

Christopher K. Tokita

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Princeton, NJ 08544
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RESEARCH INTERESTS Self-Organization & Emergence, Computational Biology, Complex Systems, Social Systems, Network Science, Science & Technology Policy

EDUCATION

Princeton University, Princeton, NJ 2016 - Present
Ph.D., Ecology and Evolutionary Biology
Dissertation: *The self-organization of social systems*
Committee: Corina E. Tarnita (Advisor), Simon A. Levin, Stephen W. Pacala, Christina Riehl

Princeton University, Princeton, NJ 2016 - 2018
M.A., Ecology and Evolutionary Biology

Yale University, New Haven, CT 2010 - 2014
B.S., Ecology and Evolutionary Biology, *Distinction in the Major*
Thesis: *Defective Interfering Particles in Filamentous Bacteriophage: Microscopic Game Theory*
Advisor: Paul E. Turner

PUBLICATIONS *Peer-Reviewed*

Tokita CK, Tarnita CE. (In Preparation). Social influence and biased interactions can drive emergent behavioral specialization and modular social network structure across systems.

Bak-Coleman JB, Sterling J, **Tokita CK**, Morris DH, Rubenstein DI, Couzin ID. (Submitted). Collective wisdom in polarized groups.

Ulrich Y, Saragosti J, **Tokita CK**, Tarnita CE, Kronauer DJC. (2018). Fitness benefits and emergent division of labor at the onset of group-living. *Nature*, 560(7720): 635-638. doi:10.1038/s41586-018-0422-6.

Henry LP*, **Tokita CK***, Misra M., Forrow AB, and Rubenstein DI. (2018). Mutualistic Acacia ants exhibit lower defensive behavior and higher off-tree movement near termite mounds. *Biotropica*, 50(4): 559-562. doi:10.1111/btp.12572. ***Co-First Authors**

Tokita CK, Doane WEJ, and Zuckerman BL. (2016). Reframing participation in post-secondary STEM education with a representation metric. *Bulletin of Science, Technology, and Society*, 35(5-6), 125-133. doi:10.1177/0270467616645222

Tokita CK, Oliver JC, Monteiro A. (2013). A survey of eyespot sexual dimorphism across Nymphalid butterflies. *International Journal of Evolutionary Biology*, 2013(2013), 1-6. doi:10.1155/2013/926702

Government Reports

Clavin CT, Petropoulos ZE, Gupta N, **Tokita CK**. (2017). Case Studies of Community Resilience and Disaster Recovery from the 2013 Boulder County Floods. *National Institute Standards and Technology, United States Department of Commerce. Grant/Contract Reports (NISTGCR) - 16-011. doi:10.6028/NIST.GCR.16-011*

Tinkle SS, Mary JC, Snavely JE, Pomeroy-Carter CA, **Tokita CK**. (2016). An Outcome Evaluation of the National Institutes of Health Director's New Innovator Award Program for Fiscal Years 2007-2009. *IDA Science and Technology Policy Institute**. IDA Paper P-8478. **Prepared for the National Institutes of Health*

Tinkle SS, Mary JC, Snavely JE, Pomeroy-Carter CA, **Tokita CK**. (2016). An Evaluation of the National Institutes of Health Director's New Innovator Award Program Finalists for Fiscal Years 2007-2009. *IDA Science and Technology Policy Institute**. IDA Paper P-8480. **Prepared for the National Institutes of Health*

**RESEARCH
EXPERIENCE**

Princeton University, Princeton, NJ 2016 - Present
NSF Graduate Research Fellow
IDA Science and Technology Policy Institute, Washington, DC 2014 - 2016
Science Policy Fellow
Yale University, New Haven, CT 2013 - 2014
Senior Thesis Researcher
Organization for Tropical Studies, Costa Rica 2013
NSF REU Research Fellow
Yale Peabody Museum of Natural History, New Haven, CT 2012
Summer Research Fellow
Yale University, New Haven, CT 2012
*Science, Technology, and Research Scholar (STARS) Program,
 Summer Research Fellow*

**PROFESSIONAL
EXPERIENCE**

Office of Assemblyman Andrew Zwicker, Skillman, NJ 2017 - 2018
Policy Intern
 New Jersey State Legislature

- Researched and wrote policy briefings on two topics: (1) legislative options for autonomous vehicles and (2) state-backed venture capital funding. Both briefings are in use for helping craft future bills on these topics.
- Conducted research on various policy priorities, with emphasis on science, technology, and environmental policy issues.
- Responded to policy-related constituent inquiries.

IDA Science and Technology Policy Institute, Washington, DC 2014 - 2016
Science Policy Fellow
 Institute for Defense Analyses
 Conducted science policy research and analysis for the White House Office of Science and Technology Policy (OSTP) and other science-conducting Federal Agencies. Worked with PhDs and other policy experts to evaluate research programs and other S&T issues through quantitative methods. Research used statistical analyses and coding in R. Specific projects and activities:

- Analyzed NSF research grant programs using social network analyses and topic modeling.
- Evaluated underrepresented minority participation in STEM fields at undergraduate institutions using novel statistical metric for participation rates.

- Analyzed NIH biomedical research grant programs using bibliometrics and recipient surveys.

TEACHING EXPERIENCE **Princeton University**, Princeton, NJ
 EEB 313 - Behavioral Ecology Fall 2017
Assistant in Instruction
 EEB 211 - Life on Earth: Chaos and Clockwork of Biological Design Fall 2016
Assistant in Instruction

HONORS AND FELLOWSHIPS *Best Behavior Talk*, The Columbia-Rutgers-Princeton-Penn-Yale Annual EEB Grad Student Symposium, 2019
Katherine S. McCarter Graduate Student Policy Award, Ecological Society of America, 2019
Best Student Poster (Brain and Behavior Section), American Association for the Advancement of Science, 2018
Graduate Research Fellowship, National Science Foundation, 2016 - 2021
Science Policy Fellowship, Institute for Defense Analyses, 2014-2016
Distinction in the Major, Yale University Department of Ecology and Evolutionary Biology, 2014
Research Experience for Undergraduates (REU) Fellowship, National Science Foundation, 2013
Summer Research Fellowship, Yale Peabody Museum of Natural History, 2012
Science, Technology, and Research Scholars (STARS) Program Fellowship, Yale University, 2011

UNIVERSITY SERVICE **Office of the Associate Dean for Access, Diversity, and Inclusion.** The Graduate School, Princeton University. *Diversity Fellow*. 2018 - Present.
EEB Scholars Program, diversity recruitment weekend. Department of Ecology and Evolutionary Biology, Princeton University. *Co-Founder & Program Coordinator*. 2017 - 2019.
Committee on Diversity, Inclusion, & Departmental Climate. Department of Ecology and Evolutionary Biology, Princeton University. *Graduate Student Representative*. 2017 - 2019.

TALKS AND PRESENTATIONS **Tokita CK**, Tarnita CE. (Talk). Social influence & biased interactions can drive social organization across systems. *The Columbia-Rutgers-Princeton-Penn-Yale Annual EEB Grad Student Symposium*. Princeton University, Princeton, NJ. 2019.
***Winner for Best Behavior Talk**
Tokita CK, Tarnita CE. (Talk). Social interactions can drive emergent behavioral diversity and modular social network structure. *Social Insects in the Northeast Regions Conference*. Drexel University, Philadelphia, PA. 2018.
Tokita CK, Tarnita CE. (Talk). Social interactions can drive emergent behavioral diversity and modular social network structure. *Ki-Net Young Researchers Workshop: Kinetic descriptions in theory and applications*. University of Maryland, College Park, MD. 2018.
Tokita CK, Ulrich Y, Saragosti J, Kronauer DJC, Tarnita CE.(Poster). Towards Complex Societies: Group Size and Division of Labor Help Early Social Groups

Succeed. *The Annual Meeting of the American Association for the Advancement of Science (AAAS)*. Austin, TX. 2018. ***Winner for Best Student Poster, Brain and Behavior Section**

Tokita CK, and Zuckerman BL. (Talk). Reframing Participation and Equality in STEM Education. Atlanta Conference on Science and Innovation Policy. Atlanta, GA. 2015.

Ambrose MJ, Doane WEJ, and **Tokita CK**. (Talk). Presidential Science and Technology Policymaking via Executive Order. Atlanta Conference on Science and Innovation Policy. Atlanta, GA. 2015.