Benjamin David Blanchard

Curriculum Vitae

Committee on Evolutionary Biology University of Chicago bblanchard@uchicago.edu https://benjaminblanchard.net

EDUCATION

University of Chicago

Ph.D., Evolutionary Biology (2020)

University of Michigan – Ann Arbor

B.Sc., Ecology & Evolutionary Biology (2013)

PUBLICATIONS

Peer-Reviewed Publications

- Blanchard, B.D., Nakamura, A., Cao, M., Chen, S.T., and Moreau, C.S. 2020. Spine and dine: A key defensive trait promotes ecological success in spiny ants. *Ecology and Evolution* 10:5852-5863.
- Blanchard, B.D., and Moreau, C.S. 2017. Defensive traits exhibit an evolutionary trade-off and drive diversification in ants. *Evolution* 71(2):315-328.
- Clouse, M.C., Blanchard, B.D., Gibson, R., Wheeler, W.C., and Janda, M. 2016. Taxonomic updates for some confusing Micronesian species of *Camponotus* (Hymenoptera: Formicidae: Formicinae). *Myrmecological News* 23:139-152.
- Liu, C., Guénard, B., Blanchard, B., Peng, Y.Q., and Economo, E.P. 2016. Reorganization of taxonomic, functional, and phylogenetic ant biodiversity after conversion to rubber plantation. *Ecological Monographs* 86(2):215-227.
- Economo, E.P., Sarnat, E.M., Janda, M., Clouse, R., Klimov, P., Fischer, G., Blanchard, B.D., *et al.* 2015. Breaking out of biogeographical modules: range expansion and taxon cycles in the hyperdiverse ant genus *Pheidole. Journal of Biogeography* 42(12):2289-2301.
- Liu, C., Guénard, B., Hita Garcia, F., Yamane, S., Blanchard, B., Yang, D.R., and Economo, E. 2015. New records of ant species from Yunnan, China. *ZooKeys* 477:17-78.
- Clouse, M.C., Janda, M., <u>Blanchard, B.</u>, et al. 2014. Molecular phylogeny of Indo-Pacific carpenter ants (Hymenoptera: Formicidae, *Camponotus*) reveals waves of dispersal and colonization from diverse source areas. *Cladistics* 31(4):424-437.
- Sarnat, E.M., Blanchard, B., Guénard, B., Fasi, J., and Economo, E.P. 2013. Checklist of the ants (Hymenoptera, Formicidae) of the Solomon Islands and a new survey of the Makira Island. *Zookeys* 257:47-88.
- Guénard, B., Blanchard, B., Liu, C., Yang, D.R., and Economo, E.P. 2013. Rediscovery of the rare ant genus *Bannapone* (Hymenoptera: Formicidae: Amblyoponinae) and the description of the worker caste. *Zootaxa* 375(3): 371-379.

Undergraduate Honors Thesis

Blanchard, B. 2013. The effects of habitat heterogeneity on the distribution and composition of ant communities in a tall grass prairie. Department of Ecology and Evolutionary Biology, University of Michigan.

GRANTS & AWARDS

(2018) 1st AsiaEvo Conference Student Award [5,000\forall /\sigma\\$800]

- (2017) Brown Graduate Fellowship, Field Museum of Natural History [\$32,000 stipend]
- (2017) Society of Systematic Biologists (SSB) Standalone Meeting Travel Award [\$500]
- (2017) Henry Hinds Fund for Graduate Student Research in Evolutionary Biology [\$2,500]
- (2017) University of Chicago Graduate Council Travel Fund Award [\$600]
- (2017) NSF-Doctoral Dissertation Improvement Grant (DDIG) [\$15,043]
- (2016) Student Competition Winner, Second Place, International Congress of Entomology
- (2016) NSF-East Asia and Pacific Summer Institutes Award [\$5,000 stipend]
- (2016) 2016 NSF Graduate Research Fellowship Program Honorable Mention
- (2015) 2015 NSF Graduate Research Fellowship Program Honorable Mention
- (2014) 2014 NSF Graduate Research Fellowship Program Honorable Mention
- (2013) Honors for undergraduate thesis

PRESENTATIONS

*Invited

- *Blanchard, B.D., Nakamura, A., Cao, M., and Moreau, C.S. 2019. Phylogenomics and the evolution of defensive traits in ants. Oral Presentation, XXIV Simpósio de Mirmecologia: An International Ant Meeting, Belo Horizonte, MG, Brazil.
- Blanchard, B.D., and Moreau, C.S. 2019. Phylogenomics and the evolution of defensive traits in ants. Oral Presentation, Evolution 2019, Providence, RI, U.S.A.
- Blanchard, B.D., Nakamura, A., Cao, M., and Moreau, C.S. 2018. Spine and dine: Are competitive and predator-prey interactions mediated by a morphological trait-based trade-off in spiny ants? Oral Presentation, ESA/ESC/ESBC Joint Annual Meeting, Vancouver, BC, Canada.
- Blanchard, B.D., and Moreau, C.S. 2018. Defensive traits exhibit an evolutionary trade-off and drive diversification in ants. Oral Presentation, 1st AsiaEvo Conference, Shenzhen, Guangdong, China.
- *Blanchard, B.D. 2018. Investigating morphological divergence and constraint in ants using traditional and 3D morphometric approaches. Oral Presentation, Okinawa Institute of Science and Technology Mini-Symposium: "Advances in imaging, quantifying, and understanding the evolution of ant phenotypes", Okinawa, Japan.
- Blanchard, B.D., and Moreau, C.S. 2017. Defensive traits exhibit an evolutionary trade-off and drive diversification in ants. Oral Presentation, Society of Systematic Biologists (SSB) Standalone Meeting, Baton Rouge, LA, U.S.A.
- Blanchard, B.D., and Moreau, C.S. 2016. Defensive traits exhibit an evolutionary trade-off and drive diversification in ants. Oral Presentation, XXV International Congress of Entomology, Orlando, FL, U.S.A.
- Blanchard, B., and Moreau, C.S. 2015. Ants and their defenses: an evolutionary trade-off? Oral Presentation, Entomological Society of America annual conference, Portland, OR, U.S.A.

RESEARCH AND TRAINING EXPERIENCE

- (2019) Trees in the Desert: A workshop on ultra-large phylogenetic trees, Tucson, AZ USA
- (2017-2018) NSF-DDIG research, Xishuangbanna Trop. Bot. Garden (XTBG), Yunnan China
- (2017) SSB Standalone Mtg, RevBayes and 'bayou' workshops, Baton Rouge, LA USA
- (2016) NSF-East Asia and Pacific Summer Institutes (EAPSI), XTBG, Yunnan China
- (2015) SSB Standalone Mtg, Computational Macroevolution workshop, Ann Arbor, MI USA
- (2015) Ant Course, Southwestern Research Station, San Simon, AZ USA
- (2013) Research Intern, Okinawa Institute of Science and Technology, Okinawa Japan
- (2011-2013) Ant Taxonomy/Curation Research Asst., U. Mich. Museum of Nat. History USA

- (2012) NSF-Research Experience for Undergraduates, American Museum of Nat. History USA
- (2011) NSF-Research Experience for Undergraduates, Kansas State University USA
- (2009-2011) Research Intern, Undergraduate Research Opportunity Program, U. Mich. USA
- (2010) Field Course, University of Michigan Biological Station USA

TEACHING EXPERIENCE

- (2020) University of Chicago. Ecology in the Anthropocene. Teaching assistant.
- (2019) University of Chicago. Natural History of North American Deserts. Teaching assistant.
- (2017) University of Chicago. The Public and Private Lives of Insects. Teaching assistant.
- (2015) University of Chicago. Reconstructing the Tree of Life: An introduction to phylogenetics. Teaching assistant.
- (2013-2014) Cili Number One High School (兹利县第一中学), Yunnan, China. Volunteer oral English teacher through the NGO WorldTeach.

SCIENTIFIC SOCIETIES & SERVICE

- (2016-present) Voluntary proofreading and line-editing (content and English grammar) of scientific manuscripts for colleagues from the U.S., China, Brazil, and Portugal
- (2017-present) Member, American Society of Naturalists
- (2017-2019) Member, American Philosophical Association
- (2016-present) Member, Society for the Study of Evolution
- (2015-present) Member, Society of Systematic Biologists
- (2014-present) Member, Entomological Society of America
- Reviewed manuscripts for Behavioral Ecology, BMC Evolutionary Biology, Integrative and Comparative Biology, Biological Journal of the Linnean Society, Insect Systematics & Evolution, Agricultural and Forest Entomology, Insectes Sociaux

OUTREACH ACTIVITIES

- (2016-present) Editor-in-Chief of *The Daily Ant*, an online blog and media site (includes edited "Philosophy Phridays" series of solicited contributed pieces from faculty and graduate students in philosophy): dailyant.com
- (2015-2019) Volunteer 1-on-1 academic tutor (grades 6th-9th), Strive Tutoring
- (2014-2019) "Meet a Scientist", "Members' Night", "Discovery Squad", "Talk to a Scientist", and "Dozin' With the Dinos" programs at the Field Museum of Natural History
- (2016) Panelist discussing science careers at ITW David Speer Academy in Chicago
- (2016) Volunteer science fair judge, Fredrich W. Von Steuben Metropolitan Center
- (2016) Participated in "How Much Money Does an Ant Scientist Make? (ft. Dr. Corrie Moreau)", a video by the popular YouTube channel AntsCanada
- (2016) Invited talk for the undergraduate University of Chicago PaleoClub: "Precious by death: using fossils in phylogenetics, and other cool stuff about ants"
- (2015) Featured in "Visiting the Ant Lab at the Chicago Field Museum", a video by AntsCanada
- (2015) Consultant for a children's book, Ant (Susan H. Gray, Cherry Hill Publishing)
- (2014) Volunteer science fair judge, Fredrich W. Von Steuben Metropolitan Center
- (2014) Shared insect collection and discussed ants at Camp Lakeshore in Novi, MI: "Artful Ants"

LANGUAGES

English (Native)

Mandarin Chinese (ILR Level 2: Working Proficiency)