

Bodil N. Cass

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Postdoctoral Associate, Center for Population Biology
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EDUCATION

Ph.D. Interdisciplinary Program in Entomology & Insect Science with minor in Ecology & Evolutionary Biology (2015)
University of Arizona – GPA 4.0

Thesis: *Population dynamics and genomics of Rickettsia infecting the whitefly Bemisia tabaci*
Committee: Martha Hunter (advisor), Wendy Moore, Diana Wheeler, Jeremiah Hackett

Hons. Integrative Biology (2006)

The University of Queensland - High Distinction & Valedictorian

Thesis: *Can Wolbachia mediate iron homeostasis in insects? Understanding the population invasion paradox*
Committee: Scott O'Neill (advisor), Jeremy Brownlie, Karyn Johnson, Sassan Asgari

BSc. Genetics (2005)

The University of Queensland – High Distinction & Dean's Commendation for High Achievement

Advanced Studies Program in Science (2003 – 2005) and Enhanced Studies Program in Chemistry (2012)

RESEARCH APPOINTMENTS

Postdoctoral Scholar, Entomology & Nematology (full-time, 2016 – present) and Center for Population Biology
(associate, 2017 – present) University of California, Davis; Advisor: JA Rosenheim

Research Assistant, Entomology, University of Arizona (part-time, 2011 – 2015) Advisor: MS Hunter

Research Rotation, Ecology & Evolutionary Biology, University of Arizona (project, 2009) Advisor: NA Moran

Research Rotation, Entomology, University of Arizona (project, 2008 – 2009) Advisor: X Li

Research Rotation, Entomology, University of Arizona (project, 2008) Advisor: MS Hunter

Research Specialist, Integrative Biology, The University of Queensland (full-time, 2007) Advisor: SL O'Neill

Research Assistant, Life Sciences, The University of Queensland (part-time, 2003 – 2005) Advisor: SL O'Neill

Research Rotation, Institute for Molecular Bioscience, University of Queensland (project, 2005) Advisor: JL Martin

Research Rotation, Life Sciences, The University of Queensland (project, 2004) Advisor: SL O'Neill

PEER-REVIEWED PUBLICATIONS

Cass BN, Himler AG, Bondy EC, Bergen JE, Fung SK, Kelly SE, Hunter MS (2016) *Conditional fitness benefits of a Rickettsia bacterial symbiont in an insect pest*. Oecologia. 180(1):169–79

Gebiola M, White JA, **Cass BN**, Kozuch A, Harris LR, Kelly SE, Karimi J, Giorgini M, Perlman SJ, Hunter MS (2016) *Cryptic diversity, reproductive isolation and cytoplasmic incompatibility in a classic biological control success story*. Biological Journal of the Linnean Society. 117(2):217–30

Cass BN, Yallouz R, Bondy EC, Mozes-Daube N, Horowitz AR, Kelly SE, Zchori-Fein E, Hunter MS (2015) *Dynamics of the endosymbiont Rickettsia in an insect pest*. Microbial Ecology. 70(1):287–97

Cass BN, Mozes-Daube N, Iasur-Kruh L, Bondy EC, Kelly SE, Hunter MS, Zchori-Fein E (2014) *Bacterial endosymbionts in field-collected samples of Trialeurodes sp. nr. abutiloneus (Hemiptera: Aleyrodidae)* Research in Microbiology. 165(2):77–81

- Penz T, Schmitz-Esser S, Kelly SE, **Cass BN**, Müller A, Woyke T, Malfatti SA, Hunter MS, Horn M (2012) *Comparative genomics suggests an independent origin of cytoplasmic incompatibility in Cardinium hertigii*. PLoS Genetics. 8(10):e1003012
- Li X, Bai S, **Cass BN** (2012) *Accord insertion in the 5' flanking region of CYP6G1 confers nicotine resistance in Drosophila melanogaster*. Gene. 502(1):1–8
- Degnan PH, Leonardo TE, **Cass BN**, Hurwitz B, Stern D, Gibbs RA, Richards S, Moran NA (2010) *Dynamics of genome evolution in facultative symbionts of aphids*. Environmental Microbiology. 12:2060–9
- International Aphid Genomics Consortium (2010) *Genome Sequence of the Pea Aphid Acyrthosiphon pisum*. PLoS Biology. 8(2)e1000313
- Brownlie JC, **Cass BN**, Riegler M, Witsenburg JJ, Iturbe-Ormaetxe I, McGraw EA, O'Neill SL (2009) *Evidence for metabolic provisioning by a common invertebrate endosymbiont, Wolbachia pipientis, during periods of nutritional stress*. PLoS Pathogens. 5:e1000368
- McMeniman CJ, Lane RV, **Cass BN**, Fong AWC, Sidhu M, Wang Y, O'Neill SL (2009) *Stable introduction of a life-shortening Wolbachia infection into the mosquito Aedes aegypti*. Science. 323(5910):141–4

FELLOWSHIPS & AWARDS

P.E.O. International Peace Scholarship (national competition; 2008 and 2009)	\$10,500
University of Queensland Academic Excellence Award (university-wide competition; 2006)	\$6,000
Smart Women, Smart State Award (undergraduate category, statewide competition; 2005)	\$2,500
Australian Federal Government Students Prize (one of 500 recipients nationwide; 2002)	\$2,000
R. F. Chapman Prize for Outstanding Graduate Student in Insect Science (2013)	\$1,500
Carruth Scholarship for Outstanding Graduate Student in Entomology (2014)	\$500
International <i>Wolbachia</i> Meeting Communication Award, 2 nd place (2012).....	\$100
Entomology Society of America Meeting President's Prize, 2 nd Place (SysEB Behavior, Coevolution, and Symbiotic Associations category; 2015).....	\$50

RESEARCH GRANTS

Arizona Board of Regents Doctoral Research Grant (2012)	\$5,000
Center for Insect Science Graduate Research Stipend (2009 and 2010)	\$1,000
H.E. Carter Travel Award for Graduate Interdisciplinary Program students (2012).....	\$600
University of Arizona Institute of the Environment Travel Grant (2012)	\$500
University of Arizona Graduate and Professional Student Council Travel Award (2012).....	\$500
Center for Insect Science Travel Award (2011)	\$500
Arizona Student Union Textbook Scholarship (university-wide competition; 2010)	\$500

CONTRIBUTED PRESENTATIONS

- UC Davis Plant-insect Ecology Discussion Group, Davis, California, USA (2017) Discussion lead
- International Congress of Entomology, Orlando, Florida, USA (2016) Oral presentation
- UC Davis Center for Population Biology Fall Seminar Series, Davis, California, USA (2016) Seminar
- UC Davis Plant-insect Ecology Discussion Group, California, USA (2016) Discussion lead
- Entomological Society of America 63rd Annual Meeting, Minneapolis, Minnesota, USA (2015) Oral presentation
- 7th International *Wolbachia* Conference, Ile d'Oléron, France (2012) Poster presentation
- Entomological Society of America 59th Annual Meeting in Reno, NV, USA (2011) Oral presentation
- Center for Insect Science Hexapodium, Tucson, AZ, USA (2011) Oral presentation

Institute of the Environment Environmental Research Grad Blitz (2011) Oral presentation
Center for Insect Science Hexapodium (2009) Oral presentation
Genetics Society of Australia (2006) Poster presentation
The University of Queensland Undergraduate Research Conference (2005) Poster presentation
The University of Queensland Undergraduate Research Conference (2004) Oral presentation

TEACHING EXPERIENCE & TRAINING

Teaching Assistant, Department of Entomology, University of Arizona (2014) Insects & Culture: lead review sessions; weekly office hours; grading and devise all grading keys for weekly written homework; short-answer exams and essays; some exam-writing; exam invigilating (100 non-biology majors; ENTO160; 0.5 FTE)

Teaching Assistant, Department of Ecology and Evolutionary Biology (2010) Genetics: lead weekly problem solving sessions; lead review sessions; all grading (short answer and complex reasoning problems); some exam-writing; exam invigilating (100 biology majors; ECOL320 Spring 2010; 0.5 FTE)

Teaching Assistant, Department of Molecular and Cellular Biology (2009, 2010) Introductory Biology: Instructor of Record; weekly lectures with guided laboratory experiments; grading all essays, lab reports, weekly homework and weekly quizzes; weekly office and email hours; all quiz writing; new assessment verification; exam invigilating (25 students/class, 4 classes; BIOL181L Fall 2009, Fall 2010; 0.5 FTE)

RECENT DESIGNATED MENTORING

E.A. Bondy, Undergraduate Biology Research Program and Biomedical Research Abroad: Vistas Open! scholarship recipient full funding for 6-month research project at Griffith University, Queensland, Australia

S.K. Fung, Pre-pharmacy, College of Health Sciences, University of Arizona

ACADEMIC SERVICE

Journal reviewer: Molecular Ecology (3 manuscripts; 2016), Neotropical Entomology (2 manuscripts; 2016)

Student Representative to the Executive Committee, Graduate Interdisciplinary Program in Entomology and Insect Science, University of Arizona (2010 – 2012)

University of Arizona Graduate and Professional Student Council Travel Award Judge (2012)

Student Representative, Entomology Graduate Student Association, University of Arizona (2009 – 2012)

Student member, University of Arizona Insect and Arachnid Society (2011)

Seminar speaker host, Department of Entomology and Nematology, University of California, Davis: Marco Gebiola, Istituto per la Protezione Sostenibile delle Piante Via Università, Italy & Department of Entomology, University of Arizona, USA (Winter 2017)

Seminar speaker host, Department of Entomology University of Arizona: Bill Conner, Department of Biology, Wake Forest University, USA (Fall 2009)

Center for Insect Science Distinguished Visiting Professor Graduate Student Contact: Jonathan Bacon, Professor of Neuroscience, University of Sussex (2010)

Student Volunteer, Virtual Posters, Entomological Society of America 59th Annual Meeting in Reno, NV (2011)

DIVERSITY & OUTREACH

Invited Speaker, Philanthropic Education Organization State Convention – *women in education panel* (2010)

Invited Speaker, Philanthropic Education Organization State Convention – *women in education panel* (2009)

Invited Speaker, Science Works for the Smart State Conference – *science in public education panel* (2002)

Volunteer remote location ant surveyor, Conservation Volunteers Australia *Yellow Crazy Ant Eradication Project* with CSIRO and Dhimurru Aboriginal Land Management (2008)

Volunteer booth host and preparation, Arizona Insect Festival *Life in Miniature* (2011, 2012, 2013, 2014)

Volunteer booth host, Arizona-Sonora Desert Museum *Meet the Beetles* Tenebrionoidae (2010)
Volunteer interviewee, *Introduction to the University of California* course (2017)
Volunteer insect sorter, University of Arizona Insect Collection sorting event (2011)
Volunteer molecular biology instructor, BASIS school student visit, University of Arizona (2010)
Volunteer workshop leader, Insect Discovery Outreach Program, Lamb's Gate elementary school (2009)
Volunteer workshop leader, Arizona 4-H Youth Development Entomology Workshop (2010)
Donation of teaching supplies (three cases of identified insects and pinning supplies) to the University of Arizona Insect Discovery Outreach Program (2015)
Invited Speaker, *Biomedical Research Abroad Vistas Open* orientation session (2011)
Invited Speaker, Gympie high school women in science university tour (2003)
Workshop participant, *Conflict Resolution*, Women in Life Sciences at Davis (2017)
UndocuALLY Program for Educators certified training, University of California, Davis (2017)
Workshop participant, *Impostor Syndrome*, GradPathways Training, University of California, Davis (2016)
International Student Graduate Assistant in Teaching Orientation and Training, University of Arizona (2009)

RESEARCH MEETING PARTICIPANT

Association of Applied IPM Entomologists Citrus Roundtable, Exeter, California, USA (2017)
Department of Pesticide Regulation Symposium, Sacramento, California, USA (2017)
Association of Applied IPM Entomologists Citrus Roundtable, Exeter, California, USA (2016)
9th Annual Graduate Student Symposium in Ecology, Davis, California, USA (2016)
National Institute of Food and Agriculture (NIFA) Summit on Data in Agricultural Science (via Webinar; 2016)
Entomological Society of America Pacific Branch Meeting, Tucson, Arizona, USA (2014)
Center for Insect Science *Hexapodium*, Tucson, Arizona, USA (2008, 2009, 2010, 2011, 2012, 2013, 2014)
Undergraduate Biology Research Program 24th Annual Conference, Tucson, Arizona, USA (2013)
European Union Cooperation in Science and Technology (EU COST) Action FA0701 Meeting "Arthropod Symbiosis: from fundamental studies to pest and disease management", Ile d'Oléron, France (2012)
Undergraduate Biology Research Program 23rd Annual Conference, Tucson, Arizona, USA (2012)
2nd Nematode-Bacteria Symbioses (NEMASYM) Research Coordination Network Meeting, Tucson, Arizona, USA (2010)
Entomological Society of America Annual Meeting, San Diego, California, USA (2010)
Graduate and Professional Student Council 17th Annual Student Showcase, Tucson, Arizona, USA (2009)
The Department of Primary Industries Revolutionary Science Forum, Brisbane, Queensland, Australia (2007)
International Congress of Entomology, Brisbane, Queensland, Australia (2004)

CERTIFIED RESEARCH TRAINING

Data Management Workshop, UC Agriculture and Natural Resources IGIS Statewide Program, UC Berkeley (2016)
Laboratory Chemical Safety (updated 2017), Greenhouse and Field Safety (updated 2016), Heat Illness Prevention Training (updated 2016), Physical/Biological Containment Level 2 (updated 2006), Radiation Safety (updated 2006)

PROFESSIONAL SOCIETIES

Entomological Society of America

RESEARCH FOCUS

Areas: Agricultural Entomology, Applied Ecology, Ecoinformatics, Microbial Symbiosis, Integrated Pest Management

Insect Systems: *Citrus* spp. pests including fork-tailed bush katydid, Orthoptera: *Scudderia furcata*, and citrus thrips, Thysanoptera: *Scirtothrips citri*; whitefly pests in cotton, Hemiptera: *Bemisia* spp. and *Trialeurodes* spp., and associated bacterial symbionts (*Rickettsia*); parasitoid wasps, Hymenoptera: *Encarsia* spp. and associated bacterial symbionts (*Cardinium*); pea aphids, Hemiptera: *Acyrtosiphon pisum* and associated bacterial symbionts (*Regiella*); vinegar fly *Drosophila* spp. and mosquito *Aedes* spp. and associated bacterial symbionts (*Wolbachia*)