

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 interactions can drive emergent behavioral diversity and modular social network structure.

Bak-Coleman JB, Sterling J, **Tokita CK**, Rubenstein DI, Couzin ID. (Submitted). Collective wisdom on politically polarized social networks.

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

**PROFESSIONAL
EXPERIENCE**

Office of Assemblyman Andrew Zwicker , Skillman, NJ <i>Policy Research Intern</i> New Jersey State Legislature	2017 - 2018
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- 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 <i>Science Policy Fellow</i> Institute for Defense Analyses	2014 - 2016
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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 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.

Committee on Diversity, Inclusion, & Departmental Climate. Department of Ecology and Evolutionary Biology, Princeton University. *Graduate Student Representative*. 2017 - Present.

TALKS AND PRESENTATIONS **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 Inno-

vation Policy. Atlanta, GA. 2015.