#### Dr. Peter J. T. White

Associate Professor Lyman Briggs College and the Dept. of Entomology Michigan State University East Lansing, 48825, MI, USA pwhite@msu.edu

# Curriculum Vitae

### **ACADEMIC POSITIONS:**

Associate Professor (2020-current)

Lyman Briggs College and the Department of Entomology, Michigan State University.

Assistant Professor (2014-2020)

Lyman Briggs College and the Department of Entomology, Michigan State University.

<u>Instructor</u> (2013-2014)

Lyman Briggs College, Michigan State University.

Research Associate and Postdoctoral Research Scholar in Evolution Education (2011-2013) Lyman Briggs College, Michigan State University.

### **EDUCATION**

Ph. D. Biology (2011). McGill University.

M. Sc. Biology (2005). University of Ottawa.

B. Sc. Hons. Biology (2003). University of Ottawa.

# **PEER-REVIEWED PUBLICATIONS**

Author Ordering: <u>1st author is primary, when >2 authors, last author is supervising/senior</u>

- 1. Keas, B., Brown, B., Stroupe, D., Best, S., LeTarte M., and White P. J. T. (*under review*) Conducting authentic moth research with students to encourage scientific inquiry. *Science Scope.*
- 2. White, P. J. T., Stroupe, D. S., Keas, B., and Brown, C. (*under review*) 10 simple rules for expanding your STEM research program into K-12 education partnerships. *Public Library of Science Computational Biology (PLoS)*.
- 3. Filice, D. A., Riedy, J. J., Heidemann, M. H., Smith, J. S., and White, P. J. T. (2023) Evaluating introductory biology student perceptions surrounding the use of integrative cases related to human health for evolution education. *Evolution: Education and Outreach* 16 (1): 6.
- 4. Ellis, R., Reichsman, F., Mead., L., Smith, J., McElroy-Brown, K., and <u>White, P. J. T.</u> (2023) Applying an integrative and technology-enhanced approach to the teaching and learning of evolution in Mendel's peas. *American Biology Teacher* 85: 97-103.
- 5. Wonderlin, N. E., Lorenz, A.R., and <u>White, P. J. T.</u> (2022). Habitats of urban moths: Engaging elementary school students in the scientific process. *American Biology Teacher* 84: 284-289.

- 6. White, P. J. T., Masani, S., Shuster, S., and Wonderlin, N. (2021) Ditch Gendered Terminology for Cell Division. *Nature* 588: 556. (Nature correspondence)
- 7. Ellis, R., Reichsman, F., Mead., L., Smith, J., McElroy-Brown, K., and <u>White, P. J. T.</u> (2021) ConnectedBio: An integrative and technology-enhanced approach to evolution education for high school. *American Biology Teacher:* 83.6: 362-371.
- 8. Rumfelt, K.A., Wonderlin, N.E., Hulbert, D., and <u>White, P. J. T.</u> (2020) From DNA extraction to sequence analysis: A semester-long undergraduate research project on fish mislabeling. *American Biology Teacher*: 82.3: 170-175.
- 9. Wonderlin, N.E., Rumfelt, K.A., and <u>White, P. J. T.</u> (2019) Associations between nocturnal moths and pollen in urban gardens. *Journal of the Lepidopterists' Society* 73.3: 173-176.
- 10. Bonner, K., Piechnik, D., Kovacs, J., Warwick, A., and <u>White, P. J. T.</u> (2019) Clam spawning and Red Tide: A classroom activity that helps students learn Hardy-Weinberg equilibrium and evolution. *American Biology Teacher* 81: 366-371.
- 11. Kirby, C., Fleming-Davis, A., and <u>White, P. J. T.</u> (2019) The Figure of the Day: A classroom activity to improve students' figure creation skills in biology. *American Biology Teacher* 81: 317-325
- 12. Stroupe, D., Caballero, D., and <u>White, P. J. T.</u> (2018) Fostering students' epistemic agency through the co-configuration of moth research. *Science Education* 102: 1176-1200.
- 13. <u>White, P. J. T.</u> (2018) An aerial approach to investigating the relationships between macromoths and nighttime lights across an urban landscape. *Journal of Agriculture and Urban Entomology* 34: 1-14.
- 14. Wilson, P., <u>White, P. J. T.</u>, Smith, K., and Kelly, T. (2017) Team teaching as an agent for change. *Discussions on University Science Teaching: Proceedings of the 2017 Western Conference on Science Education*
- 15. Wonderlin, N.E., Ross, L.R. and <u>White, P. J. T.</u> (2017) Construction and performance of a novel capture-mark-release moth trap. *Great Lakes Entomologist* 50: 27-32.
- 16. <u>White, P. J. T.</u>, Glover, K., Stewart, J. and Rice, A. (2016) The technical and performance characteristics of a low-cost, simply-constructed, black light moth trap. *Journal of Insect Science* 16: 1-9.
- 17. <u>White, P. J. T.</u> (2016) Molecular sculpting: Active learning of subcellular systems and processes. *American Biology Teacher* 78: 482-491.
- 18. Rice, A. J. and <u>White, P. J. T.</u> (2015) Community patterns in urban moth assemblages. *Journal of the Lepidopterists' Society* 69: 149-156.
- 19. <u>White, P. J. T.</u>, Heidemann, M. and Smith, J. (2015) A cross-course investigation of integrative cases for evolution education. *Journal of Microbiology & Biology Education 16*: 157-166.

- 20. <u>White, P. J. T.</u> (2013) Testing two methods that relate herbivorous insects to host plants. *Journal of Insect Science* 13 (92): 1-22.
- 21. <u>White, P. J. T.</u>, Heidemann, M. and Smith, J. (2013) A new approach to evolution education. *BioScience* 63: 586-594.
- 22. <u>White, P. J. T.</u>, Heidemann, M., Loh, M. and Smith, J. (2013) Integrative cases for teaching evolution. *Evolution: Education and Outreach* 6: (17).
- 23. <u>White, P. J. T.</u>, McGill, B. and Lechowicz, M. J. (2012) Detecting changes in forest floor habitat after canopy disturbance. *Ecological Research* 27: 397-406.
- 24. <u>White, P. J. T.</u>, Syncox, D., Heppleston, A., Isaac, S. and Alters, B. (2012) Putting research into practice: pedagogy development workshops change the teaching philosophy of graduate students. *Canadian Journal of Higher Education* 42: 98-111.
- 25. <u>White, P. J. T.</u>, McGill, B. and Lechowicz, M. J. (2011) Human disturbance and caterpillars in managed forest fragments. *Biodiversity and Conservation* 20: 1745-1762.
- 26. <u>White, P. J. T.</u>, Delaney, D. G., Syncox, D., AvilaAkerberg, O. and Alters, B. (2011) Clicker implementation models. *EDUCAUSE Quarterly* 34(4).
- 27. <u>White, P. J. T.</u>, Syncox, D. and Alters, B. (2011) Clicking for grades? Really? Investigating the use of clickers for awarding grade-points in post-secondary education institutions. *Interactive Learning Environments* 19: 551-561.
- 28. <u>White, P. J. T.</u> and Kerr, J. T. (2007) Human impacts on environment-diversity relationships: evidence for biotic homogenization from butterfly species richness patterns. *Global Ecology and Biogeography* 16: 290-299.
- 29. <u>White, P. J. T.</u> and Houlahan, J. (2007) The relationship between native and non-native species differs among taxa in Canadian national parks. *Ecoscience* 14: 195-204.
- 30. <u>White, P. J. T.</u> and Kerr, J. T. (2006) Contrasting spatial and temporal global change impacts on butterfly species richness during the 20<sup>th</sup> century. *Ecography* 29:908-918.

### **GRANTS AND FUNDING**

#### **External Grants**

- 1. National Science Foundation, (2021-2025) DRK12 program. <u>White, P. J. T.</u> (PI), Reichsman F. (co-PI), Stroup, D. (co-PI)., Dorsey, C. (co-PI). MothEd – Authentic science for elementary and middle schools. Total Value: \$2,413,506.
- 2. <u>National Science Foundation</u>, (2020-2022) IUSE program. <u>White, P. J. T.</u> (PI), Smith, J.J. (co-PI), Heidemann, M. H. (co-PI). Evo-Med-Ed: An integrative approach for teaching and learning human evolution in undergraduate biology. Total Value: \$299,847.
- 3. <u>National Science Foundation</u>, (2017) DRK12 program, *supplemental award*. <u>White, P. J. T.</u> (PI), Mead, L. (co-PI). Collaborative Research: Connected Biology: three-dimensional learning from molecules to populations. Total Value: \$47,380.

4. <u>National Science Foundation</u>, (2016-2020) DRK12 program. <u>White, P. J. T. (PI)</u>, Mead, L. (co-PI). Collaborative Research: Connected Biology: three-dimensional learning from molecules to populations. Total Value: \$1,240,501

#### **Internal Seed Grants and Fellowships**

- 1. <u>Mentor for the Scholarship of Undergraduate Teaching and Learning Fellowship Program</u>
  - a) (2023-24) Using board games for learning in introductory biology.
  - b) (2021-22) Evo-Med-Ed: Cases for undergraduate evolutionary medicine education
  - c) (2017-18) Figure of the Day: an activity to improve student quantitative graphing skills
  - d) (2016-17) Changes in undergraduate understanding of biology over time
- 2. <u>Science Studies at State</u>
  - a) (2019-20), <u>White, P. J. T. (PI)</u>, Stroupe, D. (co-PI), Lorenz-Reaves, A. (co-PI). It's Elementary! Exploring backyard moth ecology to learn about science practices
  - b) (2017-18) Smith, J. (PI), <u>White, P. J. T. (co-PI)</u>, Bellon, R. (co-PI) Evo-Med-Ed: developing and testing cases for evolutionary medicine learning.
  - c) (2016-17) <u>White, P. J. T. (PI)</u>, Stroup, D. (co-PI), Caballero, M. (co-PI): Learning science by doing science: project-based learning through urban entomology.
  - d) (2014-2015) <u>White, P. J. T. (PI)</u>, Sawtelle, V. (co-PI), Lahr, R. (co-PI), Valles, S. (co-PI), Wang, H. (co-PI): Designing, developing and assessing a module-based system of interdisciplinary education.
- 3. STEM Gateway Fellows Program
  - a. (2016-18) The intersection of scientific disciplines around the crosscutting concept of *energy*.

# TEACHING

### **Instructor of Record**

- 1. LB145, Cell and Molecular Biology (fall 2023): 5 credits, 48 students
- 2. LB492/348, Fossil Hunters Study Away (summer 2022): 5 credits, 7 students
- 3. LB145, Cell and Molecular Biology (spring 2022): 5 credits, 120 students.
- 4. LB492, Science, Pseudoscience, & B. S. (fall 2021): 4 credits, 16 students.
- 5. LB145, Cell and Molecular Biology (spring 2020): 5 credits, 48 students.
- 6. LB492, Science, Pseudoscience, & B. S. (fall 2019): 4 credits, 16 students.
- 7. LB145, Cell and Molecular Biology (fall 2019): 5 credits, 37 students.
- 8. LB492, Science, Pseudoscience, & B. S. (spring 2019): 4 credits, 15 students.
- 9. ENT812, Teaching Preparation for Entomologists (fall, 2018): 1 credit, 6 students.
- 10. LB145, Cell and Molecular Biology (spring, 2018): 5 credits, 96 students.
- 11. LB145, Cell and Molecular Biology (spring, 2017): 5 credits, 99 students.
- 12. ENT890, Introduction to Insect Genetics (fall, 2016): 2 credits, 4 students
- 13. LB145, Cell and Molecular Biology (spring, 2016): 5 credits, 93 students
- 14. LB145, Cell and Molecular Biology (fall, 2015): 5 credits, 40 students
- 15. LB494, Urbanization and the Lepidoptera (fall, 2015): 2 credits, 1 student
- 16. LB145, Cell and Molecular Biology (spring, 2015): 5 credits, 99 students
- 17. LB145, Cell and Molecular Biology (spring, 2014): 5 credits, 98 students
- 18. LB145, Cell and Molecular Biology (spring, 2013): 5 credits, 80 students
- 19. LB493/4, Urbanization and the Lepidoptera (summer, 2013): 2 credits, 3 students
- 20. LB145, Cell and Molecular Biology (fall, 2012): 5 credits, 10 students

#### **Teaching Awards and Recognition**

- 1. <u>Teacher Scholar Award</u>, (2020) Michigan State University. This award is given to recognize excellence in teaching, particularly with respect to evidence-driven approaches.
- 2. <u>Four-Year College & University Teaching Award</u>, (2019) National Association of Biology Teachers. This national award recognizes creativity and innovation in undergraduate biology teaching.
- 3. <u>#iteachmsu Award</u>, (2019) Michigan State University: Certificate of achievement awarded for dedication to student success and positively contributing to the teaching and learning mission of MSU.
- 4. <u>Distinguished Achievement Award in Teaching</u>, (2018) Entomological Society of America, North Central Branch: <u>http://tiny.cc/white\_ent</u>
- 5. <u>AT&T Award in Teaching Excellence, Best Blended Course</u>, (2018) Michigan State University: <u>http://attawards.msu.edu/winners/2018/peter-white</u>
- 6. <u>Honorary Faculty Certificate</u>, (2016) Lyman Briggs College, Michigan State University: Presented by the graduating class of 2016 to recognize dedication to the enrichment of learning outside the classroom.

## **PUBLISHED EDUCATION RESOURCES**

‡ indicates peer reviewed

- 1. <u>White, P. J. T</u>. (2023) 5-part YouTube Video Series on <u>Virus Biology and Evolution</u>. **Total runtime: 44 minutes, 12 seconds**.
- 2. <u>White, P. J. T</u>. (2023) 5-part YouTube Video Series on <u>The Evolution of Skin Color and Skin</u> <u>Cancer</u>. **Total runtime: 41 minutes, 48 seconds**.
- 3. <u>White, P. J. T</u>. (2022) 2-part YouTube Video Series on <u>Evolution Process and Pattern</u> <u>Fundamentals</u>. Total runtime: 36 minutes, 53 seconds.
- <u>White, P. J. T.</u>, Heidemann, M., Riedy, J., and Smith, J. (2022) 4-part YouTube Video Series on <u>Fur Color Evolution</u>. Total runtime: 34 minutes, 43 seconds.
- 5. <u>White, P. J. T.</u>, Heidemann, M., Smith, J., and Filice, D. (2022) 3-part YouTube Video Series on <u>Garden Pea Taste Evolution</u>. Total runtime: 25 minutes, 04 seconds.
- 6. <u>White, P. J. T</u>., Heidemann, M., Smith, J., and Filice, D. (2021) 9-part YouTube Video Series on Breast Cancer. <u>www.tinyurl.com/EvoMedEd</u>
- <sup>‡</sup>Heidemann, M., Taylor, M., Storm, A., Dresser-Briggs, C., Warwick, A., and <u>White, P. J. T.</u> (2019) A Confluence of Immunology and Phylogeny. *National Center for Case Study Teaching in Science*, University of Buffalo, NY.
- 8. <sup>‡</sup>Heidemann, M., <u>White, P. J. T.</u> and Smith, J. J. (2016) Evolution in Action. *National Center for Case Study Teaching in Science*, University of Buffalo, NY.

- 9. <sup>‡</sup>Heidemann, M., <u>White, P. J. T.</u> and Smith, J. J. (2014) The Evolution of Color Vision in Monkeys: from Nucleotides to Ecology. *National Center for Case Study Teaching in Science*, University of Buffalo, NY.
- 10. <sup>‡</sup>Heidemann, M., <u>White, P. J. T.</u> and Smith, J. J. (2014) Joel E. Greengiant Learns about Peas: from Nucleotides to Selection. *National Center for Case Study Teaching in Science*, University of Buffalo, NY.

# Press

- 1. MSU Magazine (Winter, 2022) MothEd. https://go.msu.edu/moth-ed
- 2. MSU Today (November, 2021) Capturing Moths, and Kids' Curiosity About Science. https://msutoday.msu.edu/news/2021/capturing-moths-and-kids-curiosity-about-science
- 3. College of Agriculture & Natural Resources, Department of Entomology, MSU (2018): Peter White Honored for Exceptional Teaching by North Central States Entomologists. [https://www.canr.msu.edu/news/peter-white-honored-for-exceptional-teaching-by-north-central-states-entomologists]
- 4. College of Education News, MSU (2016) The Moth Project: Investigating Science Together [http://edwp.educ.msu.edu/news/2016/the-moth-project-investigating-science-together]
- Lyman Briggs College, Briggatine News Letter (Spring, 2016) LBC Students Study Biology and Evolution at the Chicago Field Museum [http://www.lymanbriggs.msu.edu/alumni\_and\_friends/briggantine/2016/16SpringNewsletter.pdf] [https://www.lbc.msu.edu/news\_and\_events/2016/LB145.cfm]
- 6. College of Education News, MSU (2016) The Moth Project: Investigating Science Together [http://edwp.educ.msu.edu/news/2016/the-moth-project-investigating-science-together]
- 7. Entomology Today (2015) A Cheaper Lighter Moth Trap May Make Citizen Science Projects More Affordable [https://entomologytoday.org/2016/03/02/a-cheaper-lighter-moth-trap-may-make-citizen-science-projects-more-affordable]
- 8. American Institute of Biological Sciences (2013) Teaching Complete Evolutionary Stories Increases Learning [press release: http://www.eurekalert.org/pub\_releases/2013-06/aiob-tce061313.php]

# **STUDENT ADVISING AND SUPERVISING**

### **Graduate Student Mentoring and Advising**

- Chris Brown, PhD Candidate (2022-curent) My Role: Major Professor / Thesis Advisor Student Thesis Topic: Using artificial intelligence for moth identification to facilitate community science.
- Titas Dutta (2023024) My Role: SUTL Research Mentor Topic: Using board game for learning in introductory biology.
- Nicole Wonderlin, PhD Candidate (2016-2023) My Role: Major Professor / Thesis Advisor Student Thesis Topic: Investigating moths as pollinators in urban community gardens.

- Joseph Riedy (2021-2022)
  My Role: SUTL Research Mentor
  Topic: EvoMedEd Using Cases of Human Health to Teach Intro Biology.
- Colin Bailey, MSc Student (2019-2021) My Role: Major Professor / Thesis Advisor Student Thesis Topic: Defining the urban-to-rural habitat gradient and investigating its importance for moth assemblages.
- 6. Aesha Mustafa (2019-2020) My Role: SUTL Research Mentor Topic: Analysis of the graduate-student mentoring and education research program.
- 7. Caitlin Kirby (2017-2019) My Role: SUTL Research Mentor Topic: Using figures and problem solving to improve student graphing skills.
- Nick Babcock, MSc Candidate (2016-2018) My Role: Thesis Guidance Committee Member Student Thesis Topic: Evaluating the dispersal and resource preferences of carrion fly communities across the suburban and rural landscape.
- So-Jung Youn (2016-2017) My Role: SUTL Research Mentor Topic: Changes in undergraduate understanding of biology over time.

### Postdoctoral Associate Advising and Mentoring

- Brian Keas, PhD (2022-current) My Role: Advisor Research Topic: Moth Ecology Research in K-5 Education
- Joey Riedy, PhD (2022) My Role: Advisor Research Topic: Evolutionary Medicine
   David Filian PhD (2021, 2022)
- David Filice, PhD (2021-2022) My Role: Advisor Research Topic: Evolutionary Medicine.
   Debases Ellis - PhD (2010, 2021)
- 4. Rebecca Ellis, PhD (2019-2021) My Role: Co-Advisor Research Topic: Assessment K-12 interactive evolution education curricular units.
- Alexa Warwick, PhD (2017-2019) My Role: Co-Advisor Research Topic: Development and implementation of K-12 interactive evolution education curricular units.

### **Undergraduate Student Inclusion in Research**

- 1. Grace Best (2022-current): Moth Ecology Research in K-7 Education
- 2. Michael LeTarte (2022-current): Moth Ecology Research in K-7 Education
- 3. Maria Berry (2019-2021): Biology Education Research
- 4. Sophia Sacco (2019): Urban Lepidoptera Research; Science Ed Research.
- 5. Dylan Smith (2019): Urban Lepidoptera Research; Moth Ed Research; Science Ed Res.
- 6. Fadumo Ali (2019): Urban Lepidoptera Research; Moth Ed Research.
- 7. Kalee Rumfelt (2017-2019): Fish Barcoding, Lepidoptera Pollen Classification

- 8. Melanie Bumler (2018): Urban Lepidoptera Research
- 9. Andromeda Veach (2018): Urban Lepidoptera Research
- 10. Tegan Hansgen (2016-18): Investigation of Lepidoptera Melanin Genetics
- 11. Madeline Bresson (2017): Urban Lepidoptera Research and 3D Connected Biology
- 12. Jennifer Semaan (2017): Investigation of Lepidoptera Melanin Genetics
- 13. Alissa Mossbarger (2017): Intro Biology Curriculum Analysis
- 14. Lydia Ross (2016-2017): Lepidoptera Assemblage Dynamics Across Urban Landscapes
- 15. Claire Sweeney (2016-17): Investigation of Lepidoptera Melanin Genetics
- 16. Joel Stewart (2015-16): Lepidoptera Assemblage Dynamics Across Urban Landscapes
- 17. Katie Glover (2015-16): Lepidoptera Assemblage Dynamics Across Urban Landscapes
- 18. Lauren Isopi (2015): Lepidoptera Assemblage Dynamics Across Urban Landscapes
- 19. Joseph Leider (2015): Lepidoptera Assemblage Dynamics Across Urban Landscapes
- 20. Keegan Calnan (2015): Lepidoptera Barcoding Investigation
- 21. Amanda Rice (2014-15): Lepidoptera Assemblage Dynamics Across Urban Landscapes
- 22. Abby Sulesky (2014): Local Lepidoptera Larva Collections
- 23. Evan Barfusse (2014): Local Lepidoptera Larva Collections
- 24. Isabella Schember (2014): Lepidoptera Assemblage Dynamics Across Urban Landscape
- 25. Maris Polanco (2014): Lepidoptera Assemblage Dynamics Across Urban Landscape

# **CONFERENCES, PANELS, AND PRESENTATIONS**

- 1. <u>White, P. J. T.</u>, Filice, D., Smith, J. J., and Heidemann, M. (2023) "Using Examples of Human Disease to Help Students Learn Fundamental Biological Processes." *Society for the Advancement of Biology Education Research*. Minneapolis, MN, USA.
- 2. <u>White, P. J. T.</u> (2023) "Why Do We Get Cancer? Using the Example of Breast Cancer to Help Students Learn Introductory Biology Concepts and Processes", *Western Conference of Science Education*, London, ON, Canada.
- 3. <u>White, P. J. T.</u>, Stroupe, D., Reichsman, F., Keas, B., Dorsey, C., Haavind, S., Bondaryk, L., and Brown, C. (2023) "MothEd: Authentic Science for Elementary and Middle School Students" *National Sciences Foundation DRK12 Principal Investigator Meetings, Washington D.C.*
- 4. <u>White, P. J. T.</u> (2023) "Using Examples of Human Disease to Teach Introductory Biology" *Lyman Briggs College Lightning Talks*, Michigan State University, East Lansing, MI, USA.
- 5. Keas, B. and <u>White, P. J. T.</u> (2023) "MothEd: Authentic Science Experiences Exploring Moth Biodiversity" *National Science Teachers Association National Meeting*, Atlanta, GA, USA.
- 6. <u>White, P. J. T.</u>, Filice, D., Heidemann, M., Riedy, J., and Smith, J. (2022) "Using Breast Cancer to Teach Evolution in Introductory College Biology" *Annual meeting of the National Association of Biology Teachers*, Indianapolis, IN, USA.
- Smith, J., Filice, D., Heidemann, M., Riedy, J., and <u>White, P. J. T.</u> (2022) "EvoMedEd: Piloting Evolutionary Medicine Cases in Lower- and Upper-Year Undergraduate Courses." *International Society for Evolution, Medicine & Public Health*. Lisbon, Portugal.
- 8. <u>White, P. J. T.</u>, Filice, D., Heidemann, M., and Smith, J. (2022) "An Integrative Approach for Teaching and Learning About Biological Evolution Using Human Disease" *National*

*Sciences Foundation, Improving Undergraduate STEM Education PI Meeting*, Washington D.C., USA.

- 9. Filice, D., Smith, J., Heidemann, M., and <u>White, P. J. T.</u> (2021) "EvoMedEd: An Interactive Case-Based Approach to Evolution Education." *International Society for Evolution, Medicine & Public Health*. Virtual Meeting.
- 10. Filice, D., Smith, J., Heidemann, M., and <u>White, P. J. T.</u> (2021) "Interactive Cases for Evolution Education" *McMaster University Evolution, Ecology & Behavioral Seminar.*
- 11. Ellis, R., Mead, L., Reichsman, F., Smith, J., McElroy-Brown, K., Bondaryk, G., Berry M., and <u>White, P. J. T.</u> (2021) "High school students' ability to connect biological processes when studying evolution" *National Association for Research in Science Teaching.* Virtual.
- 12. Kirby, K., Fleming-Davis, A. and <u>White, P. J. T.</u> (2019) "Figure of the Day: an enjoyable classroom activity that improves students' figure creation skills." *Society for the Advancement of Biology Education Research*. Minneapolis, MN, USA.
- 13. Kolonich, A., Warwick, A., Mead, L., Reichsman, F., Horwitz, P., <u>White, P. J. T.</u>, Smith, J., McElroy-Brown, K. (2019) "Using high school students' initial perceptions of evolution across biological levels to inform curriculum development." *National Association for Research in Science Teaching*, Atlanta, GA, USA.
- 14. <u>White, P. J. T</u>., Kirby, K., and Fleming-Davis, A. (2019) "The Figure of the Day: an in-class activity to improve students' quantitative literacy and data interpretation skills" *Western Conference on Science Education,* London, ON, Canada.
- 15. <u>White, P.J.T.</u> (2018) Invited Talk: "How instructional videos changed teaching and learning in an introductory course." *College of Biological Sciences,* University of Guelph, ON, Canada.
- 16. Warwick, A., <u>White, P. J. T.</u>, Reichsman, F., Mead, L., Horwitz, P., Smith, J., and McElroy-Brown, K. (2018). "ConnectedBio: Revealing Student Ideas and Explanations of Evolutionary Phenomena." *BEACON Congress*. East Lansing, MI, USA.
- 17. Wonderlin, N., and <u>White, P. J. T.</u> (2018) "Associations between moth pollinators and common garden plants." *Entomology Society of America Annual Meeting*, Vancouver, B.C., Canada.
- 18. <u>White, P. J. T.</u>, Reichsman, F., Mead, L., Horwitz, P., Smith, J., Krajcik, J., Warwick, A., and McElroy-Brown, K. (2018) "Connected Biology: Three-dimensional learning from molecules to populations." *National Sciences Foundation, Discovery Research PreK-12 PI Meeting*, Washington D.C., USA.
- 19. Stroupe, D., <u>White, P. J. T.</u>, and Caballero, M. D. (2018) Invited Workshop: "Co-configuring a 6<sup>th</sup> grade Lepidoptera learning community." *Annual meeting of the National Association for Research in Science Teaching*, Atlanta, GA, USA.
- 20. <u>White, P.J.T.</u> (2018) "The figure of the day." *Lyman Briggs College, Science Café*. Michigan State University, East Lansing, MI, USA.
- 21. <u>White, P. J. T.</u>, Warwick, A., Mead, L, and Smith, J. (2017) Invited Workshop: "Making Meaning through modeling: integrative cases for evolution education." *National*

*Academies Special Topics Summer Institute on Quantitative Biology,* Michigan State University, East Lansing, MI, USA.

- 22. Kelly, T., Smith, K., <u>White, P. J. T.</u> and Wilson, P. (2017) "Team teaching as an agent for change." *Western Conference on Science Education*, London, ON, Canada.
- 23. <u>White, P. J. T.</u>, Noel, T. and Keenleyside, W. (2017) Workshop: "Videos in STEM courses: A hands-on workshop for creating instructional videos." *Western Conference on Science Education*, London, ON, Canada.
- 24. Noel, T., Keenleyside, W. and <u>White, P. J. T.</u> (2017) "Videos in STEM courses: a 21st century tool in higher education." *Western Conference on Science Education*, London, ON, Canada.
- 25. Hinic-Frlog, S. and <u>White, P. J. T.</u> (2017) Unconference Session: "How to deal with student evaluations." *Ontario Consortium of Undergraduate Educators Summer unConference,* Port Carling, ON, Canada.
- 26. Warwick, A., <u>White, P. J. T.</u>, Mead, L. and Smith, J. (2017) "Evaluating the use of integrative Evo-Ed cases for evolution education." *Society for the Study of Evolution, Annual Meeting,* Portland, OR, USA.
- 27. <u>White, P. J. T.</u> (2017) "Go flip yourself: The joys, challenges, pains and gains of flipping a course." The evolution of evolution education." *Teaching and Learning Spring Conference*, Academic Advancement Network, MSU, East Lansing, MI, USA.
- 28. Ording, G., Smith, J. and <u>White, P. J. T.</u> (2017) "Curricular design and implementation: intentional pathways toward student success." *Department of Entomology Departmental Seminar*, Michigan State University, East Lansing, MI, USA.
- 29. <u>White, P. J. T.</u> (2016) Keynote Speaker: "The evolution of evolution education." Pearson *Canada's Biology Leadership Forum*, Toronto, ON, Canada.
- 30. <u>White, P. J. T.</u> and Smith, J. (2016) Invited Workshop: "Integrative cases for evolution education." *National Academies Special Topics Summer Institute on Quantitative Biology*, North Carolina State University, Raleigh, NC, USA.
- 31. <u>White, P. J. T.</u> (2016) "Innovative Pedagogies: Molecular Sculpting." *Lyman Briggs College Community Retreat,* East Lansing, MI, USA.
- 32. <u>White, P. J. T.</u> (2016) Unconference Session: "Writing (& grading) really good questions." *Ontario Consortium of Undergraduate Educators Summer unConference,* Port Carling, ON, Canada.
- 33. <u>White, P. J. T.</u> and Keenleyside, W. (2015) Unconference Session: "Flipped classrooms how did you do it? What worked and what didn't?" *Ontario Consortium of Undergraduate Educators Winter unConference,* Toronto, ON, Canada.
- 34. <u>White, P. J. T.</u> and Rice, A. (2015) "Urban moth phenotypic and taxonomic characteristics." *Entomology Society of America Annual Meeting*, Minneapolis, MN, USA.
- 35. Glover, K. A., Stewart, J., Rice, A. and <u>White, P. J. T.</u> (2015) "The technical and performance characteristics of a low-cost simply-constructed, black light insect trap." *Entomology Society of America,* Minneapolis, MN, USA.

- 36. <u>White, P. J. T.</u> (2015) Invited IGNITE Talk: "Noah's Ark: Helping evolution and creationism find common ground." *Western Conference on Science Education,* London, ON, Canada.
- 37. <u>White, P. J. T.</u> (2015) "Sculpting molecular systems in introductory biology classes." *Western Conference on Science Education*, London, ON, Canada.
- 38. <u>White, P. J. T. (2015)</u> "Evolution education research." *Seminar for the MSU Physics Education Research (PER) Group*, East Lansing, MI, USA.
- 39. <u>White, P. J. T.</u> (2014) Invited Talk: "Teaching evolution to undergraduates: an integrative case approach." *Department of Biology Seminar Series*, Western University, London, ON, Canada.
- 40. <u>White, P. J. T.</u> (2014) Invited Plenary Talk: "Teaching evolution." *K-12 Partnership Summer Institute*, MSU Kellogg Biological Station, MI, USA.
- 41. <u>White, P. J. T.</u>, Heidemann, M. and Smith, J. (2013) "Evo-Ed: Integrative case-based tools for teaching evolution." *National Association of Biology Teachers*, Atlanta, GA, USA.
- 42. <u>White, P. J. T.</u>, Heidemann, M. and Smith, J. (2013) Workshop: "The integrative approach to evolution education." *Western Conference on Science Education*, London, ON, Canada.
- 43. <u>White, P. J. T.</u>, Heidemann, M. and Smith, J. (2013) Workshop: "Integrated case studies in science education." *Society for the Study of Evolution,* Snowbird, UT, USA
- 44. <u>White, P. J. T.</u>, Heidemann, M. and Smith, J. (2013) "A new integrative approach to evolution education." *CREATE-ing the Future for STEM Education*, MI State University, East Lansing, Michigan, USA.
- 45. <u>White, P. J. T.</u>, Heidemann, M. and Smith, J. (2012) "A case studies approach to bridge gaps in evolution education." *ScienceCaseNet Conference: Networking Strategies to Bridge Perceived Gaps in Biology education,* Buffalo, NY, USA
- 46. <u>White, P. J. T.</u>, Heidemann, M. and Smith, J. (2012) "The use of case studies in evolution education." *1st Joint Congress on Evolutionary Biology*, Ottawa, ON, Canada
- 47. <u>White, P. J. T.</u>, Heidemann, M. and Smith, J. (2012) "Integrating concepts across biology's sub-disciplines." *Society for the Advancement of Biology Education Research*. Minneapolis, MN, USA.
- 48. Smith, J., Heidemann, M. and <u>White, P. J. T.</u> (2012) "Evolution case studies." *IBP Summer Conference*, Washington DC, USA
- 49. <u>White, P. J. T.</u> (2012) "Integrative case studies in evolution education." *CREATE-ing the Future for STEM Education*, Michigan State University, East Lansing, MI, USA.
- 50. <u>White, P. J. T.</u>, McGill, B. J. and Lechowicz, M. J. (2011) "The effect of trail disturbance on caterpillars in disturbed forest fragments." *Ontario Ecology, Ethology & Evolution Colloquium*. Toronto, ON, Canada.
- 51. <u>White, P. J. T.</u> (2011) "The impact of pedagogy development workshops on the teaching philosophy of graduate students." *Western Conference on Science Education*. London, ON, Canada.

- 52. <u>White, P. J. T.</u>, McGill, B. J. and Lechowicz, M. J. (2010) "Evaluating and tracking disturbance in Monteregian forest fragments using satellite imagery." *Canadian Society for Ecology and Evolution*. Quebec City, QC, Canada.
- 53. <u>White, P. J. T.</u>, Delaney, D., Syncox, D. and Alters, B. (2010) Workshop: "Student response systems implementation and pedagogy development at a large research-intensive university in Canada: a case study." *International Consortium on Education Development*. Barcelona, Spain.
- 54. <u>White, P. J. T.</u>, Bodeux, B. B., Fitzpatrick, J., McGill, B. J. and He, F. (2008) "How many moths are there? Using stand structure to predict site traits that are difficult to assess without extensive sampling." *EMEND Annual Workshop*. Edmonton, AB, Canada.
- 55. <u>White, P. J. T.</u> and McGill, B. J. (2007) "The use of remote sensing and satellite imagery to detect disturbance and track recovery in forest stands." *Canadian Society for Ecology and Evolution*. Toronto, ON, Canada.
- 56. <u>White, P. J. T.</u> and Kerr, J. T. (2005) "Analyzing the predictors of temporal and spatial trends of butterfly species richness in Canada." *Ecological Society of America*. Montreal, QC, Canada.

## SERVICE, LEADERSHIP, AND OUTREACH

### Departmental/College/University Committees

- 1. MSU Faculty Senate (2023-current)
- 2. MSU University Council (2023-current)
- 3. Lyman Briggs College: Annual Review Committee (2023-current)
- 4. Lyman Briggs College: College Advisory Committee, (chairperson; 2023-2024)
- 5. Department of Entomology: Graduate Committee (2022-current)
- 6. Department of Entomology: Grad Student DEI&B Survey Ad-Hoc Committee (2022-2023)
- 7. University Committee on Faulty Affairs
  - a. Chair, Personnel Sub-Committee (2022 2023)
  - b. Vice-Chair (2021 2022)
- 8. Lyman Briggs College Tenure Promotion Review Ad-Hoc Bylaws Revision Committee (2021-22)
- 9. Lyman Briggs College Tenure Promotion Review Ad-Hoc Committee (2021)
- 10. Department of Entomology: Diversity, Equity and Inclusion Committee (2019-2020)
- 11. Department of Entomology: Awards Committee (2017-2019, Chair 2019-2020)
- 12. Lyman Briggs College: Awards Committee (2015-2018, Chair 2018-2019)
- 13. Department of Entomology: Curriculum Committee (2015-2017, Chair 2017-2018)
- 14. Lyman Briggs College: Biology Curriculum Coordinator (2017)

### Search Committees

- 1. Lyman Briggs College: Co-Chair Physics Tenure Track Search Committee (2021-22)
- 2. Lyman Briggs College: Human Resources Officer, Interview Committee (2019)
- 3. Lyman Briggs College: Sociologist Tenure Track Position Search Committee (2018)
- 4. Lyman Briggs College: Biology/Advising Academic Specialist Search Committee (2017)
- 5. Department of Entomology: Academic Specialist Search Committee (Chair, 2017)
- 6. Lyman Briggs College: Biology Academic Specialist (FT) Search Committee (2016)

#### Service to the Ecology and Science Education Communities

- 1. Associate Editor,
  - a. Biodiversity and Conservation (2012-2020)
- 2. Ad Hoc Review Activities,
  - a. American Biology Teacher
  - b. NSF Review Panelist (2014, 2017, 2018)
  - c. Great Lakes Entomologist
  - d. Journal of Interactive Learning Environments
  - e. Ecological Research
  - f. Urban Ecosystems
  - g. Evolution Education and Outreach
- 3. Professional Memberships,
  - a. The Lepidopterists' Society
  - b. National Association of Biology Teachers
  - c. Entomological Society of America
  - d. International Society for Design and Development in Education
  - e. Society for the Advancement of Biology Education Research

#### Service to the MSU, Entomology and Lyman Briggs College Communities

- 1. Faculty Advisor Graduate and Undergraduate Entomology Student Society: (2022current)
- 2. Faculty Advisor MSU Triathlon Club Team: (2022-current)
- 3. Faculty Advisor Gift of Life Bone Marrow Registry: (2017-2018)
- 4. Faculty Advisor Spartans Supporting Refugees: (2017-2018)
- 5. LBC GTA and LA Workshop on Academic Dishonesty: (2015, 2016, 2017
- 6. Panelist, New International Faculty Orientation: (2016)
- 7. Volunteer Instructor, Grandparent's University: (2013-2015)
- 8. Keynote Address, National Society of Collegiate Scholars, MSU Chapter. (2012).
- 9. Volunteer Science Olympiad Judge: State-Level Science Olympiad Tournament (2012).

#### Service and Outreach to the Local Community

- 1. Facilitated a 4-week classroom science unit to help students learn about the importance of moths as pollinators, pests, and as part of the food web.
  - a. 2019, Sycamore Elementary School 2<sup>nd</sup> grade, Holt Public School
  - b. 2019, Hope Middle School 5<sup>th</sup> grade, Holt Public Schools
  - c. 2016, MacDonald Middle School 6th grade, East Lansing Public Schools