, Canada *invited talk
	Pacific Branch of the Entomological Society of America (Symposium: Promising accomplishments in biological control), Reno, NV *invited talk
2017	Entomological Society of America (ESA), Denver, CO
	W4185 Annual Conference, Borrego Springs, CA *invited talk
	Entomological Society of Southern California, Arcadia, CA *invited talk
2016	International Congress of Entomology (Symposium: Wireworm and Click Beetle
	Management: IPM Toolbox for the 21st Century), Orlando, FL *invited talk
	Pacific Branch of the Entomological Society of America (Symposium: Promising
	accomplishments in biological control), Honolulu, HI. *invited talk
2015	Washington State University, Department of Entomology, Pullman, WA *departmental talk
2014	Pacific Branch meeting of the Entomological Society of America, Coeur d'Alene, ID Entomological Society of America (Symposium: Wireworms: The resurgence of a key pest of North American cropland), Portland, OR (2 Talks) *invited talks
	European Congress of Entomology (Symposium: Managing wireworms in a changing environment), York, UK
	Annual Wiley Research Exposition. Pullman, WA (2 Talks)
	73rd Annual Pacific Northwest Insect Management Conference. Portland, OR. (2 Talks)
2013	Washington State University, Department of Entomology, Pullman, WA
	Pacific Branch of the Entomological Society of America (Symposium: Wireworms in the west: what is known, what has been done and what needs to be done), Lake Tahoe, NV (2 Talks) *invited talks
	Entomological Society of America (ESA), Austin, TX
2012	Entomological Society of America (Symposium: 120 Years After Comstock the Wireworm Battle Continues), Knoxville, TN *invited talk
Extension:	
2019	Citrus Research Board and Citrus Post-Harvest Meeting, Bakersfield, CA
	CDFA South American palm weevil Workshops, Indio and San Diego area, CA (5 Talks)
	Citrus Post-Harvest Conference, CCQC Quarantine Research Meeting, Santa Barbara, CA
	Pesticide Applicators Professional Association, Anaheim, CA (2 Talks)
2017	California Association of Pest Control Advisers, Ontario, CA (2 Talks)
2017	University of California Riverside Citrus Day, Riverside, CA (Poster) Pesticide Applicators Professional Association, Victorville, CA (2 Talks) California Association of Pest Control Advisers, Ontario, CA (2 Talks)

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	California Association of Pest Control Advisers, Carson, CA
2016	Washington Association of Wheat Growers Wheat College. Davenport, WA (3 Talks).
2014	Washington State University Pesticide Certification Course (3 talks)
	Washington State University Crop Diagnostic Clinic (3 Talks)
	Far-West Agribusiness Association. Kennewick, WA
	Asotin County Wheat Growers meeting. Asotin, WA
	Davenport Union grower meeting. Davenport, WA
	Annual Eastern Klickitat Conservation District Meeting, Bickleton WA
2013	National Association of County Agricultural Agents Annual Meeting, Pittsburgh, PA
	Washington State University Wilke Research and Extension Farm Field Day, Davenport, WA
	Far West Agribusiness Association Conference, Twin Falls, ID
	The Northern Lincoln County Field Tour, Wilbur/Creston, WA (2 Talks)

# Teaching

Washington State University:

2013 - 2015	Athletic Center Tutor. One-on-one and group tutoring of student athletes in entomology
	coursework. <u>Instructor</u> .
2014	Entom 539 - Insect Identification Graduate course focused on insect taxonomy and
	speciation. Guest Lecturer. Prepared and lectured two course lectures.
2013	Entom 343 - General Entomology. Undergraduate course focused on insect morphology
	and ecology. Guest Lecturer. Prepared and lectured two course lectures.
2013	IPM 201 - Introduction to Pest Management in a Quality Environment. Undergraduate
	course focused on ecological and integrated pest management. Guest Lecturer. Prepared
	and lectured three course lectures.
2013	Entom 101 - Insects and People: A perspective. Undergraduate course focused on impacts
	of insects on human life. Guest Lecturer. Prepared and lectured three course lectures.
2013	Entom 150 - Insects, Science and World Cultures. Undergraduate course focused on
	impacts of insects on human life. Guest Lecturer. Prepared and lectured three course
	lectures.
2013	Upward Bound. Summer Entomology courses for high school students. Guest Lecturer.

# Mentorships

2017-2019	Kelly Giordano "Trapping protocols for invasive pests of palms", UCR
2016	Carly Pierce "Parasitoid-host interactions in citrus", UCR
	Nagham Melhem "Parasitoid-host interactions in citrus", UCR
2015	Laura Rafferty "Wireworm-virus interactions in wheat" WSU
2014	Jacob Cohen "Wireworm-virus interactions in wheat" WSU/University of Idaho
2013	Jordan Bailey "Climate change and wireworm-aphid interactions" WSU/University of Idaho
	Kayla Fillion "Climate change and wireworm-aphid interactions" WSU

# **Professional Affiliations**

2018-present	International Organization for Biological Control, Nearctic Regional Section (IOBC)
2012-present	Entomological Society of America (ESA)
2012-2015	American Society of Agronomy (ASA)
	Crop Science Society of America (CSSA)
	Soil Science Society of America (SSSA)
2011-2012	Entomological Society of Serbia (EDS)

#### **Professional Training**

2018-2019	Affirmative Action & Compliance Liaison License (University of California)
2014	Good Agricultural Practices (GAP) Certification Program, Washington state
2014	Process Oriented Guided Inquiry Learning (POGIL) Workshop
2013	College Reading and Learning Association's International Tutor Certification Program
2010	Pesticide Applicator Certification, Belgrade, Serbia

#### Service and Outreach

<ul> <li>2020-present</li> <li>2019</li> <li>Member, Consortium for Targets and Procedures for arable crops in Europe</li> <li>Moderator, Symposium: Innovative Technologies and Methods in Insect Pest Manager</li> <li>ESA Pacific Branch Conference, San Diego, CA.</li> <li>Moderator, South American palm weevil conference. Indio, CA</li> <li>Moderator, South American palm weevil conference. Bonita, CA</li> </ul>	
ESA Pacific Branch Conference, San Diego, CA. Moderator, South American palm weevil conference. Indio, CA	
Moderator, South American palm weevil conference. Indio, CA	ment.
Moderator South American palm weevil conference Bonita CA	
Moderator, South American paint weevit conference. Donita, GA	
2018 Volunteer, Annual Riverside Insect Fair. Riverside, CA	
2017-present Editor, Asian Citrus Psyllid Resources/UCR Applied Biological Control Website	
2014-2016 <b>Co-Editor,</b> Insect Resources/WSU Small Grains Website	
2014-2015 Volunteer Assistant Coach, WSU Women's Basketball Team	
2013-2015 Member, WSU Small Grains Extension Team	
2013 Judge, Student Debates Competition. Annual meeting of the ESA, Austin, TX	
2012-2015 Volunteer, CAHNRS Annual Fall Festival, Pullman, WA	
Volunteer, Annual Insect Expo, Insect Cinema Cult Classic, and Insect Feed. Pullman,	WA
2012-2015 Member, WSU Entomology Graduate Student Association (EGSA)	
2010-2012 Assistant Coach, Division 2 Professional Basketball Team, Belgrade, Serbia	
2009-2010 Manager, City Parks and Recreation, Belgrade, Serbia	
2009 Manager, Summer Universiade, Belgrade Serbia	
2000 Volunteer Coach, Basketball Coach for the Community youth. Belgrade, Serbia	

**Reviewer for (total reviews ~90):** Biological Control (2), Annals of Applied Biology (1), Crop Science (2), Environmental Science and Pollution Research (2), Agricultural and Forest Entomology (2), Crop Protection (2), Entomologia Generalis (1), Agriculture Ecosystems & Environment (1), Journal of Economic Entomology (3), Environmental Entomology (5), Journal of Animal Science and Research (2), Ecological modeling (3), Annals of the Entomological Society of America (1), Journal of Pest Science (2), Journal of Applied Entomology (2), BioControl (1), International Journal of Pest Management (1), Journal of the Entomological Research Society (2), Insects (30), Plants (1), Processes (2), Foods (2), Biology (2), International Journal of Environmental Research and Public Health (2), Journal of Insect Behavior (2), Pest Management Science (3), Neotropical Entomology (2), Agriculture (3), Agronomy (1), Applied Sciences (1), Florida Entomologist (2), Bulletin of Entomological Research (1), Journal of Thermal Biology (1).

#### Popular press

- "Tiny helpful wasps are coming to save your citrus" The Mercury News (18 January 2021). https://www.mercurynews.com/2021/01/18/tiny-helpful-wasps-are-coming-to-save-your-citrus/
- "Fear No Weevil: Entomologists Say Cone Traps Better Protect Palm Trees" Entomology Today; Entomological Society of America (19 October 2020). https://entomologytoday.org/2020/10/23/fear-noweevil-entomologists-say-cone-traps-better-protect-palm-trees/
- "Long-Distance Palm Weevil Flyers Threaten California Date Palms" Entomology Today; Entomological Society of America (16 July 2020). https://entomologytoday.org/2020/07/16/long-distance-palm-weevilflyers-rhynchophorus-palmarum-threaten-california-date-palms/