Jeremy D. Sloane Curriculum Vitae

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Education

Ph.D. in College Science Teaching: Syracuse University - 2018

Syracuse, New York.

Dissertation Title: Consensus Messaging Using Scholarly Literature: Impacts on Students' Conceptions of Global Climate Change

Supervisor: Jason Wiles, Associate Professor of Biology, Syracuse University

Graduate Certificate in University Teaching: Syracuse University – 2017

Syracuse, New York.

Awarded by the Graduate School and Department of Biology.

M.S. in Biology: Syracuse University - 2016

Syracuse, New York.

Thesis Title: The Influence of Peer-Led Team Learning on Underrepresented Minority Student Achievement in Introductory Biology and Recruitment and Retention in Science, Technology, Engineering, and Mathematics Majors

B.S. in Integrative Neuroscience: Binghamton University - 2013

Binghamton, New York. Minor in Evolutionary Studies. Magna cum laude, Phi Beta Kappa.

Professional Roles

Instructor, Department of Biology, Skidmore College. August 2020 – Present.

Postdoctoral Research Associate under Lindsay Wheeler, Center for Teaching Excellence, University of Virginia. August 2018 – August 2020.

Research Assistant and Project Manager for the Strategic Undergraduate STEM Talent Acceleration Initiative (SUSTAIN), project funded by the National Science Foundation (Award #1644148), under John Tillotson and Jason Wiles: Department of Science Teaching, Syracuse University. January 2017 – May 2018.

Teaching Mentor under Glenn Wright, Syracuse University. August 2016 – August 2018.

Research Assistant in the Biology Education Research Group under Jason Wiles, Departments of Biology and Science Teaching, Syracuse University. August 2014 – May 2018.

Teaching Experience

Instructor of Record, Skidmore College

Organismal Biology (Lab; BI 108). Fall 2020, Spring 2021, Fall 2021, Spring 2022.

Instructor of Record, University of Virginia

- Teaching Methods for Undergraduate Teaching Assistants (APMA 3501). Spring 2019, Fall 2019, Spring 2020.
- Teaching Methods in Higher Education (APMA 6548). Spring 2019, Fall 2019, Spring 2020.
- Teaching Science in Higher Education (PHYS 9030). Spring 2019.
- Astronomy Education and Outreach (ASTR 8500). Spring 2019.
- Teaching Methods for Undergraduate Teaching Assistants (BIOL 2900). Fall 2018.
- Teaching Methods for Undergraduate Teaching Assistants (CHEM 2900). Fall 2018.

Instructor of Record, Syracuse University

• Introduction to Biological Research (BIO 200). Fall 2017.

Graduate Teaching Assistant, Syracuse University

- Quests and Questions in Physical Phenomena I (SCI 104). Fall 2016.
- General Biology II (BIO 123/124). Spring 2014, Spring 2015, Spring 2016.
- General Biology I (BIO 121). Fall 2013, Fall 2014, Fall 2015.

Undergraduate Teaching Assistant, Binghamton University

- Physiological Psychology (PSYC 362), Spring 2013.
- Cellular Neurobiology (BIOL 313), Fall 2012.

Research Publications

- Wheeler, L., **Sloane, J. D.**, & Sturtevant, H. (In preparation). Teaching Intent vs. Practice: A case study of applied mathematics Teaching Assistants.
- Wheeler, L., Sturtevant, H., & **Sloane, J. D.** (In preparation). You Want Me to What? Student Ratings of Different STEM Instructional Practices Over Time.
- **Sloane, J. D.**, Wheeler, L., & Manson, J. (In review). Teaching Nature of Science in General Biology: Impacts on Students' Acceptance of Biological Evolution.

- Tillotson, J. W., Ceyhan, G. D., Thompson, A. N., **Sloane, J. D.**, & Wiles, J. R. (In review). Reflections on an Emerging Model for Academic and Social Support of Undergraduates in STEM.
- Sloane, J. D., Dunk, R. D. P., Snyder, J. J., Winterton, C. I., Schmid, K. M., and Wiles, J. R. (2021). Peer-Led Team Learning is Associated with an Increased Retention Rate for STEM Majors from Marginalized Groups. *Proceedings of the National Association of Biology Teachers 2021 Biology Education Research Symposium*. https://nabt.org/files/galleries/Sloane et al Wiles NABT Symposium 2021.pdf
- Wheeler, L., & **Sloane, J. D.** (2021). A Mixed-Methods Exploration of the Learning Assistant Model. *Journal on Excellence in College Teaching*, 32(4), 21-41.
- **Sloane, J. D.** (2021). Primary Literature in Undergraduate Science Courses: What are the Outcomes? *Journal of College Science Teaching*, 50(3), 78-87.
- **Sloane, J. D.**, & Wiles, J. R. (2020). Communicating Consensus on Climate Change: Why it's Important to Preach to the Choir. *Ecology and Evolution*, 10, 594-601. doi: 10.1002/ece3.5960
- Ceyhan, G. D., Thompson, A. N., **Sloane, J. D.**, Wiles, J. R., & Tillotson, J. W. (2019). The Socialization and Retention of Low-Income Students: The Impact of a Wrap-Around Intervention. *International Journal of Higher Education*, 8(6), 249-261. doi:10.5430/ijhe.v8n6p249
- Snyder, J. J., **Sloane, J. D.**, Dunk, R. D. P, & Wiles, J. R. (2016). Peer-Led Team Learning Helps Minority Students Succeed. *PLoS Biology, 14*(3): e1002398. doi: 10.1371/journal.pbio.1002398

Published Educational Materials

- Snyder, J. J., **Sloane, J. D.**, & Wiles, J. R. (2016). Sensory and Motor Mechanisms PLTL Workshop Module. *Progressions: Peer-Led Team Learning*.
- Snyder, J. J., **Sloane, J. D.**, & Wiles, J. R. (2016). Genetics and DNA Technology PLTL Workshop Module. *Progressions: Peer-Led Team Learning*.
- Snyder, J. J., **Sloane, J. D.**, & Wiles, J. R. (2016). Animal Behavior PLTL Workshop Module. *Progressions: Peer-Led Team Learning*.
- Snyder, J. J., **Sloane, J. D.**, & Wiles, J. R. (2015). Photosynthesis and Respiration PLTL Workshop Module. *Progressions: Peer-Led Team Learning*.
- Snyder, J. J., **Sloane, J. D.**, & Wiles, J. R. (2015). Animal Structure PLTL Workshop Module. *Progressions: Peer-Led Team Learning.*
- Snyder, J. J., **Sloane, J. D.**, & Wiles, J. R. (2015). Endocrine and Excretory Systems PLTL Workshop Module. *Progressions: Peer-Led Team Learning*.

- Snyder, J. J., **Sloane, J. D.**, & Wiles, J. R. (2015). Internal Transport Systems PLTL Workshop Module. *Progressions: Peer-Led Team Learning.*
- Snyder, J. J., **Sloane, J. D.**, & Wiles, J. R. (2015). Animal Nutrition PLTL Workshop Module. *Progressions: Peer-Led Team Learning*.
- Snyder, J. J., **Sloane, J. D.**, & Wiles, J. R. (2015). Plant Reproduction PLTL Workshop Module. *Progressions: Peer-Led Team Learning.*

Peer-Reviewed Conference Papers and Presentations

- **Sloane, J. D.** & Wheeler, L. (November, 2019). Pilot Learning Assistant Program: Exploring the Impact on Learning Assistants. Presentation for the annual POD Network conference, Pittsburgh, PA.
- Wheeler, L., **Sloane, J. D.,**, & Sturtevant, H. (November, 2019). Spark: Transforming STEM Education through Teaching Assistant Pedagogical Support. Poster for the annual POD Network conference, Pittsburgh, PA.
- **Sloane, J. D.,** Ceyhan, G. D., Thompson, A. N., & Tillotson, J. W. (November, 2019). Undergraduate Research Experience as an Early Intervention for At-Risk STEM Scholars. Presentation at the annual Association of American Colleges & Universities (AAC&U) Conference on Transforming STEM Higher Education, Chicago, IL.
- Ceyhan, G. D., Thompson, A. N., **Sloane, J. D.,** & Tillotson, J. W. (November, 2019). What are the Barriers and Incentives to Change? A STEM faculty needs assessment to inform pedagogical professional development. Presentation at the annual Association of American Colleges & Universities (AAC&U) Conference on Transforming STEM Higher Education, Chicago, IL.
- **Sloane, J. D.**, Wheeler, L., & Manson, J. (July, 2019). Teaching Nature of Science in General Biology: Impacts on Students' Acceptance of Biological Evolution. Presentation for the annual Society for the Advancement of Biology Education Research meeting, Minneapolis, MN.
- **Sloane, J. D.** & Wiles, J. R. (July, 2019). Consensus Messaging Using Scholarly Literature: Impacts on Students' Conceptions of Global Climate Change. Poster for the annual Society for the Advancement of Biology Education Research meeting, Minneapolis, MN.
- Ceyhan, G. D., Thompson A. N., **Sloane, J. D.,** Tillotson, J. W., & Wiles, J. R. (July, 2019). Exploring how the Strategic Undergraduate STEM Talent Acceleration INitiative (SUSTAIN) influenced students' understanding of the nature of science. International History, Philosophy and Science Teaching (IHPST) Conference Book of Proceedings.
- Tillotson, J. W., Aksoy, S., Ceyhan, G. D., **Sloane, J. D.**, & Wiles, J. R. (March-April, 2019). Strategic Undergraduate STEM Talent Acceleration INitiative (SUSTAIN): Impacts on

- underrepresented college students' STEM learning experiences. Presentation for the annual National Association for Research in Science Teaching (NARST) conference, Baltimore, MD.
- Tillotson, J. W., Aksoy, S., Ceyhan, G. D., **Sloane, J.D.**, & Wiles, J. R. (November, 2018). The Strategic Undergraduate STEM Talent Acceleration INitiative (SUSTAIN) to promote socialization. Presentation at the annual Association of American Colleges & Universities (AAC&U) Conference on Transforming STEM Higher Education: Confirming the Authority of Evidence, Atlanta, NE.
- **Sloane, J. D.**, Snyder, J. J., Dunk, R. D. P., Winterton, C. I., & Wiles, J. R. (July, 2017). Peer-Led Team Learning and STEM Achievement, Recruitment, and Retention for Underserved Groups. Presented at the annual Society for the Advancement of Biology Education Research meeting, Minneapolis, MN.
- **Sloane, J. D.**, Snyder, J. J., & Wiles, J.R. (April, 2017). The Influence of Peer-Led Team Learning on the Recruitment and Retention of Underrepresented Minority Students in STEM Majors. Presentation at the annual International Conference of the National Association for Research in Science Teaching, San Antonio, TX.
- Snyder, J. J., **Sloane, J. D.**, & Wiles, J. R. (March-April, 2017). Peer-Led Team Learning: Improving Achievement, Recruitment, and Retention for Underrepresented Minorities in Post-Secondary Biology. NARST-sponsored research paper selected for presentation at the annual National Conference of the National Science Teachers Association, Los Angeles, CA.
- **Sloane, J. D.**, Snyder, J. J., Dunk, R. D. P., Winterton, C. I., & Wiles, J. R. (November, 2016). PLTL Enhances Retention in STEM Majors among Women and First-Generation College Students. Poster for the annual Professional Development Conference of the National Association of Biology Teachers, Denver, CO.
- **Sloane, J. D.**, Snyder, J. J., Dunk, R. D. P., Winterton, C. I., & Wiles, J. R. (October, 2016). PLTL Enhances Retention in STEM Majors among Women and First-Generation College Students. Presentation for the Annual Meeting of the Association of College & University Biology Educators, Milwaukee, WI.
- Snyder, J. J., **Sloane, J. D.**, & Wiles, J.R. (April, 2016). Peer Led Team Learning: Improving Achievement for Underrepresented Minorities in Post-Secondary Biology. Poster for the annual International Conference of the National Association for Research in Science Teaching, Baltimore, MD.
- **Sloane, J. D.**, Snyder, J. J., & Wiles, J. R. (February, 2016). Exploring Peer-Led Team Learning in Introductory Biology Toward Recruitment and Retention of Underrepresented Minority Students in STEM Fields. Poster for the Annual Biology Leadership Conference, New Orleans, LA.
- **Sloane, J. D.**, Snyder, J. J. & Wiles, J. R. (November, 2015). Influence of Peer-led Team Learning on Recruitment and Retention in STEM. Poster for the annual Professional Development Conference of the National Association of Biology Teachers (NABT), Providence, RI.

Snyder, J. J., **Sloane, J. D.**, & Wiles, J. R. (October, 2015). Peer Led Team Learning Improves Achievement of Minority Students. Presentation for the Annual Meeting of the Association for College and University Biology Educators, St. Joseph's, MO.

Sloane, J. D., Snyder, J. J., & Wiles, J. R. (October, 2015). Exploring Peer-Led Team Learning in Introductory Biology Toward Recruitment and Retention of Underrepresented Minority Students in STEM Fields. Poster for the Annual Meeting of the Association for College and University Biology Educators, St. Joseph's, MO.

Sloane, J. D., Snyder, J. J., & Wiles, J. R. (July, 2015). Influence of Peer-led Team Learning on Recruitment and Retention in STEM. Poster for the 2015 Annual Conference of the Society for the Advancement of Biology Education Research, Minneapolis, MN.

Snyder, J. J., **Sloane, J. D.**, & Wiles, J. R. (February, 2015). Peer-Led Team Learning as a Tool for Recruitment and Retention of Underrepresented Minority Students in STEM. Poster for the Annual Biology Leadership Conference, Austin, TX.

Honors and Awards

POD Network Career Development Grant (2019). \$575.

Outstanding Teaching Assistant Award: Syracuse University (2017). This award is given to the top 4% of TAs at Syracuse University annually.

Carlock Award, Second Place: Association of College & University Biology Educators Conference (2016). This award is given to the top three graduate student presenters.

Carlock Award, First Place: Association of College & University Biology Educators Conference (2015). This award is given to the top three graduate student presenters.

Professional Development

Teaching Support Network: Skidmore College – 2021. Saratoga Springs, NY.

Instructional Consultant Training: University of Virginia – 2019. Charlottesville, Virginia.

Course Design Institute: University of Virginia – 2019. Charlottesville, Virginia.

Innovations in Pedagogy Summit: University of Virginia – 2019. Charlottesville, Virginia.

Service

University

- Facilitator, c3Design (virtual course design institute at the University of Virginia). Summer 2020.
- Facilitator, Teaching as a Graduate Student (University of Virginia). Summer 2019.
- Reviewer, Education Innovation Award proposals (University of Virginia). Summer 2019.
- Judge, Undergraduate Research Symposium (University of Virginia). Spring 2019.
- Reviewer, Innovations in Pedagogy Summit proposals (University of Virginia). Spring 2019.
- College of Arts and Sciences Strategic Planning Group: Educational Excellence Working Group (Syracuse University), Graduate Student Representative. Spring 2017
- Teaching Mentor Selection Committee (Syracuse University). Spring 2017
- Teaching Mentor (Syracuse University). August 2016 August 2018.

Professional

- Reviewer, Journal of Virginia Science Education. Spring 2019 Present.
- Reviewer, Society for the Advancement of Biology Education Research conference proposals. Spring 2019, Spring 2020.

Community

- Judge, Virginia Piedmont Regional Science Fair (Charlottesville, Virginia). Spring 2020.
- Postdoctoral Mentor (Charlottesville High School). Fall 2018 Spring 2020.
- Judge, Poster Symposium (Charlottesville High School). Spring 2019.
- Teacher Professional Development Consultant (Fayetteville-Manlius Central School District). Fall 2016 – Spring 2017.

Memberships in Professional Organizations

- American Association for the Advancement of Science (AAAS)
- Association of College & University Biology Educators (ACUBE)
- National Association of Biology Teachers (NABT)
- National Association for Research in Science Teaching (NARST)
- Professional and Organizational Development (POD)
- Society for the Advancement of Biology Education Research (SABER)