

Curriculum Vitae – James Joseph Smith (May 2022; abbreviated)

Professional Preparation

Undergraduate:	Macalester College, St. Paul, MN	Chemistry	B.A. 1979
Graduate:	Michigan State University, E. Lansing, MI	Botany & Plant Pathology	Ph.D. 1985
Post-Doctoral	Univ. of North Carolina at Chapel Hill	Microbiology & Immunology	1985-1987
	Michigan State University	Cell & Molecular Biology	1987-1989
	Michigan State University	Evolutionary Biology	1989-1991

Academic/Professional Appointments

2020-	Professor Emeritus, Lyman Briggs College, and Departments of Entomology and Integrative Biology (formerly Zoology), Michigan State University, E. Lansing, MI
2012 - 2019	Professor, Lyman Briggs College, Department of Entomology, and Department of Integrative Biology (formerly Zoology), Michigan State University, E. Lansing, MI
2006 - 2012	Associate Professor, Department of Entomology, Michigan State University, E. Lansing, MI
2002 - 2012	Associate Professor, Lyman Briggs College (formerly School), and Department of Zoology, Michigan State University, E. Lansing, MI
1996 - 2002	Assistant Professor, Lyman Briggs School of Science, Mich. State University, E. Lansing, MI
1996 - 2002	Assistant Professor, Department of Zoology, Michigan State University, E. Lansing, MI
1991- 1996	Research Assistant Professor (non-tenure stream), Department of Zoology, Michigan State University, E. Lansing, MI
1989-1991	Research Associate, Department of Zoology, Michigan State University, E. Lansing, MI
1987-1989	Visiting Research Associate, MSU-DOE Plant Research Laboratory, Michigan State University, E. Lansing, MI
1985-1987	Post-Doctoral Trainee, Department of Microbiology and Immunology, University of North Carolina, Chapel Hill, NC
1979-1985	Graduate Research Assistant, MSU-DOE Plant Research Laboratory, Michigan State University, E. Lansing, MI

Selected Grants

- NSF-IUSE (Proposal # 2020221), " An Integrative Approach for Teaching and Learning About Biological Evolution Through the Human Maladies of Addiction, Autoimmune Disease, Sleep Disorders, and Cancer", Peter J. T. White, PI, Merle Heidemann, James J. Smith, co-PIs, \$299,847 (10/1/20 – 9/30/22; funded).
- NSF-IUSE (Proposal # 1432563), "Active LENS: Learning Evolution and the Nature of Science using Evolution in Action", Robert T. Pennock, PI, Richard Lenski, Louise Mead, Charles Ofria, James J. Smith, co-PIs, \$2,315,695 (9/1/14 – 8/31/19; funded).
- NSF-TUES (Proposal # 1043876), "Integrative Case Studies in Evolution Education", James J. Smith, PI; Merle Heidemann, co-PI; Jerry Urquhart (LBC), Cheryl Murphy (LBC) and Barry Williams (ZOL), Senior Personnel, \$199,797 (3/1/11 – 2/28/14; funded).

Selected Publications

(i) Education-focused

- Filice DSC, **Smith JJ**. in press. Evolution and Mental Health. In: *Encyclopedia of Mental Health*, Volume 3 (K. Klump & H. Friedman, Eds.). in press.
- Ellis R, Reichsman F, Mead LS, **Smith JJ**, McElroy-Brown K, White PJT. 2021. ConnectedBio: An Integrative & Technology-Enhanced Approach to Evolution Education for High School, *The American Biology Teacher*, 83(6), 362-371. doi: 10.1525/abt.2021.83.6.362
- Kohn C, Wisner M, Pennock RT, **Smith JJ**, Mead LS. 2018. A digital technology-based introductory biology course designed for engineering and other non-life sciences STEM majors. *Comput Appl Eng Educ*. 2018;1–12. <https://doi.org/10.1002/cae.21986>
- Conley JE, Meisel AJ, **Smith JJ**. 2016. Using M&M's to Model Sanger's Dideoxy DNA Sequencing Method. *The American Biology Teacher*, 78: 516–522. (DOI: 10.1525/abt.2016.78.6.516)
- Burmeister AR, **Smith JJ**. 2016. Evolution across the curriculum: A key and convenient time to change

- microbiology education. *Journal of Microbiology & Biology Education*, 17: 252-260. (DOI: <http://dx.doi.org/10.1128/jmbe.v17i2.988>)
- Smith JJ**, Johnson WR, Lark AM, Mead LS, Wisner MJ, Pennock RT. 2016. An Avida-ED digital evolution curriculum for undergraduate biology. *Evolution: Education and Outreach*, 9(1), 1-11; (DOI: 10.1186/s12052-016-0060-0)
- Heidemann MK, White PJT, **Smith JJ**. 2016. "Evolution in Action." Published Case Study and Teaching Notes, National Center for Case Study Teaching in Science, University at Buffalo, State University of New York.
- White PJT, Heidemann MK, **Smith JJ**. 2015. A cross-course investigation of integrative cases for evolution education. *Journal of Microbiology & Biology Education*, 16: 157-166; doi: <http://dx.doi.org/10.1128/jmbe.v16i2.876>.
- White PJT, Heidemann MK, **Smith JJ**. 2013. A new integrative approach to evolution education. *BioScience*, 63: 586-594.
- Smith JJ**, Cheruvilil KS, Auvenshine S. 2013. Assessment of student learning associated with tree-thinking in an undergraduate introductory Organismal Biology course. *CBE Life Sciences Education*, 12: 542-552.
- Smith JJ**, Baum DA, Moore A. 2009. The need for molecular genetic perspectives in evolutionary education (and vice versa). *Trends in Genetics*, 25: 427-429.

(ii) Insect Evolution-focused

- Smith JJ**, Brzezinski P, Dziedziula J, Rosenthal E, Klaus M. 2022. Partial ribosomal non-transcribed spacer sequences distinguish *Rhagoletis zephyria* (Diptera: Tephritidae) from the apple maggot, *R. pomonella*. *Journal of Economic Entomology*, 115(2):647-661. <https://doi.org/10.1093/jee/toab264>.
- Korneyev SV, **Smith JJ**, Hulbert DL, Frey JE, Korneyev VA. 2022. A New Species of *Rhagoletis* (Diptera: Tephritidae) from Switzerland, with Discussion of its Relationships within the Genus. *Zooiversity*. 56. 1-20. <https://doi.org/10.15407/zoo2022.01.001>.
- Korneyev SV, Smit JT, Hulbert DL, Norrbom AL, Gaimari SD, Korneyev VA, **Smith JJ**. 2020. Phylogeny of the genus *Tephritis* Latreille 1804 (Diptera, Tephritidae). *Arthropod Systematics and Phylogeny*, 78(1):111-132 DOI: 10.26049/ASP78-1-2020-05
- Hulbert D, Smitley D, Hotchkiss E, Lewis P, Wu Y, **Smith JJ**. 2020. Geographic distribution of *Ovavesicula popilliae* in the United States and sensitivity of visual diagnosis compared with qPCR detection. *J Invertebr Pathol*. 175:107455. doi: 10.1016/j.jip.2020.107455.
- Hulbert D, Jackson MD, Hood GR, **Smith JJ**. 2018. Description of a new *Rhagoletis* (Diptera: Tephritidae) species in the *tabellaria* species group. *Insect Systematics and Diversity*, 2(6):1-14. doi: 10.1093/isd/ixy016
- Frayser MF, Hulbert D, Satar S, **Smith JJ**. 2015. Phenological attributes and phylogenetic relationships of *Rhagoletis juniperina* Marcovitch (Diptera: Tephritidae) in the Great Lakes region. *The Great Lakes Entomologist*, 48: 67-78.
- Hood GR, Forbes AA, Powell T, Egan SP, Hamerlinck G, **Smith JJ**, Feder JL. 2015. Sequential divergence and the multiplicative origin of community diversity. *Proceedings of the National Academy of Sciences of the United States of America*, 112: E5980-E5989; doi:10.1073/pnas.1424717112.
- Smith JJ**, Powell THQ, Teixeira L, Armstrong WO, McClowry RJ, Isaacs R, Hood GR, Feder JL, Gut L. 2014. Genetic structure of Cherry Fruit Fly (*Rhagoletis cingulata*) populations across managed, unmanaged, and natural habitats. *Entomologia Experimentalis et Applicata*, 150: 157-165; DOI: 10.1111/eea.12148.
- Bray AM, Bauer LS, Poland TM, Haack RA, Cognato AI, **Smith JJ**. 2011. Genetic analysis of emerald ash borer (*Agrilus planipennis* Fairmaire) populations in Asia and North America. *Biological Invasions*, 13: 2869-2887.

Selected Honors and Awards

- American Association for the Advancement of Science, Fellow, February 2017.
- Associated Students of Michigan State University, Senior Class Council, Outstanding Faculty Award, May 2015.

Selected Professional Service

Board of Directors, BioQUEST, Inc., 2017 – 2021 (Treasurer, 2018 – 2021)

Editorial Board, *CBE Life Sciences Education*, 2017 – 2019

Local Organizer, “Making Meaning through Modeling: Problem Solving in Biology”, BioQUEST Summer Workshop, East Lansing, MI, July 2017

Co-Leader, “Communicating the Relevance of Human Evolution” Working Group, National Evolutionary Synthesis Center (NESCent), Durham, NC, 2015; 2010-2012

Member, Education Committee of the Society for the Study of Evolution (SSE), 2013- 2020

Co-Organizer, Humans Without Borders: Evolutionary Processes at Work in Humans and their Relatives, Symposium Session at the AAAS Annual Meeting, Washington, DC, Feb. 2011.