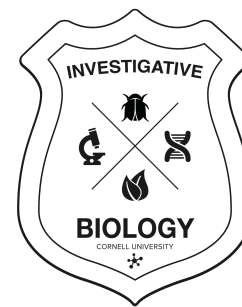


Mark A. Sarvary

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I live at the intersection of education research and science communication. As an educator and science communicator, my goal is to explore more effective ways to engage my audience, establish trust and get a dialogue going with students, fellow scientists, and the publics. I am the founder and the academic advisor of the [Science Communication and Public Engagement undergraduate minor \(SCoPE\)](#). We established this unique minor to make sure that science communication and public engagement are not a postgraduate afterthought, but rather integrated parts of undergraduate science education. I developed the [Applied Science Communication Course](#) at Cornell and at the [Shoals Marine Laboratory](#), and I direct the [Investigative Biology Teaching Laboratories at Cornell University](#), where students learn the scientific process and improve their skills in experimental design, information literacy, and science communication. In this program, we train graduate and undergraduate lab instructors on how to use discipline-based education research to develop and implement modern pedagogical methods, including active learning. As a strong advocate of public engagement with science, I am the co-producer of a local podcast called [Locally Sourced Science](#), the faculty advisor of the undergraduate medical and life sciences [debate club](#), and an undergraduate podcast called [State-of-the-Pod](#). I have been the science advisor of a [local science café](#) for a decade and a half, helping to bring town and gown closer together in the Ithaca area. My contributions have been recognized by the Dean of the College of Agriculture and Life Sciences on multiple occasions: I received the Core Value Staff Award in 2013, the North American Colleges and Teachers of Agriculture Teaching Award of Merit in 2017 and was named a Merrill Outstanding Educator by a Presidential Scholar. In 2018 I was elected both a Faculty Fellow for Engaged Scholarship and an Atkinson Center for a Sustainable Future Fellow at Cornell University. In 2019 I was invited to become a fellow at the Carl Sagan Institute and was elected to the CALS Committee on Support of Teaching and Learning.

Education

Degrees:

2006	Ph.D., Entomology	Cornell University
2002	M.Sc., Economics & Management	St. Istvan University, Hungary
1999	M.Sc., Ecology & Zoology	University of Ag. Sciences, Hungary

Certificates:

2016	Alan Alda Center for Communicating Science	Stony Brook University
2015	CALS Faculty Leadership and Professional Development Program	Cornell University
2014	An Introduction to Evidence-Based Undergraduate STEM Teaching	Vanderbilt University
2014	Responsible Conduct of Research: The Continuum from Research Integrity to research Misconduct	U.S. Office of Research Integrity
1997	Minnesota Agricultural Trainee Program	University of Minnesota

Professional Positions

Teaching positions

- 2015(July)- Senior Lecturer, Director of the Investigative Biology Laboratories, Cornell University
- 2013-2015 Lecturer, Director of the Investigative Biology Laboratories, Cornell University
- 2012-2013 Lecturer, Interim Director of the Investigative Biology Laboratories, Cornell University
- 2011-2012 Lecturer, Interim Asst. Dir. of the Investigative Biology Laboratories, Cornell University
- 2010-2011 Lecturer and Laboratory instructor in Biology, Ithaca College
- 2008-2010 Lecture Assistant, Introductory Biology Core Course, Cornell University
- 2008 – Summer School Instructor, Introductory Biology / Investigative Biology Labs
- 2002-2006 Laboratory Instructor, Introductory Biology Laboratory Course, Cornell University

Research positions

- 2011-2012 Research associate, Dept. of Entomology, Cornell University
- 2009-2011 Research associate, Dept. of Ecology and Evolutionary Biology, Cornell University
- 2007-2008 Postdoctoral fellow, Swiss Federal Institute of Technology (ETH), Zurich, Switzerland
- 1998 Research Assistant, Department of Entomology and Department of Land, Air and Water Resources, University of California, Davis, CA.
- 1993-96 Research Assistant, Department of Zoology and Ecology, U. of Ag. Sci., Hungary

Courses taught

2018-	Pedagogy, active learning and education research in biology	Cornell University	BioG 6500	Fall
2018-	Applied Marine Science Communication	Shoals Marine Lab	BioSM 3500	Summer
2017-	Applied Science Communication	Cornell University	BioG 3500	Fall, Summer, Winter
2011 -	Investigative Biology Laboratory	Cornell University	BioG 1500	Fall, Spring, Summer
2014 - 16	Wikipedia editing for Biologists	Cornell University	BioG 1250	Spring, Fall
2013-	Disturbance Ecology	Cornell University	BioG 1250	Fall
2010- 11	Fundamentals of Biology	Ithaca College	Bio 11900	Fall, Spring
2008- 10	Introductory Biology	Cornell University	Bio 1101-1104	Fall, Spring, Summer

Public Science Engagement

2020-	Science Communication minor founder and faculty advisor	Cornell University	scicomm.cornell.edu
2019-	State of The Pod student podcast	Cornell University	Stateofthepod.com
2017 -	Applied science communication course instructor	Cornell University	Investigativebiology.cornell.edu/scicomm
2017 -	Locally Sourced Science podcast producer	WRFI Community radio	locallysourcedscience.org
2014 -	Students Engage with the publics through Wikipedia	Cornell University	tinyurl.com/Bio1250Wikipedia

- 2013- Student club advisor for Public debates with “Debate in Science and Health” Cornell University dshcornell.wixsite.com/dshcornell
- 2005- Public Science Event Advisor Science Cafe, Ithaca, NY ScienceCabaret.org

Honors, Awards and Grants

2019 Carl Sagan Institute Fellow

Developing a Science Communication minor. *Office of Engagement Initiatives, 80,000 USD.*

Whisper room recording studio. *Student Assembly Infrastructure Fund, 9,470 USD.*

2018 Individual Innovation Award. *Cornell University Center for Teaching Innovation. 14,823 USD.*

Atkinson Center for a Sustainable Future Fellow, *David R. Atkinson Center for a Sustainable Future*

Active Learning Initiative to support Developing and Assessing Critical Thinking Skills in the Investigative Biology Teaching Laboratories. *College of Agriculture and Life Sciences, 125,000 USD.*

Faculty Fellow for Engaged Scholarship. *Office of Engagement Initiatives, 2,000 USD.*

Merrill Presidential Scholar- most influential faculty, Cornell University.

Travel support to PCST 2018 in Dunedin, NZ. *Office of Engagement Initiatives, 5,000 USD.*

Establishing a student exchange program between Cornell University (USA) and Szt. Istvan University (Hungary). *Erasmus+ Credit Mobility, 25,000 Euros.*

Planning of a Science (STEM) Communication minor. *Office of Engagement Initiatives, 10,000 USD.*

2017 Collaboration with a science café, as a community partner in science education. (Office of Engagement Initiatives, 5,000 USD).

North American Colleges and Teachers of Agriculture (NACTA) Teaching Award of Merit

2013 College of Agriculture and Life Sciences, Core Value Staff Team Award, Cornell University

2005 College of Agriculture and Life Sciences, Outstanding Teaching Assistant Award, Cornell University

Education research publications

2012 - **Sarvary, M.A.** (ed.). Investigative Biology: a laboratory text, Hayden-McNeil Publishing, Plymouth, every semester MI.

2021 Castelli, F.R., and **M. A. Sarvary** (2021). Why students do not turn their video cameras during online classes and an equitable and inclusive plan to encourage them to do so. Ecology and Evolution. DOI: 10.1002/ece3.7123

Clara Meaders, Michelle K Smith, Timothy Boester, Anne Bracy, Brian A Couch, Abby G Drake, Saima Farooq, Bashir Khoda, Cynthia Kinsland, A Kelly Lane, Sarah E Lindahl, William H Livingston, Ayesha Maliwal, Amber McCormick, Anya I Morozov, Jennifer L Newell-Caito, Katharine J Ruskin, **Mark A Sarvary**, Marilyn Stains, Justin R St, Stephanie R Thomas, Cindy Van Es, Erin Vinson, Maren N Vitousek and MacKenzie R. Stetzer (2021). What questions are on the minds of STEM undergraduate students and how can they be addressed? Frontiers in Education, DOI:10.3389/feduc.2021.639338

2020 Castelli, F.R., Asgari M. and **M. A. Sarvary** (2020). Benefits of the Undergraduate Teaching Assistant Experience in an Introductory Biology Laboratory Course and Other STEM Courses. Advances in Biology Laboratory Teaching, Publication of the Association for Biology Laboratory Education (ABLE), vol. 41., Article 61. (www.ableweb.org)

Megan Biango-Daniels & **Mark A. Sarvary** (2020). A challenge in teaching scientific communication: academic experience does not improve undergraduates' ability to assess their or their peers' writing. Assessment & Evaluation in Higher Education, DOI: 10.1080/02602938.2020.1812512

Asgari, M., & **M. A. Sarvary** (2020). The Value of Undergraduate Teaching Assistants in Synchronous Online Learning Environments: 10 Steps That Can Make a Positive Change. The Teaching Professor, September 14, 2020. <https://www.teachingprofessor.com/topics/online-learning/teaching-strategies-techniques/the-value-of-undergraduate-teaching-assistants-in-synchronous-online-learning-environments-10-steps-that-can-make-a-positive-change/>

Olabisi, L.S., Schwarz, K., Lambert, K.F., Garlick, S., Zinnen, T., **M. Sarvary**, Jeanette Shakalli, J. (2020). University Practices for Making Community-University Partnerships Work for All. Public Engagement Reflections of the American Association for the Advancement of Science. October 27, 2020. <https://www.aaas.org/programs/center-public-engagement-science-and-technology/reflections/university-practices-making>

2017 **Sarvary, M.A.** and K.M. Gifford. The benefits of a real-time web-based response system for enhancing engaged learning in classrooms and public science events. Journal of Undergraduate Neuroscience Education, 2017 vol. 15., issue 2.

Deane-Coe, K.K., **M. A. Sarvary** and T.G. Owens. Student performance along axes of concept novelty and complexity in introductory biology: lessons from a unique factorial approach to assessment. CBE Life Sci Educ., Vol. 16. No. 1.

2016 Drott, M. and **M.A. Sarvary**. Why did the snake cross the road? A Population Genetics and Habitat Conversation Case Study. National Center for Case Study Teaching in Science. <http://sciencecases.lib.buffalo.edu>

Sarvary, M.A. and K. M. Gifford. Engaging Students in Large Classrooms: Turning Classical Lectures Into Dialogues Using Digital Pedagogy. Examples, Benefits and Pitfalls. Proceedings of the 8th annual International Conference on Education and New Learning Technologies (EduLearn16), pp. 7089-7097, doi:10.21125/edulearn.2016.0547.

2015 **Sarvary, M.A.** How to make scientific paper reading fun: Journal club style role-playing to improve scientific literacy and reading comprehension skills in biology laboratories. Tested Studies for Laboratory Teaching, Peer-Reviewed Proceedings of the 35th Conference of the Association for Biology Laboratory Education (ABLE), vol. 36.

2014 **Sarvary, M.A.** Biostatistics in the Classroom: Teaching Introductory Biology Student How to Use the Statistical Software ‘R’ Effectively. Tested Studies for Laboratory Teaching, Peer-Reviewed Proceedings of the 35th Conference of the Association for Biology Laboratory Education (ABLE), vol. 35., pp. 129-131. (www.ableweb.org)

Hester, L. L., **M. A. Sarvary**, and C. J. Ptak. Mutation and Selection: An Exploration of Antibiotic Resistance in *Serratia marcescens*. Tested Studies for Laboratory Teaching, Peer-Reviewed Proceedings of the 35th Conference of the Association for Biology Laboratory Education (ABLE), vol. 35. pp. 98-132. (www.ableweb.org)

2013 **Sarvary, M.A.** Test Bank revision, In: Biology of Humans: Concepts, Applications, and Issues, 5th edition by Judith Goodenough and Betty A. McGuire, Benjamin Cummings Publishing.

Sarvary, M.A. Study Guide revision, In: LIFE: The Science of Biology, 10th edition by Sadava et. al, W.H. Freeman Publishing.

2011 **Sarvary, M.A.** Test Bank revision, In: Biology of Humans: Concepts, Applications, and Issues, 4th edition by Judith Goodenough and Betty A. McGuire, Benjamin Cummings Publishing.

Research Publications

2016 **Sarvary, M.A.**, K. Boroczky, M.F. Cooperband, R.A. Raguso, A.E. Hajek. Investigating the effects of symbiotic fungi on the flight behaviour of *Sirex noctilio* (Hymenoptera: Siricidae). The Canadian Entomologist, 148(5), pp. 543–551.

2015 **Sarvary, M.A.**, M.F. Cooperband, A.E. Hajek. The importance of olfactory and visual cues in developing better monitoring tools for *Sirex noctilio* (Hymenoptera: Siricidae). Agricultural and Forest Entomology. Agricultural and Forest Entomology, 17, 29-35.

2010 **Sarvary, M. A.**, H. Reissig, J. Nyrop. Effects of natural enemies and host plants in wild and orchard habitats on the larval survival of *Choristoneura rosaceana* (Lepidoptera: Tortricidae). Biological control 55. 110–117

2008 **Sarvary, M.A.**, S. Hight, J. Carpenter, K. Bloem, S. Bloem, S. Dorn. Identification of factors influencing flight performance of field-collected and laboratory-reared, overwintered and non-overwintered cactus moths fed with field-collected host plants. Environmental Entomology, 37: 1291-1299.

Sarvary, M.A., K. Bloem, S. Bloem, J. Carpenter, S. Hight, S. Dorn. Diel flight pattern and flight

performance of *Cactoblastis cactorum* (Berg) (Lepidoptera: Pyralidae) measured on a flight mill: the influence of age, gender, mating status and body size. *Journal of Economic Entomology*, 101: 314-324.

2007 **Sarvary, M.A.**, H. Reissig, J. Nyrop. Assessment of three techniques for measuring natural enemy inflicted mortality of leafroller larvae in commercial orchards. *Biological Control*, 41. 312-320

Sarvary, M.A., H. Reissig, J. Nyrop, K. M. Gifford. Potential for conservation biological control of the obliquebanded leafroller (OBLR) *Choristoneura rosaceana* (Harris) in orchard systems managed with reduced-risk insecticides. *Biological Control*, 40. 37-47

2004 **Sarvary, M. A.**, H. Reissig, J. Nyrop “Mortality of obliquebanded leafroller larvae due to natural enemies in orchards treated with conventional or reduced-risk insecticides”. *New York Fruit Quarterly*, 12(4):23-26

2000 **Sarvary M. A.**, G. Bakonyi, V. Claassen “Food preference of *Hemileius initialis* (Acari:Oribatidae) in the presence of endomycorrhizal fungi. *Allattani Kozlemenyek (Zoological Journal of the Hungarian Biological Society)*, 85: 53-58

Symposia organized/ Workshops taught:

2019 *Workshop:* SciComm in the classroom. Cottrell Scholars Collaborative. American Chemical Society, Washington, D.C.

Workshop: Is your brand bland? Improve your digital footprint and learn how to use social media for science communication! Office of Undergraduate Biology research seminar. Cornell University

2018 *Roundtable discussion:* Science Communication Workshop for Graduate Students (<http://blogs.cornell.edu/scicommworkshop/>). COMM 5660.

Workshop: Maternal and Child Nutrition Research Forum, Science Communication workshop. “Is your brand bland? Flavor your nutrition sciences research with public engagement.”

2017 *Workshop:* Science Communication for the Graduate student/postdoc club “Advancing Science and Policy”.

2014-17 *Workshop:* Teaching methods and pedagogy for Graduate and Undergraduate teaching assistants. Three-day-long workshop in August.

2014 *Workshop:* Science Café: make dissemination of science fun! Association for Biology Laboratory Education Annual Meeting. Eugene, OR.

Workshop: How to make scientific paper reading fun: Journal club style role-playing to improve scientific literacy and reading comprehension skills in biology laboratories. Association for Biology Laboratory education annual meeting. Eugene, OR.

Workshop: How to prepare posters for the Cornell Undergraduate Research Board (CURB) Annual Undergraduate Spring Research Forum.

Symposium: Nimble Nozzles, Menacing Maggots, and Lovely Leaf rollers: Honoring Harvey Reissig's Contributions to Fruit Pest Management, Entomological Society of America, Eastern Branch meeting, Williamsburg, VA.

2013 *Workshop:* How to prepare posters for the Cornell Undergraduate Research Board (CURB) Annual Undergraduate Fall & Spring Research Forum (multiple workshops).

Symposium: Strengthening the Connection between Continents –A Symposium Honoring Silvia Dorn's Impact on Applied Entomological Research, Entomological Society of America, Annual meeting, Austin, TX.

Workshop: Using Statistical Software “R” in Biology Courses. Association for Biology Laboratory education annual meeting. Calgary, AB.

Workshop: Mutation and Selection: An Exploration of Antibiotic Resistance in *Serratia marcescens*. Association for Biology Laboratory education annual meeting. Calgary, AB.

2012 *Workshop:* How to prepare posters for the Cornell Undergraduate Research Board (CURB) Annual Undergraduate Fall & Spring Research Forum (multiple workshops).

Workshop: Limiting Nutrient and Algal Growth: Designing An Individualized Project. Association for Biology Laboratory Education annual meeting. Chapel Hill, NC.

2004 *Symposium:* From pitfall traps to GIS: emerging tools in quantifying arthropod distribution and movement, Entomological Society of America, Eastern Branch meeting, New Haven, CT.

2003 *Symposium:* Friends or Enemies: Fungi, Plant and Insect Interactions in Nature, Entomological Society of America, Eastern Branch meeting, Harrisburg, PA.

Professional Societies and Committee Duties

- 2019- CALS learning objectives revision committee
CALS Committee on Support of Teaching and Learning, co-chair
- 2018- Science Communication Planning Committee (chair)
Member, Public Communication of Science and Technology Society
- 2017- Cornell Community Engagement Logistics Working Group
Cornell CALS Education Innovation Grant Committee
Cornell CALS Learning Community organizing committee
- 2017 International Technology, Education and Development Conference Advisory Board
- 2017- Judge. SPARK Talks-Scholars Present About Research & Knowledge. Cornell University.
- 2016- Poster Competition Judge, AAAS Annual Meetings
- 2015- Member, American Association for the Advancement of Science
- 2015 Advising committee: CALS life science new teaching laboratory
- 2015 Search committee: Director of Undergraduate Biology position

- 2014- Biology Curriculum Committee / Core course Assessment Leader
- 2013- Subject editor: Annals of the Entomological Society of America
- 2012 - Member, Association for Biology Laboratory Education
- 2000- Member, Entomological Society of America

Academic advising

- 2019- Faculty advisor for the minor “Science Communication and Public Engagement”
- 2018- Faculty advisor for the student club “State-of-the-Pod”
- 2013 - Faculty advisor & founding member of the “Debate in Sciences and Health” Student Club
- 2012 - Faculty advisor of the “Global Dental Brigades” Student Club
- 2012 - Freshman and Upperclassman advisees

Invited talks / presentations / posters

- 2021 Building Community: ideas for reaching all students online, Center for Teaching Innovation. Cornell University.
- 2020 Embracing students’ creativity when teaching them how to communicate scientific information to the publics. CALS Learning Community lunch. Cornell University.
- 2018 Informal education via science cafes: promoting open science and enhancing scientific literacy. Open science: from values to practice. Building a roadmap for transformative change, Barcelona, Spain

Turning undergraduates into science storytellers. What are the best practices? Public Communication of Science and Technology Conference, Dunedin, New Zealand.

#CuSciStory: turning undergraduates into science storytellers via public engagement and digital platforms. American Association for the Advancement of Science, Annual meeting. Austin, TX.
- 2017 Going beyond clickers: using a versatile web-based response system for engaging audiences in college classrooms and in public science events. The 9th annual International Conference on Education and New Learning Technologies (EduLearn17). Barcelona, Spain.

From consumers to critical contributors: training the next generation of skeptical scientists through editing Wikipedia. American Association for the Advancement of Science, Annual meeting. Boston, MA
- 2016 Engaging Students in Large Classrooms: Turning Classical Lectures Into Dialogues Using Digital Pedagogy. Examples, Benefits and Pitfalls. The 8th annual International Conference on Education and New Learning Technologies (EduLearn16). Barcelona, Spain.

Going beyond clickers: using a versatile web-based response system for engaging students. Annual meeting of the National Center for Case Study Teaching in Science, Buffalo, NY.

Faculty panel. Cornell Undergraduate Research Board, Peer Mentorship Program.