

MANPREET KAUR KOHLI
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SECTION I: BACKGROUND INFORMATION

EDUCATION

RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY

Ph.D. Candidate, BIOLOGY

Dissertation topic: Insect Macroevolution and Microevolution: methods and case studies

Dissertation defense date: 14th June 2019

NEW JERSEY INSTITUTE OF TECHNOLOGY, New Jersey, USA

MSc. BIOLOGICAL SCIENCES, 2013

Thesis: A molecular and morphological evaluation of *Boyeria* (Odonata: Anisoptera: Aeshnidae).

ICFAI UNIVERSITY, Dehradun, India

Bachelors of Tech. BIOTECHNOLOGY, 2010

Thesis: Computational Biological approach to understand medicinal aspects of plants in Uttarakhand, India

SECTION II: RESEARCH

PEER REVIEWED PUBLICATIONS

1. Evangelista, D.A., Benjamin, W., Béthoux, O., Donath, A., Fujita, M., **Kohli, M.K.**, Legendra, F., Liu, S., et al (2019). An integrative phylogenomic approach illuminates the evolutionary history of cockroaches and termites (Blattodea). **Proceedings of The Royal Society: Biological Sciences** [link](#)
2. **Kohli, M.K.**, Kuhn, W.R., Sahlén, G., Ware, J.L. (2018) Extremely low genetic diversity in circumpolar dragonfly species, *Somatochlora sablbergi* (Insecta: Odonata: Anisoptera). **Nature Scientific Reports** **8**, Article number: 15114 [link](#)
3. Evangelista, D.A., Lopez, P., Thouze, F., Legendre, F., **Kohli, M.K.** (2018) Topological support and data quality can only be assessed through multiple analytics in reviewing Blattodea phylogeny. **Molecular Phylogenetics and Evolution** Vol: 128, November 2018, Pages 112-122 [link](#)
4. Evangelista, D.A., Djernæs, M., & **Kohli, M.K.** (2017) Fossil calibrations for the cockroach phylogeny (Insecta, Dictyoptera, Blattodea) and comments on the use of wings for cockroach identification. **Paleontologica Electronica** **8**: Article number: 15114 [link](#)
5. **Kohli, M.K.**, Ware, J.L., & Gunter B. (2016) How to date a Dragonfly: Fossil calibrations for Odonates. **Paleontologica Electronica** 19.1.1FC: 1-14 [link](#)
6. Ksepka, D. T., Parham, J. F., Allman, J. F., Benton, M. J., Carrano, M. T., Cranston, K. A., Donoghue, P., Head, J. J., Hermsen, E. J., Irmis, R. B., Joyce, W.G., **Kohli, M.K.**, Lamm, K.S., Leehr, D., Patané, J.S.L., Polly, P.D., Phillips, M.J., Smith, N.A., Smith, N.D., van Tuinen, M., Ware, J.L., & Warnock, R. C. (2015). The Fossil Calibration Database, A New Resource for Divergence Dating. **Systematic biology**, 025. [link](#)

7. **Kohli, M.K.**, Schneider, T, Müller O, & Ware J.L (2014). Counting the spots: a molecular and morphological phylogeny of the spotted darner *Boyeria* (Odonata: Anisoptera: Aeshnidae) with an emphasis on European taxa, **Systematic Entomology**, 190-195. [link](#)

SUBMITTED AND IN-PREP PUBLICATIONS

1. Evangelista, D.A., Simon, S., Wilson, M.M, Kawahara, A.Y, **Kohli, M.K.**, Ware, J.L., Wipfler, B., Béthoux, O., Grandcolas, P., Legendre, F. (2019) Phylogenetic Synecdoche Demonstrates Optimality of Subsampling and Improves Recovery of the Blaberoidea Phylogeny (Submitted to **Systematic Biology**) [bioRxiv link](#)
2. **Kohli, M.K.**, Ware. J. L., Beutel, R., Meusemann, K., Simon, S., Neiheus, O & Misof, B., (2019) Local effects of calibrations overwhelm estimated divergence-time (in prep)
3. **Kohli, M.K.**, Djernæs, M., Sanchez Herrera, M., Sahlén, G., Simones T., & Ware, J.L (2019) Comparative phylogeography uncovers evolutionary past of circumboreal dragonflies (in prep).
4. **Kohli, M.K.**, Knapp, K*, Sahlén,G., & Ware, J.L Molecular systematics of Holarctic dragonfly genus *Aeshna* (Anisoptera: Aeshnidae) (in prep) (*undergraduate co-author)

AWARDS AND SCHOLARSHIPS

Dean Dissertation Award \$1000	2019
Rutgers University – Newark – Graduate School Dissertation Fellowship: \$20,000	2018
Sydney S. Greenfield Botany Fellowship by Rutgers Graduate School, Newark \$2,847	2017-2018
Systematics Research Fund, Linnaean Society of London and the Systematics Association: £960.80 or \$1247.02	2017
Theodore Roosevelt Memorial Fund, American Museum of Natural History: \$1000	2017
Student Competition for the President’s Prize oral paper presentation award, EntSoc 2017, Denver Colorado (prize: gratis annual membership)	2017
Graduate School Summer Travel Award, Rutgers University – 2x Totaling: \$750	2017-2018
Graduate student TA-GA fund, Rutgers University – 3x: Totaling: \$3400	2015-2017
The Graduate Student Government Travel Award, Rutgers University – 5x Totaling: \$2,767.25	2014-2018
Travel award to Phylogenomic symposium and software school @ Evolution: \$500	2014

WORKING GROUPS

HexSoTol working group	2018-present
Divergence dating team on the One Thousand Insect Transcriptome project (1KITE). Divergence time analysis for the Odonata and Dictyoptera 1KITE sub-groups. link	2015-present
Fossil Calibration Database project developed by the Working Group “Synthesizing and Databasing Fossil Calibrations: Divergence Dating and Beyond”, supported by funding from the National Evolutionary Synthesis Center (NSF EF-0905606). Participated in the discussions and testing of the web portal for the calibration database. link	2014

INVITED TALKS

- Comparative phylogenetics of circumboreal dragonflies. Entomological Society of America 2018
- Genetic structure of *Aeshna Juncea* across its Holarctic range. International Congress of Odonatology 2017
- Divergence time methodology for big datasets: Fossil Calibrations and FASTDATE. International Congress of Entomology 2016
- Evolution at Northern limits: Understanding the treeline emerald (*Somatochlora sablbergi*). International Congress of Odonatology 2015

PRESENTATIONS

- Fossil calibration tips for divergence time estimation: A case study from insects. Entomological Society of America Nov **Student oral presentation competition** 2018
- Somatochlora sablbergi* the northern most dragonfly species. Entomological Society of America. (Second Place; Student Competition for the Presidents Prize) **Student oral presentation competition** 2017
- 1Kite Vienna dating subproject update -1Kite meeting **Oral presentation** 2015
- Counting the spots: A molecular evaluation of Spotted Darners. Dragonfly Society of America meeting **Oral presentation** 2015
- Counting the spots: A molecular evaluation of Spotted Darners. Eastern branch Entomological Society of America **Oral presentation** 2015
- Planet of Hexapods: An evolutionary tale – Chancellor’s Research Day, Rutgers University **Oral presentation** 2015
- Fossil calibration database – iEvoBio @ Evolution **Oral presentation** 2014

POSTERS

- Genetic structure of *Aeshna juncea* in Northern Hemisphere – Annual Rutgers University-Newark Chancellor’s Research Day – (undergraduate mentee presenter: Ebere Okoro) 2017
- When dating goes wrong: Divergence time methodology for big datasets – Annual Rutgers University-Newark Chancellor’s Research Day 2017
- Northern most dragonfly *Somatochlora sablbergi*: The treeline emerald Annual Rutgers University-Newark Chancellor’s Research Day 2016
- Evolution of Treeline emerald, *Somatochlora sablbergi* - Annual Rutgers University-Newark Chancellor’s Research Day (undergraduate mentee presenter: Lucianny Lantigua) 2015
- Mass extinctions and Insect diversity - Annual Rutgers University-Newark Chancellor’s Research Day (undergraduate mentee presenter: Lucianny Lantigua) 2014
- Using DNA for studying Evolution: Case study from dragonfly family Aeshnidae - Annual Rutgers University-Newark Chancellor’s Research Day (undergraduate mentee presenter: Folake Olamiju) 2014
- Counting the Spots: A molecular and morphological evaluation of the spotted darner Boyeria – Entomological society of America meeting 2013

FIELDWORK

Yukon and Northwest Territory, Canada - <i>Somatochlora sahlbergi</i> expedition.	2015
Dragonfly inventory and macro invertebrate survey for Madanapalle (State Andhra Pradesh), Angul (state Odisha) and Sitamata wild life sanctuary (State Rajasthan) with FES, India.	2013
Exploring the odonate diversity in Guyana	2011

SECTION III: TEACHING

TEACHING ASSIGNMENT

Rutgers University and NJIT	
Ecology (200 level; Lecturer)	2019
Concepts in Biology (200 level; Recitations)	2014-2017
Concepts in Biology (200 level; Lecture)	2016
Aim High Academy - Earth Ecology Program (High school summer program)	2013, 2014
Mammalian Physiology (200 level; Lab)	2014
Guest lectures in Graduate Evolution	2014
Cell and Molecular Biology (200 level; Lab)	2012-2013
General Biology (100 level Lecturer)	2011-2012

STUDENT MENTORED

1. Kenn Knapp, Aug 2017- Present;
2. Claire Mirvis, Aug 2017- Present;
3. Lolia Roberts, May 2018- Oct 2018;
4. Ebere Okoro, Sep 2016- May 2017, Senior thesis: Genetic structure of *Aeshna juncea* in Northern Hemisphere
5. Lucianny Lantigua, Sep 2013-August 2015 and Spring 2017;
6. Tosin Adeeko Sep 2014 – May 2016;
7. Folake Olamiju, Sep 2012 – May 2014.

SECTION IV: EXTENSION/OUTREACH

SCIENCE OUTREACH

Skype-a-Scientist – Fifth grade classrooms at Southern Columbia Area School District , Pennsylvania	2018
Invited talk: The dragon(fly)s of the past and present. 6th Annual Symposium of The Metropolitan Society of Natural Historians @ AMNH	2018
Garden State-Louis Stokes Alliance for Minority Participation (GS-LSAMP)- Incoming Student Orientation – Role of A Research Assistant	2015, 2016
Rutgers-Newark, Annual Bio blitz	2013-2017
KAPPA III middle school career day (Bronx, New York)	2012 – 2014
Peoples Prep High School (Newark, NJ)	2015

SYNERGESTIC ACTIVITIES:

Organized the first Women in Science workshop for the Federated Department of Biology Department Rutgers Newark-NJIT. Invited speakers: Dr. Corrie Moreau, Dr. Judith Weis, Dr. Kimberly Russell, Dr. Maria Stanko, Dr. Wilma Friedman **2015**

MEDIA AND PRESS

ScicommMonday: [Periscope link](#) and [YouTube link](#) **2017**
[Entomology Today](#): Old, but not that old: Debunking the Myth of Ancient Cockroaches. **2017**

SECTION V: SERVICE

ACADEMIC SERVICES

SCIENTIFIC ARTICLE REVIEWER

Freshwater Science International Journal of Odonatology
Zookeys Nature Scientific Reports
Biological Journal of the Linnaean Society

SYMPOSIUM ORGANIZED

Digital Future of Entomology – Entomological Society of America Eastern Branch Meeting, 8 invited speakers **2019**

Dynamics of the Tropical Ecosystems: A Bug's-Eye View of the Jungle – Entomological Society of America, 11 invited speakers **2013**

PROFESSIONAL SOCIETY SERVICES

Treasurer – [Dragonfly Society of the Americas](#) (DSA) **2019-present**
Organizing committee: [International Congress of Odonatology](#), hosted by WDA **2019**
Student Activity Council Member, Entomological Society of America, Eastern Branch **2017-Present**
Treasurer – [Worldwide Dragonfly Association](#) (WDA) **2013–Present**

PROFESSIONAL MEMBERSHIPS

Worldwide Dragonfly Society – Treasurer
Dragonfly Society of the Americas – Treasurer
Entomological Society of America – SAC board member
Society of Systematic Biology – member
Society for the Study of Evolution – member
Society of Systematic Biologists - member