

GAVIN C. WOODRUFF, PH.D.

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EDUCATION

Ph.D. Biology. University of Maryland, College Park. 2013

B.S. Biological Sciences. Georgia State University. 2007
Summa cum laude with thesis honors.

POSITIONS

Postdoctoral Fellow 2015-Present
University of Oregon
Advisor: Patrick C. Phillips.
Research topic: Biology of the fig-associated nematode *Caenorhabditis inopinata*

Postdoctoral Fellow 2014-2015
Forestry and Forest Products Research Institute, Tsukuba, Japan
Sponsor: Natsumi Kanzaki
Research topics: Host-sensing behavior in *Caenorhabditis*; biology of fig-associated *Caenorhabditis*; nematode alpha taxonomy

Graduate Fellow and Research Assistant 2007-2013
University of Maryland, College Park
Advisor: Eric S. Haag
Dissertation title: "Investigations into the evolution of self-fertile hermaphroditism and reproductive isolation in *Caenorhabditis* nematodes"

Research Assistant 2006-2007
Georgia State University
Advisor: Walter W. Walthall
Thesis title: "UNC-30 and the specification of inhibitory motor neurons in *Caenorhabditis elegans*"

PUBLICATIONS

G. C. Woodruff, E. Johnson, and P. C. Phillips 2019
"A large close relative of *C. elegans* is slow-developing but not long-lived."
BMC Evolutionary Biology
<https://doi.org/10.1186/s12862-019-1388-1>

G. C. Woodruff and P. C Phillips 2018
"Field studies reveal a close relative of *C. elegans* thrives in the fresh figs of *Ficus septica* and disperses on its *Ceratosolen* pollinating wasps."
BMC Ecology
<https://doi.org/10.1186/s12898-018-0182-z>

N. Kanzaki, I.J. Tsai, R. Tanaka, V.L. Hunt, K. Tsuyama, D. Liu, Y. Maeda, **G. C. Woodruff**, S. Namai, 2018

R. Kumagai, A. Tracey, N. Holroyd, K. Murase, H. Kitazume, M.-M. Billah, H. mien Ke, J. Wang, M. Berriman, P.W. Sternberg, A. Sugimoto, and T. Kikuchi
 “Biology and genome of a newly discovered sibling species of *Caenorhabditis elegans*”
Nature Communications
<https://www.nature.com/articles/s41467-018-05712-5>

G. C. Woodruff, J. H. Willis, and P. C. Phillips 2018
 “Dramatic evolution of body length due to post-embryonic changes in cell size in a newly discovered close relative of *C. elegans*”
Evolution Letters
<https://doi.org/10.1002/evl3.67>

N. Kanzaki*, **G. C. Woodruff***, M. Akiba, and N. Maehara 2015
 “*Diplogasteroides asiaticus* n. sp., associated with *Monochamus alternatus* in Japan”
Journal of Nematology
<http://journals.fcla.edu/jon/article/view/84948>

N. Kanzaki, **G. C. Woodruff**, and R. Tanaka 2014
 “*Teratodiplogaster variegatae* n. sp. isolated from the syconia of *Ficus variegata* Blume on Ishigaki Island, Okinawa, Japan.”
Nematology
<https://doi.org/10.1163/15685411-00002843>

G. C. Woodruff, T. Mangel, C. Knauss, and E. S. Haag 2014
 “Mating damages the cuticle in *C. elegans* hermaphrodites”
PLoS ONE
<https://doi.org/10.1371/journal.pone.0104456>

J. Ting*, **G. C. Woodruff***, G. Leung, N. R. Shin, A. D. Cutter, and E. S. Haag 2014
 “Intense sperm-mediated sexual conflict promotes reproductive isolation in *Caenorhabditis* nematodes”
PLoS Biology
<https://doi.org/10.1371/journal.pbio.1001915>

C. G. Thomas, L. Renhua, H. E. Smith, **G. C. Woodruff**, B. Oliver, and E. S. Haag 2012
 "Simplification and desexualization of gene expression in self-fertile nematodes"
Current Biology
<https://doi.org/10.1016/j.cub.2012.09.038>

C. G. Thomas, **G. C. Woodruff**, and E. S. Haag 2012
 "Causes and consequences of the evolution of reproductive mode in *Caenorhabditis* nematodes"
Trends in Genetics
<https://doi.org/10.1016/j.tig.2012.02.007>

G. C. Woodruff, O. Eke, S. E. Baird, M. A. Félix, and E. S. Haag 2010
 “Insights into species divergence and the evolution of hermaphroditism from fertile interspecies hybrids of *Caenorhabditis* nematodes”
Genetics
<https://doi.org/10.1534/genetics.110.120550>

*Equal contribution

FUNDING

NIH Ruth L. Kirschstein National Research Service Award Individual Postdoctoral Fellowship Three-year postdoctoral stipend award. \$166,000	2015-2018
JSPS Postdoctoral Fellowship for North American and European Researchers One-year postdoctoral stipend award. ¥4,344,000 or ~\$41,000	2014-2015

AWARDS

University of Oregon Knight Campus award for student outreach [For the undergraduate program SCORE (Students of Color Opportunities for Research Enrichment), developed in collaboration with multiple colleagues.] \$7,000	2017
University of Maryland Dr. Howard Brinkley travel award \$500	2013
University of Maryland Ann G. Wylie graduate fellowship One-year graduate student stipend. ~\$21,000.	2011-2012
University of Washington Summer Institute in Statistical Genetics scholarship Two weeks of coursework and travel.	2009
University of Maryland Graduate School fellowship One-year graduate student stipend. ~\$18,000.	2007-2008
State of Georgia HOPE Scholarship Four-year undergraduate tuition. ~\$25,000.	2003-2007

PEER REVIEW

Current Biology
Evolution
Evolution Letters
Journal of Nematology
PLoS Genetics

TEACHING EXPERIENCE

Lab instructor and coordinator University of Oregon SCORE (Students of Color Opportunities for Research Enrichment) Program Duties include designing and leading lab sections, as well as giving lectures and leading discussions.	2015-Present
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Teaching assistant 2009-2010, 2013
University of Maryland
BSCI 430 Developmental Biology
Duties included advising students and grading exams.

Teaching assistant 2011-2012
University of Maryland
BSCI 330 Cell Biology
Duties included leading lab sections, giving lectures, leading discussions, and grading assignments.

Teaching assistant 2008
University of Maryland
BSCI 207 Organismal Biology
Duties included leading weekly study sessions and grading exams.

UNDERGRADUATE MENTEES

Eric Hammerschmidt 2015-2017
Graduated with thesis honors from the Honor's College. Now a research technician in the Sebastian Seung lab at Princeton University.

Taylor Kelley 2015-2016
Now a research assistant at Oregon Health & Science University.

Christine Knauss 2012-2013
Contributed crucial data and was co-author of a publication in *PLoS ONE*. Now a graduate student at the University of Maryland Center for Environmental Science.

Onyi Eke 2009-2011
Contributed crucial data and was co-author of a publication in *Genetics*. Graduated from Johns Hopkins University School of Medicine in 2015.

PRESENTATIONS

Contributed talks

Evolution Conference 2019. Providence, RI, USA. 2019
"Patterns of genomic diversity and dispersal among island populations of a fig wasp associated relative of *C. elegans*"

Northwest Regional Meeting of the Society for Developmental Biology. Friday Harbor, WA, USA. 2019
"Dramatic evolution of body length due to post-embryonic changes in cell size in a newly discovered close relative of *C. elegans*"

Molecular Evolution of the Cell SMBE Satellite Meeting. Park City, UT, USA. 2018
"Dramatic evolution of body length due to post-embryonic changes in cell size in a newly discovered close relative of *C. elegans*"

International Evolution of *Caenorhabditis* and Other Nematodes Meeting. Cold Spring Harbor, NY, USA. 2016

“Dramatic evolution of body length due to post-embryonic changes in cell size in a newly discovered close relative of *C. elegans*”

19th International *C. elegans* Meeting. Los Angeles, CA, USA. 2013
"The Hazards of Love: Sterilization and lethality in interspecies crosses"

International Evolution of *Caenorhabditis* and Other Nematodes Meeting, Hinxton, UK. 2010
"*C. briggsae*/*C. sp. 9* hybrids, reproductive isolation, and the evolution of hermaphroditism in *Caenorhabditis*"

International Evolution of *Caenorhabditis* and Other Nematodes Meeting, Hinxton, UK. 2008
"Fertile hybrids between the hermaphroditic *C. briggsae* and a New male/female species, *C. sp. 9*"

Invited talks

Georgia State University 2013
“Intense sperm-mediated sexual conflict promotes reproductive isolation in *Caenorhabditis* nematodes”

University of California, Los Angeles 2013
“Intense sperm-mediated sexual conflict promotes reproductive isolation in *Caenorhabditis* nematodes”

University of Oregon 2013
“Intense sperm-mediated sexual conflict promotes reproductive isolation in *Caenorhabditis* nematodes”

Contributed posters

International Evolution of *Caenorhabditis* and Other Nematodes Meeting. Hinxton, UK. 2018
“*Caenorhabditis inopinata* as a system for integrative biology”

EVO-WIBO Regional Evolution Meeting. Port Townsend, WA, USA. 2018
“*Caenorhabditis inopinata* as a system for integrative biology”

21st International *C. elegans* Meeting. Los Angeles, CA, USA. 2017
“The natural history of a fig-associated *Caenorhabditis*”

20th International *C. elegans* Meeting. Los Angeles, CA, USA. 2015
“Notable characteristics of *C. sp. 34*, a species associated with figs and fig wasps”

International Evolution of *Caenorhabditis* and Other Nematodes Meeting. Hinxton, UK. 2014
“Mating damages the cuticle in *C. elegans* hermaphrodites.”

International Evolution of *Caenorhabditis* and Other Nematodes Meeting. Cold Spring Harbor, NY, USA. 2012
“Using interspecies *Pristionchus* hybrids to understand the evolution of self-fertile hermaphroditism.”

RESEARCH INTERESTS

Evolutionary developmental
biology
Genetics of phenotypic diversity
Developmental genetics
Comparative genomics

Reproductive isolation
Reproductive mode evolution
Sexual conflict
Gene family evolution
Life history evolution

Population genomics
Comparative phylogenetics
Phenotypic plasticity
Natural history of nematodes
Nematode diversity

REFERENCES

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541-346-0916
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College Park, MD, USA 20742
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Joseph A. Ross, Ph.D.
Associate Professor
Department of Biology
California State University, Fresno
Department of Biology
2555 E. San Ramon, M/S SB73
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559-278-4074
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Additional references can be provided upon request.