

CURRICULUM VITAE

University of Idaho

NAME: Armando Falcon-Brindis

DATE: 01/23/2024

RANK OR TITLE: Assistant Professor, Research Faculty & Extension Specialist

DEPARTMENT: Entomology, Plant Pathology and Nematology

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WEB:

DATE OF FIRST EMPLOYMENT AT UI: 01/07/2024

DATE OF TENURE: N/A

DATE OF PRESENT RANK OR TITLE: 01/07/2024

EDUCATION BEYOND HIGH SCHOOL:

- **Ph.D.** Biological Research Center of Northwest, Baja California Sur, Mexico, 2019. Use, Management, and Preservation of Natural Resources
- **M.S.** Juarez Autonomous University of Tabasco, Mexico, 2014. Environmental Sciences
- **B.S.** Chapingo Autonomous University, Estado de Mexico, 2009. Agricultural Engineering majoring in Animal Science

Certificates and Licenses:

- Licensed Drone Pilot by the Federal Aviation Administration (FAA).

EXPERIENCE:

Teaching, Extension and Research Appointments:

- 2022-2023. Research Associate. University of Kentucky, Research & Education Center, Princeton, KY. Department of Entomology. Description: assist IPM projects in field crops and specialty crops. Outreach activities (talks, publications). Design and conduct bioassays. Conduct data analysis and bioassays, grant and manuscript writing. Supervision of interns enrolled during the summer.
- 2021-2022. Research Analyst. University of Kentucky, Research & Education Center, Princeton, KY. Department of Entomology. Description: involved in different projects related to IPM in field crops, specialty crops, and outreach in Western KY; conduct data analysis and bioassays, grant and manuscript writing.
- 2020-2021. Teacher. Autonomous University of Guadalajara, Mexico. Description: teaching selected topics of statistics to graduate students.
- 2020-2021. Postdoctoral position. El Colegio de la Frontera Sur (ECOSUR), Mexico – A CONACYT Research Center. Description: teaching, insect sampling, curation, and identification of wasps sensu lato from Mexico and Central America; data analysis and modeling species richness.
- 2020. Research Analyst. Biological Research Center of Northwest, Mexico – A CONACYT Research Center. Description: risk analysis of the invasive species *Myiopsitta monachus* (Psittacidae).
- 2015-2019. Research Assistant. Biological Research Center of Northwest, Mexico – A CONACYT Research Center. Description: sampling, curation, and identification of wild bees and wasps in desert environments of northwest Mexico; data analysis and statistical modeling.
- 2012-2014. Research Assistant. Juarez Autonomous University of Tabasco, Mexico. Description: sampling and curation of bark and ambrosia beetles in tropical rainforests of southeast Mexico; data analysis and

species distribution modeling.

Academic Administrative Appointments: (List position titles and locations since receipt of Bachelor's degree)

Non-Academic Employment including Armed Forces: (List title, brief description, date)

Supervisor. Technological University of Tabasco, Mexico. Description: evaluating specific damages by the oil infrastructure on the agricultural production adjacent to petroleum facilities across southern Mexico. 2014-2015.

Environmental specialist. Mexican Petroleum Institute. Description: planning, design and development of environmental risk assessments focused on evaluating potential impacts to natural, agricultural, and urban landscapes caused by the petroleum industry in southern Mexico. 2009-2012.

Consulting: (List company/institute name, title, brief description, date)

TEACHING ACCOMPLISHMENTS: (Academic and Extension teaching)

Areas of Specialization:

- Ecology
- Geostatistics

Courses Taught:

2020-2021. Autonomous University of Guadalajara, Tabasco, Mexico.

- Basic Geostatistics. M.S. Program.
- Advanced Geostatistics. M.S. Program.
- Categorical Variable Analyses. PhD Program.

Students Advised:

Undergrad students

2015-2016. Rubén Francisco Mancilla. B.S. dissertation: Study of terrestrial macroinvertebrate communities in four plant systems. Co-advisor. Universidad Juárez Autónoma de Tabasco. Mexico. Academy of Biological Sciences.

Graduate students

2022-to present. Damián Ramírez Guillén. PhD dissertation: Phylogeny and biogeography of Scoliidae of North and Central America. Co-advisor. El Colegio de la Frontera Sur. Mexico. Department of Biodiversity Conservation.

2020-2022. Damián Ramírez Guillén. M.S. dissertation: Revision of Scoliidae wasps from Mexico. Co-advisor. El Colegio de la Frontera Sur. Mexico. Department of Biodiversity Conservation.

Graduate committee

2022-to present. Knut Bjorn Artur Daunert Medina. M.S. dissertation: Bark and ambrosia beetles from agricultural systems in Nayarit, Mexico. Autonomous University of Nayarit, Mexico.

Materials Developed: (non-scholarship activity)

Courses Developed:

Non-credit Classes, Workshops, Seminars, Invited Lectures, etc.:

Invited lectures

2023. University of Kentucky. Department of Entomology. Lexington, KY.

- ENT 209 BEES AND PEOPLE: pollination ecology and interaction networks.

2020-2024. El Colegio de la Frontera Sur (ECOSUR), Chiapas, Mexico.

- LANDSCAPE ECOLOGY: generalized linear models, landscape metrics and geostatistics.

2017-2022. Centro de Investigaciones Biológicas del Noroeste (CIBNOR). Baja California Sur, Mexico.

- CONSERVATION BIOLOGY: diversity and conservation of arthropods
- ECOLOGY OF ARID ENVIRONMENTS: adaptations of arthropods in arid ecosystems.

SCHOLARSHIP ACCOMPLISHMENTS: (Including scholarship of teaching and learning, artistic creativity, discovery, and application/integration)

1. 2018. CONACYT, Internship grant to visit the Bee Lab. USDA, Logan, UT. Jul-Sep (\$2,500 USD).
2. 2015-2019. CONACYT, Scholarship No. 273254. Ph.D. research program. Baja California Sur, Mex (\$35,000 USD).
3. 2016. Robinson Sudan New Leaf Foundation. Grant to attend the “Bee Course”. Portal, Arizona (\$1,000 USD).
4. 2012-2014. CONACYT, Scholarship No. 337005. M.S. Research Program. Tabasco, Mex (\$12,000 USD).
5. 2013. International Student Mobility Program. Grant to do an internship at the Universidade Federal de Santa Maria, RS, Brazil (\$3,000 USD).
6. 2013. Instituto Juárez Grant. Complementary grant to do an internship at the Universidade Federal de Santa Maria, RS (\$2,000 USD).

INTERNATIONAL INTERNSHIPS

2018. Bee Lab. ARS Pollinating Insects Research Unit, USDA, Logan, Utah. Description: identification of solitary bees and wasps. Trained by Dr. Terry Griswold.
2013. Universidade Federal de Santa Maria. Agriculture and Entomology Department. Rio Grande do Sul, Brazil. Description: integrated pest management of field crops. PI: Gerson Guedes.

Publications, Exhibitions, Performances, Recitals:

2016. Exhibition of Scientific Illustration: Art-Trópodos. CIBNOR, Baja California Sur, Mexico.

Refereed/Adjudicated: (i.e. books, book chaps., journals, proc., abstr., etc.; provide citations-author, date, title, publisher)

BOOK CHAPTER. Falcon-Brindis, A. Neotropical wasps: identifying trends and gaps for their conservation. In: Leon-Cortes, J. & Cordoba-Aguilar, A. (Eds.). Insect decline and conservation in the Neotropics. Accepted. Springer. In Press.

Peer Reviewed/Evaluated: (i.e. journals, articles, proceedings, abstracts, etc.)

*Indicates corresponding author.

1. James B. Dorey, Paige R. Chesshire, Angela N. Bolaños, Robert L. O’Reilly, Silas Bossert, Shannon M. Collins, Elinor M. Lichtenberg, Erika M. Tucker, Allan Smith-Pardo, Armando Falcon-Brindis, Diego A. Guevara, Bruno Ribeiro, Diego de Pedro, Erica E. Fischer, John Pickering, Keng-Lou James Hung, Katherine A. Parys, Lindsie M. McCabe, Matthew S. Rogan, Robert L. Minckley, Santiago J.E. Velazco, Terry Griswold, Tracy A. Zarrillo, Walter Jetz, Yanina V. Sica, Michael C. Orr, Laura Melissa Guzman, John A. Ascher, Alice C. Hughes, Neil S. Cobb. A globally synthesised and flagged bee occurrence dataset and cleaning workflow. *Scientific Data*, 10, 747. <https://doi.org/10.1038/s41597-023-02626-w>
2. Falcon-Brindis, A. Villanueva, R., Vilorio, Z., Bradley, C. A novel approach to tally *Aculops cannicola* (Acari: Eriophyidae) for field and laboratory studies. 2023. *Journal of Economic Entomology*, 116(2): 591-598. <https://doi.org/10.1093/jee/toad004>
3. Ramírez-Guillén, L.D., Falcon-Brindis, A.* & Gómez, B. The Scoliid wasps (Hymenoptera: Scoliidae) of Mexico: taxonomy and biogeography. 2022. *Zootaxa*. 5214 (1): 047–088. <https://doi.org/10.11646/ZOOTAXA.5214.1.2>
4. Montañez-Reyna, M., León-Cortés, J.L., Falcon-Brindis, A. The diversity of moths (Erebidae: Arctiinae: Arctiini) from threatened mountain cloud forests in the Mesoamerican biodiversity hotspot. 2022. *Journal of Insect Conservation*. 27(1): 141-154. <https://doi.org/10.1007/s10841-022-00448-6>
5. Falcon-Brindis, A., Leon-Cortes, J.L. The oases of Baja California Peninsula: overlooked hotspots for wild bees. 2022. *Journal of Insect Conservation*. 27(1): 117-128. <https://doi.org/10.1007/s10841-022-00432-0>
6. Falcon-Brindis, A, Stireman III, J.O., Vilorio, Z.J., Villanueva, R.T. Parasitism of corn earworm, *Helioverpa zea* (Boddie) (Lepidoptera: Noctuidae), by tachinid flies in cultivated hemp. 2022. *Insects*. 13(6):519. <https://doi.org/10.3390/insects13060519>

7. Ramirez-Guillen, D., A. Falcon-Brindis*. First record of gynandromorphy in *Dielis plumipes confluenta*. 2022. *Southwestern Entomologist*, 47(2), 523-526. <https://doi.org/10.3958/059.047.0230>
8. Falcon -Brindis, A., J.L. León-Cortés, R.F. Mancilla-Brindis, M.O. Estrada-Virgen, O. J. Cambero-Campos. A new species of *Pseudophanerotoma* (Hymenoptera, Braconidae) from Nayarit, Mexico. 2022. *Zookeys*, 1095: 165–177. <https://doi.org/10.3897/zookeys.1095.74308>
9. De Dios-Avila, N., M.L. Ramírez-Ahuja, C. Rios-Velasco, A. Falcon-Brindis, N. Isiordia-Aquino, G.R. Sandoval, M. Estrada-Virgen. *Anastrepha striata* parasitic wasps in guava crops at fragmented landscapes of Nayarit, Mexico. 2022. *Southwestern Entomologist*, 47(1): 125-135. <https://doi.org/10.3958/059.047.0112>
10. Badillo-Montaño, R., G., Amancio, A. Falcon-Brindis*, J.L. León-Cortés, T. Von, F. Dzul-Cauich. Trophic host-parasitoid interactions of two Neotropical butterfly species in southeastern Mexico. 2022. *International Journal of Tropical Insect Science*, 42: 1865-1875. <https://doi.org/10.1007/s42690-021-00714-1>
11. Estrada-Virgen, O., A. Burgos-Solorio, C. Rios-Velasco, A. Falcon-Brindis, Däunert, K.B.A., Bugarín, M.L.D., Domínguez, M.L., Robles, B.A., N. de Dios Ávila. 42: 1547–1553. Bark and ambrosia beetles (Coleoptera: Curculionidae) associated with avocado in Nayarit, Mexico. 2022. *International Journal of Tropical Insect Science*. <https://doi.org/10.1007/s42690-021-00674-6>
12. Falcon-Brindis, A., León-Cortés, J.L., Montañez-Reyna, M. How effective are conservation areas to preserve biodiversity in Mexico? 2021. *Perspectives in Ecology and Conservation*, 19: 399-410. <https://doi.org/10.1016/j.pecon.2021.07.007>
13. Pérez-Estrada, C., Falcon-Brindis, A., Rodríguez-Estrella, R., Morales-Bojórquez, E., Crespo-Domínguez, J. M., Brun-Murillo, F. Seasonal shifts in morphology, physiology and population traits in the seagrass *Halodule wrightii* (Cymodoceaceae) in a subtropical arid area. 2021. *Aquatic Botany*. 172: 103381. <https://doi.org/10.1016/j.aquabot.2021.103381>
14. Robledo-Ospina, L. E. Escobar-Sarria, F., Morehouse, N., Falcon-Brindis, A., Jiménez. M. L. & Rao, D. Prey colour biases of araneophagic mud-daubing wasps. 2021. *Animal Behaviour*, 172: 25-33. <https://doi.org/10.1016/j.anbehav.2020.11.015>
15. Quijano-Cuervo, L.G. R. Badillo-Montaño, A. Falcon-Brindis*. Nesting biology and first description of the male of *Auplopus auripilus* Cresson (Hymenoptera: Pompilidae) in Southeastern Mexico. 2021. *International Journal of Tropical Insect Science*, 41: 323-331. <https://doi.org/10.1007/s42690-020-00210-y>
16. Falcon-Brindis, A., R. Rodríguez-Estrella, M.L. Jiménez. Islands in the desert for cavity-nesting bees and wasps: ecology, patterns of diversity, and conservation at oases of Baja California peninsula. 2020. *Ecology and Evolution*, 10: 527–542. <https://doi.org/10.1002/ece3.5927>
17. Falcon-Brindis, A., R. Rodríguez-Estrella, M.L. Jiménez. Disentangling the coexistence strategies of mud-daubing wasp species through trophic analysis in oases of Baja California peninsula. 2020. *Plos One*, 14(2): e0225266. <https://doi.org/10.1371/journal.pone.0225266>
18. Falcon-Brindis, A., R. Rodríguez-Estrella, M.L. Jiménez. A fatal nest construction: man-mixed cement used by mud-daubing wasps. 2019. *Sociobiology*, 65(3): 524-526. <http://dx.doi.org/10.13102/sociobiology.v65i3.2228>
19. Cárdenas-Ramos, D., A. Falcon-Brindis*, R. Badillo-Montaño, I.A. Hinojosa-Díaz, R. Ayala. Floral traits and foraging behavior of bee assemblages visiting *Martynia annua* L. (Martyniaceae) in coastal Jalisco, Mexico. 2018. *Sociobiology*, 65(4): 722-726. <http://dx.doi.org/10.13102/sociobiology.v65i4.3393>
20. Falcon-Brindis, A., M. Pérez-De-La-Cruz, E.E. Mata-Zayas. Scolytinae y Platypodinae (Coleoptera: Curculionidae) de Tabasco, México. 2018. *Acta Zoológica Mexicana (Nueva Serie)*, 34(2) 1-10. <https://doi.org/10.21829/azm.2018.3412107>
21. Falcon-Brindis, A., R. Ayala, M. L. Jiménez, I. A. Hinojosa-Díaz. A missing piece in the puzzle: the presence of *Euglossa viridissima* in the Baja California Peninsula (Hymenoptera, Apidae). 2018. *Zookeys*, 726: 15-23. <https://doi.org/10.3897/zookeys.726.19876>
22. Starr, C.K., A. Falcon-Brindis, M. L. Jiménez. Brood success of the mud-daubing wasp *Sceliphron jamaicense* (Hymenoptera: Sphecidae) in a desert environment. 2018. *Revista Mexicana de Biodiversidad*, 89(2): 466-470. <http://dx.doi.org/10.22201/ib.20078706e.2018.2.2416>
23. Mancilla-Brindis, R.F., L.J. Rangel-Ruiz, A. Falcon-Brindis, J. Gamboa-Aguilar & J. D. Valdez-Leal. Riqueza y abundancia de la macrofauna epigea en cuatro sistemas tropicales del estado de Chiapas, México. 2017. *Acta Zoológica Mexicana (Nueva Serie)*, 33(3): 474-471. <https://doi.org/10.21829/azm.2017.3331147>
24. Falcon-Brindis, A., C. Palacios-Cardiel, M. L. Jiménez. Ampliación de la distribución de *Dinapate wrightii* Horn (Coleoptera: Bostrichidae) en Baja California Sur, México. 2016. *Acta Zoológica Mexicana (Nueva Serie)*, 32(3): 407-409. <https://doi.org/10.21829/azm.2016.323980>

25. Falcon-Brindis, A., R.F. Mancilla-Brindis, A.D. Magano, R.M. Machado, M. Zotti. Gradiente de conservación de comunidades de gasterópodos terrestres como indicadores ecológicos al Norte de Chiapas, México. 2014. *Ciencia e Natura*, 36(2): 645-652. <https://doi.org/10.5902/2179460X12890>

Other: (reports, proceedings, papers, citations and references, performances)

REGISTERED SEQUENCES IN GENBANK

2022. NEW SPECIES. National Center for Biotechnology Information (NCBI). Falcon-Brindis, A., J.L. León-Cortes, R.F. Mancilla-Brindis, M.O. Estrada-Virgen, O.J. Cambero-Campos. Accession Number: MZ501206.1, Nucleotide. *Pseudophanerotoma* sp. (Hymenoptera: Braconidae) 1 AFB-2022a cytochrome c oxidase subunit I. Available from: <https://www.ncbi.nlm.nih.gov/nuccore/MZ501206>

TECHNICAL-RESEARCH REPORTS

1. 2021. Falcon-Brindis A, Viloría Z, Villanueva R. Description of the rapid colonization of western Kentucky by the brown marmorated stink bug 2020-2021. 2021 Soybean Science Research Report. Pp. 13-16. <https://graincrops.ca.uky.edu/soybean>
2. 2021. Falcon-Brindis A, Villanueva R. Evaluating sunflower as a trap crop for *Dectes* stem borer in western Kentucky. 2021 Soybean Science Research Report. Pp. 1-4. <https://graincrops.ca.uky.edu/soybean>
3. 2022. Villanueva R, Falcon-Brindis A, Viloría Z. Snail outbreak during drought affecting soybeans. 2022 Soybean Science Research Report. Pp. 17-23. <https://graincrops.ca.uky.edu/soybean>
4. 2022. Falcon-Brindis A, Villanueva R. Changes on stink bug species composition in soybeans across central and western Kentucky. 2022 Soybean Science Research Report. Pp. 7-11. <https://graincrops.ca.uky.edu/soybean>
5. 2022. Falcon-Brindis A, Villanueva R. Sunflowers may have a positive impact on soybeans: the interaction of cocklebur weevil with *Dectes* stem borer. 2022 Soybean Science Research Report. Pp. 2-6. <https://graincrops.ca.uky.edu/soybean>
6. 2019. Rodríguez-Estrella, R., J.J. Pérez Navarro, A.A. Sánchez Velasco, Y. Ferrer Sánchez, S. Muñoz Arroyo, A. Falcon-Brindis & C.J. Pérez Estrada. Análisis de riesgo de cinco especies de palmas con potencial invasor en México. PNUD-CONABIO. https://www.biodiversidad.gob.mx/media/1/especies/Invasoras/files/comp1/Informe_y_analisis_de_riesgo_palmas.pdf

Fact Sheets – University of Kentucky

1. 2023. ENTFACT-710: Syrphid Flies: Overlooked Pollinating Insects <https://entomology.ca.uky.edu/ef710>
 2. 2023. ENTFACT-710: Dogbane Beetle: Feeding on Toxic Plants Provides Benefits to Survive <https://entomology.ca.uky.edu/ef709>
 3. 2022. ENTFACT-159: Red Cocklebur Weevil. <https://entomology.ca.uky.edu/ef159>
 4. 2022. ENTFACT-160: Wasp species found in hemp: A Survey in Western Kentucky. <https://entomology.ca.uky.edu/ef160>
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1. 2023. Falcon-Brindis, A., Leon-Cortes. J.L., Montañez-Reyna, M. Identifying factors restricting our understanding of Erebididae moths of Mexico. Arctiinae Research Community Meeting. <https://doi.org/10.6084/m9.figshare.23059256.v6>
 2. 2022. Falcon-Brindis, A., Villanueva, R., Viloría, Z. Effect of Diet on Parasitism Rates of Corn Earworm. Science of Hemp: Production and Pest Management Meeting Proceedings. Vol. 3. P. 27. <https://digitalcommons.murraystate.edu/cgi/viewcontent.cgi?article=1002&context=soh>
 3. 2022. Falcon-Brindis, A., Villanueva, R., Viloría, Z. Lessons from the Biological and Chemical Control of Corn Earworm on Hemp. Production and Pest Management Meeting Proceedings. Vol. 3. P. 28. <https://digitalcommons.murraystate.edu/cgi/viewcontent.cgi?article=1002&context=soh>
 4. 2022. Villanueva, R., Falcon-Brindis, A., Viloría, Z. Hemp Russet Mite Control Using Organic and Conventional Acaricides. Production and Pest Management Meeting Proceedings. Vol. 3. P. 57. <https://digitalcommons.murraystate.edu/cgi/viewcontent.cgi?article=1002&context=soh>
 5. 2021. Falcon-Brindis, A., Villanueva, R., Viloría, Z., Bradley, C. Parasitism of Corn Earworm by Tachinid Flies in Industrial Hemp. Science of Hemp Annual Meeting, Vol. 2. P. 30. <https://digitalcommons.murraystate.edu/cgi/viewcontent.cgi?article=1001&context=soh>
 6. 2021. Villanueva, R., Viloría, Z., Falcon-Brindis, A., Bradley, C. Approaches to Conduct Balanced Studies on Hemp Russet Mites. Science of Hemp Annual Meeting, Vol. 2. P. 60. <https://digitalcommons.murraystate.edu/cgi/viewcontent.cgi?article=1001&context=soh>

7. 2021. Vilorio, Z., Falcon-Brindis, A., Bradley, C., Villanueva, R. Evaluation of Biopesticides for the Management of *Helicoverpa zea* in Hemp. Science of Hemp Annual Meeting, Vol. 2. P. 61. <https://digitalcommons.murraystate.edu/cgi/viewcontent.cgi?article=1001&context=soh>
8. 2017. Falcon-Brindis, A., Jimenez, M.L., Rodriguez-Estrella, R., Ayala, B.R. Effect of disturbance on trap-nesting bees in insular-like environments of Baja California peninsula. X Congreso Mesoamericano de Abejas Nativas (10th Mesoamerican Congress of Native Bees – In Spanish). La Antigua, Guatemala.

Refereed/Adjudicated (currently scheduled or submitted): (provide citations)

Peer Reviewed/Evaluated (currently scheduled or submitted):

Falcon-Brindis A, Villanueva R. Hemp regulates the fitness of corn earworm (Lepidoptera, Noctuidae) and its tachinid (Diptera) parasitoids. Plos One. Submitted.

Presentations and Other Creative Activities: (i.e. slide sets, web pages, video productions, etc., provide date and location)

INVITED SPEAKER

1. 2023. Arctiinae Research Community Meeting 2023. Identifying factors restricting our understanding of Erebiidae moths of Mexico. Virtual Meeting.
 2. 2022. KEYNOTE TALK. 3rd Annual Meeting: The Science of Hemp: Production and Pest Management. Lessons from the Biological and Chemical Control of Corn Earworm on Hemp. Lexington, KY.
 3. 2021. World Day of No Use of Pesticides. The role of wasps in environmental balance: natural and modified systems. Universidad Autónoma de Chiapas. Palenque, Mexico.
1. 2022. Beneficial Tachinid flies help control corn ear worms in hemp. University of Kentucky. Research and Education Center, Princeton, KY. <https://www.youtube.com/watch?v=I6WOHkqTC38>
 2. 2022. Scientific illustrations used in the Ph.D. Thesis: Spatio-temporal changes on the behavior of *Pyrocephalus rubinus* and *Tyrannus vociferans* in response of the available resources in two areas of Xochimilco, Mexico (In Spanish). Student: Norma Angelica Camacho García. Universidad Metropolitana. <https://bindani.izt.uam.mx/concern/tesiuams/sx61dm669?locale=es>
 3. 2017. Ecología de anidación de abejas y avispas (in Spanish). Centro de Investigaciones Biológicas del Noroeste (CIBNOR), Mexico. <https://www.youtube.com/watch?v=8LSWI2ucyx4>

Professional Meeting Papers, Workshops, Showings, Recitals: (provide date and location)

1. 2024. Poster. Influence of hemp and artificial diets on the fitness of corn earworm (Lepidoptera: Noctuidae) and their tachinid parasitoids (Diptera). ESA Southeastern Branch Meeting. Augusta, GA.
2. 2024. Talk coauthor. Effectiveness of insecticides in corn grown for the bourbon industry in Kentucky. ESA Southeastern Branch Meeting. Augusta, GA.
3. 2024. Poster. Control of corn earworm in grain and CBD hemp with biologicals and plant-derived compounds. ESA North Central Branch Meeting. Fort Collins, CO.
4. 2024. Talk coauthor. Predation of snails and slugs by carabid beetles found in row crops. ESA North Central Branch Meeting. Fort Collins, CO.
5. 2023. Talk coauthor. Beetles (Curculionidae: Scolytinae and Platypodinae) of the Sierra de San Juan Biosphere Reserve. Congress of Science, Technology and Innovation Nayarit 2023 (in Spanish). Mexico.
6. 2023. Talk (Webinar). Insects in field crops during two years of partial drought and heat wave. Crop Protection Webinar Series. University of Kentucky, CAFE, Cooperation Extension Service.
7. 2023. Talk. Factors affecting parasitism levels of *Helicoverpa zea* (Lepidoptera: Noctuidae) in hemp systems. Science of Hemp Conference. Auburn, AL.
8. 2023. Talk coauthor. Control of hemp russet mite using conventional and organic products. Science of Hemp Conference. Auburn, AL.
9. 2023. Poster. Evaluating the damage of three commonly overlooked insects in hemp. Science of Hemp Conference. Auburn, AL.
10. 2023. Talk. Is diet quality a factor affecting the mortality of parasitized corn earworm on hemp? ESA Annual Meeting, Maryland, USA.

11. 2023. Talk coauthor. Laboratory evaluation of carabid predation on field crop snails. ESA Annual Meeting, Maryland, USA.
12. 2023. Talk coauthor. First report of damages caused by the native snail *Mesodon clausus* in soybeans and its management. ESA Annual Meeting, Maryland, USA.
13. 2023. Poster. Diversity of ground beetles in field crops of Kentucky. ESA Annual Meeting, Maryland, USA
14. 2023. Talk. An overview of key pests of hemp: identification and control. Hemp Educational Session & Field Day. Lexington, KY.
15. 2023. Talk. Influence of food on the trophic relationship of corn earworm and tachinid flies on hemp. Joint North Central & Southwestern Branch Meeting. Oklahoma City.
16. 2023. Talk coauthor. Consumption of soybeans by a native snail species under severe drought and warm environmental conditions. Joint North Central & Southwestern Branch Meeting. Oklahoma City.
17. 2023. Poster. Understanding the biology and ecology of crane flies in alfalfa fields of Kentucky. Joint North Central & Southwestern Branch Meeting. Oklahoma City.
18. 2023. Poster coauthor. Evaluation of organic and conventional pesticides for management of hemp russet mites. Joint North Central & Southwestern Branch Meeting. Oklahoma City.
19. 2023. Talk. Updates on the Control of Stink Bugs Attacking Soybeans in Western Kentucky. IPM Training School, McCracken County Extension Office, KY.
20. 2022. Talk. Effect of diet on parasitism rates of corn earworm. ESA Annual Meeting. Vancouver, Canada.
21. 2022. Talk coauthor. The colonization of western Kentucky by the brown marmorated generates shifts on stink bug species composition in soybean fields. ESA Annual Meeting. Vancouver, Canada.
22. 2022. Poster. Parasitism of corn earworm by two tachinid flies in cultivated hemp. ESA Annual Meeting. Vancouver, Canada.
23. 2022. Poster coauthor. Interference of cocklebur weevil with *Dectes* development in sunflowers may have a positive impact on soybeans. ESA Annual Meeting. Vancouver, Canada.
24. 2022. Poster coauthor. Tallies of hemp russet mite using digital images. ESA Annual Meeting. Vancouver, Canada.
25. 2022. Poster coauthor. Predation of slugs by carabids and their identification. ESA Annual Meeting. Vancouver, Canada.
26. 2022. Talk. 3rd Annual Meeting: The Science of Hemp: Production and Pest Management. Effect of Diet on Parasitism Rates of Corn earworm. Lexington, KY.
27. 2022. Poster. Tachinids may be overlooked allies to control corn earworm in hemp. Departmental Retreat. University of Kentucky, Lexington, KY.
28. 2022. Poster coauthor. Assessment of ground beetles potentially controlling slugs on soybean fields in western Kentucky. Departmental Retreat. University of Kentucky, Lexington, KY.
29. 2022. Talk. Parasitism of corn earworm by tachinid flies in hemp. ESA, North Central Branch Meeting. Minneapolis, MN.
30. 2022. Talk coauthor. What Have We Learned on Hemp Pests in two years in Kentucky? 10th International IPM Symposium. Denver, CO.
31. 2022. Virtual Poster. Evaluating sunflower as a trap crop for *Dectes* stem borer. ESA, Southeastern Branch & APS-CD Meeting. San Juan, Puerto Rico.
32. 2022. Talk coauthor. Expansion of the brown marmorated stink bug and impact on soybean management. ESA, Southeastern Branch & APS-CD Meeting. San Juan, Puerto Rico.
33. 2022. Talk coauthor. Hemp russet mite: Tallies using images, management, and mortality by a natural airborne entomopathogen. ESA, Southeastern Branch & APS-CD Meeting. San Juan, Puerto Rico.
34. 2022. Talk coauthor. Management, and Impact of the Geographical Expansion of BMSB in Soybeans in Western KY. Kentucky Soybean Board Meeting. Princeton, KY.
35. 2021. Talk. Parasitism of Corn Earworm by Tachinid Flies in Industrial Hemp. 2nd Science of Hemp Virtual Conference: Production and Pest Management. Princeton, KY.
36. 2021. Virtual poster. Evaluation of Biopesticides for the Management of *Helicoverpa zea* in Hemp. 2nd Science of Hemp Virtual Conference: Production and Pest Management. Princeton, KY.
37. 2021. Virtual poster. Approaches to Conduct Balanced Studies on Hemp Russet Mites. 2nd Science of Hemp Virtual Conference: Production and Pest Management. Princeton, KY.
38. 2021. Talk. The role of wasps in the environmental balance: natural and modified systems. 1er. Foro Internacional de Salud y Medio Ambiente. Universidad Autónoma de Chiapas. Chiapas, Mexico.
39. 2019. Talk. Nesting ecology of trap-nesting bees and wasps in oases of Baja California peninsula: an experimental approach. Universidad Autónoma de Baja California Sur. La Paz, BCS.

40. 2019. Talk. Bees and wasps, more than a sting and honey within hives. Programa de Acercamiento de la Ciencia a la Educación (CONACYT). Baja California Sur. Mexico.
41. 2018. Talk. Islands in the desert for cavity-nesting bees and wasps: Ecology, diversity, and conservation at oases of Baja California peninsula. ESA Annual Meeting, Vancouver, Canada.
42. 2017. Talk. Effect of disturbance on trap-nesting bees in insular-like environments of Baja California Peninsula. X Congreso Mesoamericano de Abejas Nativas. Antigua, Guatemala.
43. 2017. Talk. Nesting ecology of solitary bees and wasps in Baja California Sur. LII Congreso Nacional de Entomología. Oaxaca, Mexico.
44. 2016. Talk. Nesting ecology of trap-nesting bees and wasps in oases of Baja California Peninsula, México. Arid Zones Academy. CIBNOR, Baja California Sur, Mexico.
45. 2013. Talk. Eficiência biológica de inseticidas aplicados em trigo armazenado sobre *Sitophilus zeamais* Motschulsky 1885 (Coleoptera: Curculionidae). XV Encontro de Pós-Graduação, Universidade Federal de Pelotas, RS. Brazil.
46. 2013. Talk coauthor. Influência de épocas de semeadura e de colheita no índice de velocidade de germinação de sementes de canola. XV Encontro de Pós-Graduação, Universidade Federal de Pelotas, RS. Brazil.
47. 2013. Talk coauthor. Caracterização da distribuição espacial de ninfas e adultos de tripses em soja. XV Encontro de Pós-Graduação, Universidade Federal de Pelotas, RS. Brazil.
48. 2013. Talk coauthor. Eficiência de controle de corriola com herbicidas residuais associados ao glyphosate. XV Encontro de Pós-Graduação, Universidade Federal de Pelotas, RS. Brazil.
49. 2013. Poster. Modelagem da distribuição de *Xyleborus affinis* (Curculionidae: Scolytinae) na região geo-econômica Centro-sul do Brasil. IV Simpósio de Biodiversidade. Universidade Federal de Santa Maria, RS. Brazil.
50. 2013. Poster. Diversidade de Scolytinae e Platypodinae (Coleoptera: Curculionidae) em cinco tipos de vegetação em Tabasco, México. IV Simpósio de Biodiversidade. Universidade Federal de Santa Maria, RS. Brazil.
51. 2013. Poster coauthor. Diversidade e ocorrência de lagartas desfolhadoras na cultura da soja na região Sul do Estado do Rio Grande do Sul. IV Simpósio de Biodiversidade. Universidade Federal de Santa Maria, RS. Brazil.
52. 2013. Poster coauthor. Diversidade de insetos capturados em armadilhas para mosca-das-frutas (*Anastrepha fraterculus*) em zona urbana da cidade de Pelotas, RS. IV Simpósio de Biodiversidade. Universidade Federal de Santa Maria, RS. Brazil.
53. 2013. Organizing Committee of 1ra Conferência Brasil-Bélgica de Tecnologias Inovadoras aplicadas ao Controle de Pragas. Empresa Brasileira de Pesquisa Agropecuária. RS, Brazil.

Patents: (provide title/description, patent number and date)

Grants and Contracts Awarded: (provide principal and co investigators, title, sponsor, funding dates, amount)

1. 2023. Insecticide evaluation and farm strategies to control the Brown Marmorated and other Stink Bugs in Soybeans in KY. KY SOYBEAN PROMOTION BOARD. R. T. Villanueva (PI) and A. Falcon-Brindis (Co-PDs): \$30,714.
2. 2022. Studying the management, and impact of the geographical expansion of brown marmorated stink bugs in soybeans in western KY. KY SOYBEAN PROMOTION BOARD. R. T. Villanueva (PI) and A. Falcon-Brindis (Co-PDs): \$28,764.
3. 2022. Evaluation of a leatherjacket, a new pest of alfalfa. SOUTHERN IPM CENTER - CRITICAL NEEDS AND EMERGING ISSUES. R. T. Villanueva (PI), J. Dupuis, and A. Falcon-Brindis (Co-PDs): \$10,000.

Honors and Awards:

1. 2020-2024. Member of the National Research System (SNI-CONACYT, Mexico) (\$25,000 USD).
2023. Senckenberg – Leibniz Institution for Biodiversity and Earth System Research. S-Oases Citizen Science photo contest. Third place. Category: oases landscape photography. Available at <https://www.senckenberg.de/en/foto-contest-s-oases/>
2. 2019 & 2020. Outstanding teacher recognition. Autonomous University of Guadalajara. Tabasco, Mexico.
3. 2019. Ph.D. Program. Award to the thesis with the highest social impact. Baja California Sur, Mex.
4. 2019. Ph.D. Program. Outstanding student award. Baja California Sur, Mex.

5. 2019. Ph.D. Program. Graduated with honors. Baja California Sur, Mex.
6. 2014. UJAT. MSc graduated with honors. Tabasco, Mex.
7. 2013. UFPEL. Award to the best work (talk) of graduate students: “Caracterização da distribuição espacial de ninfas e adultos de tripes em soja”; apresentado en el XV Encontro de Pós-graduação. RS, Brazil.

SERVICE:

Major Committee Assignments: (National, State, District, County, University, College, Departmental and dates)

Professional and Scholarly Organizations (including memberships, committee assignments, editorial services, offices held and dates)

Outreach Service: (Including popular press, interview articles, newspaper articles, workshops-seminars-tours organized, Extension impact statements)

EXTENSION-OUTREACH ACTIVITIES

1. 2023. Hemp Educational Session & Field Day. Assessing the damage of three common insects on fiber hemp. Lexington, KY.
2. 2023. Hemp Educational Session & Field Day. Identifying common insects on hemp (ID workshop). Lexington, KY.
3. 2023. Field Crop Pest Workshop. Kentucky Agriculture Training School (KATS). Training agriculture interns, producers, and stakeholders about the diversity and control of stink bugs in KY crop fields. University of Kentucky, Research & Education Center, Princeton, KY.
4. 2023. Agricultural Ecosystem Sciences. Talk to UKY undergrad students for the Agriculture Ecosystem Science program. University of Kentucky, Research & Education Center, Princeton, KY.
5. 2023. University of Kentucky Corn, Soybean & Tobacco Field Day. Identification, diversity, and status stink bugs in Kentucky (≈ 150 people attended). University of Kentucky, Research & Education Center, Princeton, KY.
6. 2023. Cool Critters Day: The Night Shift. Pinned and live insects display, education, and entomology games (≈1000 people attended). Woodlands Natural Station, Land Between the Lakes National Recreation Area, Kentucky-Tennessee.
7. 2023. Western Kentucky Summer Forage Tour. Kentucky Master Grazer Educational Program. Talk to farmers and stakeholders about pollinators and dung beetles in organic farms. Nurtured Lands Farms, Princeton, KY.
8. 2023. Field Crop Scouting Clinic. Kentucky Agriculture Training School (KATS). Talks to agriculture interns, producers, and stakeholders about scouting for insect pests of corn and soybeans. University of Kentucky, Research & Education Center, Princeton, KY.
9. 2023. Master Gardener Class. Insects. Talk to the local people about broad topics of insects. University of Kentucky, Lyon County Extension Office, KY.
10. 2022. Pest ID Workshops. Identification of beneficial insects controlling hemp pests. Pinned and live insect display. Lexington, KY.
11. 2022. Hemp Field Day. Talk at the field day: control of corn earworm on hemp with biopesticides. Lexington, KY.
12. 2022. Entomology Departmental Retreat. Judging posters of MS students at the Departmental Retreat. University of Kentucky, Lexington, KY.
13. 2022. Hummingbird fest: a paradise for pollinators. Insect display and talks to kids and their parents (≈1,700 people attended). Woodlands Natural Station, Land Between the Lakes National Recreation Area, Kentucky-Tennessee.
14. 2022. Talk and wild bee display to beekeepers. Insect display and presentation of the topic: “An overview of the wild bees” to beekeepers from different Counties from western Kentucky. University of Kentucky Extension Office, Lyon County, KY.
15. 2022. Cool Critters Day: Wild and Wacky! Pinned and live insects display, education, and entomology games (≈600 people attended). Woodlands Natural Station, Land Between the Lakes National Recreation Area, Kentucky-Tennessee.
16. 2022. Entomology talks. Insects display and talks to high school students at different grades. Webster County High School, Webster, KY.

17. 2022. Career Day. Insect display and talks to kids from kindergarten to 2nd grade (~300 students attended). Caldwell County Primary School, Princeton, KY.
18. 2022. Trigg County High School Competition. Training high school students for entomology competition. Cadiz, KY.
19. 2021. UK High School Crop Scouting Competition. Talk and insect display to high school students from Western Kentucky University. University of Kentucky, Research & Education Center, Princeton, KY.
20. 2021. Agricultural Ecosystem Sciences. Talk to UKY students for the Agriculture Ecosystem Science program. University of Kentucky, Research & Education Center, Princeton, KY.
21. 2021. Public Lands Day – Fort Campbell. Insect display and talks to kids and their parents (~300 people attended). Clarksville, TN.
22. 2018. Volunteer for the meeting registration and Linnaean Games. ESA Annual Meeting. Vancouver, Canada.
23. 2018. USDA-ARS. Display of native bees. Talk and bee display to visitors at the Natural History Museum of Utah. Salt Lake City, UT.
24. 2015-2019. Science Disclosure Program. Insect display and talks to kids from 6-12 years old. At least twice a year. CIBNOR, La Paz, Mexico.
25. 2013. XXII Congresso de Iniciação Científica da Universidade Federal de Pelotas. Jogos de tabuleiro: uma forma de abordar o impacto ambiental de agrotóxicos na prática docente. Use of table games to explain to kids the effect of pesticides. Rio Grande do Sul, Brazil.

Kentucky Pest News Blog

1. 2023. Identification of the False Potato Beetle and the Colorado Potato Beetle.
<https://kentuckypestnews.wordpress.com/2023/07/03/identification-of-the-false-potato-beetle-and-the-colorado-potato-beetle/>
2. 2023. An Iridescent Purple Carabid (Ground Beetle) Found in Field Crops of Kentucky.
<https://kentuckypestnews.wordpress.com/2023/05/16/an-iridescent-purple-carabid-ground-beetle-found-in-field-crops-of-kentucky/>
3. 2023. Wheat as Cover Crop for Soil Conservation and Refugium of Beneficial Insects for Aphid Control. <https://kentuckypestnews.wordpress.com/2023/04/25/wheat-as-cover-crop-for-soil-conservation-and-refugium-of-beneficial-insects-for-aphid-control/>
4. 2023. Stink Bug Pests: When Should We Expect Their Appearance in Kentucky Soybeans?
<https://kentuckypestnews.wordpress.com/2023/01/31/stink-bug-pests-when-should-we-expect-their-appearance-in-kentucky-soybeans/>
5. 2022. The wasp *Campoletis sonorensis* Detected Parasitizing Corn Earworm in Hemp.
<https://kentuckypestnews.wordpress.com/2022/09/13/the-wasp-campoletis-sonorensis-detected-parasitizing-corn-earworm-in-hemp/>
6. 2022. Corn Earworm and Yellow-striped Armyworm Have Started their Feast on Hemp.
<https://kentuckypestnews.wordpress.com/2022/08/30/corn-earworm-and-yellow-striped-armyworm-have-started-their-feast-on-hemp/>
7. 2022. Is the Hibiscus Scentless Plant Bug a Pest or a Beneficial Insect to Control Velvetleaf?
<https://kentuckypestnews.wordpress.com/2022/08/09/is-the-hibiscus-scentless-plant-bug-a-pest-or-a-beneficial-insect-to-control-velvetleaf/>
8. 2022. Presence of Fall Armyworms Detected in Forage Sorghum in Western KY.
<https://kentuckypestnews.wordpress.com/2022/08/02/presence-of-fall-armyworms-detected-in-forage-sorghum-in-western-ky/>
9. 2022. If Drought Persists, Grasshoppers in Soybeans Might be a Pest to Cause Worry.
<https://kentuckypestnews.wordpress.com/2022/07/12/if-drought-persists-grasshoppers-in-soybeans-might-be-a-pest-to-cause-worry/>
10. 2022. Hot Temperatures & Drought Cause Thrips Population Spikes in Corn.
<https://kentuckypestnews.wordpress.com/2022/06/21/hot-temperatures-drought-cause-thrips-population-spikes-in-corn/>
11. 2022. The Red Oak Clearwing Borer: An Example of Wasp Mimicry.
<https://kentuckypestnews.wordpress.com/2022/06/14/the-red-oak-clearwing-borer-an-example-of-wasp-mimicry/>
12. 2022. Small, Creepy, and Beautiful Predacious Tigers of the Soil.
<https://kentuckypestnews.wordpress.com/2022/05/10/small-creepy-and-beautiful-predacious-tigers-of-the-soil/>
13. 2022. Wild Bees Contribute to the Pollination of Apple Orchards in Western Kentucky.

- <https://kentuckypestnews.wordpress.com/2022/05/10/wild-bees-contribute-to-the-pollination-of-apple-orchards-in-western-kentucky/>
14. 2021. Outbreak of Fall Armyworm Did Not Affect Hemp but Corn Earworm and Tobacco Budworm Might Make their Move Soon. <https://kentuckypestnews.wordpress.com/2021/08/31/outbreak-of-fall-armyworm-did-not-affect-hemp-but-corn-earworm-and-tobacco-budworm-might-make-their-move-soon/>
 15. 2021. Status of Stink Bugs in Full Season and Double Crop Soybeans in August 2021. <https://kentuckypestnews.wordpress.com/2021/09/07/status-of-stink-bugs-in-full-season-and-double-crop-soybeans-in-august-2021/>
 16. 2021. Overview of Insect Pests in Maturing Soybean Fields in Central Kentucky. <https://kentuckypestnews.wordpress.com/2021/09/14/overview-of-insect-pests-in-maturing-soybean-fields-in-central-kentucky/>
 17. 2021. What are the Tiny Mud Pots on Hemp Petioles? <https://kentuckypestnews.wordpress.com/2021/10/05/what-are-the-tiny-mud-pots-on-hemp-petioles/>
 18. 2021. Spreading of the Brown Marmorated Stink Bug Across West and Central Kentucky: Distribution and Trends. <https://kentuckypestnews.wordpress.com/2021/10/19/spreading-of-the-brown-marmorated-stink-bug-across-west-and-central-kentucky-distribution-and-trends/>

Corn and Soybeans News Blog

1. 2022. Occurrence of Fall Armyworms: 2021 vs. 2022. Vol. 4 Issue 6. <https://static1.squarespace.com/static/58d96874b3db2bf10b58f5aa/t/62f6bdb47055dd3162d7cec7/1660337589657/csn-2022-08.pdf>
2. 2022. Grasshoppers may Affect Soybeans Under Current Drought Conditions. Vol. 4 Issue 6. <https://static1.squarespace.com/static/58d96874b3db2bf10b58f5aa/t/62d337e3dd30f9676a7d1170/1658009573991/22-07csn.pdf>
3. 2022. A Rare Snail Outbreak During Drought Affecting Soybeans. Vol. 4 Issue 6. <https://static1.squarespace.com/static/58d96874b3db2bf10b58f5aa/t/62d337e3dd30f9676a7d1170/1658009573991/22-07csn.pdf>
4. 2022. Thrip damage observed in seedling corn. Vol. 4 Issue 5. <https://static1.squarespace.com/static/58d96874b3db2bf10b58f5aa/t/62adc62add59ce749ef1de9e/165555629069/Corn+Soybean+22-06.pdf>
5. 2022. Fast runners and beautiful predacious Tigers of the Soil and description of larval behavior. Vol. 4 Issue 4. <https://static1.squarespace.com/static/58d96874b3db2bf10b58f5aa/t/627e6cd03c1fe11c227eb64e/1652452562023/22-05CS.pdf>
6. 2021. Brown Marmorated Stink Bug Increases its Numbers in Western KY Soybeans. Vol. 3 Issue 8. <https://static1.squarespace.com/static/58d96874b3db2bf10b58f5aa/t/614a25e3bd87a65d86f9e89c/1632249317558/2021-09csn.pdf>

Other blogs

1. 2023. Midamerica Farmer Grower (MAFG). Wheat as Cover Crop for Soil Conservation and Refugium of Beneficial Insects for Aphid Control. 42(19): 15. <https://www.flipsnack.com/mafnet/issue-19-may-12-2023-mafg/full-view.html>
2. 2022. KyGrains.info. Thrip damage observed in seedling corn in 2022. <https://www.kygrains.info/blog/2022/6/18/thrip-damage-observed-in-seedling-corn-in-2022>
3. 2022. AgFax. Kentucky Soybeans: Grasshoppers Could Be a Problem if Drought Persists. <https://www.agfax.com/2022/07/13/kentucky-soybeans-grasshoppers-could-be-a-problem-if-drought-persists/>
4. 2021. Morning AgClips. Status of stink bugs in full season and double crop soybeans. <https://www.morningagclips.com/status-of-stink-bugs-in-full-season-and-double-crop-soybeans-in-august-2021/>
5. 2019. El Sol de México. La paradoja de la conservación de abejas en México: Apis mellifera VS la megadiversidad de abejas silvestres. Blog México es ciencia. <https://www.elsoldemexico.com.mx/analisis/la-paradoja-de-la-conservacion-de-abejas-en-mexico-apis-mellifera-vs.-la-megadiversidad-de-abejas-silvestres-3634917.html>
6. 2014. Cultivar, Grandes Culturas. Corós do mal. 175, 16-18. Brazilian magazine. https://issuu.com/grupocultivar/docs/cultivar_175

Community Service: (non-academic unrelated to employment)

1. 2023. Lyon County Elementary School. Coach of the U10 team. Lyon County Youth Soccer. Eddyville, KY, U.S.A.
2. 2022-2023. Lyon County Elementary School. Member of the School-Based Decision Making Council. Eddyville, KY, U.S.A.

Honors and Awards:**PROFESSIONAL DEVELOPMENT:** (workshops and seminars attended)

Specialized workshops and seminars

United States

1. 2022. Ground beetle ecology and identification workshop. Metro State University, Saint Paul, MN.
2. 2021. Tachinid identification. Training by John O. Stireman III Professor of Department of Biological Sciences. Wright State University
3. 2021. Drone pilot certification workshop. Licensed Drone Pilot by the Federal Aviation Administration (FAA). Princeton, KY.
4. 2018. Bee taxonomy. ARS Pollinating Insects Research Unit, USDA, Logan, UT.
5. 2016. Bee taxonomy. The Bee Course. Southwestern Research Station, Portal AZ.

Mexico and other countries

6. 2020. Data analysis. Certified in Research Design and Data Analysis on R. Colegio Científico de Datos. Morelos, Mexico.
7. 2019. Ecology: Ecosystem Dynamics and Conservation. American Museum of Natural History. Online course.
8. 2018. Species Modeling Distribution: theory and practice through generalized mixed models. CICIMAR-IPN. Baja California Sur, Mexico.
9. 2018. Biological Diversity (Theories, Measures and Data sampling techniques). Tomsk State University. Online course.
10. 2018. Tropical ecology and trophic interactions. Instituto de Ecología A.C. (INECOL). Veracruz, Mexico.
11. 2017. Bee taxonomy. Native Bees (Hymenoptera: Apoidea), diversity and multitrophic interactions. UNAM. Chamela, Jalisco, Mexico.
12. 2017. Pollination Ecology. Universidad de San Carlos, Guatemala.
13. 2017. Statistical Modeling in Ecology. CIBNOR. Baja California Sur, Mexico.
14. 2017. Statistics in R: numbers and graphics. CIBNOR. Baja California Sur, Mexico.
15. 2017. Introduction to Bayesian statistics and hierarchical modelling. CIBNOR. Baja California Sur, Mexico.
16. 2015. Applied Biotechnology to preserve biodiversity in PNAS. CIBNOR. Baja California Sur, Mexico.
17. 2014. MAXENT. Species distribution modelling. UJAT-UNAM. Tabasco, Mexico.
18. 2014. Geospatial Information Workshop. Centro de Cambio Global y la Sustentabilidad en el Sureste. Tabasco, Mexico.
19. 2013. Basic Cartography. INEGI. Universidad Juárez Autónoma de Tabasco. Tabasco, Mexico.
20. 2010. SAA-C-001 Environmental Awareness. PEMEX, Exploración y Producción. Tabasco, Mexico.
21. 2009. Horse Zootechny. Universidad Autónoma Chapingo. Estado de Mexico.
22. 2007. Canine Education and Behavior. Universidad Autónoma Chapingo. Estado de Mexico.
23. 2007. V International Course: Ruminant reproduction. Universidad Autónoma Chapingo. Estado de Mexico.
24. 2005. International Congress on Livestock Socioeconomics. Universidad Autónoma Chapingo. Estado de Mexico.