CURRICULUM VITAE

NAME
Meena M. Balgopal

ADDRESS
Department of Biology
College of Natural Sciences
Colorado State University
Fort Collins, CO 80523-1588

PHONE (970) 491-4277
EMAIL: Meena.Balgopal@colostate.edu

EDUCATION

2007	Ph.D. Biological Sciences (Zoology), North Dakota State University
2007	7th-12th grade ND Teaching License (biology, chemistry, environmental science)
1994	M.S. Entomology, University of Wisconsin-Madison
1991	B.S. Honors, Animal Sciences, University of Illinois: Urbana-Champaign

ACADEMIC POSITIONS

2019-presnt	Professor, Biology, Department of Biology, Colorado State University, Fort Collins
2018-present	Adjunct Affiliate Professor, Dakshin Foundation (NGO), Bangalore, India
2015-2019	Associate Professor, Department of Biology, CSU
2014-2015	Associate Professor, Science Education, School of Education, CSU
2013-present	Affiliate Faculty, Graduate Degree Program in Ecology, CSU
2008-2014	Assistant Professor, Science Education, School of Education, Colorado State University
2007-08	Assistant Professor, Biosciences, Minnesota State University Moorhead
2006-07	Adjunct Lecturer, Biosciences, Minnesota State University Moorhead

HONORS AND AWARDS

2019	Jack E. Cermak Advising Award, Colorado State University
2019	J. William Fulbright-Nehru Foreign Scholarship Award (Dakshin Foundation, Bangalore, India – "Environmental Education on the Andaman & Nicobar Islands")
2017-present	Invited member, Senator (R.I.) Sheldon Whitehouse's Advisory Committee on Climate Change Communication
2014	School of Education Distinguished Scholar Award, Colorado State University
2011	Tenure-Track Faculty Teaching Excellence Award, College of Applied Human Sciences CSU
2010-13	Teacher-Research Partner Scholarship; NARST
2006	Equity & Ethics Scholarship, National Association of Researchers in Science Teaching (NARST)
2005	Outstanding Graduate Student Teaching Award, NDSU
2004	Phi Kappa Phi Honor Society National Membership
2003-05	NSF GK-12 Teaching Fellowship, North Dakota State University (NDSU), Fargo
1996	Jastro-Shields Graduate Research Scholarship, University of California-Davis

PUBLISHED WORKS

Refereed Journal Articles

**undergrad student; **grad student/postdoc; +K-12 teacher, and †corresponding author.*

1. Wright, D.S. & **Balgopal, M.M.** Middle school science teachers' motivations to implement place-based education curricula about local wildlife. *Environmental Education Research* (in revision)
2. Weinberg, A.E., Balgopal, M.M., & Sample McMeeking, L.B. STEM teacher educator professional growth and identity development in a community of practice. *International Journal of Science and Mathematics Education* (in revision).
3. Pitot, L.N. & **Balgopal, M.M.** Science education reform conundrum: Asking teachers to design common assessments used to evaluate their own effectiveness. *School Science & Mathematics* (in revision).
4. **Balgopal, M.M**.† Gerardo, N.M., Topden, J., & Gyatso, K. Moving past postcolonial hybrid spaces: How Buddhist monks make meaning of biology. *Science Education* (accepted)

5. Lin Hunter, D.[**], Newman, G., & **Balgopal, M.M.** [†] (2020). Citizen science or citizen technician: How do we talk about citizen science and who's benefiting from it? *Citizen Science Theory & Practice*, 5(1), 17. DOI:
6. Bloodhart, B.[**], **Balgopal, M.M.**[†]**,** Casper, A.M.A.[**], Sample McMeeking, L.B., & Fischer, E.F. (2020). Outperforming but undervalued: women undergraduate STEM students. *PLoS One*, 15(6): e0234685.
7. Casper, A.M.A.[**], Fernandez-Gimenez, M., **Balgopal, M.M. (**2020). Measuring ecological literacy: Coupled human-ecosystem interactions. *Journal of Agricultural Education and Extension* http://doi.org/10.1080/1389224X.2020.1780139
8. Casper, A.M.A.[**] & **Balgopal, M.M.** (2020). How guest experts frame and tell stories about environmental SSIs during undergraduate lectures. *International Journal of Science Education*, 42(9), 1568-1584.
9. **Balgopal, M.M.**[†] (2020). STEM teachers as innovators: Motivations for curricular changes. *Science Education, 104,* 762-785.
10. Laybourn, P.J., Brisch, E., Wallace, A.M., & **Balgopal, M.M.** (2019). Modifying writing assignments about socio-scientific issues for large-enrollment introductory cell biology courses. *The American Biology Teacher*, *81*(7), 513-519.
11. Wright, D.S.[**], **Balgopal, M.M.** [†]**,** Weinberg, A.E., & Sample McMeeking, L.B. (2019). Developing resilient K-12 STEM teachers. *Advances in Development of Human Resources*, *21*(1), 16-34. Doi:10.1177/1523422318814483.
12. Flugh, Melissa P., Lohse, B., **Balgopal, M.M.** Smith, S.[**], D'Andrea, R.A.[**], & Cunningham-Sabo, L. (2018). Teacher well-being attributes are positively associated with teacher perceptions of Fuel for Fun tasting lessons. *Topics in Clinical Nutrition*, 33(4), 272-280.
13. **Balgopal, M.M**. [†], Casper, A.M.A.[**], Wallace, A.M., Laybourn, P.J. & Brisch, E. (2018). Writing matters: Writing-to-learn activities increase undergraduate performance in cell biology. *Bioscience* 68(6), 445-454.
14. Harvey, J.A., van den Berg, D.[**], Ellers, J., Kampen, R., Crowther, T., Roessingh, P., Verheggen, B., Nuijten, R.J.M., Post, E., Lewandowsky, S., Stirling, I., **Balgopal, M.M.**, Amstrup, S.C., & Mann, M.E. (2018). Internet blogs, polar bears, and climate change denial by proxy. *Bioscience*, 68(4), 281-287.
15. Casper, A.M.A.[**] & **Balgopal, M.M.** (2018). Conceptual change in natural resource management students' ecological literacy. *Environmental Education Research*, *24* (8), 1159-1176.
16. **Balgopal, M.M**.[†], Casper, A.M.A.[**], Atadero, R.A. & Rambo-Hernandez, K.E. (2017). Responses to different types of inquiry prompts: College students' discourse, performance, and perceptions of group work in an engineering class. *International Journal of Science Education* 39(12), 1625-1647
17. Rambo-Hernandez, K., Atadero, R., & **Balgopal, M.M**. (2017). The impact of project-based learning in engineering on achievement goal orientations and academic outcomes. *Educational Psychology: An International Journal of Experimental Educational Psychology*, *37*(10), 1242-1258.
18. Cunningham-Sabo, L. **Balgopal, M.M.**, Seedig, N.[**], & McGuin, M.[**] (2017). Colorado educators need quality curricula and instructional resources, time, and professional development to teach nutrition education. *Health Behavior & Policy Review*, *4*(2), 161-17.
19. **Balgopal, M.M.**[†]**,** Wallace, A.M., & Dahlberg, S. (2017). Writing from different cultural contexts: How college students frame an environmental SSI through written arguments. *Journal of Research in Science Teaching*, 54(2), 195-218.
20. Graves, L.A.[**], Hughes, H., & **Balgopal, M.M.** [†] (2016). Teaching STEM through agriculture: Implementation of an edible plant curriculum at an elementary school. *Journal of Agricultural Education*, 57(3), 192-207.
21. Cunningham-Sabo, L., Lohse, B., Smith, S.[**], Browning, R., Strutz, E.[**], Nigg, C., **Balgopal, M.M.**, Kelly, K., & Ruder, E. (2016) Fuel for fun: A cluster-randomized controlled study of cooking skills, eating behaviors, and physical activity of 4th graders and their families. *BMC Public Health*, 16, 444. DOI: 10.1186/s12889-016-3118-6
22. McMeeking, L.B.S., Weinberg, A.E., Boyd, K.J.[**], & **Balgopal, M.M.** (2016). Student perceptions of interest, learning and engagement from an informal traveling science museum**,** *School Science & Mathematics*, *116*(5), 253-264. Jessup, J.[*], Ode, P.J., & **Balgopal, M.M.** [†] (2016). Competition for limiting resources: Quantitative reasoning in evolutionary ecology. *The American Biology Teacher, 78*(4), 300-309.
23. Casper, A.M.A.[**], **Balgopal, M.M.,** Fernandez-Gimenez, M. (2016). Natural resource management students' perceptions of conceptual change in a capstone course. *Natural Science Education*, 45, 1-10.
24. Olssen, K.[*], **Balgopal, M.M.,** Levinger, N.E. (2015). How did we get here? Teaching chemistry from a historical perspective. *Journal of Chemical Education, 92*(11), 1773-1776.

25. Atadero, R., Rambo-Hernandez, K., & **Balgopal, M.M.** (2015). Why group design projects can improve retention. *American Society of Engineering Educators PRISM, 24*(8) 42.
26. Atadero, R., Rambo-Hernandez, K., & **Balgopal, M.M.** (2015). Assessing the impact of project-based learning in engineering statics on student outcomes using social cognitive career theory. *Journal of Engineering Education*, 104(1), 55-73.
27. **Balgopal, M.M.**[†], Klein, J.A., Morgan, J.A., Brown, C.S., Frasier, W.M., & Sample McMeeking, L.B. (2014). Linking biophysical, socio-economic, and political effects of climate change on agro-ecosystems. *Journal of Geoscience Education*, 62(3), 343-352.
28. **Balgopal, M.M.** [†] (2014). Learning and intending to teach evolution: Concerns of pre-service biology teachers. *Research in Science Education*, *44*, 27-52.
29. **Balgopal, M.M.**[†] & Wallace, A.M. (2013). Writing-to-learn, writing-to-communicate, & scientific literacy. *The American Biology Teacher, 75*(3), 170-175.
30. **Balgopal, M.M.**[†], Wallace, A.M., & Dahlberg, S. (2012). Writing to learn ecology: A study of three populations of college students. *Environmental Educational Research, 18*(1), 67-90.
31. Feild-Berner, N.[*] & **Balgopal, M.M.**[†] (2011). Knowledge is power: Educating children about Type II diabetes. *Science & Children, 49*(3), 32-36.
32. **Balgopal, M.M.**[†] & Bondy, C.[+] (2011) Antigenic shift and drift: Modeling the evolution of the influenza virus. *The Science Teacher,* 78(2), 34-38.
33. **Balgopal, M.M.**[†] & Montplaisir, L.M. (2011). Meaning making: What reflective essays reveal about biology students' ideas about natural selection *Instructional Science: An International Journal of the Learning Sciences*, *39*(2), 137-169. (IF 1.6; AR: 20%)
34. Gilbert, L.[+], Breitbarth, P.[+], Brungardt, M.[+], Dorr, C.[+], & **Balgopal, M.M**.[†] (2010). The view at the zoo: Using a photographic scavenger hunt as the basis for an interdisciplinary field trip. *Science Scope, 33(6)* 52-55.
35. **Balgopal, M.M**.[†] (2010) Trailmix genetics: Protein synthesis in two acts. *Science Activities, 4* (1), *22-28*.
36. **Balgopal, M.M.**[†], Cornwall, S.,[+] Gill-Robertson, H., & Reinhart, D.[**] (2009). Solving the mystery of mock mummies: Using scientific inquiry skills in an integrated lesson*. Science Scope, 33*(3), 14-21.
37. **Balgopal, M.M.**[†] & Ode, P.J. (2009). Quantitative ecology: Constructing life history tables. *The American Biology Teacher, 71*(5), 295-299. (
38. **Balgopal, M.M.**[†] & Wallace, A.M. (2009). Dilemmas and decisions: The use of guided writing to increase ecological literacy of elementary education majors. *Journal of Environmental Education, 40*(3), 13-26.
39. **Balgopal, M.M.**, Dover, B.A., Goodman, W.G., & Strand, M.R. (1996). The effects of parasitism by *Microplitis demolitor* on the juvenile hormone titers of *Pseudoplusia includens. Journal of Insect Physiology*. *42*(4), 337-345.

Refereed Published Abstracts in Journals:

1. Prescott, M. P., Lohse, B., **Balgopal, M.,** Smith, S.[**], & Cunningham-Sabo, L. (2016). Teacher Well-Being Practices are Positively Associated with Teacher Perceptions of Fuel for Fun Tasting Lessons. *Journal of Nutrition Education and Behavior*, *48*(7), S80.
2. Cunningham-Sabo, L., Lohse, B., Smith, S.[**], Clifford, J., **Balgopal, M**., Browning, R., ... & Walters, L. (2015). Fuel for Fun: Cooking with Kids Plus Parents and Play-Year 3. *Journal of Nutrition Education and Behavior*, *47*(4), S101.
3. Cunningham-Sabo, L., Lohse, B., Smith, S.[**], Haas, M., **Balgopal, M.,** Kelly, K., …Zenner, L. (2014). Fuel for Fun: Cooking with kids plus parents and play. *Journal of Nutrition Education and Behavior, 46*(4), S190-S191.
4. Cunningham-Sabo, L., Lohse, B. Baker, S. Bellows, L. Smith, S[**]. Auld, G., **Balgopal, M.M.,** Browning, R., Kelly, K. Rauh, E., and Haas, J. (2013). "Cooking with Kids 2.0: Plus Parents and Play." *Journal of Nutrition Education & Behavior, 45*(4), S80.

Refereed Published Conference Proceedings/Transactions:

5. Wright, D.S.[**], **Balgopal, M.M.,** Sample McMeeking, L.B., & Weinberg, A.E. (2018). "An examination of persistence in becoming a rural science teaching 'insider'" In the Proceedings of the Annual Conference of the National Association of Researchers in Science Teaching, Atlanta, GA.

6. Casper, A.M.[**], Leipzig, P.[**] & **Balgopal, M.M.** (2018). "How experts frame environmental socio-scientific issues during lectures." In the Proceedings of the Annual Conference of the National Association of Researchers in Science Teaching, Atlanta, GA.
7. **Balgopal, M.M.** (2018). "Even a monk can be a scientist: Dialectical discourse at a Tibetan Buddhist monastery." In the Proceedings of the Annual Conference of the National Association of Researchers in Science Teaching, Atlanta, GA.
8. Wright, D.S.[**] & **Balgopal, M.M.** (2017). Building Adaptive Capacities of Novice Teachers Through Exploration of Adaptive Capacities of Social Ecological Systems" In the Proceedings of Science Education at the Crossroads, San Antonio, TX.
9. Wallace, A.M., **Balgopal, M.M.**, Casper, A.M.A.[**], Laybourn, P.J., & Brisch, E. (2017). Demonstration and dialectical arguments: Guiding undergraduate students writing about cancer biology. In the Proceedings of the Annual Conference of the National Association of Researchers in Science Teaching, San Antonio, TX.
10. **Balgopal, M.M**., Casper, A.M.A.[**], Wallace, A.M., Laybourn, P.J., & Brisch, E. (2017). Increasing undergraduate cell biology performance through writing-to-Learn. In the Proceedings of the Annual Conference of the National Association of Researchers in Science Teaching, San Antonio, TX.
11. Casper, A.M.A.[**] & **Balgopal, M.M**. (2017). Conceptual change in natural resource management students' ecological literacy. In the Proceedings of the Annual Conference of the National Association of Researchers in Science Teaching, San Antonio, TX.
12. Boyd, K.J.[**], **Balgopal, M.M.,** & Birner, T. (2016). Exploring the sky: Investigating discourse dynamics in an atmospheric science educational outreach program. In the Proceedings of the Annual Conference of the National Association of Researchers in Science Teaching, Baltimore, MD.
13. Casper, A.M.A.[**] & **Balgopal, M.M.** (2016). Humans as an integrated component of ecosystems: Measuring the ecological literacy of natural resource management students. In the Proceedings of the Annual Conference of the National Association of Researchers in Science Teaching, Baltimore, MD.
14. **Balgopal, M.M.**, Casper, A.M.[**], Wallace, A.M., Laybourn, P.J., & Brisch, E. (2016). Writing matters: Increasing undergraduate cell biology literacy through writing-to-learn activities" In the Proceedings of the AAAS/NSF Envisioning the Future of Undergraduate STEM Education: research and practice symposium. Washington, D.C. http://www.enfusestem.org/
15. Sample McMeeking, L.B., **Balgopal, M.M.**, Weinberg, A.E., & Boyd, K.B.[**] (2015). Participatory action research experiences for undergraduates. In the Proceedings of the Annual Conference of the American Education Research Association, Chicago.
16. **Balgopal, M.M.,** Casper, A.M.A.[**], Wallace, A.M., Laybourn, P.J., & Brisch, E. (2015). "An exploratory study of how college students make sense of cancer in writing-to-learn activities." In the Proceedings of the Annual Conference of the National Association of Researchers in Science Teaching, Chicago, IL.
17. Casper, A.M., **Balgopal, M.M.,** Fernandez-Gimenez, M. (2015). "Learning about resilience and systems: A case study of three natural resource management students" In the Proceedings of the Annual Conference of the National Association of Researchers in Science Teaching, Chicago, IL.
18. **Balgopal, M.M.** (2014) "Measuring the meming of STEM," In the Proceedings of the Science Education at the Crossroads Conference (Ed., Settlage, J. & Johnston, A), Portland, OR.
19. Atadero, R., **Balgopal, M.M.,** & Rambo-Hernandez, K. (2014) "Project-Based Learning in Statics: Curriculum, Student Outcomes, and Ongoing Questions," In the Proceedings of the American Association for Engineering Education, Indianapolis.
20. Casper, A.M.[**], Atadero, R., **Balgopal, M.M**., & Rambo-Hernandez, K. (2014). "Discourse between men and women during PBL engineering group work." In the Proceedings of the Annual Conference of the National Association of Researchers in Science Teaching, Pittsburgh.
21. **Balgopal, M.M**., Sample McMeeking, L.B., Howe, J.,[**] Winey, T.[+], & Nielsen, S[+]. (2014). "The meme-ing of STEM." In the Proceedings of the Annual Conference of the National Association of Researchers in Science Teaching, Pittsburgh.
22. **Balgopal, M.M.,** Wallace, A.M., Dahlberg, S., Brisch, E., & Laybourn, P. (2013). "Writing-to-learn to increase scientific literacy skills." In the Proceedings of the Conference Visions & Change in Undergraduate Biology Education (NSF/HHMI/USDA/AAAS), Washington, D.C. http://visionandchange.org/abstract/writing-to-learn-to-increase-scientific-literacy-skills/

23. Wallace, A.M. & **Balgopal, M.M.** (2013). "Biological dilemmas: Improving argumentation skills with writing-to-learn activities on socio-scientific issues." In the On-Line Proceedings of the Life Discovery-Doing Science Conference, Ecological Society of America.
24. **Balgopal, M.M.** & Gilbert, L[+].[*] (2013) "Feeding the world: Writing about socioscientific issues in 7th grade to increase decision-making skills." In the Proceedings of the Annual Conference of the National Association of Researchers in Science Teaching, Puerto Rico. *teacher
25. Casper, A.M.[**], Atadero, R., **Balgopal, M.M.,** Rambo, K., & Fontane, D. (2013) "The impact of project-based group work on engineering college students' content knowledge and affect." In the Proceedings of the National Association of Researchers in Science Teaching, Puerto Rico.
26. **Balgopal, M.M.**, Gilbert, L.,[+] Breitbarth, P.,[+] & Wallace, A. M. (2012) "Writing to learn and 7th grade students' ideas about limiting resources." In the Proceedings of the Annual Conference of the National Association of Researchers in Science Teaching, Indianapolis, IN. *teacher
27. Wallace, A.M. & **Balgopal, M.M.** (2012) "Writing-to-learn activities as a measure of ecological literacy in college students." In the Proceedings of the Annual Conference of the National Association of Researchers in Science Teaching, Indianapolis, IN.
28. **Balgopal, M.M.**, Dahlberg, S., & Wallace, A.M. "Using informal ecological reasoning to consider trade-offs and resolve dilemmas." In the Proceedings of the National Association of Researchers in Science Teaching, Orlando, FL (April 2011).
29. **Balgopal, M.M.**, Gilbert, L.,[+] Breitbarth, P.,[+] & Wallace, A.M. "Middle school students' decisions about global endangered species management dilemmas." In the Proceedings of the Annual Conference of the National Association of Researchers in Science Teaching, Orlando, FL (April 2011). *teacher
30. **Balgopal, M.M.** & Cornwall, S.[+] (2010). "Stakeholder discourse dynamics: A case study of elementary school reform effort." In the Proceedings of the Annual Conference of the National Association of Researchers in Science Teaching, Philadelphia, PA. *teacher
31. **Balgopal, M.M.** (2009). "What does green mean?" In the Proceedings of the Science Education at the Crossroads Conference, Portland, OR.
32. **Balgopal, M.M.** (2009). "The differential role of the message and the messenger in the learning process." In the Proceedings of the Annual Conference of the National Association of Researchers in Science Teaching, Garden Grove, CA.
33. **Balgopal, M.M.** & Wallace, A.M. (2008). "Decisions and dilemmas: Using WTL activities to increase ecological literacy." In the Proceedings of the Annual Conference of the National Association of Researchers in Science Teaching, Baltimore, MD.
34. **Balgopal, M.M.** (2008). "Motivation to resolve misconceptions: the role of identity in pre-service teachers." In the Proceedings of the Annual Conference of the National Association of Researchers in Science Teaching, Baltimore, MD.
35. **Balgopal, M.M.** (2007). "How reflective writing reveals cognitive and affective alienation and affiliation in a college biology course" In the Proceedings of the Annual Conference of the National Association of Researchers in Science Teaching, New Orleans, LA.
36. **Balgopal, M.M.**, Reed, W. & Montplaisir, L.M. (2006). "'Sloppy writing' and conceptual change in a college course" In the Proceedings of the Annual Conference of the National Association of Researchers in Science Teaching, San Francisco, CA.
37. **Balgopal, M.M.** & L.M. Montplaisir. (2005). "Examining undergraduate understanding of evolution and natural selection" In the Proceedings of the Annual Conference of the National Association of Researchers in Science Teaching. Dallas, TX.

Other (e.g. lab texts, book reviews, technical reports, in-house reports, video):

1. **Balgopal, M.M.** & Cunningham-Sabo, L. (2014). *Experiential Nutrition Education Curriculum* (adapted from Cooking with Kids© for Poudre School District, Colorado).
2. **Balgopal, M.M.** & Gilbert, L. (2014). "Reading and writing in the disciplines," Annenberg Video Library, WGBH (PBS) Boston. https://www.learner.org/courses/readwrite/ *(video release: 1/31/2015)*
3. Graves, L.[**], Hughes, H., & **Balgopal, M.M**. (2013). Edible Plants Curriculum. https://sites.google.com/site/edibleplantscurriculum/
4. Cunningham-Sabo, L. & **Balgopal, M.M.** (2012). Colorado Department of Education Nutrition Curriculum Evaluation Report.

5. Albright, L., **Balgopal, M.M.,** DeMiranda, M., Jensen, J. (2009). NASA CloudSat Education and Public Outreach Program Evaluation Report.
6. **Balgopal, M.M.** (2011). Sally Gregory Kohlsted (2010*).* Teaching children science: Hands-on Nature Study in North America, 1890-1930. Chicago: University of Chicago Press. *The Prairie Naturalist,* 43 (3/4), 132-133. Invited Book Review

CONTRACTS & GRANTS

Externally Funded Awards

2020-2025	NSF Robert Noyce Program (DUE). **Balgopal, M.M. (PI),** Sample McMeeking, L.B., Nerger, J., Oien, J., & Sebald, A. "Supporting Teacher Scholars through Place-Based Education Professional Development," ($1,198,461)
2020-2021	NSF COVID Supplemental (DUE). **Balgopal, M.M. (PI),** Sample McMeeking, L.B., & Weinberg, A.E. "Studying Novice STEM Teachers' Adaptive Capacities using the Panarchy Model." ($149,155)
2019-2021	EPA Environmental Education. **Balgopal, M.M**. (PI), coPIs: Crooks, K. & Wright, D.** "WILD PICS: Wildlife Photographic Investigations for Communities and Schools." ($106,667).
2017-2020	NSF Noyce, Phase II, Track 4 (subaward through Florida State University). **Balgopal, M.M.** (PI) "Following Noyce Scholars into the Field" ($75,000)
2017-2018	Colorado Department of Education. Sebald, A. (School of Education), PI, & **Balgopal, M.M.** (coPI) "Math Science Partnership with Poudre School District." ($317,070)
2016-2020	NSF Robert Noyce Program (DUE). **Balgopal, M.M. (PI),** Kennedy, P., Nerger, J.L., Siller, T.J., Weinberg, A.E., & Sample-McMeeking, L.B. "CSU Noyce Phase II: Empowering Scholars and STEM Teachers." ($799,487).
2014-2017	NSF Environmental Engineering De Long, S. (PI) and **Balgopal, M.M.** (Senior Personnel) "Collaborative Research: Developing a Novel Metatranscriptomic Approach for Identifying Biomarkers Directly from Mixed Microbial Communities" ($278,467).
2014-2016	Colorado Department of Education, Stevenson, C. (PI), CoPIs: Cooner, D., Weinberg, A., and **Balgopal, M.M**. "Expanding Literacy Strategies for Teacher Effectiveness" ($158,397)
2014-2015	USDA HEC Marshall, S. (PD), CoPDs: **Balgopal, M.M.**, Fernandez-Gimenez, M., Hild, A.L., Hickman, K., and Kinzie, J. "Building a Better Capstone in Natural Resource Education" ($16,258).
2014	Poudre School District, **Balgopal, M.M**. (PD); Cunningham, L. (coPD) "Developing nutrition health curriculum materials for elementary teachers" ($10,000)
2013-2016	NSF Transforming Undergraduate Education in STEM (TUES Phase I). **Balgopal, M.M. (PI),** co-PIs: P. Laybourn, E. Brisch, & A. Wallace. "Increasing undergraduate cell biology literacy through writing-to-learn activities administered through Online educational platforms." ($199,037).
2013	Poudre School District, **Balgopal, M.M.** (PD)**;** Sample McMeeking, L.B. (coPD) "Evaluation of the Summer STEM Institute, Preston Middle School." ($2,000)
2012-2016	USDA AFRI Prevention of Childhood Obesity. Cunningham-Sabo, L. (PD), co-PD: Barbara Loshse; Co-Investigators: Baker, S., **Balgopal, M.M.**, Bellows, L., Browning, R., Kelly, K., Nigg, C., and Wdowik, M. "Cooking with Kids 2.0: Plus Parents and Play" ($2,494,910)
2012-2015	USDA HEC Francesca Cotrufo (PI), Co-PIs: **M. M. Balgopal**, Rich Conant, Catherine Keske Hoag, Stephen Ogle, and Keith Paustian. "Soil Science, Land Use, and Climate Change: Designing a new undergraduate interdisciplinary concentration." ($142,000).
2012	Colorado Department of Education School Nutrition Program, Leslie Cunningham-Sabo (PD), **M.M. Balgopal** (coPD) ($30,000)
2011-2014	NSF RIGEE. Rebecca Atadero (PI), Co-PIs: Fontane, D. and **Balgopal, M.M.** "Research Initiation Grant: Problem/Project-Based Learning in Statics, a Stepping Stone to Engineering Education Research" ($150,000)
2008-2011	NSF-CCLI, **Balgopal, M.M. (PI)**, co-PI: Alison Wallace. "Dilemmas and decisions: Using guided writing to increase ecological literacy in undergraduate biology students" ($139,011)

2008 NASA CloudSat EP/O Evaluation Contract R&D Center, CSU, Collaborators: **M.M. Balgopal**, J. Jensen, L. Albright, and M. De Miranda (lead) ($37, 904)

Internally Funded Awards

2020 Digital Learning Award, Dewey, T., Hoke, K,, & **Balgopal, M.M**. "LIFE 102/103 Digital Laboratory Framework" ($15,000)

2019 Graduate School Mentoring Mini-Grant. **Balgopal, M.M.,** Webb, C., & Neuwald, J. "Research Mentoring to Advance Inclusivity in STEM (RMAIS)." ($1,000)

2019 College of Natural Science Mini-Grant. **Balgopal, M.M.** "Examining how land managers make decisions about controlling invasive Russian Knapweed." ($6,600)

2018-2019 SOGES Global Challenge Research Team Grant. Anderson, A., Sivakumar, G., Champ, J., **Balgopal, M.M.**, Thilmany, D., Carter, E., & Bellows, L. "Scaling Up CSU's Center for Science Communication: Enhancing interdisciplinarity to communicate about science and sustainability." ($10,000).

2018 Graduate School Mentoring Mini-Grant. Webb, C., **Balgopal, M.M.,** & Neuwald, J. "Research Mentoring to Advance Inclusivity in STEM (RMAIS)." ($1,000)

2017-2018 Women and Gender Collaborative Grant Program. "Research Mentoring to Advance Intersectionality in STEM (RMAIS)" Webb, C.T., **Balgopal, M.M.,** and Neuwald, J. ($12,000).

2016-2017 Pre-Catalyst for Innovative Partnerships (PRECIP), Office of Vice President for Research. Fischer, E.V., **Balgopal, M.M.**, McMeeking, L.B.S., & Bloodhart, B. "Dare to know and commit to change: Addressing gender equity in the classroom." ($5,000)

2014-15 College of Engineering Mini-Grant. Atadero, R. **Balgopal, M.M**. and James, S. "Investigation of reflective writing as a tool to promote diversity appreciation of diversity in engineering students." ($19,000)

2011 TILT Service-learning mini-grant. **Balgopal, M.M.** "EDUC 460: Partnering pre-service secondary science teachers with elementary teachers to integrate science into the curriculum" ($997)

2010-11 Provost Office. Laybourn, P., **Balgopal, M.M.,** & Raines, K. "Design of LIFE 180: A bridging course between chemistry and biology." ($6,000)

2010 Key Community Program. Laybourn, P **Balgopal, M.M.**, & Raines, K. "Design of LIFE 180: A bridging course between chemistry and biology." ($2,600)

2010 TILT Course Redesign Grant. Laybourn, P., **Balgopal, M.M.,** & Raines, K. "Design of LIFE 180: A bridging course between chemistry and biology." ($1,500)

PAPERS PRESENTED/ SYMPOSIA/ INVITED LECTURES/ PROFESSIONAL MEETINGS/ WORKSHOPS

Invited Speaker

2019 Does active learning increase scientific literacy? Invited presentation, **Department of Biology** (10/8/2019)

2019 The effect of active learning strategies on students' performance and perceptions. Invited presentation, **Department of Bioagricultural Science and Pest Management,** (10/23/2019)

2019 Meaning making of the natural world through diverse epistemologies. Ecology Program, **National Centre for Biological Sciences**, Tata Institute for Fundamental Research, Bangalore, India (4/2/2019)

2018 Writing in the sciences: Knowing what you know by seeing what you know. **Department of Psychology, Colorado State University** (9/14/2018)

2017 Writing matters: Supporting student learning in biology classes. **Emory University, Atlanta Georgia** (10/16/2017)

2016 Writing matters: Making thinking visible. Invited presentation in the **Department of Human Dimensions of Natural Resources, Colorado State University**. (3/11/2016)

2016 Conducting writing-to-learn research. **Department of Biological Sciences, North Dakota State University.**

2015 How writing supports learning in undergraduate biology courses. **Department of Biology, Colorado State University.**

2015 Writing to learn: The intersection of biology and literacy. Invited presentation in the **Department of Biology Teaching and Learning, University of Minnesota: Minneapolis-St. Paul**. (3/10/2015)

2015 Scientific literacy: Supporting science learning through writing. **Department of Ecosystem Science & Sustainability, Colorado State University.** (2/15/2015)

2015 Effective strategies interdisciplinary science education. Annual conference of the **Society of Range Management, Sacramento, CA**. (2/5/2015)

2015 Evaluating the effectiveness of your capstone course. Annual conference of the **Society of Range Management, Sacramento, CA**. (2/5/2015)

2014 How do non-scientists make meaning of science? **Geospatial Sciences Center of Excellence (GSCE), South Dakota State University** (9/15/2014)

2011 Integrating writing-to-learn instruction into undergraduate biology course. **Department of Biology, University of Northern Colorado, Greeley** (October)

2010 Decisions and dilemmas: Ecological literacy of college students. **Science Education Interdisciplinary Group, University of Colorado Denver**. (April)

2010 Grounded theory and symbolic interactionism in education research, **School of Education, Colorado State University** (March).

2010 Not over after Dover: What we learned from Kitzmiller vs. Dover; the truth about intelligent design. panelist, **Colorado State University Colloquium in the Life Sciences**. (January)

2010 Symbolic interactionism and how elementary school students communicate scientific ideas." Invited Panelist for Research Matters, **National Association of Researchers in Science Teaching, Philadelphia, PA.** (April)

2009 Designing graduate courses for transformative learning**,** panelist, **Dept of Occupational Therapy, Colorado State University**. (July)

2006 Undergraduate understanding of evolution and natural selection, **Dept Biology, Spelman College**, Atlanta

Conference; non-refereed (* undergraduate; ** graduate student)

2020 Scheer, M**. & Balgopal, M.M. "Climate change communication in rural Colorado classrooms." Workshop, Ecological Society of America, Learning Discovery Conference, online (October 22-24)

2020 Wright, D.S**. & Balgopal, M.M. "Instilling a sense of place." Workshop, Ecological Society of America, Learning Discovery Conference, online (October 22-24)

2020 Dewey, T. & Balgopal, M.M. "A digital learning framework to increase engagement an intro bio laboratory courses." Workshop, Ecological Society of America, Learning Discovery Conference, online (October 22-24

2020 Pitot, L.N.** & Balgopal, M.M. "A science education reform conundrum: Asking teachers to design common assessments used to evaluate their own effectiveness." Paper presented at the annual conference of the Association of Science Teacher Educators, San Antonio, TX (January).

2018 Wright, D.S.**, Crooks, K., & **Balgopal, M.M.** "What motivates middle school teachers to implement place-based education lessons on local wildlife?" Poster presented at the annual conference of the Ecological Society of America, New Orleans, LA (August)

2018 Lin Hunter, D.**, Newman, G., & **Balgopal, M.M.** "Identifying characteristics of citizen science projects that predict sustainable use of an online support platform" Poster presented at the annual conference of the Ecological Society of America, New Orleans, LA (August)

2017 Wright, D.S.**, **Balgopal, M.M.,** & Weinberg, A.E. "Developing teacher professional resilience through place-based education and mentoring." Poster presented at the Annual Noyce Summit sponsored by NSF/AAAS, Washington, D.C. (July)

2015 Boyd, K.**, **Balgopal, M.M.** & Birner, T. Exploring the sky: An exploratory study on the effectiveness of discourse in an atmospheric science outreach program. Paper presented at the annual conference of the American Geophysical Union, San Francisco (Dec).

2014 Lavallee, J.**, **Balgopal, M.M**., & Cotrufo, M.F. "Designing authentic learning experiences through video labs in a higher-level online agriculture and climate change course." ASA, CSSA, & SSSA International Annual Meeting, Long Beach, CA. (November)

2014 Graves, L.N.**, **Balgopal, M.M.,** & Hughes, H. "Evaluation of edible plants curriculum implementation at a STEM elementary school" Annual conference of the American Society of Horticultural Science, Orlando, FL (July).

2014 Olsson, K.*, **Balgopal, M.M**., & Levinger, N. "How did we get here? Teaching chemistry with a historical perspective." Annual conference of the American Chemistry Society (August).

2014 Atadero, R., **Balgopal, M.M.,** & Rambo-Hernandez, K. Project-Based Learning in Statics: Curriculum, Student Outcomes, and Ongoing Questions," American Association for Engineering Education. (June)

2014 Cunningham-Sabo, L., **Balgopal, M.M.,** Walter, L., & Lohse, B. Application of the Understanding by Design Model in the Adaptation of the *Cooking with Kids* Curriculum to Encourage Classroom Teacher Use and Acceptance. International Society for Behavior, Nutrition, and Physical Activity. (May).

2013 **Balgopal, M.M**. & Gilbert, L. NARST Sponsored Presentation: Feeding the world: Writing about socioscientific issues in middle school, Annual conference of the National Science Teachers Association, Denver.

2013 Atadero, R., **Balgopal, M.M.**, Rambo-Hernandez, K. and Fontane, D. Using Project-Based Learning in A Large Statics Course: Is it Worth It?" Conference of the American Society of Environmental Engineers- Rocky Mountain Section, Pueblo, CO, (March).

2013 Cunningham-Sabo, L., Lohse, B. Baker, S. Bellows, L. Smith, S.** Auld, G., **Balgopal, M.M.**, Browning, R., Kelly, K. Rauh, E., and Haas, J Cooking with Kids 2.0: Plus, Parents and Play.". Annual Conference of the Society for Nutrition Education and Behavior, Portland, OR (August)

2011 **Balgopal, M.M.**, Wallace, A.M., Dahlberg, S.Decisions and dilemmas: Using writing to learn activities to increase ecological literacy. CCLI/TUES PI Conference, National Science Foundation/ American Association for the Advancement of Science, Washington, D.C. (Jan)

2010 Boor, Z.*, **Balgopal, M.M.**, and Ode, P.J. Using insects to teach trophic interactions to high school students: Measuring the effects of limiting resources on herbivore and parasitoid fitness. Annual conference of the Entomological Society of America, San Diego, CA. (Dec)

2009 **Balgopal, M.M.**, Dahlberg, S. and Wallace, A.M. Guiding college students to become more ecologically literate through writing activities", Ecological Society of America, Albuquerque, NM. (August)

2009 Ode, P.J., **Balgopal, M.M.** and Harvey, J. Multitrophic effects of wild cabbage glucosinolates on a generalist herbivore and its specialist parasitoid.", Ecological Society of America, Albuquerque, NM (August)

2008 **Balgopal, M.M.** and Wallace, A.M.Ecological literacy: The use of guided writing in a college biology class.", Annual Conference of the Ecological Society of America, Milwaukee, WI. (Aug)

2007 Ode, P.J., **Balgopal, M.M.**, and Harvey, J.Cabbage, cabbage loopers, and *Copidosoma,*", Entomological Society of America, San Diego, CA (Dec)

2007 Ode, P.J. and **Balgopal, M.M.**Multitrophic effects of cabbage quality on the generalist herbivore, the cabbage looper, and its specialist parasitoid, *Copidosoma floridanum,*", National Congress of Biological Control and International Organization of Biological Control, Merida, Yucatan, Mexico (Nov)

Conference - refereed (* undergraduate, ** graduate student, + teacher)

2018 Wright, D.S.**, **Balgopal, M.M.,** Sample McMeeking, L.B., & Weinberg, A.E. "An examination of persistence in becoming a rural science teaching 'insider.'" Annual Conference of the National Association of Researchers in Science Teaching, Atlanta, GA (March).

2018 Casper, A.M.**, Leipzig, P.** & **Balgopal, M.M.** "How experts frame environmental socio-scientific issues during lectures." Annual Conference of the National Association of Researchers in Science Teaching, Atlanta, GA (March).

2018 **Balgopal, M.M.** "Even a monk can be a scientist: Dialectical discourse at a Tibetan Buddhist monastery." Annual Conference of the National Association of Researchers in Science Teaching, Atlanta, GA (March).

2017 Wallace, A.M., **Balgopal, M.M.**, Casper, A.M.A.**, Laybourn, P.J., & Brisch, E. Demonstration and dialectical arguments: Guiding undergraduate students writing about cancer biology. Annual Conference of the National Association of Researchers in Science Teaching, San Antonio, TX (April).

2017 **Balgopal, M.M**., Casper, A.M.A.**, Wallace, A.M., Laybourn, P.J., & Brisch, E. Increasing undergraduate cell biology performance through writing-to-Learn. Annual Conference of the National Association of Researchers in Science Teaching, San Antonio, TX (April).

2017 Casper, A.M.A.** & **Balgopal, M.M**. Conceptual change in natural resource management students' ecological literacy. Annual Conference of the National Association of Researchers in Science Teaching, San Antonio, TX (April)

2016 Boyd, K.J.**, **Balgopal, M.M.,** & Birner, T. Exploring the sky: Investigating discourse dynamics in an atmospheric science educational outreach program. Annual Conference of the National Association of Researchers in Science Teaching, Baltimore, MD (April).

2016 Casper, A.M.A.** & **Balgopal, M.M.** Humans as an integrated component of ecosystems: Measuring the ecological literacy of natural resource management students. Annual Conference of the National Association of Researchers in Science Teaching, Baltimore, MD (April).

2015 Sample McMeeking, L.B., **Balgopal, M.M.**, Weinberg, A.E., & Boyd, K.B.[**] Participatory action research experiences for undergraduates. Annual Conference of the American Education Research Association, Chicago. (April)

2015 **Balgopal, M.M.,** Casper, A.M.A.[**], Wallace, A.M., Laybourn, P.J., & Brisch, E. "An exploratory study of how college students make sense of cancer in writing-to-learn activities." Annual Conference of the National Association of Researchers in Science Teaching, Chicago (April).

2015 Casper, A.M.A.[**], **Balgopal, M.M.,** Fernandez-Gimenez, M. "Learning about resilience and systems: A case study of three natural resource management students" Annual Conference of the National Association of Researchers in Science Teaching, Chicago (April)

2014 **Balgopal, M.M.,** Sample McMeeking, L.B., Howe[+], J., Winey[+], T., & Nielsen[+], S. "The meme-ing of STEM." Annual Conference of the National Association of Researchers in Science Teaching, Pittsburgh. (April)

2014 Casper, A.M.A.[**], Atadero, R., **Balgopal, M.M**., & Rambo-Hernandez, K. "Discourse between men and women during PBL engineering group work." Annual Conference of the National Association of Researchers in Science Teaching, Pittsburgh. (April)

2014 **Balgopal, M.M.** "Measuring the meming of STEM" (2014). Science Education at the Crossroads Conference (September).

2013 **Balgopal, M.M.** & Gilbert, L. Feeding the world: Writing about socioscientific issues in 7th grade to increase decision-making skills" [+] Annual Conference of the National Association of Researchers in Science Teaching, Puerto Rico (April).

2013 Casper, A.M., **Balgopal, M.M.**, Rambo, K., Atadero, R., & Fontane, D. The impact of project-based group work on engineering college students' content knowledge and affect." Annual Conference of the National Association of Researchers in Science Teaching, Puerto Rico (April).

2012 **Balgopal, M.M.**, Gilbert, L.[+], Breitbarth, P.[+], & Wallace, A. M. Writing to learn and 7th grade students' ideas about limiting resources" Annual Conference of the National Association of Researchers in Science Teaching, Indianapolis, IN (March)

2012 Wallace, A.M. & **Balgopal, M.M**. Writing-to-learn activities as a measure of ecological literacy in college students" Annual Conference of the National Association of Researchers in Science Teaching, Indianapolis, IN (March)

2011 **Balgopal, M.M.**, Dahlberg, S., & Wallace, A.M. Using informal ecological reasoning to consider trade-offs and resolve dilemmas" Annual Conference of the National Association of Researchers in Science Teaching, Orlando, FL (April).

2011 **Balgopal, M.M.**, Gilbert, L.[+], Breitbarth, P., and Wallace, A.M. Middle school students' decisions about global endangered species management dilemmas." Annual Conference of the National Association of Researchers in Science Teaching, Orlando, FL (April).

2010 **Balgopal, M.M.** and Cornwall, S.[+] Stakeholder discourse dynamics: A case study of elementary school reform effort," Annual Conference of the National Association of Researchers in Science Teaching, Philadelphia, PA (April).

2008 **Balgopal, M.M.** and Wallace A.M. Decisions and dilemmas: Using WTL activities to increase ecological literacy.", Annual Conference of the National Association of Researchers in Science Teaching, Baltimore, MD (March)

2008 **Balgopal, M.M.** Motivation to resolve misconceptions: the role of identity in pre-service teachers," Annual Conference of the National Association of Researchers in Science Teaching, Baltimore, MD (March)

2006 **Balgopal, M.M.**, Reed, W., and Montplaisir, L. 'Sloppy writing' and conceptual change in a college course," Annual Conference of the National Association of Researchers in Science Teaching, San Francisco, CA; (April)

2005 **Balgopal, M.M.** Examining undergraduate understanding of evolution and natural selection, Annual Conference of the National Association of Researchers in Science Teaching. Dallas, TX (April)

TEACHING:

Courses Taught at Colorado State University

BZ 220 Introduction to Evolution (enrollment around 250), Spring 2017, Spring 2021
BZ 296 Evolution Honors Recitation, Spring 2017, Spring 2021
BZ 670 Teaching and Communicating Science (enrollment around 15, Fall 2016-present
EDUC 460 Science Teaching Methods Fall 2008-2014, Spring 2009-2015
EDUC 526 Interdisciplinary Teaching Methods Fall 2010-2012

Courses Taught at Minnesota State University Moorhead
Comparative Physiology (biology majors) 2008
Middle School Science Teaching Methods 2007
Exploring Biology (for elementary education majors) 2007-2008
Organismal Biology, Cell Biology, Genetics laboratory courses (biology majors) 2006-2008

Instructor, Emory University (Emory-Tibet Science Initiative)
Biology First Year: 8-day course for 110 Tibetan Buddhists monks, Sera Jey Monastic University (June 2017)
Environmental Science Research Methods: 8-day course for 25 Monastic Science Department Heads, Drepung Monastic University (December 2017)

Invited Guest Speaker
Physics GTA seminar, 9/26/2016
ECOL 505 "Foundations of Ecology," 10/20/2016; 10/24/2017, 10/23/2018;
HONOR 399, 2/29/2016, 2/20/2017, 10/2/2017, 2/19/2018, 10/23/2018
JMC 461 "Environmental Journalism" 9/13/2018

Professional Consultation Related to Teaching

2019 Day-long workshop: Designing undergraduate biology curricula, **Indian Institute of Science**, Centre for Ecological Science, Bangalore (7/2/2019)

2019 Day-long workshop: Implementing modified environmental education models for South Asian context. **Dakshin Foundation,** Bangalore, India (6/6/2019)

2019 Day-long workshop: Designing and teaching undergraduate and graduate biology courses. **National Centre for Biological Sciences**, Tata Institute for Fundamental Research, Bangalore, India (6/7/2019)

2019 Day-long workshop: Designing and teaching an undergraduate biology course. Centre for Ecological Sciences, **Indian Institute of Science**, Bangalore, India (7/2/2019)

2018 1-hour workshop **(**with Wright, D.S.) "A sense of place: A professional development series for STEM teachers." presented at the Annual **NSF/AAAS Noyce Summit**, Washington, D.C. (July)

2017 Day-long workshop on "Undergraduate Science Pedagogy" **Indian Institute of Science/National Center for Biological Sciences, Bangalore, India** (5/24/2017)

2017 Day-long workshop on "Public Science Communication," **Indian Institute of Science/National Center for Biological Sciences, Bangalore, India** (5/25/2017)

2016 Evaluating teaching effectiveness (with Erica Suchman) College of Agriculture Master Teaching Initiative, **Colorado State University**

2016 Teaching effectiveness: Tips on pursuing excellence in teaching and learning. (with Matt Hickey) Professional Development Institute, The Institute of Learning and Teaching, **Colorado State University**

2015 Transforming undergraduate science education through writing to learn. (with Paul Laybourn) Professional Development Institute, The Institute of Learning and Teaching, **Colorado State University.**

2015 Making meaning of content through disciplinary writing activities. Professional Development Institute, The Institute of Learning and Teaching, **Colorado State University**.

2010 Finding and repairing the leaks in the science career pipeline, (with P. Laybourn, G. Bowser, L. Graves, and Y. Garcia), 10th Annual Diversity Conference, **Colorado State University.** (September)

2009 Rangelands and climate change workshop," Climate Change Teach-In, (with C. Brown, J. Klein, M. Frasier, J. Morgan) Lory Student Center, **Colorado State University** (Feb)

2009 1-hour workshop "Dilemmas and decisions: Using WTL activities to increase undergraduate ecological literacy" (with A. Wallace and S. Dahlberg), **National Science Teachers Association, Minneapolis** (Oct).

2008 Dilemmas and decisions: Using WTL activities to increase ecological literacy of undergraduates. **(**with A. Wallace, A. and S. Dahlberg) Faculty Professional Development Institute, **Minnesota State University Moorhead** (May).

2007 The inquiry continuum using *kolam* artwork," Faculty Professional Development Workshops, **Minnesota State University Moorhead** (Oct)

2006 Writing in the sciences: beyond lab reports," World of Change Teachers' Conference, seminar/workshop, **Minnesota State University Moorhead** (Oct)

ADVISING:
Undergraduate Research/Engagement Assistants (2016-2019): 14
Undergraduate Honors Advisees (2008-current): 22
Current Masters advisees: 7
Current doctoral advisees: 3
Graduated doctoral advisees: 7
Graduated MS advisees: 13
External Examiner/ Committee Member: 3

SERVICE

University

Graduate Degree Program in Ecology Executive Committee, 2020-
Graduate Degree Program in Ecology, Diversity & Inclusion Committee, 2020-
Limited submission grant reviewer, Office of the VP for Research, Fall 2019
President's Standing Committee on the Status of Women Faculty, 2019-
Provost's Council for Public Engagement, 2016-current
Inclusive Pedagogy Initiative (VP K. Long), 2018-current
STEM Center Advisory Board 2015-current
Multi-ethnic Faculty & Staff Network (MFSN), 2010-current
Regional Western Center Education Committee, 2017-2019
Student Success Action Team Committee, 2017- 2018
Budget Area Review Committee, Faculty Council, 2016-2017
Task Force for Measuring Teaching Effectiveness (VP Palmquist and UDTS), 2015-current
Task Force for Students Success, Science of Learning, and Pedagogy (VP A. Lamborn) 2014-2017
Math, Science, Tech Day Planning Committee, 2013-2015
Search Committee, Agricultural Education Assistant Professor, 2012-2013
Invited panelist (with Dr. Eugenie Scott, NCSE), CSU Colloquium in the Life Sciences series. (Jan 2010).
STEM Education Dean & Faculty Group, 2008-2011

College

STEM Education Posse, co-lead. (supporting STEM Education in CNS) 2018
Masters in Natural Science Education (MNSE) Curriculum & Admissions Committee 2015-current
Search Committee, Director of the School of Education, 2013-2014
School of Education Task Force, 2011-2012
Faculty Advisory Committee, 2010

Department

Biology – Math Task Force, 2019-2020
Biology Undergraduate Committee, 2017-current
Biology Department Action Team, 2017-2018
Biology Executive Committee, 2016-2018
Biology Curriculum Review Committee, 2015-2018
Biology Exhibit and Space Committee, 2015-2016
School of Education/School of Teacher Education Reintegration Task Force, 2015
Annual School of Education Evaluation Committee, 2009

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Memberships in professional societies

American Educational Research Association (AERA, 2010)
Ecological Society of America (ESA, since 2006)
National Association of Biology Teachers (NABT, since 2004)
National Association of Researchers in Science Teaching (NARST, since 2004)
National Center for Science Education (NCSE, since 2008)

National Middle School Association (NMSA, now known as Association of Middle Level Education—AMLE, 2008-15)
National Science Teachers Association (NSTA, since 2004)

Review/editorial boards

Journal of Research in Science Teaching, editorial board
The Science Teacher, journal review board

Federal Grant Review Panels

2020: NSF Directorate of Engineering, Industrial Innovations and Partnerships
2020 NSF Directorate of Engineering, Industrial Innovations and Partnerships, ad hoc reviewer
2018: NSF, Division of Research on Learning in Formal and Informal Settings
2018: USDA, National Institute of Food and Agriculture, Ad Hoc reviewer
2016: NSF, Division of Undergraduate Education
2013: USDA, National Institute of Food and Agriculture
2012: USDA, National Institute of Food and Agriculture
2010: NSF, Division of Undergraduate Education
2009: NSF, Division of Undergraduate Education

Manuscript Refereeing

American Biology Teacher, *Environmental Education Research, Evolution Education and Outreach*, *Human Ecology, Instructional Science*, *International Journal of Science Education*, *International Journal of STEM Education*, *Journal of Biological Education*, *Journal of Chemical Education, Journal of Geoscience Education*, *Journal of Natural and Life Science Education*, *Journal of Research in Science Teaching*, *Journal of Teacher Education, PLOS One, Research in Science Education*, *Science Activities, Science Education*, *The Science Teacher*

Conference service

Reviewer, National Association of Researchers in Science Teaching (2008-current)
Session presider, "Traditional ecological knowledge" Ecological Society of American, Albuquerque, NM (2009)
Judge, Braun & Buell Competition, Graduate Student Research, Ecological Society of America, 2009
Judge, CSU Conference for Undergraduate Research & Artistry (2010-2017)
Judge, FRSES Conference, CSU (2016, 2017, 2018)
Graduate Degree Program in Ecology, Diversity Panel, Moderator, FRSES (2018)

OTHER ACTIVITIES/ACCOMPLISHMENTS – SERVICE/OUTREACH

Community and other university-related service

1. Co-presenter, Workshop on Science Pedagogy for Monastic Science Instructors, Emory-Tibet Science Initiative (11/4/2020)
2. Panelist, "Engaging and empowering community stakeholders." CSU Extension Fall Forum. (10/27/2020)
3. Interviewed by Brookings Institute (Center for Universal Education) for Report on UNESCO's Education of Sustainable Development and K-12 Climate Change Education, 7/5/2019
4. Advisory Board Member, "NSF IUSE: Promoting Research-based Instructional Methods for Enhancing and Reforming STEM Education." University of Colorado (Boulder), Department of Geoscience. (2019-2021)
5. Panelist, IE-472 (Education for Global Peace), 2018
6. Panelist, Women in Sustainability, School of Global and Environmental Sustainability, CSU, 2018
7. Panelist, Graduate School Prep Academy, CSU Cultural Centers, 2018
8. Facilitator, Inclusion and Intersectionality in STEM Panel, Front Range Student Ecology Symposium, CSU, 2018
9. Graduate Degree Program in Ecology, Small Grants Reviewer (2015, 2016, 2017)
10. School of Global & Environmental Sustainability Resident Fellow Proposal Reviewer, February 2017
11. Ignite Presenter, "Standing on the shoulder of entomologists," Front Range Student Ecology Symposium, CSU, 2017
12. Science Storytelling, sponsored by Graduate Women in Science, 2017

13. Panelist, Project Success, Center for Advising and Student Achievement, CSU 2016
14. Panelist, Work/Life Balance, Graduate Student Council, CSU 2016
15. Workshop co-leader, Communicating Science, Front Range Student Ecology Symposium, CSU, 2016
16. Board of Directors, Pretty Brainy (non-profit organization to recruit girls into STEM), 2014-current
17. Healthy Planet, Healthy Youth Steering Committee, Dept of FSHN, CSU (2015-2018)
18. Communicating Science workshop, sponsored by Graduate Women in Science, CSU, 2015
19. NoCo (northern Colorado) STEM Education Round Table Group, Fort Collins (2013-2016)
20. Colorado Department of Education STEM Working Group, Denver (2013-current)
21. School Accountability Committee, Shepardson Elementary, Poudre School District (2009-2011)
22. School Innovation Plan Committee, Blevins Middle School, Poudre School District (2010)

ENGAGEMENT

Professional Development Workshops: 2005- 2020 have conducted 33 workshops for K-12 educators
Science Outreach: 2007-2014 participation serving ~4,000 PK-12th grade students/ their families in Colorado