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PROFESSIONAL EXPERIENCE

- Current Associate Professor of Cooperative Extension Apiculture, Department of Entomology and Nematology, University of California at Davis, Davis, CA 95616 Director, California Master Beekeeper Program, Department of Entomology and Nematology, University of California at Davis, Davis, CA 95616 Faculty Director, UC Davis Bee Haven, Department of Entomology and Nematology, University of California at Davis, Davis, CA 95616
- 2014-2021 Assistant Cooperative Extension Specialist Apiculture, Department of Entomology and Nematology, University of California at Davis, Davis, CA 95616
- 2012-2014 **USDA-NIFA-AFRI Postdoctoral Fellow**, Department of Entomology, The Pennsylvania State University, University Park, PA.

EDUCATION

- 2007-2012 Ph.D. Entomology, The Pennsylvania State University, University Park, PA.
- 2004-2006 M.S. Entomology, North Carolina State University, Raleigh, NC.
- 2001-2003 B.S. Animal Science, Cornell University, Ithaca, NY
- 1999-2001 A.S. Liberal Arts and Sciences: Mathematics and Science (Honors Concentration Degree), Fulton Montgomery Community College, Johnstown, NY

EXTENSION/OUTREACH ACTIVITIES AND ACCOMPLISHMENTS

50% of my California statewide appointment is rooted in extending knowledge to various stakeholder groups. While my primary clientele includes commercial, small scale and backyard beekeepers, I also closely work with crop producers, pest control advisers, pesticide applicators, public lands managers, mosquito abatement districts, city, county and state governing bodies, beekeeping technology companies, and general public. In addition to organized forms of extension education and communication outlined below, I participate on several commodity boards as a scientific adviser and regularly answer inquiries from a wide range of clients via telephone, email and regular mail. On average I respond to ~15 emails/week and ~15 phone calls/week although these numbers have increased since COVID-19 pandemic as more people spend time at home and have began noticing more issues with a variety of stinging insects (not just honey bees). I have also developed and maintain two websites where the clients can find information on a variety of topics: E. L. Niño Lab website https://elninobeelab.ucdavis.edu/ and the California Master Beekeeper Program (CAMBP) website https://cambp.ucdavis.edu/

Publications:

- 1. Coit, N. S., G. R. Loughran, and **Niño, E. L.** 2020. "Busting Queen Grafting Myths" American Bee Journal. February: 137.
- 2. **Niño, E. L.** and P. Gordon. 2019. "Bees Pt1: Bee Basics" Growing the Valley. January 21, 2020. <u>https://www.growingthevalleypodcast.com/podcastfeed/2020/1/21/bees-pt-1-bee-basics-with-elina-nino</u>
- 3. "CAMBP connection" bi-monthly Newsletter (183 recipients, 15 total since 2018)
- 4. "Friends of CAMBP" Newsletter (937 recipients, 8 since 2018)

- 5. **Niño, E. L.** 2019. "What's the Buzz on Bees" Stanislaus County Agricultural Report 2018. <u>http://www.stanag.org/pdf/cropreport/cropreport2018.pdf</u>
- 6. **Niño, E. L.** and M. Simone-Finstrom. 2018. "So what are these acronyms I've never heard of before?: ABRC at AAPA 2018" American Bee Journal. May: 515.
- 7. **Niño, E. L.** and E. Mussen. Chapter 22: Bee management for pollination. In Almond Production Manual, UC Agriculture and Natural Resources Publication. (*Submitted*, UC ANR)
- Dreistadt, S. H., E. L. Niño, L. G. Varela, E. C. Mussen, L. Hooven, E. Johansen. 2017 (second edition). "Bee Precautions Pesticide Ratings database" UC ANR IPM, <u>http://www2.ipm.ucanr.edu/beeprecaution/</u>
- 9. **Niño, E. L.** 2017. "The American Bee Research Report: A Summary Of The Proceedings From Galveston" Bee Culture. May: 38-39.
- 10. **Niño, E. L.** 2017. "What's the buzz about bees and antibiotics?" California Veterinarian. 71 (2): 30-32. <u>https://cvma.net/wp-content/uploads/2017/05/Whats-the-Buzz-About-Bees-Antibiotics_March-2017.pdf</u>
- 11. E. L. Niño. 2016. "Deciphering the mysterious decline of honey bees" The Conversation (invited commentary). <u>https://theconversation.com/deciphering-the-mysterious-decline-of-honey-bees-56648</u>
- Mussen, E. and E. L. Niño. 2015. "Ask the Naturalist: Why do Honeybees Clean Themselves?" Bay Nature magazine on line. <u>https://baynature.org/articles/ask-the-naturalist-why-do-honeybees-clean-themselves/</u>
- 13. Dreistadt, S. H., E. L. Niño, L. G. Varela, E. C. Mussen, L. Hooven, E. Johansen. 2015. "Bee Precautions Pesticide Ratings database" UC ANR IPM, <u>http://www2.ipm.ucanr.edu/beeprecaution/</u>
- 14. Frazier, M., Niño, E. L. and C. M. Grozinger. 2015. "Grafting" Bee Culture. Feb: 38-39.
- 15. UC Davis Apiculture Newsletter
 - a. Thirteen issues (December 2014 September 2017)
 - b. Completely re-designed the look and feel of the Newsletter and continuously receive commendations from the readers about the useful and interesting topics in the newsletter.
 - c. The newsletter has a national and international audience (e.g., Africa, Australia, New Zealand, Canada) of nearly 2700 readers.
- Watson, D. W., M. H. Poore, S. P. Washburn, J. P. Mueller and E. Lastro. 2005. "Pest Management Using Push-Pull Strategies to Control Horn Flies in Pastured Dairy Heifers and Steers". 45th Annual N. C. Dairy Conference Proceedings. Salisbury, NC.

Established Programs:

- Developed and implemented the first ever California Master Beekeeper Program (CAMBP). The mission of the program is to promote science-based education in beekeeping communities throughout California by graduating stewards and ambassadors for honey bees and beekeeping. Program was established in 2016 and currently has 206 active participants with 49 new apprentice level candidates despite COVID-19. We currently have 6 master level members and the first one will matriculate on August 15, 2020. Since 2016 CAMBPrs have devoted 25,003.25 hours and served 102,102 people worth a total of \$635,832.65 in volunteer service hours to the state of California (based on the \$25.43/hr value placed on volunteers in CA).
- 2. Developed and implemented the Pollinator Education Program for 3rd and 4th grade students within the Häagen-Dazs Honey Bee Haven garden. The program has been conducted in 2018 and 2019 for total of 120 3rd graders from Amador County School district and from socio-economically disadvantaged areas. Due to COVID-19, the program has been paused for 2020. We are currently working on developing similar programming for 5th and 6th graders.

Extension Workshops/Courses/Training sessions (Total # since September 2014: 68 Courses + 12 Study Halls):

- 1. Developed a fully on-line apiculture course for veterinarians to be taken for Continued Credit <u>https://www.wifss.ucdavis.edu/beevets/</u> (available May 2021).
- 2. Co-developed and conducted Study Halls for Apprentice and Journey level CAMBP members. (Total of 12, 2019-2020)

- Co-developed, organized and conducted training for Apiary Inspectors "Honey Bee Pest and Disease Diagnostics" – emphasis on bacterial and fungal pathogens, Davis, CA. (April 23, October 15, 17, 21, 2019)
- Developed, organized and conducted CA Master Beekeeper Field Day "Honey Bee Pest and Disease Diagnostics" – emphasis on bacterial and fungal pathogens, coleopteran and lepidopteran pests in colonies. (First taught July 8, 2017; total of seven sessions)
- 5. Developed, organized and taught the "Planning Ahead for Your First Hives" Courses, UC Davis and Sacramento, CA (*sixteen sessions 2015-2020*).
- 6. Developed, organized an intermediate level "Working Your Colonies" course. UC Davis, Gilroy Beekeepers Association, Cherry Valley, CA (*twelve sessions 2015-2020*).
- 7. Developed, organized and taught the "Varroa Management Strategies" Courses, UC Davis and Sacramento, CA (*ten sessions 2017-2020*).
- 8. Developed, organized and taught the "Queen Rearing Techniques Short Course", UC Davis (nine sessions 2015-2017).
- 9. Developed and taught the "Honey Bee Breeding Basics for the Beekeeper" course, UC Davis (*five sessions 2015-2020*).
- 10. Collaborated on developing, organizing and teaching a three part workshop series "Honey Bees and Beekeeping Basics", "Healthy Honey Bee Colonies and Hands-on Training", "Products of the Hive". Collaborators at UCCE San Diego: James Bethke farm advisor, Janis Gonzales and Lea Corkidi, Project Coordinators (*June, August, December 2016*).
- 11. Co-developed with California Department of Pesticide Regulation and taught "Training for Apiary Inspectors" workshop. Stanislaus, CA (May 11, 2016)
- 12. Co-developed with California Department of Pesticide Regulation and taught "Training for Apiary Inspectors" workshop. Kearney, CA (May 4, 2016)
- 13. Co-developed and taught "Guidelines for Honey Bee Nuisance Complaint Beekeeper Experts in the City of San Mateo" workshop. (June, 2015)
- 14. Developed, organized and taught the Beginner Beekeeping Course, Inyo-Mono Cooperative Extension Office (April, 2015).
- 15. Organized and taught the Annual Queen Rearing Workshop, PSU (2011-2013).
- Organized and taught the "Queen Rearing" short course and "Practical Queen Rearing Techniques" session. Eastern Apicultural Society Annual Meeting. West Chester, PA (2013).

Invited Extension and Outreach Presentations and Activities (Total since 2014: 166):

- 1. **Niño, E. L.** 2021. "Updates from the UC Davis Bee Lab". California State Beekeepers Association, CA. (November)
- 2. Niño, E. L. 2021. "Bee Health". Santa Clara Bee Guild, CA. (webinar, June 7)
- 3. **Niño, E. L.** 2021. "Bee Health and California Master Beekeeper Program". San Diego Beekeeping Society, CA. (webinar, October 11)
- 4. **Niño, E. L.** 2021. "Honey Bee Diseases". Humboldt County Beekeepers Association, CA. (webinar, May 6)
- 5. **Niño, E. L.** 2021. "Supporting Pollinators via Forage Plantings". El Dorado County Master Gardeners, CA. (webinar, May 24)
- 6. **Niño, E. L.** 2021. "American Foul Brood Management". Humboldt County Beekeepers Association, CA. (webinar, May 6)
- 7. **Niño, E. L.** 2020. "Honey Bees in Food Systems". Renaissance Society, CA. (webinar, November 20)
- 8. **Niño, E. L.** 2020. "E. L. Niño Lab Research and Extension Full Update". Mount Diablo Beekeepers Association, CA. (webinar, October 28)
- 9. **Niño, E. L.** 2020. "Role of Bees in Almond Pollination". Oregon State Beekeepers Association, CA. (webinar, October 24)
- 10. **Niño, E. L.** 2020. "Honey Bees and Forage". Orange County Beekeepers Association, CA. (webinar, October 6)
- 11. **Niño, E. L.** 2020. "Honey Bees, Drought and Fire". Mount Diablo Beekeepers Association, CA. (webinar, September 10)

- 12. **Niño, E. L.** 2020. "Keeping Bees Throughout the US". Orange County Beekeepers Association, NC. (webinar, September 10)
- 13. **Niño, E. L.** 2020. "Honey Bees and Drought". Big Valley Beekeepers Association, CA. (webinar, August 13)
- 14. **Niño, E. L.** 2020. "Update on UC Davis Research and Extension". Montgomery County Beekeepers Association, MD. (webinar, August 12)
- Niño, E. L. 2020. "American Foulbrood Mitigation Strategies and Laws". Alameda County Beekeepers Association, Oakland, CA. (webinar, July 14)
- 16. **Niño, E. L.** 2020. "Colony nutrition and probiotics". Pacific North-West Beekeeper Symposium, Oregon State University. (webinar, June 29)
- 17. **Niño, E. L.** 2020. "Honey bee nutrition and supplementation". Grower Seminar Project Apis m. (webinar, June 23)
- 18. **Niño, E. L.** 2020. "Africanized Bee Movement Regulations". Long Beach Beekeepers Association, CA. (webinar, June 7)
- 19. **Niño, E. L.** 2020. "Africanized Bee Movement Regulations". Bee Breeders Association, Ord Bend, CA. (January 22)
- 20. **Niño, E. L.** 2020. "Honey Bees and Seed Crop Pollination". Seed Production Professional Development Course, UC Davis Seed Biotechnology Center, Davis, CA. (February 11)
- 21. **Niño, E. L.** 2020. "Modeling risks and benefits to bees in California agricultural landscapes". American Honey Producers Association Convention, Sacramento, CA. (January 10)
- 22. **Niño, E. L.** 2019. "How to recognize good science". California Master Beekeeper Program (webinar), Davis, CA. (December 16)
- 23. **Niño, E. L.** 2019. "Honey Bees and Seed Crop Pollination". Seed Business 101, Seed Biotechnology Center, UC Davis, CA. (December 13)
- 24. **Niño, E. L.** 2019. "Protecting pollinators from pesticide exposure". North Coast California Association of Pest Control Advisers, Rohnert Park, CA. (December 10)
- Niño, E. L. 2019. "Learning with the California Master Beekeepers a day with a CAMBPer", a full day program for CSBA attendees, California State Beekeepers Association, Temecula, CA. (November 18-22)
- 26. **Niño, E. L.** 2019. "Latest Research in Beekeeping", 1st annual Science Breakfast Speaker, California State Beekeepers Association, Temecula, CA. (November 18-22)
- 27. **Niño, E. L.** 2019. "Honey!". Honey Sensory Evaluation Course. RMI, Honey and Pollination Center, University of California, Davis. Davis, CA. (November 8)
- 28. **Niño, E. L.** 2019. "Bee Management for Almond Pollination". Almond Short Course, UC ANR. Visalia, CA. (November 6)
- 29. **Niño, E. L.** 2019. "Updates to CA Apiary Code". Bee Breeders Association, Ord Bend, CA. (October 16)
- 30. **Niño, E. L.** 2019. "Pollinators in our Lives". Paradise Valley Estates Science Night, Fairfield, CA (September 24)
- 31. **Niño, E. L.** 2019. "Varroa Management". North Carolina Beekeepers Association Summer conference, Hickory, NC. (August 8-10)
- 32. **Niño, E. L.** 2019. "UC Davis Research Update". North Carolina Beekeepers Association Summer conference, Hickory, NC. (August 8-10)
- 33. **Niño, E. L.** 2019. "Varroa and nutrition management in colonies". Mt. Diablo Beekeepers Association, Pleasant Hill, CA. (June 13)
- 34. **Niño, E. L.** 2019. "Learn about bees and CA Master Beekeeper Program Display". California Honey Festival, Woodland, CA. (May 4)
- 35. Niño, E. L. 2019. "Honey bees in Agriculture". Ag Days at the Capitol, Sacramento, CA. (March 20)
- Niño, E. L. 2019. "Protecting pollinators from pesticide exposure". Professional Association of Pesticide Applicators, Sacramento, CA. (March 13)
- 37. **Niño, E. L.** 2019. "Managing honey bee colonies for pests and diseases". Santa Clara Valley Beekeepers Guild, San Jose, CA. (March 4)
- Niño, E. L. 2019. "The power of research for helping bees and beekeepers". Central Valley Beekeepers Association, Fresno, CA. (February 23)
- 39. **Niño, E. L.** 2019. "Honey Bees and Seed Crop Pollination". Seed Production Professional Development Course, UC Davis Seed Biotechnology Center, Davis, CA. (February 12)

- 40. **Niño, E. L.** 2019. "Honey Bees and Veterinarians' Responsibility". UC Davis School of Veterinary Medicine, Davis, CA. (3 hours; February 10)
- 41. **Niño, E. L.** 2019. "Testing for Africanized Honey Bees". Bee Breeders Association, Ord Bend, CA. (January 16)
- 42. **Niño, E. L.** 2019. "UC Davis Research and Extension Program Update". American Honey Producers Association Convention, Phoenix, AZ. (January 11)
- 43. **Niño, E. L.** 2018. "Supplemental forage in almond orchards", The Almond Conference, Sacramento, CA. (December 8)
- 44. **Niño, E. L.** 2018. "Honey Bees and Seed Crop Pollination". Seed Business 101, Seed Biotechnology Center, UC Davis, CA. (December 7)
- 45. Niño, E. L. 2018. "Commercial Pollination". USDA Farm Service Agency, Davis, CA. (November 19)
- 46. **Niño, E. L.** 2018. "Pollinators and Pollinator Stewardship at UC Davis". Honey Sensory Course, UC Davis Honey and Pollination Center, Davis, CA. (October 28)
- 47. **Niño, E. L.** 2018. "Honey Bee Nutrition and Health". Marin County Beekeepers Association, Oakland, CA. (October 3)
- 48. **Niño, E. L.** 2018. "UC Davis Research and Extension Updates". Nevada County Beekeepers Association, Grass Valley, CA. (October 1)
- 49. **Niño, E. L.** 2018. "Bee Breeding for Varroa Resistance". Alameda County Beekeepers Association, Oakland, CA. (September 11)
- 50. **Niño, E. L.** 2018. "Foulbrood Diseases and Antibiotic Stewardship". American Veterinary Medical Association Convention, Denver, CO. (July 13)
- 51. **Niño, E. L.** 2018. "Honey Bee Pests and Diseases". American Veterinary Medical Association Convention, Denver, CO. (July 13)
- 52. **Niño, E. L.** 2018. "Beekeeping Training for Veterinarians". American Veterinary Medical Association Convention, Denver, CO. (July 13)
- 53. **Niño, E. L.** 2018. "Varroa and American Foulbrood management in Northern California". Mt. Diablo Beekeepers Association, Pleasant Hill, CA. (July 12)
- 54. **Niño, E. L.** 2018. "Veterinarians and Bees". Pacific Veterinary Conference, Sacramento, CA. (June 29)
- 55. **Niño, E. L.** 2018. "Urban Beekeeping and California Master Beekeeper Program". Sacramento Area Master Gardeners, Sacramento, CA. (June 12)
- 56. Niño, E. L. 2018. "Bee Biology 101". Nickels Soils Lab Field Day for growers, Arbuckle, CA. (May 8)
- 57. **Niño, E. L.** 2018. "A day in a life of a honey bee researcher". California Honey Festival, Woodland, CA. (May 5; presented 3 times)
- 58. **Niño, E. L.** 2018. "Learn about bees and CA Master Beekeeper Program Display". California Honey Festival, Woodland, CA. (May 5)
- 59. **Niño, E. L.** 2018. "Learn about bees and CA Master Beekeeper Program Display". California Honey Festival, Woodland, CA. (May 5)
- 60. **Niño, E. L.** 2018. "Live Beekeeping Demonstration". California Honey Festival, Woodland, CA. (May 5)
- 61. Niño, E. L. 2018. "Backyard Bees". Hobby Days at Olivarez Honey Bees, Orland, CA. (April 14)
- 62. Niño, E. L. 2018. "Honey bees in Agriculture". Ag Days at the Capitol, Sacramento, CA. (March 21)
- 63. Niño, E. L. 2018. "California Master Beekeeper Program and extension update". Bee Symposium Keeping Bees Healthy, Honey and Pollination Center, University of California - Davis, Davis, CA. (March 3)
- 64. Niño, E. L. 2018. "Pollinator protection plans". Pest Management Symposium for Flower and Nursery Growers, UC ANR/UCCE, Watsonville, CA. (February 22)
- 65. **Niño, E. L.** 2018. "Protecting pollinators during pollination". California Specialty Crops Committee, Technical Committee Meeting, Roseville, CA. (February 21)
- Niño, E. L. 2018. "Queen rearing basics". Eastern Missouri Beekeepers Association Bee School, St. Louis, MO. (February 9-11)
- 67. **Niño, E. L.** 2018. "Technology in the hives". Eastern Missouri Beekeepers Association Bee School, St. Louis, MO. (February 9-11)
- 68. Niño, E. L. 2018. "Honey bee pests and pathogens". Eastern Missouri Beekeepers Association -Bee School, St. Louis, MO. (February 9-11)

- 69. **Niño, E. L.** 2018. "Honey bee pollination". Bee Breeders Association, Ord Bend, CA. (January 17)
- 70. **Niño, E. L.** 2018. "Preparing for the year and UC Davis research update". Sacramento Area Beekeepers Association, Sacramento, CA. (January 16)
- 71. **Niño, E. L.** 2018. "Honey bee pollination and forage in California". American Honey Producers Association Convention, San Diego, CA. (January 10-13)
- 72. **Niño, E. L.** 2017. "Honey Bees and Seed Crop Pollination". Seed Business 101, Seed Biotechnology Center, UC Davis, CA. (December 8)
- 73. **Niño, E. L.** 2017. "Honey bee colony health update", The Almond Conference, Sacramento, CA. (December 7)
- 74. **Niño, E. L.** 2017. "Extension and research update from UC Davis Bee Lab", California State Beekeepers Association, South Lake Tahoe, CA. (November 13-17)
- 75. **Niño, E. L.** 2017. "Safe use of antibiotics in honey bee colonies", Webinar, California Veterinary Medical Association, Sacramento, CA. (November 8)
- 76. **Niño, E. L.** 2017. "Varroa management in California", San Mateo Beekeepers Association, San Mateo, CA. (November 2)
- 77. Niño, E. L. 2017. "Honey bee nutrition", Oregon State Beekeepers Association, OR. (October 27-29)
- 78. **Niño, E. L.** 2017. "Research updates from UC Davis Bee Lab", Oregon State Beekeepers Association, OR. (October 27-29)
- 79. **Niño, E. L.** 2017. "Honey bee and other pollinator health", Webinar, Montgomery County Beekeepers Association, PA. (October 26)
- 80. **Niño, E. L.** 2017. "Preventing the spread of Africanized honey bees into Northern California", Bee Breeders Association, Orland, CA. (October 18)
- 81. **Niño, E. L.** 2017. "Safe use of antibiotics in honey bee colonies", Webinar, California Veterinary Medical Association, Sacramento, CA. (October 10)
- 82. **Niño, E. L.** 2017. "Research at the UC Davis Bee and Pollination Program". "Bee-ing a Better Gardener: Learning from Research" workshop, California Center for Urban Horticulture and Dept of Entomology and Nematology, UCD, CA. (September 23)
- 83. **Niño, E. L.** 2017. "Honey bee queens and varroa mites now what do they have in common?". Western Apicultural Society Annual meeting, UCD, CA. (September)
- 84. Niño, E. L. 2017. "Apiculture in the US and Research at the UC Davis Bee and Pollination Program". Presentation for the Chilean Beekeeper Delegation. Harry H. Laidlaw Jr. Honey Bee Research Facility, UCD, CA. (July)
- 85. **Niño, E. L.** 2017. "Apiculture in the US". Presentation for the Maori Delegation visiting the University of California. Harry H. Laidlaw Jr. Honey Bee Research Facility, UCD, CA. In collaboration with the Plant and Food Research New Zealand (June)
- 86. **Niño, E. L.** 2017. "Honey Bee Biology and Apiculture in California". Pacific Veterinary Conference. Long Beach, CA. (June 30)
- 87. **Niño, E. L.** 2017. "Honey Bee Diseases and Antibiotics Use". Pacific Veterinary Conference. Long Beach, CA. (June 30)
- 88. **Niño, E. L.** 2017. "Honey Bee Diseases and Antibiotics Use". Rogue Valley Veterinary Medical Association. Ashland, OR. (May 9)
- 89. **Niño, E. L.** 2017. "California Master Beekeeper Program". Bee Symposium. RMI, Honey and Pollination Center, University of California, Davis. Davis, CA. (May 5)
- 90. **Niño, E. L.** 2017. "Learn about bees and CA Master Beekeeper Program Display". California Honey Festival, Woodland, CA. (May 6)
- 91. **Niño, E. L.** 2017. "What you can do to help honey bees". California Honey Festival, Woodland, CA. (May 6)
- 92. Niño, E. L. 2017. "Honey bees in Agriculture". Ag Days at the Capitol, Sacramento, CA. (March 22)
- 93. **Niño, E. L.** 2017. "Understanding the importance of diverse forage for bee health". Mount Diablo Beekeepers Association, Walnut Creek, CA. (March 9)
- 94. **Niño, E. L.** 2017. "How to make your vineyard more bee friendly" Calaveras Winegrape Alliance". Calaveras, CA (March 3)
- 95. **Niño, E. L.** 2017. "How to keep your bees healthy in an ever-changing environment". Nevada County Beekeepers Association. Nevada Co., CA. (February 6)

- 96. **Niño, E. L.** 2016. "Honey Bees and Seed Crop Pollination". Seed Business 101, Seed Biotechnology Center, UC Davis, CA. (December 9)
- 97. **Niño, E. L.** 2016. "Supplemental Forage for Honey Bee Health and Nutrition". Almond Conference, Almond Board of California. Sacramento, CA. (December 7)
- 98. **Niño, E. L.** 2016. "Longitudinal Evaluation of Supplemental Forage for Honey Bees in Almond Orchards". Almond Conference, Almond Board of California. Sacramento, CA. (December 6)
- 99. **Niño, E. L.** 2016. "Honey Bee Diseases and Antibiotics Use". University of California Veterinary School. Davis, CA. (November 23)
- 100. **Niño, E. L.** 2015. "Varroa Mite Management". California State Beekeepers Association Annual Convention, Sacramento, CA. (November 16, 2015)
- 101. **Niño, E. L.** 2015. "Biomiticides for Varroa Mite Control". California State Beekeepers Association Annual Convention, Sacramento, CA. (November 15, 2015)
- 102. **Niño, E. L.** 2016. "Bee Management for Almond Pollination". Almond Short Course, UC ANR. Modesto, CA. (November 9)
- 103. **Niño, E. L.** 2016. "What is New in the World of Apiculture". Santa Clara Valley Beekeepers Association. San Jose, CA. (November 7)
- 104. **Niño, E. L.** 2016. "What is New in the World of Apiculture". Gilroy Beekeepers Association. Gilroy, CA. (November 1)
- 105. **Niño, E. L.** 2016. "Biomiticides for Varroa Mite Management". Oregon State Beekeepers Association. Silverton, OR. (October 30)
- 106. **Niño, E. L.** 2016. "What Makes a Queen Tick: Factors affecting honey bee queen post-mating changes". Oregon State Beekeepers Association. Silverton, OR. (October 29)
- 107. **Niño, E. L.** 2016. "Scent of a Queen: What we know about how pheromone production is regulated". Oregon State Master Beekeeper Program. Silverton, OR. (October 28)
- 108. **Niño, E. L.** 2016. "Honey Bee Diseases and Antibiotics Use". California Veterinary Medical Association. Sacramento, CA. (October 27)
- 109. **Niño, E. L.** 2016. "Africanized Honey Bee Testing". California Bee Breeders Association. Glenn, CA. (October 12)
- 110. **Niño, E. L.** 2016. "Sustainable Beekeeping Practices". Starbucks Headquarters, Seattle, WA. (August 24)
- 111. **Niño, E. L.** 2016. "Research and Extension in the Niño Lab ". Puget Sound Beekeepers Association, Seattle, WA. (August 23)
- 112. **Niño, E. L.** 2016. "Honey Bee Health and How to Best Support Bees". CAPCA and OFAC Conference, Tulare, CA. (August 11)
- 113. **Niño, E. L.** 2016. "Research and Extension in the Niño Lab ". Humboldt County Beekeepers Association, Eureka, CA. (August)
- 114. **Niño, E. L.** 2016. "Biology and Management of Varroa mite". Alameda County Beekeepers Association, Oakland, CA. (July 12)
- 115. **Niño, E. L.** 2016. "Honey Bees and Seed Crop Pollination". Seed Production Professional Development Course, Seed Biotechnology Center, Modesto, CA. (June 30)
- 116. **Niño, E. L.** 2016. "Development and Evaluation of Biopesticides for Varroa Mite Control". Southern California Beekeepers Association, La Mirada, CA. (June 23)
- 117. **Niño, E. L.** 2016. "Biology and Management of Varroa mite". Central New Jersey Beekeepers Association, teleconference presentation. (June 17)
- 118. **Niño, E. L.** 2016. "What's BEEn Happening at the E. L. Niño Bee Lab: The Year in Review". San Mateo Co. Beekeepers Guild, San Anselmo, CA. (June 2)
- 119. **Niño, E. L.** 2016. "Responsible Beekeeping". Bee Days at the Olivarez Honey Bees, Inc., Chico, CA. (April 9)
- 120. Niño, E. L. 2016. "Honey bees in Agriculture". Ag Days at the Capitol, Sacramento, CA. (March)
- 121. **Niño, E. L.** 2016. "Current Update on the Status of Honey Bee Health". UC ANR Pomology Conference, Davis, CA. (March 17)
- 122. **Niño, E. L.** 2016. "Research and Extension Programming at the E. L. Niño Bee Lab". Mid Central Valley Beekeeper Association, Freson, CA. (February 18)
- 123. **Niño, E. L.** 2016. "Neonicotinoids and Pollinators in your Garden". Marin County Master Gardeners. Amador Co., CA. (February 16)

- 124. **Niño, E. L.** 2016. "Honey Bees and Seed Crop Pollination". Seed Production Professional Development Course, Seed Biotechnology Center, UCD, CA. (February 3)
- 125. **Niño, E. L.** 2016. "Honey Bee Health and How to Best Support Bees". Winter Agronomy Seminar for PCAs and CCAs, Stanislaus Co., CA. (January 27)
- 126. **Niño, E. L.** 2016. "Update on the UC Davis Bee Program". California Bee Breeders Association. Glenn, CA. (January 20)
- 127. **Niño, E. L.** 2015. "Current Knowledge of the Challenges to Bees". CAPCA/OFAC Sustainable/Organic Production on the North Coast Seminar, Calistoga, CA. (December 16, 2015)
- 128. **Niño, E. L.** 2015. "Honey Bees and Seed Crop Pollination". Seed Business 101, Seed Biotechnology Center, UCD, CA. (December 11, 2015)
- 129. **Niño, E. L.** 2015. "What's BEEn Happening at the E. L. Niño Bee Lab: The Year in Review". Marin Co. Beekeepers Association, Sacramento, CA. (December 3, 2015)
- 130. **Niño, E. L.** 2015. "How UC Davis E. L. Niño Bee Lab Supports Honey bee Health". Sacramento Area Beekeepers Association, Sacramento, CA. (November 17, 2015)
- 131. Niño, E. L. 2015. "Synergistic effects of amitraz and other agrochemicals on adult worker survival". California State Beekeepers Association Annual Convention, Sacramento, CA. (November 17-19, 2015)
- 132. **Niño, E. L.** 2015. "Honey Bees: their Health and Happiness is Our Own". Mead making workshop, Honey and Pollination Center, RMI. Davis, CA. (November 13-14, 2015)
- 133. **Niño, E. L.** 2015. "What ails our honey bees?". Mosquito and Vector Control Association of California, Chico, CA. (November)
- 134. **Niño, E. L.** 2014. "UC Davis Apiculture Program: A year in review". Gilroy Beekeepers Association. Gilroy, CA.(November)
- 135. **Niño, E. L.** 2014. "UC Davis Apiculture Program: A year in review". Santa Clara Valley Beekeepers Association. San Jose, CA. (November)
- 136. **Niño, E. L.** 2015. "Multiple stresses impact honey bees". Alfalfa IPM and Crop Pollinator Workshop, UCCE, UC IPM. Woodland, CA, (October)
- 137. **Niño, E. L.** 2015. "Update on the E. L. Niño Bee Program". California Bee Breeders Association. Glenn, CA.(October)
- 138. **Niño, E. L.** 2015. "Local queen production and overwintering of nucs". B. C. Honey Producers Association. Courtney, B. C., Canada, (October)
- 139. **Niño, E. L.** 2015. "What UC Davis Apiculture Program is doing to support honey bee health". Western Apicultural Society Conference, Boulder, CO. (October)
- 140. **Niño, E. L.** 2015. "Research and Extension at the UC Davis Apiculture Program". Mount Diablo Beekeepers Association, Walnut Creek, CA. (March 9)
- 141. **Niño, E. L.** 2015. "The IR-4 Project: Efficacy and Field Safety of Biopesticides for Varroa Management on Honey Bees". Presentation for the representatives of The IR-4 Project, CDPR, EPA. Harry H. Laidlaw Jr. Honey Bee Research Facility, UCD, CA. (August)
- 142. **Niño, E. L.** 2015. "Honey bee biology and apiculture". California Farm Academy, Center for Landbased Learning, Davis, CA. (June)
- 143. Niño, E. L. 2015. "Honey bees and almonds". Almond Work Group, Butte Co., CA. (May, 2015)
- 144. **Niño, E. L.** 2015. "Apiculture in California". Training for the members of Farm Service Agency, Merced, CA.(May)
- 145. **Niño, E. L.** 2015. "How to keep your hives healthy". Alameda County Beekeepers Association. Oakland, CA. (May)
- 146. **Niño, E. L.** 2015. "Neonicotinoids and Pollinators in your Garden". Marin County Master Gardeners. San Anselmo, CA. (April)
- 147. **Niño, E. L.** 2015. "Basic honey bee biology and development". Bee/Pollinator Protection Workshop, California Department of Pesticide Regulation. Red Bluff, CA. (April)
- 148. **Niño, E. L.** 2015. "Factors Affecting Honey Bee Health and Potential Solutions". Mt. Baker Beekeepers Association. Bellingham, WA. (April, telemeet)
- 149. **Niño, E. L.** 2015. "The State of the Honey Bees in California". Almond Board of California. Modesto, CA. (March)
- 150. **Niño, E. L.** 2015. "Reproduction in honey bee queens and the future of UC Davis Apiculture Program". Marin County Beekeepers Association. San Anselmo, CA. (April)

- 151. **Niño, E. L.** 2015. "Reproduction in honey bee queens and the future of UC Davis Apiculture Program". Sonoma County Beekeepers Association. Sonoma, CA. (March)
- 152. **Niño, E. L.** 2015. "Regulation of post-mating changes in honey bee queens and the UC Davis Apiculture Program". Santa Barbara Beekeepers Association and Santa Barbara Beekeepers Guild. Santa Barbara, CA. (March)
- 153. **Niño, E. L.** 2015. "UC Davis Apiculture Program". San Mateo Beekeepers Association. San Mateo, CA. (March)
- 154. Niño, E. L. 2015. "The State of Honey Bee Colonies in the US". Presentation for the Italian Delegation visiting the Northern California World Trade Center. Harry H. Laidlaw Jr. Honey Bee Research Facility, UCD, CA. (March)
- 155. **Niño, E. L.** 2015. "Honey Bees and Avocados". The Avocado Seminar Series. San Luis Obispo, Ventura, Fallbrook, CA. (February)
- 156. Niño, E. L. 2015. "UC Davis Apiculture Program". Delta Bee Club. Modesto, CA. (February)
- 157. **Niño, E. L.** 2015. "Approaches to Supporting Honey Bee Colony Health". Colusa County Farm Show Crop Pollination Workshop. Colusa, CA. (February)
- 158. **Niño, E. L.** 2015. "Queens, Princesses and Drones. Oh, my!". American Beekeeping Federation Annual Convention. Anaheim, CA. (January, 2015)
- 159. **Niño, E. L.** 2014. "Apiculture Program at UC Davis". California State Beekeepers Association Annual Convention. Valencia, CA. (November, 2014)
- 160. **Niño, E. L.** 2014. "Approaches to Supporting Honey Bee Colony Health". Pesticide Applicators Professional Association. San Jose, CA. (December)
- 161. **Niño, E. L.** 2014. "Apiary Health and Pesticides". Glenn County Growers Meeting. Glenn, CA. (December)
- 162. **Niño, E. L.** 2014. "UC Davis Apiculture Program and Current Honey Bee Issues". San Francisco Beekeepers Association. San Francisco, CA. (November)
- 163. **Niño, E. L.** 2014. "UC Davis Honey Bee Research and Extension". Gilroy Beekeepers Association. Gilroy, CA. (November)
- 164. **Niño, E. L.** 2014. "UC Davis Honey Bee Research and Extension". California Bee Breeders Association. Glenn, CA.(October)
- 165. **Niño, E. L.** 2014. "UC Davis Honey Bee Research and Extension". Santa Clara Valley Beekeepers Association. San Jose, CA. (October)
- 166. **Niño, E. L.** 2014. "Research at Harry H. Laidlaw Jr. Honey Bee Research Facility". Sacramento Area Beekeepers Association. Davis, CA. (September)
- 167. **Niño, E. L.** 2014. "Current Topics in Honey Bee Research and Where we Stand with CCD". East Central Ohio Beekeepers Association. Newark, OH.
- 168. **Niño, E. L.** 2011. "Examination of Factors That Alter Queen Physiology and Queen-Worker Interactions". Loraine County Beekeepers Association. Oberlin, OH.
- 169. **Niño, E. L.,** J. Hayes, O. Malka, A. Hefetz, D. R. Tarpy, and C. M. Grozinger. 2010. "Factors affecting queen-worker interactions". PA State Beekeepers Annual Meeting. Lewisburg, PA.
- 170. **Niño, E. Lastro,** J. Hayes, and C. M. Grozinger. 2008. "Effects of insemination volume on supersedure rates in Florida". Honey Bee Technical Council. Gainesville, FL.
- 171. **Lastro, E.** and D. W. Watson. 2006. "Dung beetle activities and implications for grassland ecology and grazing animal management". Pastureland Ecology I. NRCS. Center for Environmental Farming Systems. Goldsboro, NC.
- 172. **Lastro, E**. and Bertone, M. 2006. "Dung beetles: What are they and why are they important to cattle pastures?" Pender Co. Cattleman's Assoc., Pender Co. Cooperative Extension. Burgaw, NC.
- 173. Watson, D. W. and **E. Lastro**. 2005. "Optimizing dung beetles in your pasture". Guilford Co. Cattleman's Assoc., Guilford Co. Cooperative Extension. Greensboro, NC.
- 174. Bertone, M. A., **E. Lastro** and D. W. Watson. 2005. "Dung beetle activities and implications for grassland ecology and grazing animal management". Pastureland Ecology I. NRCS. Center for Environmental Farming Systems. Goldsboro, NC.
- 1. Bright Horizons at Forum Preschool Basic Insect Biology and Behavior (2006)
- 2. Green Hope Elementary Basic Insect Biology and Behavior (2006)
- 3. Oak Grove Elementary Science Fair: "The Amazing Arthropods" (2006)

- 4. Middle Creek Elementary Science Fair: "The Amazing Arthropods" (2005)
- 5. Knightdale Daycare Center Basic Insect Biology and Behavior (2005)
- 6. North Ridge Country Club Basic Insect Biology and Behavior (2005)
- 7. Childcare Network Basic Insect Biology and Behavior (2005)
- 8. Duke Elementary School Basic Insect Biology and Behavior (2005)
- 9. Lacey Elementary Earth Day: "Role of Insects in Soil Nutrient Recycling" (2004)
- 10. Nature Explorers Summer Camp: "Exotic Insects and Honey Bees" (2004)
- 11. Washington GT Elementary Family Science Night: "The Amazing Arthropods" (2004)

Media (64):

- Interview with Vicki Gonzalez for Insight on CapRadio on the topic of swarms and swarming (May 12, 2021) <u>https://www.capradio.org/news/insight/2021/05/12/gavin-newsoms-proposed-stimulusbreakdown-navigating-edd-amid-major-backlogs-income-gaps-widened-amid-pandemic-how-tohelp-the-bees-this-summer/
 </u>
- 2. Interview with Ula Chrobak, UC Davis Magazine, on the topic of pollinator health (May, 2021)
- 3. Background interview with Don Curlee, Clovis Roundup, on the topic of crop pollination by honey bees (December, 2020)
- 4. Background interview with Kristen Hwang, UC Berkeley student, on the topic of commercial beekeeping (November, 2020)
- 5. Background interview with Krithika Varagur, MIT Technology Review, on the topic of technology that underlies the food and beverages consumed (November, 2020)
- 6. Interview with Mea McNeil for the article on Impact of California Wildfires on Honey Bees and Beekeepers, Magazine Article for (August, 2020)
 - https://meamcneil.com/a914/images/Mea_PDF/McNeil-article_November2020_Sept24-305PM.pdf
- 7. Interview with Ryan for Golden West Podcast, Importance of bees for food production (July, 2020) https://radiopublic.com/golden-west-podcast-8XeZL5/s1!a8cfc
- Interview with Mea McNeil for the article on California Master Beekeeper Program apprentices aiding in Suppression of spread of Africanized Honey Bees in Southern California, Magazine Article fo American Bee Journal (May, 2020) <u>https://meamcneil.com/a914/images/Mea_PDF/McNeilarticle_June2020_Apr29-1135AM.pdf</u>
- 9. Interview with Mea McNeil for the article on the Use of Probiotics in Colony Management, Magazine Article for Bee Culture (March, 2020) <u>https://www.beeculture.com/probiotics-pro-for-biotic-life/</u>
- 10. Background interview with Oliver Milman, The Guardian, on the topic of hive theft (January, 2020)
- 11. Interview with Amber Bragdon for Science Insider "What would happen to the world's food supply if bees went extinct?" (October 7, 2019) <u>https://www.businessinsider.in/what-would-happen-to-the-worlds-food-supply-if-bees-went-extinct/articleshow/72117590.cms?mobile=no</u>
- 12. Background interview with Suzanne Gold, Freelance, on the topic of hive registration (July 15, 2019)
- 13. Interview with Caroline Ghisolfi, Sacramento Bee on the topic of beekeeping education (July 15, 2019) https://www.sacbee.com/news/local/education/article232687592.html
- 14. Interview with Ira Flatow for Science Friday "Beekeeping tips From Bees!" (May 24, 2019) https://www.sciencefriday.com/segments/beekeeping-tips-from-bees/
- Interview with Rebecca Jepsen, Mercury News "Bee Swarms The Magical, Mystical Dance!" on topic of swarming (May 8, 2019) <u>https://www.eastbaytimes.com/2019/04/16/why-bees-swarm-and-whatyou-should-or-shouldnt-do-about-them/?preview_id=6083426</u>
- 16. Interview with Andony Melathopolus, PolliNation Podcast (April, 2019) <u>https://extension.oregonstate.edu/podcast/pollination-podcast/93-dr-elina-l-nino-pollinating-california-almonds</u>
- 17. Interview and host for creating the KQED's "Deep Look: Honey Bees Make Honey and bread" (March-May 2019), <u>https://www.kqed.org/science/1940898/honey-bees-make-honey-and-bread</u>
- 18. Interview with Anne Ewbanks, Atlas Obscura, on the topic of honey bee breeding (November 6, 2018) <u>https://www.atlasobscura.com/articles/honey-bee-breeding</u>
- 19. Background interview with Rob Waters, Freelance, on the topic of international beekeeping, honey production and bee health (May 21, 2018)
- 20. Background interview with Matthew Marcure, The Aggie on the topic of beekeeping (February 20, 2018)

- 21. Background interview with Jaime Lowe, New York Times Magazine on the topic of almond pollination and hive theft (February 12, 2018)
- 22. Interview with Good Day Sacramento on the topic of bee health (September 14, 2017) https://gooddaysacramento.cbslocal.com/2017/09/14/show-info-91417/
- 23. Background interview with Hanna Rosina, National Public radio show Invisibilia on the topic of changes in beekeeping culture (July 31, 2017)
- 24. Interview for the University of California IPM Blog and podcast for the National Honey Bee Day, Honey Bee Pest Management, (July 28, 2017) http://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=24914
- 25. Interview with Diane Nelson for Sactown Magazine about the importance of honey bees to our food supply (June 9, 2017)
- 26. Interview as an apiculture expert with science writer Seth Borenstein, The Associated Press. "Survey finds US honeybee losses improve from horrible to bad" (May 24, 2017) <u>http://hosted2.ap.org/APDEFAULT/b2f0ca3a594644ee9e50a8ec4ce2d6de/Article_2017-05-25-US-SCI--Bees%20Better/id-dfa80fce09904919811af2ace72e5e0a</u>
- 27. Interview with ABC 10 News Sacramento, about the increase in backyard beekeepers in Sacramento County (May 16, 2017)
- 28. Interview with Eleanor Guerrero, Carbon County News (MT) about the effect of pesticides on honey bees (April 25, 2017)
- 29. Interview with AC Shilton, Vice News (Tonic). What Would Happen if All the Bees Died Tomorrow? (February 27, 2017) <u>https://tonic.vice.com/en_us/article/what-would-happen-if-all-the-bees-died-tomorrow</u>
- 30. Interview with Bethany Brookshire, Science News for Students, "Cool jobs: Abuzz for bees" (February 10, 2017) <u>https://www.sciencenewsforstudents.org/article/cool-jobs-abuzz-bees</u>
- 31. Interview with Sarah Friedli, Almond Board of California: Almond Conference Release 3. (October 13, 2016)
- 32. Hosted and Interviewed with Lindsey Konkel, Science News for Students, "Cool jobs: Abuzz for bees" (July 29, 2016) <u>https://www.sciencenewsforstudents.org/article/cool-jobs-abuzz-bees</u>
- Interview with Chuck Gill, Penn State Ag Magazine on Research and Extension in the Niño Lab (July 1 16, 2016)
- 34. Interview with Rebekah Fraser, Growing Magazine on Climate Change Effects on Pollinators (June 16, 2016)
- 35. Interview with Dan Riendeau, At Night talk show for Corus Radio, Calgary, Canada on Honey Bee Health (June 1, 2016)
- 36. Interview with Katrina Cameron, Bay Area News Group about Africanized Honey Bees (May 24, 2016)
- 37. Interview with Rebecca Jesup, UC ANR Master Gardener Newsletter about Africanized Honey Bees (May 19, 2016)
- 38. Interview with Ellen Nickmeyer, Associated Press –San Francisco about the Stinging Bee Incident in Concord (May 16, 2016)
- 39. Interview with Kathy Park, Channel 3 News Sacramento about the Stinging Bee Incident in Concord (May 16, 2016)
- 40. Interview with Tom Jensen, News 10 Sacramento about the Stinging Bee Incident in Concord (May 16, 2016)
- 41. Interview with Joann Morris, Bay Area News Group about the Stinging Bee Incident in Concord (May 16, 2016)
- 42. Interview with Lawrence Connor for the article "Dr. Elina L. Niño, California's New Extension Specialist" in Bee Culture. (April, 2016) <u>http://www.beeculture.com/dr-elina-nino-californias-new-extension-specialist/</u>
- 43. Interview with Ian Thompson, The Daily Republic, Fairfield- Suisun, CA (May 5, 2016) http://www.dailyrepublic.com/news/dixon/dixon-may-fair-all-a-buzz-on-opening-day/
- 44. Interview with David Castellon, Visalia Times-Delta on Honey Bee Health and Impact of Drought (March 25, 2016)
- 45. Interview for the Capital Public Television, Capitol Ag Days (March 16, 2016)
- 46. Interview with Rich Ibarra, Capital Public Radio on Honey Bee Health (February 24, 2016)
- 47. Interview with Angelica Quintero, Los Angeles Times for a publishing project on Bees and CCD (February 4, 2016)

- 48. Interview with Tim Hearden, Capital Press on the topic of honey bee die-offs prior to almond bloom (January, 2016)
- 49. Interview with J. Scott Donahue for a book on beekeeping and CCD published by Cider Mill Press. Topic: Treatment-free beekeeping for healthy bees. (November 2015)
- 50. Interview with Sena Christian for Sacramento Magazine on the topic of honey bee health and status in the Sacramento area. (November 2015)
- 51. Media request for science expert comments from Robin Bisson (Genetic Expert News Service) about the Nature Letter paper Stanley et al. (2015) "Neonicotinoid pesticide exposure impairs crop pollination services provided by bumblebees" (November 2015)
- 52. Honey bee research/extension contact for California Farm Bureau Farm Press (thus far 4 interviews)
- 53. Interview for Eco Company Educational Program on Bees and Climate Change. The video program can be seen at http://www.eco-company.tv/video/bees-climate-change
- 54. Interview with Jacob Chaffin (Cabrillo Voice). Colony Collapse Disorder and Economic Importance of Pollinators. (November 2015)
- 55. Background interview by Ian Schwartz, CBS 13 Sacramento. Could Africanized honey bees be Coming to Sacramento? (September 2015)
- 56. Background interview by Suzanne Zionts, Aljazeera America. What is the current state of honey bees in California? (September 2015)
- 57. Interview with Andy Murdock (UCOP). Are Argentine Ants a Threat to Honeybees? http://universityofcalifornia.edu/news/5444/are-argentine-ants-threat-honeybees (September, 2015)
- Interview with Danielle Beurteaux for The New York Times. Now Cleared for Landing at Airports: Bees. (February, 2015)
- 59. Interview with Mea McNeil for the article "New U. C. Davis Extension Apiarist" in Bee Culture. (January, 2015)
- 60. Interview with Mea McNeil for the article "Survivor Stock" in American Bee Journal. (October, 2014)

RESEARCH ACCOMPLISHMENTS

30% of my appointment is dedicated to performing research activities including self-driven and collaborative research. Despite my low research appointment I have been able to secure funds for numerous basic science and applied research projects, including funds for supporting 4 graduate students and numerous undergraduate students. My increased efforts to share the results of my research findings have been halted by the recent pandemic and the temporary closure of the University and lack of consistent childcare. Nonetheless, I have published seven articles which is comparable to the output of some of my colleagues with academic senate positions within the UC System (e.g., 2.5 articles/year average at full research/teaching appointment). My role as a CE specialist is not only in conducting my own research, but is instrumental in recommending research directions needed for improvement of beekeeping and grower activities (I am often consulted by colleagues inquiring how to make their own research applicable). In addition, I am collaborating on several research projects (not outlined below) funded by unrestricted donor funds provided to me, that will generate information on how to improve honey bee health via application of phytochemicals (collaborator: Dr. Arathi Seshadri, Pollinator Research Unit, Davis, CA) and probiotics (collaborator: Dr. Gregor Ried, University of Western Ontario, London, Canada). My research program is very diverse and geared towards providing solutions for beekeepers and growers and the outcomes of my efforts have already resulted in direct benefit to beekeepers (e.g., evaluation of improved Formic Acid treatment that was used for bringing it to market).

Grants Active:

- UC MRPI Competitive Grants Program, Co-PI: Boris Baer, James Nieh, Elina L. Niño, Joshua Kohn, Kerry Mauck. "Strengthening honey bee health and crop pollination to safeguard food availability and affordability" 2021-2023 (\$2,000,000)
- Almond Board of California, PI: Elina L. Niño. "Pollination needs of self-fertile almond varieties" 2020-2022 (\$419,000)
- UC ANR Competitive Grants Program, PI: Elina L. Niño, Co-PI: Shannon Mueller (UCCE advisor). "The California Master Beekeeper Program: Development of a continuous train-the-trainer education effort for CA beekeepers" 2018-2022 (\$199,941.00)

 Foundation for Food and Agricultural Research – Pollinator Health Fund (invited to submit full proposal), PI: Christina Grozinger, Co-PIs: Elina L. Niño + 8 others (U of Minnesota, PSU, UC Davis, Dickinson College). "Location, Location, Location: Developing Tools for Selection and Management of Landscapes to Promote Healthy Bee Populations" 2018-2021 (Total: \$818,000; To Niño: \$40,000)

Grants Completed:

- Almond Board of California, PI: Elina L. Niño. "Longitudinal evaluation of honey bee colonies on different foraging regimes" 2017-2018 (\$29,844)
- Almond Board of California, PI: Elina L. Niño. "Longitudinal evaluation of honey bee colonies on different foraging regimes" 2018-2019 (\$27,700)
- The IR-4 Project (USDA), PI: Elina L. Niño. "Efficacy and Toxicity of Biopesticides on Honey Bee for the control of varroa mite" 2017-2018 (\$12,000)
- California State Beekeepers Association, PI: Elina L. Niño. "Optimization of Nigella oil application for Varroa mite control on honey bees" 2016-2017 (\$13,216.60)
- Almond Board of California, PI: Elina L. Niño, Collaborators: Neal Williams and Quinn McFrederick.
 "Longitudinal evaluation of honey bee colonies on different foraging regimes" 2016-2017 (\$20,506.01)
- Project Apis m, PI: Elina L. Niño. "Understanding changes in queen reproductive quality in response to seminal contributions of drones exposed to varroa mite." 2015-2018 (\$44,763.00)
- 2016-2017 Academic Federation Research Grant Program Innovative Development Award, PI: Elina L. Niño, Co-PI: Florent Trouillas, "Using honey bees to deliver biocontrol agents for brown rot in California almond orchards." 2016-2017 (\$17,869.00)
- USDA-SCRI, PI: Cristi Palmer (Rutgers), Co-PIs: Elina L. Niño, Christine Casey + 16 others "Protecting Pollinators with Economically Feasible and Environmentally Sound Ornamental Horticulture" (total \$2,900,000; to UC Davis \$303,506)
- NSF Molecular and Cellular Biosciences, PI: Christina Grozinger, Collaborator: Elina L. Niño "Molecular Mechanisms Underpinning the Kin Selection Theory of Intragenomic Conflict" 2016-2017 (total to Niño \$39,250.00)
- College of Agriculture and Environmental Sciences Programmatic Initiative Grant, UC Davis. PI: Elina L. Niño, Co-PI: Amina Harris. "Development of an Educational Pollinator Program in the Häagen Dazs Honey Bee Haven for Elementary School Children" 2015-2016 (\$10,000)
- Cooperative Extension Specialist Travel Award, UC Agriculture and Natural Resources UC. "Safe Beekeeping in Africanized Honey Bee Territory – San Diego County" Collaborating advisor: James Bethke, San Diego County. 2016-2017 (\$2,500)
- Gilroy Beekeepers Association gift for the development of the California Master Beekeeper Program (\$1000)
- Los Angeles County Beekeepers Association gift for the development of the California Master Beekeeper Program (\$1000)
- Cooperative Extension Specialist Travel Award, Agriculture and Natural Resources, UC. "Best Management Practices for Beekeeping in California". Collaborating advisor: Virginia Bolshakova, San Mateo and San Francisco Counties. 2015-2016 (\$2,500)
- College of Agriculture and Environmental Sciences Programmatic Initiative Grant, UC Davis. PI: Elina L. Niño, Co-PI: Amina Harris. "CA Master Beekeeper Program". 2015-2016 (\$10,000)
- Cooperative Extension Specialist Travel Award, Agriculture and Natural Resources, UC. "Controlling the Asian citrus psyllid in urban gardens with honey bee safe pesticide applications". Collaborating advisor: Mary Bianchi, San Luis Obispo and Santa Barbara Counties; "Development of Guidelines and a Workshop for Honey Bee Evaluators for the City of San Mateo". Collaborating advisor: Virginia Bolshakova, San Mateo and San Francisco Counties. 2014-2015 (\$2,000)
- UC Davis Development Office Proposal to Scott and Liberty Munson. PI: Elina L. Niño, Co-PI: Bernardo Niño "Development of an Educational Pollinator Program in the Häagen Dazs Honey Bee Haven for Elementary School Children". 2017-2022 (\$4,000)
- California Department of Food and Agriculture, PI: Christine Casey, Co-PI: Elina L. Niño. "The ART of the specialty crops-pollinator connection: Awareness, Relevance, and Training" (\$178,928)
- California Department of Food and Agriculture, PI: Yufang Jin, Co-PIs: Patrick Brown, Elina L. Niño.
 "Data-driven Block-level Yield Prediction for Seasonal N Fertilization Strategies in California's Almond Orchards" 2017-2019 (Total: \$442,015; To Niño: \$52,067.00)

- Almond Board of California, PI: Yufang Jin, Co-PIs: Patrick Brown, Elina L. Niño. "Block Specific Yield Prediction for Resource Management and Yield Optimization in Almond" 2016-2017 (\$79,408.29)
- The IR-4 Project (USDA), PI: Elina L. Niño. "Efficacy and Toxicity of Biopesticides on Honey Bee for the control of varroa mite" 2016-2017 (\$10,500)
- California State Beekeepers Association, PI: William Collins (Fort Lewis College, CO) Co-PI: Elina L. Niño. "Glycosylated Monoterpenoids: A Novel Miticidal Delivery Method to Combat the Varroa Mite" (\$33,025)
- Project Apis m grant, PI: Elina L. Niño "Efficacy and Product Safety of Biopesticides for Varroa Mite Management of Honey Bees" 2015-2016 (\$51,075.20)
- The IR-4 Project Grant, "Efficacy and Toxicity of Biopesticides on Honey Bee for the control of Varroa mite" 2015-2016 (\$19,500)
- California State Beekeepers Association. "Synergistic sublethal effects of amitraz and representatives of different pesticide classes on honey bee workers". 2014-2015 (\$11,802)
- USDA-NIFA-AFRI Postdoctoral Fellowship. "Breeding honey bees: from evolutionary and functional genomics to sociology". PI: E. L. Niño. Mentors: C. M. Grozinger, M. F. Wolfner, C. Silverman. 2012-2015 (\$122,838)
- PSU College of Agricultural Sciences Undergraduate Research Award (Summer 2014). PI: Henry Klepser IV. Mentor: Elina L. Niño (\$3000)

Publications (*denotes corresponding author):

- 1. Crowley-Gall, A., Trouillas, F., **Niño, E. L.**, Schaeffer, R. N., Nouri, M. T., Crespo, M., & Vannette, R. (2021). Floral microbes suppress growth of Monilinia laxa with minimal effects on honey bee feeding. *Plant Disease*, (ja).
- Jasper, W. C., Brutscher, L. M., Grozinger, C. M. and Niño, E.L.* (2020). Injection of seminal fluid into the hemocoel of honey bee queens (*Apis mellifera*) can stimulate post-mating changes. *Scientific Reports*, DOI: 10.1038/s41598-020-68437-w
- 3. Brutscher, L.M., Baer, B. and **Niño, E.L.** * (2019). Putative drone copulation factors regulating honey bee (*Apis mellifera*) queen reproduction and health: a review. *Insects*, *10*(1), 8.
- Bolshakova, V. and Niño, E. L.. * (2018) Bees and Neighbor Coexistence: Best Management Practices and Guidelines for Urban and Suburban Beekeeping. University of California Agriculture and Natural Resources Publications. DOI 10.3733/ucanr.8596
- Doublet, V, Y. Poeschl, A. Gogol-Döring, C. Alaux, C. Aurori, S. M. Barribeau, O. Bedoya Reina, M. J. F. Brown, J. C. Bull, M. L. Flenniken, D. A. Galbraith, E. Genersch, I. Grosse, H. L. Holt, D. Hultmark, H. M. G. Lattorff, Y. Le Conte, F. Manfredini, D. P. McMahon, R. F. A. Moritz, F. Nazzi, K. Nowick, E. L. Niño, R. van Rij, R. J. Paxton and C. M. Grozinger. (2017) Unity in defence: honeybee workers exhibit conserved molecular responses to diverse pathogens. *BMC genomics*, *18*(1), 207.
- Niño, E. L. * and W. C. Jasper. (2015) Improving the future of honey bee breeding programs by employing recent scientific advances. *Current Opinions in Insect Science*. 10: 163-169. doi:10.1016/j.cois.2015.05.005
- Fuller, Z. L., E. L. Niño, H. M. Patch, O. C. Bedoya-Reina, T. Baumgarten, E. Muli, F. Mumoki, J. McGraw, M. Frazier, D. Masiga, S. Schuster, W. Miller and C. M. Grozinger. (2015) Genomewide analysis of signatures of selection in populations of African honey bees (*Apis mellifera*) using web-based tools. *BMC Genomics* 16:518 DOI 10.1186/s12864-015-1712-0
- Galbraith, D., Yang, X., E. L. Niño, Yi, S. and C. M. Grozinger. (2015) Parallel epigenomic and transcriptomic responses to viral infection in honey bees (*Apis mellifera*). *PLoS Pathogens*. 11(3): e1004713, DOI:0.1371/journal.ppat.1004713.

- Malka, O., E. L. Niño, C. M. Grozinger, and A. Hefetz. (2014) Genomic analysis of the interactions between social environment and social communication systems in honey bees (*Apis mellifera*). *Insect Biochemistry and Molecular Biology*. 47: 36-45.
- Niño, E. L. *, O. Malka, A. Hefetz, D. R. Tarpy, and C. M. Grozinger. (2013) Pheromone production in two glands is differentially regulated by distinct mating factors in honey bee queens (*Apis mellifera* L.). *PLoS ONE*. 8 (11): e78637.
- 11. **Niño, E. L.** *, D. R. Tarpy, and C. M. Grozinger. (2013) Differential effects of insemination volume and substance on reproductive changes in honey bee queens (*Apis mellifera* L.). *Insect Molecular Biology.* 22: 233–244.
- 12. Peso, M., E. L. Niño, C. M. Grozinger, and A. Barron. (2013) Effect of honey bee queen mating condition on worker ovary activation. *Insectes Sociaux*. 60(2): 123-133.
- Avila, F. W., G. D. Findlay, A. Gothilf, and E. L. Niño^{*}. (2012) A BARD Workshop Insect Reproductive Molecules: From Model Systems to Agricultural Applications. *Molecular Reproduction and Development*. 79(12): 816-820.
- 14. Niño, E. L. *, O. Malka, A. Hefetz, P. Teal, J. Hayes, and C. M. Grozinger. (2012) Effects of honey bee (*Apis mellifera*) queen insemination volume on worker behavior and physiology. *Journal of Insect Physiology*. 58(8): 1082-1089.
- Smith, J., M. Douglas, I. Grettenberger, S. Sidhu, E. L. Niño, and T. Bentley. (2012) Global climate change will have substantial long-term negative effects on arthropod diversity. *American Entomologist.* 58(2):99-103.
- Niño, E. L. *, D. R. Tarpy, and C. M. Grozinger. (2011) Genome-wide analysis of brain transcriptional changes in honey bee queens (*Apis mellifera* L.) exposed to carbon dioxide and physical manipulation. *Insect Molecular Biology*. 20(30): 387-398.
- 17. **Niño, E. L.** *, C. E. Sorenson, S. P. Washburn, and D. W. Watson. (2009) Effects of the insect growth regulator, methoprene, on the dung beetle, *Onthophagus taurus* Schreber (Coleoptera: Scarabaeidae). *Environmental Entomology*. 38(2): 493-498.
- Watson, D. W., E. L. Niño, K. Rochon, S. Denning, L. Smith, and J. Guy. (2007) Experimental evaluation of *Musca domestica* (Diptera: Muscidae) as a vector of Newcastle Disease Virus. *Journal of Medical Entomology*. 44(4): 666-671.

Abstracts:

- Bruckner, S., N. Steinhauer, J. Engelsma, A.-M. Fauvel, K. Kulhanek, E. Malcolm, A. Meredith, M. Milbrath, E. L. Niño, J. Rangel, K. Rennich, D. Reynolds, R. Sagili, J. Tsuruda, D. vanEngelsdorp, S. D. Aurell, M. Wilson, G. Williams. 2019-2020 Honey Bee Colony Losses in the United States: Preliminary Results. *The Bee Informed Partnership*. <u>https://beeinformed.org/wpcontent/uploads/2020/06/BIP_2019_2020_Losses_Abstract.pdf</u>
- 2. Simone-Finstrom, M.; **Niño, E.L.**; Flenniken, M.L.; Arrowsmith, H.; Wu-Smart, J. (2020) Proceedings of the 2019 American Bee Research Conference. *Insects*, *11*, 88.
- Niño, E. L., B. Niño. (2018) Longitudinal evaluation of supplemental forage on honey bee colonies in California almond orchards. In the Proceedings of the 2018 American Bee Research Conference, Bee World, 95:2, 47-72, DOI: 10.1080/0005772X.2018.1450208
- Niño, E. L., W. C, Jasper and C. M. Grozinger (2017) New insights into seminal fluid regulation of post-mating changes in honey bee queens. In the Proceedings of the 2017 American Bee Research Conference, Bee World, 93:4, 104-127, DOI: 10.1080/0005772X.2017.1294471
- Niño, B. D., P. A. Bohls, and E. L. Niño. (2017) Efficacy of novel bio-pesticides on varroa mites in honey bee colonies In the Proceedings of the 2017 American Bee Research Conference, Bee World, 93:4, 104-127, DOI: 10.1080/0005772X.2017.1294471

- 6. **Niño, E. L.,** M. Wolfner, C. Silverman and C. M. Grozinger (2015) Breeding honey bees: From evolutionary and functional genomics to sociology. In the Proceedings of the 2015 American Bee Research Conference, Kelley Newsletter. 61, 13
- Niño, E. L., D.R. Tarpy and C.M. Grozinger. 2008. "Behavioral, physiological, and molecular characterization of factors affecting reproductive quality of honey bee queens (*Apis mellifera* L.)". Proceedings of the 2008 American Bee Research Conference (ABRC-21st). American Bee Journal 148(6): 558.

PROFESSIONAL COMPETENCE AND ACTIVITY

10% of my appointment is devoted to professional activities within the University as well as within the scientific community in general. This includes presentations at professional conferences and meetings, organization of various conferences and symposia and often crossovers with the Service to the scientific community and the University.

Invited talks (Total # since September 2014: 19):

- 1. **Niño, E. L.** 2021. "Supporting pollinators in California agricultural and urban environments". Pacific Branch Entomological Society of America Meeting, On-line conference. (April 6)
- Niño, E. L. 2020. "Importance of Pollinators for Food Production". 7th Annual One Health Symposium: Future of Food, UC Davis on-line Symposium. (November 7)
- 3. **Niño, É. L.** 2020. "Impact of pesticide exposure on honey bees". Entomological Society of America Meeting, On-line conference. (November)
- 4. **Niño, E. L.** 2019. "Honey bee queen mating and reproduction". Apimondia, Montreal, Canada (September)
- 5. Niño, E. L. 2019. "Improving honey bee nutrition". Pacific Branch ESA, San Diego, CA. (April)
- 6. **Niño, E. L.** 2018. "Introduction & Overview of Pollination, Bees and Issues". UC ANR Statewide Conference, Ontario, CA. (April 10-12)
- Niño, E. L. 2017. "Understanding individual and colony-level stressors and developing solutions for honey bee health and beekeepers". Essig Brunch Seminar, Department of Entomology and Nematology, UC Berkeley, CA. (April 7)
- Niño, E. L. 2016. "Understanding individual and colony-level stressors and developing solutions for honey bee health and beekeepers". Seminar, Department of Entomology and Nematology, UC Davis, CA. (December 20)
- 9. **Niño, E. L.** 2016. "Genomics of the honey bee post-mating changes". International Conference on Pollinator Biology, Health and Policy, Penn State University, University Park, PA. (July 20)
- 10. **Niño, E. L.** 2016. "Evaluating various biopesticides for varroa mite control on honey bees". Entomological Society of America Pacific Branch Annual Meeting, Honolulu, HI. (April 5)
- 11. **Niño, E. L.** 2016. "Genomics of the honey bee post-mating changes". Entomological Society of America Pacific Branch Annual Meeting, Honolulu, HI. (April 4)
- 12. **Niño, E. L.** 2015. "Research on Honey Bee Health and Queen Reproduction Quality". Chico State University, Chico, CA. (December)
- 13. **Niño, E. L.** 2015. "Current research on neonicotinoids and pollinators". Symposium: Neonicotinoids and their impact on pollinators: What is the science-based research?" UC Davis (Sept 9, 2015).
- 14. **Niño, E. L.** 2015. "Regulation of Reproductive Changes in Honey Bee Queens and Implications for Beekeepers". University of California, Riverside. Riverside, CA. (May, 2015)
- Niño, E. L. 2015. "Best Management Practices to Support Honey Bee Health". Bee Symposium: Keeping Bees Healthy. RMI, Honey and Pollination Center, University of California, Davis. Davis, CA. (May, 2015)
- 16. **Niño, E. L.** 2015. "Motherhood in Academia" Women in Science Group. UC Davis, Davis, CA. (April, 2015)
- 17. **Niño, E. L.** 2015. "The Future of the UC Davis Apiculture Program". UC ANR IPM Entomology Workgroup. Davis, CA. (April, 2015)
- 18. **Niño, E. L.** 2015. "Understanding the Regulation of Reproductive Changes in Honey Bee Queens". California Department of Food and Agriculture. Sacramento, CA. (March, 2015)

- Niño, E. L., D. McMahon, R. Paxton, and C. M. Grozinger. 2014. "Gene expression in honey bee workers is dramatically altered by DWV but not by *Nosema*". Entomological Society of America Annual Meeting. Portland, OR. (November, 2014)
- 20. **Niño, E. L.** 2014. "Regulation of reproductive changes and the evolution of reproductive molecules in honey bees". Insect reproductive molecules, BARD workshop. Cornell, Ithaca, NY.
- 21. **Niño, E. L.** 2013. "Regulation of reproductive changes in honey bee queens and implications for beekeepers". Department of Entomology and Nematology seminar. UC Davis, Davis, CA.
- 22. **Niño, E. L.** 2013. "My path to entomology and honey bees and what my job really entails". Biomedical Sciences Club Seminar. PSU, University Park, PA.
- 23. **Niño, E. L.** 2013. "Honey bee queen reproduction: Insights from a non-model organism". Department of Biology Seminar. College of Wooster, Wooster, OH.
- 24. **Niño, E. L.** 2013. "Multi-level analysis of honey bee queen post-mating changes and queen-worker interactions". Entomological Society of America Eastern Branch Annual Meeting. Lancaster, PA.
- 25. **Niño, E. L.** 2013. "Apian Academics: Colony Collapse Disorder and Other Current Topics in Bee Research.", panelist. Princeton University, Princeton, NJ.
- 26. **Niño, E. L.,** O. Malka, A. Hefetz, J. Hayes, P. Teal, D. R. Tarpy, and C. M. Grozinger. 2011. "Honey bee queen (*Apis mellifera* L.) insemination volume modulates queen pheromone production and queen-worker interactions". Entomological Society of America Annual Meeting. Reno, NV.
- 27. Niño, E. L., O. Malka, J. Hayes, P. Teal, A. Hefetz, D. R. Tarpy, and C. M. Grozinger. 2011. "Queen bees and their pheromones". Eastern Apicultural Society Annual Meeting. Warwick, RI.
- 28. Niño, E. L., J. Hayes, O. Malka, A. Hefetz, D. R. Tarpy, and C. M. Grozinger. 2010. "Dissecting the factors affecting honey bee queen (*Apis mellifera* L.) post-mating changes and queen-worker interactions". International Union for Study of Social Insects International Meeting. Copenhagen, Denmark.

Submitted presentations (Total # since September 2014: 10):

- Bohls, P., B. Niño, and E. L. Niño. 2017. "Development and evaluation of novel Biopesticides for varroa mite control" Bee Symposium: Keeping Bees Healthy, UC Davis, Davis, CA (May, poster presentation).
- Niño, E. L., W. C, Jasper and C. M. Grozinger. 2017. "New insights into seminal fluid regulation of post-mating changes in honey bee queens". American Bee Research Conference, Galveston, TX (January, oral presentation).
- Niño, B. D., P. A. Bohls, and E. L. Niño. 2017. "Efficacy of novel bio-pesticides on varroa mites in honey bee colonies" American Bee Research Conference, Galveston, TX (January, oral presentation).
- 4. **Niño, E. L.** 2016. "Factors affecting queen mating behavior and physiology." International Congress of Entomology. Orlando, FL (oral presentation).
- Bohls, P., B. Niño, and E. L. Niño. 2016. "Development and evaluation of novel Biopesticides for varroa mite control" Bee Symposium: Keeping Bees Healthy, UC Davis, Davis, CA (May, poster presentation).
- Jasper, W. C., and E. L. Niño. 2016. "Synergistic effect of pesticides and a common miticide on adult honey bee workers". Bee Symposium: Keeping Bees Healthy, UC Davis, Davis, CA (May, poster presentation; 2nd place winner).
- Jasper, W. C., M Wolfner, C. M. Grozinger and E. L. Niño. 2015. "Functional Genomics of Honey Bee Breeding". Bee Symposium: Keeping Bees Healthy, UC Davis, Davis, CA (May, poster presentation).
- 8. **Niño, E. L.**, M Wolfner, C. Silverman, and C. M. Grozinger. 2015. "Breeding honey bees: From evolutionary and functional genomics to sociology". American Bee Research Conference, Tucson, AZ (January, poster presentation).
- Klepser, H. and E. L. Niño. 2015. "The Effects of Seminal Fluid Components on Post-mating Changes in Honey Bee Queens" Undergraduate and Graduate Student Research Expo. The Pennsylvania State University, State College, PA. (March, poster presentation)
- 10. **Niño, E. L.**, M Wolfner, C. Silverman, and C. M. Grozinger. 2014. "Breeding honey bees: From evolutionary and functional genomics to sociology". Portland, OR (November, poster presentation).

- 11. **Niño, E. L.** 2013. "Regulation of reproductive changes in honey bee queens. Entomological Society of America Annual Meeting". Austin, TX (oral presentation).
- 12. **Niño, E. L.** 2013. "Changes in honey bee queen pheromone bouquet communicate mating status and quality". International Conference on Pollinator Biology, Health and Policy. University Park, PA (poster presentation).
- 13. Niño, E. L. 2012. "Factors affecting queen mating behavior and physiology. Entomological Society of America Annual Meeting". Knoxville, TN (oral presentation).
- 14. **Niño, E. L.** 2012. "Multi-level analysis of reproductive changes in honey bee queens (*Apis mellifera* L.)". Doctoral defense seminar. University Park, PA (oral presentation).
- 15. Niño, E. L., O. Malka, A. Hefetz, P.Teal, J. Hayes, D. R. Tarpy, and C. M. Grozinger. 2012. "What causes honey bee queen reproductive changes and how these changes affect worker behavior and physiology". Insect Reproductive Molecules: From Model Systems to Agricultural Applications, BARD Workshop. Jerusalem, Israel (oral presentation).
- 16. Niño, E. L., J. Hayes, D. R. Tarpy, and C. M. Grozinger. 2011. "Honey Bee Queen (*Apis mellifera* L.) Insemination Volume Modulates Queen Physiology and Queen-Worker Interactions". The Penn State Graduate Exhibition. University Park, PA (poster presentation).
- 17. **Niño, E. L.**, J. Hayes, O. Malka, A. Hefetz, D. R. Tarpy, and C. M. Grozinger. 2010. "Dissecting the factors affecting honey bee queen (*Apis mellifera* L.) post mating changes and queen-worker interactions". Entomological Society of America Annual Meeting. San Diego, CA (oral presentation).
- Niño, E. L., D. R. Tarpy, and C. M. Grozinger. 2009. "Post-mating changes in honey bee queens (*Apis mellifera* L.) triggered by chemical and physical stimulation". Entomological Society of America Annual Meeting. Indianapolis, IN (oral presentation).
- 19. **Niño, E. L.,** D. R. Tarpy, and C. M. Grozinger. 2009. "Molecular, physiological, and behavioral characterization of factors affecting reproductive quality of honey bee queens (*Apis mellifera* L.)". Center for Chemical Ecology Lab of the Month. University Park, PA (oral presentation).
- Niño, E. L., D. Barnes, T. Dowda, J. Flowers, J. Hayes, and C. M. Grozinger. 2008. "Effects of insemination volume on supersedure rates". 2008 Breakout Meeting, International Union for the Study of Social Insects – North American Section. Aceribo, PR (oral presentation).
- 21. Advani, S., E. L. Niño, and C. M. Grozinger. 2008. "Effects of insemination volume on supersedure rates". The 7th Annual NC State University Undergraduate Summer Research Symposium. HHMI Reaching Incoming Student Enrichment (RISE) Program. Raleigh, NC (poster presentation).
- 22. Niño, E. L., D. R. Tarpy, and C. M. Grozinger. 2008. "Molecular, physiological, and behavioral characterization of factors affecting reproductive quality of honey bee queens (*Apis mellifera* L.)". 2nd Annual Entomology Graduate Student Symposium. Raleigh, NC (oral presentation).
- Niño, E. L., D. R. Tarpy, and C. M. Grozinger. 2008. "Molecular, physiological, and behavioral characterization of factors affecting reproductive quality of honey bee queens (*Apis mellifera* L.)". W.M. Keck Center for Behavioral Biology: Graduate Student and Postdoc Symposium. Raleigh, NC (oral presentation).
- 24. **Niño, E. L.,** D. R. Tarpy, and C. M. Grozinger. 2008. "Molecular, physiological, and behavioral characterization of factors affecting reproductive quality of honey bee queens (*Apis mellifera* L.)". American Bee Research Conference. Sacramento, CA (oral presentation).
- 25. **Niño, E. L.,** D. R. Tarpy, and C. M. Grozinger. 2007. "Two Commonly Used Insecticides Reduce Honey Bee Queen (*Apis mellifera* L.) Survival and Quality". North Carolina Entomological Society Annual Meeting. Raleigh, NC (poster presentation).
- 26. **Niño, E. L.,** D. R. Tarpy, and C. M. Grozinger. 2007. "Physiological and molecular mechanisms of post-mating changes in honey bee queen". Entomological Society of America Annual Meeting. San Diego, CA (oral presentation).
- 27. Overman, D., E. Lastro Niño, and C. M. Grozinger. 2007. "Effects of two insecticides on honey bee queen rearing and quality". The 6th Annual NC State University Undergraduate Summer Research Symposium. HHMI Reaching Incoming Student Enrichment (RISE) Program. Raleigh, NC (poster presentation).
- Lastro, E., and D. W. Watson. 2006. "Onthophagus taurus Schreber (Coleoptera: Scarabaeidae) activity improves soil richness and plant yield". North Carolina Entomological Society Annual Meeting. Raleigh, NC (poster presentation).

- 29. Lastro, E., and D. W. Watson. 2006. "Impact of methoprene, an insect growth regulator on fecundity and survival of *Onthophagus taurus* (Coleoptera: Scarabaeidae)". Entomological Society of America Annual Meeting. Indianapolis, IN (poster presentation).
- Watson, D. W., E. Lastro, K. Rochon, S. Denning, M. Stringham, J. Butler and H. Friend. 2006. "Insect repellents in the management of horn flies". 50th Annual Livestock Insect Workers Conference. Amarillo, TX (oral presentation).
- 31. **Lastro, E.** and D. W. Watson. 2006. "Effect of Dung Beetles on the Yield and Quality of Sorghum and Ryegrass in North Carolina". Annual Meeting of the Southeastern Branch of the Entomological Society of America. Wilmington, NC (oral presentation).
- 32. Watson, D. W., S. Denning, E. Lastro, K. Rochon, L. Smith, and J. Guy. 2006. "Using Attenuated Vaccines to Investigate the Vectoral Capacity of the House Fly, *Musca domestica* (L.)". Annual Meeting of the Southeastern Branch of the Entomological Society of America. Wilmington, NC (oral presentation).
- 33. Watson, D. W., J. S. Guy, D. I. Calibeo-Hayes and E. Lastro. 2006. "House flies as vectors of avian viruses. How important are they? Symposium Muscoid Flies, Pathogens, Dispersal and Control". Entomological Society of America Annual Meeting. Ft. Lauderdale FL (oral presentation).
- 34. Lastro, E., D. W. Watson, M. Hucks, and M. Bertone. 2005. "Evaluating the effects of methoprene feed additive on dung beetle populations in North Carolina". 49th Annual Livestock Insect Workers Conference. Bozeman, MT (oral presentation).
- 35. Watson, D. W., C. Gore, E. Lastro, K. Rochon, S. Denning, M. Stringham and S. Jennings. 2005. "Sugar water solution of boric acid for the management of house flies in turkey production". 49th Annual Livestock Insect Workers Conference. Bozeman, MT (oral presentation).
- 36. Watson, D. W., E. Lastro, P. Mueller, and S. Washburn. 2005. "Use of Insect Repellants in the Management of Horn Flies". Annual Meeting of the Southeastern Branch of the Entomological Society of America. Tunica, MS (oral presentation).
- 37. Bertone, M., **E. Lastro**, M. Hucks and D. W. Watson. 2004. "Evaluating the effects of a methoprene feed additive on dung beetle (Coleoptera: Scarabidae and Geotrupidae) populations in North Carolina". 48th Annual Livestock Insect Workers Conference. Lake Placid, NY (oral presentation).

Professional Societies:

Entomological Society of America American Association of Professional Apiculturists International Union for the Study of Social Insects, North American Section Eastern Apicultural Society (2011) Center for Pollinator Research, PSU (2009-2014) Center for Chemical Ecology, PSU (2009-2014)

UNIVERSITY AND PUBLIC SERVICE

10% of my appointment is devoted to providing professional and public service. This includes serving as a scientific liaison on various boards and a member on various committees. Since I do not have a formal teaching appointment within the UC system my teaching and student mentorship is included under Service.

International Level:

Ad-hoc reviewer for: Swiss National Science Foundation.

- Subject Associate Editor for Journal of Economic Entomology (Apiculture and Social Insects) (2019-Current)
- Conference co-organizer, International Conference on Pollinator Biology, Health, and Policy. July 17-20, 2019, Davis, CA
- Invited workshop participant and apiculture expert, "Apivectoring Conference and Workshop". May 6-10, 2019, Belgrade, Serbia.
- Conference co-organizer, American Bee research Conference, American Association of Professional Apiculturists and Canadian Association of Professional Apiculturists. Galveston, TX (2017)

• Member symposium co-organizer, "Host-Pathogen Interactions". International Conference on Pollinator Biology, Health, and Policy. August 14-17, 2013, University Park, PA

Regional/National Level:

- Panel Reviewer: USDA-ARS Project Plans review Panel CHAIR, USDA NIFA AFRI Conference Program; USDA NIFA AFRI Fellowship Program; USDA AFRI-CARE Program; USDA NIFA Exploratory Research Program; National Honey Board Funding Program; Almond Board Bee Task Force Proposal Program; USDA Pollinator Health Program.
- Reviewer for: Insects (7), Oregon State Extension Publications (1), The Pan-Pacific Entomologist (1), Asia Pacific Journal (2), Journal of Apicultural Research (7), PLOS ONE (3), Scientific Reports-Nature (2), University of California Agriculture and Natural Resources Publications (1), BMC Genomics (2), Apidologie (3), Ecological Entomology (1), Ethology, Ecology and Evolution (1), Biology Letters (1), The FEBS Journal (1), Journal of Insect Physiology (1), Journal of Economic Entomology (1), Molecular Ecology (1), Insectes Sociaux (4), Insect Molecular Biology (1), Entomologia Experimentalis et Applicata, AoB Plants (1), Journal of Chemical Ecology (1), Reproduction, Fertility and Development (1), Viruses (1), Behavioral Sociology (1).
- American Association of Professional Apiculturist, President elect (2016-2018)
- American Association of Professional Apiculturist, Vice President elect (2015-2016)
- Entomological Society of America, Pacific Branch Meeting Site Selection 2018 Committee, member
- Invited judge for the ECP ESA Extension Awards (2016-2018)
- Conference organizer, American Bee research Conference, American Association of Professional Apiculturists. Orlando, FL (January, 2016)
- Invited apiculture expert for "The IR-4 Project Biopesticide Workshop", Chicago IL (September, 2015)
- Invited participant at the "Healthy Hives 2020 Initiative", Bayer Crop Sciences, Raleigh, NC (June, 2015)
- Invited participant at the "Healthy Pollinator Working Group", CDFA, Sacramento, CA (June, 2015)
- American Association of Professional Apiculturists, Vice President Elect 2015
- Invited judge for the 2015 Bayer Bee Health Community Leadership Award
- Invited judge for the PBT section of ESA for the Monsanto Student Travel Award (2014, 2015)

State Level:

- State Apiary Inspector Adviser (2020-Current)
- California State Beekeepers Association, Scientific Adviser (2014-Current)
- CDFA Apiary Board attendee (2018-Current)
- CDFA 2016 Healthy Pollinator Working Group Steering Committee, member (2016)
- CA Farm Bureau Federal Bee Commodity Advisory Committee, UCCE Liaison (2014-2016; committee dissolved)
- California State Beekeepers Association, Parliamentarian (2014-2016)
- Contributor for the Eastern Apicultural Society newsletter (July, 2013)

University Level:

- Executive Council, member, UC Davis, Davis, CA (2020-2022)
- Committee on Committees, member, UC Davis, Davis, CA (2020-2022)
- Graduate Education Committee, member, UC Davis, CAES, Davis, CA (2019-2021)
- Endemic and Invasive Pests and Diseases Committee, member, UC ANR Strategic Initiatives, UC ANR (2019-Current)
- Invited apiculture expert at the "FBI Agroterrorism Workshop", Davis, CA (January 3-4, 2018)
- Joint Academic Federation/Senate Personnel Committee, member (2016-2018)
- Honey and Pollination Center Advisory Board, member (2014-Current)
- Academic Federation Educational Affairs Committee member, UC Davis, 2015-2016

Departmental Level:

• Laidlaw Research Facility Committee, member (2014-Current)

- Laidlaw research Facility, Co-director (2014- Current)
- Häagen-Dazs Honey Bee Haven Committee, Chair (2014- Current)
- Häagen-Dazs Honey Bee Haven, Faculty Director (2014- Current)
- Picnic Day Committee, member (2014- Current)
- Search Committee for Assistant Specialist in Cooperative Extension, Agricultural Entomology (Field and Vegetable Crops IPM), member (2017-2018)
- Departmental Seminar Committee, member (2017-2018)
- Grants and Contracts Administrator for Phoenix Cluster Search Committee, member (2017)
- Participant at the "USDA Pollinator Health Workshop", Davis, CA (November, 2015)
- Graduate Admissions and Fellowships Committee, member (2015-2016)
- IT committee, member (2015-2016)
- Multi-Media Committee, member (2014-2015)
- UC Davis Linnaean Games Team coach (2015)
- Participant in the Pollinator Conservation Planning Short Course, The Xerces Society (2013)
- Completed an Instrumental Insemination Workshop held by Sue Cobey, UC Davis (2010)
- Member symposium co-organizer, "Anatomy of an Invasion: Requirements, Benefits and Possible Implications for Successful Invaders", Entomological Society of America Annual Meeting 2012, Knoxville, TN
- Judge for the President's Prize Student Poster Competition, Entomological Society of America Annual Meeting 2012, Knoxville, TN
- Judge for the Penn State Graduate Exhibition, 2011, University Park, PA
- Vice-president, Entomology Graduate Student Association, PSU (2011)
- WISE Recognition Awards Committee, WISE Institute, PSU (2011)
- Doctoral Candidacy Committee, Student Member, Entomology Department, PSU (2010)
- Social Committee, Student Member, Entomology Department, PSU (2010)
- Treasurer, Entomology Graduate Student Association, NCSU (2007)
- Treasurer, Entomology Graduate Student Association, NCSU (2006)
- Social Committee Co-Chair, Entomology Graduate Student Association, NCSU (2006)
- Outreach Committee Chair, Entomology Graduate Student Association, NCSU (2005, 2006)

Teaching (for CE specialists at UC, teaching counts as a service activity):

2018-2020	Co - Instructor – "Introduction to IPM" (undergrad level) with Dr. Kassim Al-Khatib, Department of Plant Sciences, UC Davis
2019	Co - Instructor – "Practicum in Beekeeping" (undergrad and grad level) with Dr. Neal Williams, Department of Entomology and Nematology, UC Davis
2017-2019	Guest Lecturer – "Biology of Parasitism" (undergrad level) Dr. Steven Nadler, Department of Entomology and Nematology, UC Davis Lecture: "Varroa mites - vampires of the honey bee world"
2016-2019	Guest Lecturer – "Apiculture" (undergrad level) Dr. Brian Johnson, Department of Entomology and Nematology, UC Davis Lecture: "Honey Bee Queen Development and Biology"
2015	Instructor - "Where have all the honey bees gone?" (undergrad level) The First-Year Seminar Program, UC Davis Fall quarter 2015

Guest Lecturer – "Animal Agriculture and the Developing World" (grad level) International Agricultural Development Graduate Group Seminar, UC Davis Lecture: "Careers in Apiculture"

	Guest Lecturer – "UC Davis CA&ES Career Discovery Group" (undergrad level) Group Leader: Erin Wilkus, Plant Sciences Department, UC Davis • Lecture: "Careers in Apiculture"
	Guest Lecturer – "Apiculture" (undergrad level) Dr. Brian Johnson, Department of Entomology and Nematology, UC Davis • Lecture: "Honey Bee Queen Development and Biology" • Lecture: "Honey Bee Breeding"
2013	 Lecturer – "Honey Bees and Humans" (undergrad level) Dr. Christina Grozinger, Maryann Frazier, and Dr. Harland Patch, Department of Entomology, PSU Lecture: "Bee Physiology and Morphology" Laboratory: "Dissecting the Honey Bee" Lecture: "Honey Bee Mating and Reproduction"
2013	 Lecturer – "Concepts and Techniques in Molecular Ecology and Evolution" (grad level, 11 students) Dr. Christina Grozinger and Dr. Harland Patch, Department of Entomology, PSU Lecture: "Phenotype to Genes – Gene Expression and Candidate Genes" Laboratory: "Functional Genomics: cDNA synthesis; qRT-PCR" Laboratory: "Functional Genomics: Analysis of qRT-PCR data" Laboratory: "Functional Genomics: Microarray analysis"
2011	 Teaching Assistant – "Molecular Ecology" (grad level, 12 students) Dr. Christina Grozinger and Dr. Harland Patch, Department of Entomology, PSU Developed, organized, and conducted sessions for functional genomics laboratories.
2009, 2010	Lecturer – "Introduction to Beekeeping" (undergrad level, 10 students) Maryann Frazier, Department of Entomology, PSU • Lecture: "Queen Rearing and Instrumental Insemination".
2009	Teaching Assistant – "The Insect Connection" (undergrad level, 200 students) Dr. Kelli Hoover, Department of Entomology, PSU
2008	Teaching Assistant – "Medical and Veterinary Entomology" (grad level, 10 students) Dr. D. Wes Watson, Department of Entomology, NCSU
2007	 Teaching Assistant – "Insects and People" (undergrad level, 50 students) Dr. Ronald Kuhr and Dr. Clyde Sorenson, Department of Entomology, NCSU Developed handouts and live insect demos for class, conducted guest lectures on order Hymenoptera with focus on honey bees.
2003	 Teaching Assistant – "Insect Pest Management" (undergrad level, 20 students) Dr. Ward Tingey, Department of Entomology, Cornell University Conducted guest lectures on various insect orders.
	

Teaching Workshops attended:

2013 Schreyer Institute for Teaching Excellence, PSU, University Park, PA

- "Improved Learning and Enhanced Teaching in Large Classes"
- "Best Practices for PowerPoint: Tips for Teachers"

- "Effective Group Work: Interactions, Collaborations and Assessment"
- "GA 102: Beyond the Basics of Course Design"
- "GA 103: Learning-Focused Assessment and Evaluation"

Mentoring and Supervising:

Staff Supervisor:

- D. Charley Nye, SRA 2 (Laidlaw Facility Manager; 2015-Current)
- Dr. Christine, Casey, Haagen-Dazs Honey Bee Haven manager (2014-Current)
- Gehrig Loughran (2019-2020)
- Nissa Coit, Lab Assistant (2019-2020)
- Eliza Litsey (2020)
- Lauren Gregory Rusert, Lab Assistant (2020)
- Tyler Richards, Lab Assistant (2020-Current)
- Timothy Chapman, Lab Assistant (2020-Current)
- Robin Lowery, Lab Assistant (2018-Current)
- Christina Torres, Lab Assistant (2018-Current)
- Joseph Tauzer, Junior Specialist (2016-207)
- Marcel Ramos, Lab Assistant (2018)
- Rachel Purington, Lab Assistant (2017-2018)
- Timothy Chapman, SRA 2
- Billy Synk, SRA 2 (2014-2015)

Graduate Students and Postdoctoral Researchers:

- Dr. Laura Brutscher, Postdoctoral Researcher (2018-Current), Research: Regulation of honey bee queen mating and reproductive health
- Lauren Gregory Rusert, incoming Ph. D. student for Fall 2020 (Role: Adviser), Dissertation topic: "Honey bee stock evaluation and development for improving bee breeding programs"
- Nissa Coit, incoming MS student for Fall 2020 (Role: Adviser), Thesis topic: "Regulation of overwintering in honey bees (Apis mellifera)"
- W. Cameron Jasper, Ph. D. student (Role: Adviser), Dissertation topic: "Regulation of reproductionassociated pheromone production in the mandibular gland of queen and worker honey bees (*Apis mellifera*)"
 - Awards:
 - o 2016-2017 Career Discovery Group Fellow
 - 2016 UCD and Humanities Graduate Research Award (\$3000)
 - 2016 Bee Symposium Student Research Poster Competition 2nd place (\$750)
 - o 2016-2017 Summer Graduate Student Research Award (summer salary)
 - 2016 PB ESA Student Travel Award (\$300)
 - 2016 Eastern Apicultural Society Student Award (\$1000)
 - Teledyne endowment for 2015-2016 (\$2825.00)
 - Travel award from RMI Honey and Pollination Center 2015-2016 (\$500.00)
- Julia Wentzel, MS student in International Agricultural Development (Role: MS Capstone Project Committee Member), Capstone Topic: "Practicum in beekeeping: A case study in experiential learning at the University of California, Davis" (2017-2019)
 - Current position: Local Food Programs Manager, Food Roots NW, Tilamook, OR
- Laura Ward, Ph.D. Students, UC Berkeley, (Role: Extension Mentor for the Graduate Students in Extension Position (2016-2017)
- Stefanie de Heij, (visiting student from Wageningen University and Research Center, Netherlands) M. S. Minor Thesis (Role: Minor Thesis Adviser): "Long live the queen: Effect of multiple pesticides on quality of honey bee queens"
 - Current position: PhD student, Department of Biology, University of Saskatchewan, Canada

- Patricia Bohls, MS student (Role: Adviser), Dissertation topic: "Efficacy and product safety of biopesticides for varroa mite (Varroa destructor) management on honey bees (Apis mellifera)"
 - Current position: Environmental Scientist (Bee Safe Program), CDFA, Sacramento, CA
 - Awards:
 - o 2016 Student Scholarship from RMI Honey and Pollination Center (summer salary)
 - Dean's Award for Best Oral Presentation at the 2016 Interdisciplinary Graduate and Professional Student Symposium – 1st place winner
 - o 2016 American Association of Professional Apiculturists Student Scholarship (\$1000)
 - Travel award from RMI Honey and Pollination Center 2015-2016 (\$500.00)
- Ying Li, PhD student in Chiu Lab, (Role: Qualifying Exam Committee Member)

Undergraduate Students:

- Supervisor for undergraduate student interns: Victoria Bolden, Isaac Corral, Andrew Dye, Andra George, Amber Nicole Hamby, Corrine McGuckin, Sean Nelson Hawkins, Stacy Nuryadi, Laura Rivera, Joseph Tauzer, Seiji Yokota.
- Supervisor for undergraduate student volunteers/workers: Zoe Andersen, Joseph Edward Belsky, Roy Crumrine, Jennifer Dunn, Andrew Dye, Emily Erickson, Emily Fehrman, Kyle Gray, Nelson Hawkins, Melissa Houchin, Amanda Hund, Marin McArthur, Alex McMenamin, Karissa Merritt, Bianca Murillo, Stephanie Damaris Narvaez, Janet Teeple.
- Mentor to students participating in the Reaching Incoming Students Program at North Carolina State University (funded by Howard Hughes Medical Institute)
 - Sandhya Advani (2008) Honey Bee Queen Reproduction, Honey Bee Social Immunity
 - Dave Overman (2007) Pesticide Effects on Queen Survival

AWARDS AND HONORS

National/International Recognition:

- John Henry Comstock Graduate Student Award, Entomological Society of America (Eastern Branch Winner), 2013
- The International Congress on Insect Neurochemistry and Neurophysiology Student Recognition Award in Insect Physiology, Biochemistry, Toxicology, and Molecular Biology, Knoxville, TN, 2012
- Lillian & Alex Feir Graduate Student Travel Award in Insect Physiology, Biochemistry or Molecular Biology, Entomological Foundation, Reno, NV, 2011 (\$300)
- Pesticides and Bee Colony Collapse, Entomological Society of America 2007 Annual Meeting Highlights – Part I in The IPM Practitioner. xxx (1/2): 10, 2008
- 1st Place Student Paper Presentation, American Bee Research Conference, Sacramento, CA, 2008
- Foundation for the Preservation of Honey Bees Scholarship. Sacramento, CA, 2007 (\$2000)
- 1st Place Poster Student Competition for the President's Prize, Entomological Society of America, Indianapolis, IN, 2006

Regional Recognition:

- Eastern Apicultural Society Student Award Recipient, Warwick, RI, 2011 (\$500)
- Outstanding MS Student of the Year, North Carolina Entomological Society, Raleigh, NC, 2006 (\$250)
- 1st Place Poster Competition, North Carolina Entomological Society, Raleigh, NC, 2006 (\$200)

Local Recognition:

- Academic Federation Professional Travel Award, UC Davis 2016 (\$650)
- Alumni Association Dissertation Award, PSU, 2012 (\$5000)
- Lorenzo Langstroth Fellowship. Center for Pollinator Research, PSU, 2011 (tuition and assistantship)
- Michael E. Duke Memorial Scholarship. Department of Entomology, PSU, 2011 (\$1000)
- Postdoctoral Travel Award, Office of Postdoctoral Affairs, PSU, 2013 (\$200)
- Yendol Travel Award, Department of Entomology, PSU, 2009, 2010, 2011 (total \$525)

- Travel Award, WISE Institute, PSU, 2010 (\$125)
- Debate Team Travel Award, Department of Entomology, PSU, 2010 (\$275)
- Sahakian Family Fund for Ag Research Travel Award, College of Ag Sciences, PSU, 2010 (\$500)
- Student Travel Award, Department of Entomology, NCSU, 2008 (\$250)
- Student Travel Award, University Graduate Student Association, NCSU, 2006, 2008 (total \$500)
- Distinguished Graduate in Liberal Arts and Sciences, Fulton-Montgomery Community College, Johnstown, NY, 2001