

# DOMINIC EVANGELISTA <sup>PhD</sup>

DominicEv@gmail.com | www.RoachBrain.com

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## SUMMARY

Publications	17 peer reviewed publications; 17 first author publications; 582 citations
Sci-Com	Invited talks given = 17; media interviews (print, TV and radio)
Grants & awards	Grants > \$10K = 2; total obtained = US\$517,401; total number of awards = 14.
Skills	Genomics, bioinformatics, coding, systematics, sci-comm., field biology
Other	Previously subject editor for <i>ZooKeys</i> and science blogger for Ecotome.

## PROFESSIONAL APPOINTMENTS

University of Illinois, Urbana-Champaign, IL, USA Assistant professor	2023 – Present
Adelphi University, Garden City, NY, USA Assistant professor	2020 – 2022
CUNY, NYC, NY Adjunct assistant professor	2020
Rutgers University, Newark, NJ Part-time lecturer	2019

## POST-DOCTORAL APPOINTMENTS

Le Muséum national d'Histoire naturelle, Paris, France NSF Post-doctoral research fellow (1608559) Project title: <i>Phylogenomics and diversification in Blaberoidea</i>	2016 – 2018
University of Tennessee, Knoxville, USA Post-doctoral Research Associate Project title: <i>Assessing gene-tree discordance with a nested codon model of evolution</i>	2018

## EDUCATION

Rutgers University and New Jersey Institute of Technology, Newark, NJ Ecology and Evolution PhD	2016
Bachelor of Science with Honors in Biology	2010

## REFEREED JOURNAL ARTICLES

### Published manuscripts

1. **Evangelista**, Nelson<sup>§</sup>, Varadínová, Kotyk, Rousseaux, Shanahan, Grandcolas, Legendre. (2024). Phylogenomic analyses of Blattodea combining traditional methods, incremental tree-building, and quality-aware support. *Molecular Phylogenetics and Evolution*. 200. doi: 10.1016/j.ympev.2024.108177
2. **Evangelista**, Nelson<sup>§</sup>, Kotyková Varadínová, Legendre. (2023). Phylogenomics and deep convergence in cockroach hind-wing morphology. *Organisms, Diversity and Evolution*. 10.1007/s13127-023-00609-8
3. Wipfler, **Evangelista**, Trische, Weihmann. (2022) Morphological, functional and phylogenetic aspects of the head capsule of the cockroach *Ergaula capucina* (Insecta/Blattodea). *PeerJ*. 10:e12470.

4. **Evangelista**, Simon, Wilson, Kawahara, Kohli, Ware, Wipfler, Béthoux, Grandcolas, Legendre. (2021). Assessing support for Blaberoidea phylogeny suggests optimal locus quality. *Systematic Entomology*. doi: 10.1111/syen.12454
5. **Evangelista**<sup>1</sup>, Goodman<sup>1</sup>, Kohli<sup>1</sup>, Maflamills<sup>1</sup>, Samuel-Foo<sup>1</sup>, Sanchez-Herrera<sup>1</sup>, Ware<sup>1</sup>, Wilson<sup>1</sup>. (2020). Why diversity matters among those who study diversity. *American Entomologist*. 66:4.
6. **Evangelista** (2020). Entomological Heritage: Frances Ann McKittrick: Revolutionary studies of cockroaches. *American Entomologist*. 66:1. 32-36.
7. Pringle, Kartzinel ... **Evangelista** ... Losos, Barrett. (2019). Predator-induced collapse of niche structure and species coexistence. *Nature*. doi: 10.1038/s41586-019-1264-6
8. **Evangelista**, Legendre, Juna, Varadinova. (2019) New Blattodea from French Guiana, a hotspot of cockroach biodiversity. *Neotropical Entomology*. doi: 10.1007/s13744-019-00677-6
9. **Evangelista**<sup>1</sup>, Wipfler<sup>1</sup>, ... Simon (2019) An integrative phylogenomic approach illuminates the evolutionary history of cockroaches and termites (Blattodea). *Proceedings of the Royal Society B*. doi: 10.1098/rspb.2018.2076
10. **Evangelista**, Thouze, Kohli, Lopez, & Legendre. (2018). Topological support and data quality can only be assessed through multiple tests in Blattodea phylogeny. *Molecular Phylogenetics and Evolution*. doi: 10.1016/j.ympev.2018.05.007
11. Cui, **Evangelista**, Béthoux. (2018). Prayers for fossil mantis unfulfilled: *Prochaerododis enigmaticus* Piton, 1940 is a cockroach (Blattodea). *Geodiversitas*. 40:15, 355-362. doi: 10.5252/geodiversitas2018v40a15
12. **Evangelista**, Djernaes, and Kohli. (2017). Fossil calibrations for the cockroach phylogeny (Insecta, Dictyoptera, Blattodea), comments on the use of wings for their identification, and a redescription of the oldest Blaberidae. *Palaeontologia Electronica*. 20.3.1.FC: 1-23.
13. **Evangelista**, Russell, G., Russell, K.N., Bourne, & Ware. (2017). Evidence that dispersal barriers influence blaberoid cockroach assemblages in a neotropical savanna-forest matrix. *Insect Conservation and Diversity*. doi: 10.1111/icad.12246
14. **Evangelista**, Sylvain<sup>§</sup>, Mendoza<sup>§</sup> & Guzman<sup>§</sup>. (2016). New and enigmatic cockroaches (Blattodea, Blaberoidea) of Guyana. *Journal of Natural History*. doi: 10.1080/00222933.2016.1193647
15. **Evangelista**, Chan<sup>§</sup>, Kaplan<sup>§</sup>, Wilson<sup>§</sup>, & Ware. (2015) The Blattodea *ss* (Insecta: Dictyoptera) of the Guiana Shield. *ZooKeys*.475. 37-87. doi: 10.3897/zookeys.475.7877
16. **Evangelista**, Bourne, & Ware. (2014). Species richness estimates of Blattodea *s.s.* (Insecta: Dictyoptera) from northern Guyana vary depending upon methods of species delimitation. *Systematic Entomology*. 39. doi: 150-158. 10.1111/syen.12043
17. **\*Evangelista**, Buss, & Ware. (2013) Using DNA barcodes to identify a new invasive cockroach in New York City. *Journal of Economic Entomology*. 106:6. 2275-2279.

#### Manuscripts submitted, in prep, or preprint

18. Deng, Drager, Li, Han, Djernaes, Wang, Schwartz, Zhang, Kovacs, Lo, Hellemans, Che, Bourguignon, Wang, **Evangelista**. (in review 2024). Blattodea systematics in the genomic age. *Insect Systematics and Diversity*.
19. **Evangelista**, Gilchrist, Legendre, O'Meara. (in review 2024). Concatenation fails to describe the anomalous radiation of Giant Cockroaches (Blattodea: Blaberidae) despite evidence of generally low discordance. *Systematic Biology*. (preprint: <https://doi.org/10.1101/717660>)
20. **Evangelista**, Medina Espinoza, Drager, Gile, Mendieta Yanez, Vanker. (in prep 2024). Natural history of Lamproblattidae: Diet, behavior, systematics and consequences for evolution of eusociality. *Arthropod Systematics and Phylogeny*
21. Kohli, Barba-Montoya, **Evangelista**, Ware. (in review 2024). Effects of local calibrations overwhelm estimated divergence-times. *Molecular Biology & Evolution*.

22. Esposito, **Evangelista** ... Ware (in prep 2025). Evaluating perceptions of STEM majors to explain diversity gaps in Entomology and other sciences: Race, gender, and sexuality. *CBE – Life Sciences Education*
23. Frandsen, Wipfler, Mayer, Ware, **Evangelista** et al. (in prep 2025). Phylogenomics resolves diversification patterns in insects. *Nature*.

### Other published works

24. **Evangelista**. (2022). Insects, 60% of all Biodiversity. *In*. Encyclopedia of Biodiversity. *Ed*. Moreau. <http://dx.doi.org/10.1016/B978-0-12-822562-2.00069-4>
25. **Evangelista**. (2017). Species account: *Eurycotis blattoides*. *In*. Suriname: Natural History & Ecology. *Ed*. H. Hiwat, B. De Dijn, WWF Guianas. 1. 190pp.
26. **Evangelista**, & Ware. (2015). What can we learn from a phylogeny of Blaberoidea? *Metaleptea*. 35. 2-14.

\*Cover article; <sup>1</sup>shared first author; <sup>§</sup>undergraduate co-author.

### GRANTS

#### Awarded

NSF DEB Award # 2209323 (\$277,546)	2023 – 2025
Adelphi Faculty Development Grant (\$3500)	2021
NSF Postdoctoral Research Fellowship in Biology (\$198,000)	2016 – 2018
Rutgers University – Newark – Graduate School Dissertation Fellowship (\$20,000)	2015 – 2016
Rutgers University – Newark – Graduate School Travel Award (< \$5000)	2014, 2015, 2016
Monsanto Student Travel Award (< \$5000)	2014, 2016
Systematics, Evolution and Biodiversity Travel Award (ESA) (< \$5000)	2014
Experiment.com (crowd funding) (< \$5000)	2014
Smithsonian Biodiversity of the Guiana Shield Grant (< \$5000)	2012, 2013
NSF Advance (< \$5000)	2013

#### Applied

<i>National Geographic</i> : RFB – <i>The Big Questions</i> : Lights: Humans and insects (\$96,889)	2024
NSF DEB: SBS: Niche breadth evolution beyond herbivory: Phyloecological investigation of generalist insects (\$1,226,165)	2024
NSF DEB: SBS: Collaborative Research: RUI: Integrative Phylogenomics of Wing Repurposing, Vestigiality and Loss (\$481,103)	2021
NSF DEB: SBS: Collaborative Research: RUI: Investigating Wing Repurposing, Vestigiality and Loss through Phylogenomics (\$526,584)	2020
NSF DEB: Dimensions of biodiversity: Collaborative research: The genetic mechanisms underlying functional and morphological diversification of Madagascar's largest insects (\$922,548)	2017
<i>National Geographic</i> : Discovering the evolutionary precursors to termite diversification in <i>Lamproblatta</i> (\$42,000)	2017

#### Trainee grants (Graduate students)

Schwartz. Graduate College Fellowship for Under-represented Students. (\$75,000)	2023
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Medina-Espinosa. Illinois Distinguished Fellowship. (\$75,000) **2024**

## MENTORSHIP

### PhD Advisees

Johanna Schwartz **2023 – Present**  
 Emmy Fiorella Medina Espinoza **2024 – Present**

### Master's Advisees

Jared Martin **2023 – Present**

### Graduate Student Committee Member

Ember Clodfelter (Master's, Entomology; PhD, Entomology)  
 Juliana Soto (PhD, PEEC)  
 Theodore Cook (Master's, Entomology)  
 Phillip Hogan (PhD, Entomology)  
 Wilfred Tang (PhD, EEB)

### Supervision of Undergraduate Students

Alix Zitzow (Fall 2024) – SIB-Major  
 Abraham Morales (Fall 2024) – SIB-Major  
 Dylan Melvin (Fall 2024) – SIB-Major  
 Devin Lee (Spring 2023) – SIB Major  
 Katharine Vankar (2023-Ongoing) – SIB Major  
 Angelo Kovacev-Ramirez (F2023) – SIB Major  
 Drew Logothetis (F2023) – SIB Major  
 Alex Osepek (F2023- Ongoing) – SIB Major  
 Mallory Phillips (S2024) – SIB Major  
 Shrey Raj (S2024) – MCB Major, Informatics Minor  
 Leslie Olivares (S2024) – SIB Major, Informatics Minor

## PRESENTATIONS

\*Anticipated

### Invited talks

Phylogenomic investigations of Blattodea **2024, 2025\***  
 ICE 2024 (Kyoto, Japan), UNC Charlotte\*

Phylogenetics of the Strange and Unknown (Insects) **2020 – 2024**  
 Hofstra University, Kansas State University, AMNH-RGGS, PEEC-SIB-UIUC, UW-Madison

Optimizing phylogenomics for recovering the phylogeny of Blaberoidea **2019**  
 9th Dresden Meeting on Insect Phylogeny in Dresden, Germany

Field rearing, injury labels & other techniques to increase natural history value of field collection **2017**  
 Entomological Collections Network Meeting 2017, Denver, CO

Discovering the origins of Blattodea through fossils and phylogeny **2017**  
 8th Dresden Meeting on Insect Phylogeny in Dresden, Germany

Cockroach biodiversity in the land of many waters **2016**  
 International Congress of Entomology 2016 in Orlando, Florida

Phylogenomics and origins of diversity in Dictyoptera (1KITE) **2015**

7th Dresden Meeting on Insect Phylogeny in Dresden, Germany	
How does dispersal ability affect the spatial organization of geographic ranges? Symposium: A Hitchhiker's Guide to the Microcosmos. Ent. Soc. Am., Portland, OR	2014
What we can learn from a phylogeny of Blaberoidea Symposium: Orthopteroid Insects. Ent. Soc. of America, Portland, OR	2014
The Yamato Cockroach in NYC and applications for genetic barcoding Long Island Invasive Species Conference – Queens, NY	2014
What is a species? Special Event: Honors College, Rutgers University – Newark, NJ	2014
Measuring species richness of Blattodea in the Guiana Shield Symposium: Dynamics of tropical ecosystems. Ent. Soc. Of America at Austin, TX	2013
How to effectively communicate science C2PRISM Workshop. New Jersey Institute of Technology	2013
Measuring species richness of Blattodea in Guyana Symposium: Cockroaches: More than pests. Ent. Soc. Of America at Knoxville, TN *	2012
<b>Submitted talks (selected)</b>	
Quality-aware support values as the cornerstone to clarifying uncertainty in a phylogenomic super-tree of Blattodea Entomology 2023, National Harbor, MD USA	2023*
Phylogenomics resolves deep morphological convergence among cockroaches (Blattodea)	2021
Quantifying the inclusion gap in entomology Entomology 2021, Denver CO USA	2021
Advances in the cockroach phylogeny Entomology 2020, Virtual Conference	2020
Optimized subsampling improves recovery of an empirical phylogeny under the criteria of phylogenetic synecdoche Evolution 2019, Providence RI, USA	2019
The evolution of cockroaches and termites through fossils and phylogeny Social Insects in the North East Regions (SINNERS), Philadelphia, Pennsylvania	2018
The evolutionary history of cockroaches & termites through fossils and phylogeny 5 <sup>th</sup> International Palaeontological Congress in Paris, France	2018
Phylogenomics of cockroaches (Blattodea) Ent. Soc. Of America 2017 at Denver, Colorado	2017
How does dispersal ability affect the spatial organization of geographic ranges? Evolution 2014 in Raleigh, NC	2014

**POSTERS**

The implications of over-estimating gene tree discordance on a rapid-radiation species tree Evolution 2019, Providence RI, USA	2019
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**SYMPOSIA ORGANIZED**

*Anticipated Building a better Insect Tree of Life ICE 2024 (Kyoto, Japan)	2024
Building a better Insect Tree of Life	2023

Entomology 2023, National Harbor, MD USA  
 Practicing Diversity, Equity and Inclusion in Entomology **2021**  
 Entomology 2021, Denver CO USA

### COURSES DESIGNED

\*Instructor of record  
 Principles of Systematics\*  
 UIUC (2026)  
 Insect Classification\*  
 UIUC (2023, 2025)  
 Evolution\*  
 Brooklyn College (2019, 2020), Adelphi University (2020-2022), UIUC (2024)  
 Computational Biology\*  
 Adelphi University (2021)  
 Animal Tree of Life\*  
 Adelphi University (2022)  
 Methods in Evolution\*  
 Adelphi University (2022)  
 General Biology (part) \*  
 Lehman College (2019), Adelphi University (2020-2022)

### PEDAGOGICAL TECHNIQUES EMPLOYED

Active learning

- Student centered course design
- In-class group assignments
- Peer-review

Low stakes, weekly readiness assessments

Scaffolded assignments

Experiential learning

- Case-study focused assignments/assessments
- Research integrated into laboratory work
- Field trips
- Kolb-cycle assignment design

Socio-cognitive pedagogy

- Self-assessments and reflections for promoting science self-efficacy and identity

### OTHER SCIENCE WRITING

#### Self /co-authored blogs

SciFund Challenge – The EcoTome (selected articles)  
[Phylogeny of elves finds that Santa’s workers are actually dwarves](#) (>19,000 views as of 2021) **2015**  
[What is a cockroach?](#) (> 5000 views as of 2021) **2015**  
 Entomology Today  
[A cacophonous case of careless characters](#) **2016**  
[Vengeful Taxonomy](#) **2014**

#### Social media

@Roach\_Brain (800+ Followers) **2013 – Present**

### SOFTWARE DEVELOPED

[Phyloinformatics](#)  
[AwareSupport](#)

### SERVICE

#### Professional service

ECP Outreach & Public Engagement Award panel member **2023 – 2025**

ESA Science Policy Committee – SysEB Representative	2023 – 2025
<b>University and departmental service</b>	
Courses and curriculum committee	2024 – Present
Organized mentorship development workshop “Maximizing Mentoring Relationships” (May 20, 2024) with Dr. Anna Sokac	
SIB Diversity Equity and Inclusion Taskforce committee member	2023
<b>Public Engagement, Outreach, and/or Extension</b>	
Content-matter expert consultation for episode of PBS Insectarium series by AMNH	2024
<b>Other Service</b>	
EntoPOC board member service	2020 – Present
Contributor to global conservation initiatives	
GLiTRS – Taxonomic expert	
RCN – Neotropical Working Group contributor	

## REFERENCES

### Professional/Academic

Frédéric Legendre (post-doctoral mentor)  
 Le Muséum national d'Histoire naturelle, Paris, France  
 45 Rue Buffo, CP50  
 Paris, France 75005  
 frederic.legendre@mnhn.fr  
 +33 1 40 79 81 26

Jessica L. Ware (PhD advisor)  
 Rutgers, The State University of New Jersey, USA  
 195 University Ave.  
 Boyden Hall  
 Newark, NJ 07102, USA  
 jessicaleeware@gmail.com  
 +1 (973) 353 5370

Benjamin Wipfler (collaborator/colleague)  
 Zoological Research Museum Alexander Koenig  
 Adenauerallee 160  
 53113 Bonn, Germany  
 +49 228 9122 0  
 Benjamin.Wipfler@leibniz-zfmk.de