

# Bernardo D. Niño

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## EDUCATION

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- 2004-2008 **M.S. Entomology**, North Carolina State University, Raleigh, NC. Advisor: Dr. Edward Vargo  
Thesis Title: "Analysis of the breeding systems of two populations of the subterranean termite, *Reticulitermes flavipes*, in the southern United States"
- 1998-2003 **B.S. Biology**, Department of Biology, Saint Edward's University, Austin, TX.  
Supervisor: Dr. Allan Hook  
Senior Thesis Title: "Study of the Mating Systems of *Bembecinous neglectus*"
- 2000 **MALS Program (Purdue University)**, Universidad De Complutense, Madrid, Spain.
- Intensive Spanish study abroad program
- Outward Bound Colorado School 81 Day Wilderness Semester Course**
- Skill acquired: Wilderness First Aide, sea kayaking, whitewater rafting and kayaking, topographical map navigation, rock climbing, desert survival, leave no trace camping practices, canyoneering, and search and rescue protocol.

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## EXTENSION AND OUTREACH

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### Extension Workshops and Presentations:

1. Organizer and instructor for the Annual Queen Rearing Techniques Short Course, UCD(2015,2016)
  - i. Evaluated and obtained the honey bees, space, supplies, and equipment needed
  - ii. Delivered lectures about queen introduction, multiple queen rearing techniques, and overall hive management, assisted participants with their grafting techniques and provided one on one instruction while working in the hives
2. Organizer and instructor for the Preparing for Your First Hives course, UCD (2015,2016)
3. Organizer and instructor for the Working Your Colonies course, UCD (2015,2016)
4. Organizer and instructor for the Getting to Know Your Colonies course, UCD (2016)
5. Organizer and instructor for the Introduction to Bee Breeding course, UCD (2015,2016)
6. Organizer and instructor for the Intermediate Beekeeping Course Gilroy Beekeepers Association (2016)
7. Organizer and instructor for Beekeeping Workshop Series, University of California Cooperative Extension in San Diego (2016)
8. Instructor for Beginner Beekeeping, Sacramento Area Beekeepers Association (2015,2016)
9. Instructor for Intro to Beekeeping, Bishop, CA (2015)
10. Instructor for Honey Bee Biology, Pesticide Regulators Training, CA (2015)
11. Instructor Beekeeping Basics, Sacramento Area Beekeeper Association (2015)
12. Co-facilitator for Next Generation Beekeeper Initiative, Western Apicultural Society Annual Meeting, Boulder, CO (2015)

13. Co-facilitator for Next Generation Beekeeper Initiative, California State Beekeeper Meeting. Sacramento, CA (2015)
14. Organizer and instructor for the Annual Queen Rearing Workshop, PSU (2011-2014)
  - i. Evaluated and obtained the honey bees, space, supplies, and equipment needed
  - ii. Delivered lectures about queen introduction, multiple queen rearing techniques, and overall hive management, assisted participants with their grafting techniques and provided one on one instruction while working in the hives
15. Organizer and instructor for the “Queen Rearing” short course and “Practical Queen rearing Techniques” session. Eastern Apicultural Society Annual Meeting. West Chester, PA (2013)
16. Presenter for Annual Pest Control Operation meeting (2007)

#### Outreach:

1. Dixon Mayfair-Pollinator Display (2016)
2. California State Beekeepers Association-UC Davis Bee Biology Display (2016)
3. Package Day-Olivares Honey Bees (2016)
4. Alumni Leadership Event-Pollinator Display (2016)
5. State Fair-California State Beekeepers Association (2015)
6. 30<sup>th</sup> Annual Spring Creek Festival – Pollinator display (2013)
7. Wings in the Park – Managed the display on pollinator biology (2012, 2013)
8. Exploration Days – Organized and managed the display on honey bee biology (2011, 2012)
9. PSU Arbor Day- Developed and presented curriculum (Importance of Pollinators) to 300 regional 4<sup>th</sup> graders (2010-2014)
10. The National Honey Bee Awareness Day – Research presentations for the public (2009, 2010)
11. Great Insect Fair –Managed PSU honey bee group display and interacted with the public (2009)
12. Bugfest – Organized and coordinated the Entomology Graduate Student Association Display; Managed a display for Urban Entomology Group; Answered questions from the public (2005, 2006)
13. Washington GT Elementary – Family Science Night: “The Amazing Arthropods” (2004)

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### **WORK EXPERIENCE**

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- Present     **Staff Research Associate III**, Department of Entomology and Nematology, University of California at Davis, Davis, CA. Supervisor: Dr. Neal Williams
- Plan, participate and direct various molecular, pesticide, and honey bee health projects (utilize PCR, gel electrophoresis, quantitative real-time PCR, chemical and behavioral analyses)
    - Project – Effects of Biopesticides on Varroa Mite (IR4)
  - Responsible for meeting honey bee needs of the lab members
    - Maintain and manipulate 80-100 standard honey bee colonies for researchers
    - Rear and evaluate honey bee queens to accommodate the research projects
    - Construct and maintain equipment
  - Develop curriculum for honey bee courses and the California Master Beekeeper Program
    - Queen Rearing Techniques
    - Preparing for Your First Hives
    - Beekeeping Basics
  - Oversee lab purchases and maintain numerous grant budgets
    - Responsible for contacting vendors and negotiating pricing on lab equipment
    - Place product and reagent orders and evaluate sample products

- Design and construct custom lab and field equipment (proficient in use of various woodworking tools, hand tools and manipulation of various materials)
- Prepare, construct, and maintain live insect displays for outreach events
- Responsible for overseeing seasonal lab assistants
  - Interview and hire undergraduate assistants for the lab group
  - Directly supervise and mentor undergraduate assistants during field season
- Maintain and enforce safety standards in molecular and field labs
- Design, construct, and maintain the lab's website and web presence (<http://elninobeelab.ucdavis.edu/>)

2009-2014 **Senior Research Technologist**, Department of Entomology, The Pennsylvania State University, University Park, PA. Supervisor: Dr. Christina M. Grozinger

- Participate in various molecular, chemical ecology, and honey bee health projects (utilize PCR, gel electrophoresis, quantitative real-time PCR, DNA sequencing, and GC-MS)
  - Collaborator - honey bee colony decline dynamics (Dr. J. Gore, MIT)
  - Collaborator - chemical ecology of swarming (Dr. H. Mattila, Wellesley College)
- Responsible for meeting honey bee needs of the lab members
  - Maintain and manipulate 30-50 standard honey bee colonies for researchers
  - Rear honey bee queens to accommodate the research demands of the lab
- Oversee lab purchases and maintain numerous grant budgets
  - Responsible for contacting vendors and negotiating pricing on lab equipment
  - Place product and reagent orders and evaluate sample products
- Design and construct custom lab and field equipment (proficient in use of various woodworking tools and manipulation of various materials)
- Prepare and construct live insect displays for community outreach events
- Responsible for overseeing seasonal lab assistants
- Maintain and enforce safety standards in molecular and field labs
- Design, construct, and maintain the lab's website and web presence ([grozingerlab.com](http://grozingerlab.com))

2004-2008 **Graduate Research Assistant**, North Carolina State University, Raleigh, NC. Advisor: Dr. Edward Vargo

- Performed DNA Isolations, morphometric data collection, PCR reactions, running, loading and casting sequencing gels
- Analyzed microsatellite and population genetic data in statistical software packages
- Maintained lab safety and cleanliness
- Prepared written and oral reports to supervisors

2003 **Team Leader**, California Bureau of Land Management, Alturas, CA

- Monitored fire and juniper restoration sites and presence of rare plants and their locations using transect measurements; conducted a weed mapping project in 2 counties
- Monitored Riparian areas for invertebrate species abundance
- Organized logistics for data collection, transect photos, health assessment for range land
- Trained a team member in monitoring procedures and plant identification

**Student Laboratory Assistant (Biology)**, Department of Biology, Saint Edward's University, Austin, TX. Supervisor: Dr. Jimmy Mills.

- Maintained laboratory glassware, chemical room inventory and the greenhouse
  - Prepared materials for Microbiology and Biology I laboratories, performed plant grafting
- 2002 **Team Member**, Oregon Bureau of Land Management, Roseburg, OR
- Collected, identified native plant seeds, and prepared for transport to Kew, UK, Millennium Seed Project
  - Trained in plant taxonomy, anatomy and preservation, GIS, GPS, compass navigation, wilderness first aide, digital plant photography, all terrain 4 Wheel Drive
- Team Leader**, Accelerated Learning Forum, Oceanside, CA
- Facilitated group processing discussions and led students through ropes courses
  - Supervised and taught 9-12 students ages 13-19 years old (3-4 camps per session)
    - Lesson material included: Math mastery, creative writing, memory techniques, note and test taking skills, values clarification, communication skills, and leadership skills
- 2001-2002 **Undergraduate Research Assistant**, Department of Biology, Saint Edward's University, Austin, TX. Advisor: Dr. Allan Hook
- Performed morphometric and observational data collection.
  - Analyzed morphometric and observational data in statistical software packages
  - Prepared written and oral reports to supervisors

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## TEACHING EXPERIENCE

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- 2007-2008 **Science Teacher, Raleigh Latin School**, Raleigh, NC. Supervisor: Dr. Jane Alexander
- Taught and developed curriculum for:
    - Biology
    - General Science
    - Earth Science
    - Algebra and Geometry I
  - Coached the Science Olympiad Team
  - Coached the Cross-Country Team
- 2006 **Teaching Assistant – “Urban Entomology” (Undergrad level, 10 students)**  
Dr. Edward Vargo, Department of Entomology, NCSU
- Developed and evaluated lectures, quizzes and final projects
- Teaching Assistant – “Insects and People” (undergrad level, 250 students)**  
Dr. Clyde Sorenson, Department of Entomology, NCSU
- Developed handouts and live insect demos, conducted guest lectures on order Isoptera
- 2005 **Teaching Assistant – “General Entomology” (Undergrad level, 10 students)**  
Dr. John Myer, Department of Entomology, NCSU
- Developed and evaluated lectures, quizzes and final projects
- 2001-2003 **Student Laboratory Teaching Assistant (Biology)**, Department of Biology, Saint Edward's University, Austin, TX. Supervisor: Dr. William Quinn.

- Created laboratory practicals, administered quizzes, prepared dissections and other laboratory activities, assisted students with laboratory assignments
- Worked with computerized models for population growth
- Guided students in creating an inventory of arthropods in the Blunn Creek Preserve

2002 **Supplemental Instructor (Biology)**, Department of Biology, Saint Edward's University, Austin, TX. Supervisor: Dr. William Quinn.  
Responsible for reviewing lecture materials with students from Biol 1308 (Genetics I)

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## PROFESSIONAL COMMUNICATION

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1. Niño, BD and Dei, L (In revision) "Effects of population size and chronic stress on survival and resilience of honey bee colonies"
2. Niño, BD 2012. Center for Pollinator Research Activities. Invited talk, Pennsylvania State Beekeeper Meeting, Bucknell, PA.
3. Niño, BD and Vargo, EL. 2006. Analysis of the breeding systems of two populations of the subterranean termite, *Reticulitermes flavipes*, in the southern United States. ESA Annual Meeting, Indianapolis, IN.
4. Niño, BD. 2006. Preparing for Graduate School. Invited talk, St. Edward's University, Austin, TX.
5. Niño, BD and Vargo, EL. 2006. Analysis of the breeding systems of two populations of the subterranean termite, *Reticulitermes flavipes*, in the southern United States. IUSSI International Congress, Washington DC.
6. Niño, BD and Hook, A. 2001. Study of the Mating Systems of *Bembecinous neglectus*. Source Symposium, St Edward's University, Austin, TX.
7. Niño, BD and Hook, A. 2002. The Further Study of the Mating Systems of *Bembecinous neglectus*. and the Brother Lucian Symposium, St Edward's University, Austin, TX.
8. Niño, BD and Hook, A. 2002. The Further Study of the Mating Systems of *Bembecinous neglectus*," Texas Academy of Science Annual State Meeting, Texas A&M University, Kingsville, TX.

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## AWARDS AND HONORS

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- At Large Winner-Research Photo Contest, Penn State 2015
- 1<sup>st</sup> Place Oral Presentation Student Competition for the President's Prize, Entomological Society of America, Indianapolis, IN 2006
- Dean's List Spring 2000, 2003
- Honorable Mention, oral presentation, TX Academy of Science Meeting, Kingsville, TX 2002
- Dean's List Honorable Mention 2001
- Who's who among American Colleges and Universities 2000

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## PROFESSIONAL DEVELOPMENT

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- Delivering Oral Presentations, UCD (2015)
- Flash CS6: Basics, UCD (2014)
- Dynamic Presentations, PSU (2013)
- Authentic Leadership and Influence, PSU (2013)
- Individual Team Member Motivation, PSU (2013)

- Foundations of Effective Written Communication, PSU (2012)
- Getting Organized, PSU (2012)
- Conflict Management Starts with You, PSU (2012)
- Photoshop CS6: The Basics, PSU (2011)
- Photoshop CS6: Image Enhancement, PSU (2011)
- Photoshop CS6: Restoring & Blending Images, PSU (2011)
- InDesign CS6: The Basics, PSU (2011)
- InDesign CS6: Refining for Publication, PSU (2011)
- Dreamweaver CS6: The Basics, PSU (2010)
- Dreamweaver CS6: Creating Websites with CSS, PSU (2010)
- Dreamweaver CS6: Navigation, Templates and Media Integration, PSU (2010)
- Illustrator CS6: The Basics, PSU (2010)
- Excel: The Basics, PSU (2010)
- Excel: Analysis Using Functions & What-If Tools, PSU (2010)
- Excel: Data Management, PSU (2010)
- Excel: Advanced Macros and User-Defined Functions, PSU (2010)
- 454 Sequencing Workshop, PSU (2009)
- Entomology for Educators, NCSU (2007)