

Curriculum Vitae  
SAMUEL MELVIN FLAXMAN, Ph.D.

Associate Professor  
Department of Ecology & Evolutionary Biology  
University of Colorado Boulder  
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EDUCATION

- B.S. in Biology with highest honors, Cornell University, May 1998  
Title of undergraduate thesis: "Morning Sickness: Protecting Pregnant Women and Embryos"
- Ph.D. in Neurobiology and Behavior, Cornell University, January 2006  
Title of dissertation: "Ideal Free Distribution Models of Habitat Selection Behavior: Review, Synthesis, and Empirical Tests"  
Advisors: Paul W. Sherman, H. Kern Reeve

POSITIONS HELD

- March 2016 – present  
Associate Professor, Department of Ecology and Evolutionary Biology, University of Colorado at Boulder.
- August 2009 – February 2016  
Assistant Professor, Department of Ecology and Evolutionary Biology, University of Colorado at Boulder.
- February 2008 – August 2009  
Research Associate, Department of Ecology and Evolutionary Biology, University of Colorado at Boulder.
- July 2006 – January 2008  
Postdoctoral Fellow, supported by Princeton University's Council on Science and Technology & Department of Ecology and Evolutionary Biology, and by Santa Fe Institute's James S. McDonnell Foundation Program of Robustness of Social Processes.  
Advisor: Simon A. Levin
- February 2006 – June 2006  
Lecturer, Department of Ecology and Evolutionary Biology, Princeton University.

## PEER-REVIEWED PUBLICATIONS SINCE JOINING CU FACULTY

(\* denotes CU graduate student author, \*\* denotes CU undergraduate author)

- 39) Smith CCR\*, Flaxman SM. 2020. Leveraging whole genome sequencing data for demographic inference with approximate Bayesian computation. *Molecular Ecology Resources* 20:125–139. doi: <https://doi.org/10.1111/1755-0998.13092> (published online Sept. 2019)
- 38) Semenov GA, Safran RJ, Smith CCR\*, Turbek SP\*, Mullen SP, Flaxman SM. 2019. Unifying Theoretical and Empirical Perspectives on Genomic Differentiation. *Trends in Ecology & Evolution* (in press). doi: [10.1016/j.tree.2019.07.008](https://doi.org/10.1016/j.tree.2019.07.008)
- 37) P Nosil, V Soria-Carrasco, JL Feder, SM Flaxman, Z Gompert. 2019. Local and system-wide adaptation is influenced by population connectivity. *Conservation Genetics* 20:45. doi: [10.1007/s10592-018-1097-0](https://doi.org/10.1007/s10592-018-1097-0)
- 36) Smith CCR\*, Flaxman SM, Scordato ESC, Kane NC, Hund AK\*, Sheta BM, & Safran RJ 2018. Demographic inference in barn swallows using whole-genome data shows signal for bottleneck and subspecies differentiation during the Holocene. *Molecular Ecology*, 27(21), 4200–4212. doi:[10.1111/mec.14854](https://doi.org/10.1111/mec.14854)
- 35) Schilling MP, Mullen SP, Kronforst M, Safran M, Nosil P, Feder JL, Gompert Z, Flaxman SM. 2018. Transitions from Single- to Multi-Locus Processes during Speciation with Gene Flow. *GENES*, 9(6), 26 pages. doi:[10.3390/genes9060274](https://doi.org/10.3390/genes9060274)
- 34) Orlofske SA\*, Flaxman SM, Joseph MB\*, Fenton A, Melbourne BA, Johnson PTJ. 2018. Experimental investigation of alternative transmission functions: Quantitative evidence for the importance of nonlinear transmission dynamics in host-parasite systems. *Journal of Animal Ecology*, 87(3), 703–715. doi:[10.1111/1365-2656.12783](https://doi.org/10.1111/1365-2656.12783)
- 33) Feder JL, Nosil P, Gompert Z, Flaxman SM, Schilling M. 2017. Barnacles, barrier loci and the systematic building of species. *Journal of Evolutionary Biology* 30:1494–1497. doi: [10.1111/jeb.13105](https://doi.org/10.1111/jeb.13105)
- 32) Nosil P, Feder JL, Flaxman SM, Gompert Z. 2017. Tipping points in the dynamics of speciation. *Nature Ecology and Evolution*. 24 January 2017. Vol 1, Article 0001. doi: [10.1038/s41559-016-0001](https://doi.org/10.1038/s41559-016-0001)
- 31) McCreery HF\*, Correll N, Breed MD, Flaxman SM. 2016. Consensus or deadlock? Consequences of simple behavioral rules for coordination in group decisions. *PLoS One*. 11(9): e0162768. doi: [10.1371/journal.pone.0162768](https://doi.org/10.1371/journal.pone.0162768)
- 30) Safran RJ, Scordato ESC, Wilkins MR, Hubbard JK, Jenkins BR, Albrecht T, Flaxman SM, Karaardıç H, Vortman Y, Lotem A, Nosil P, Pap P, Shen S, Chan S-F, Parchman T, Kane NC. 2016. Genome-wide differentiation in closely related populations: the roles of selection and geographic isolation. *Molecular Ecology* 25:3865–3883. doi: [10.1111/mec.13740](https://doi.org/10.1111/mec.13740)
- 29) Cook C\*, Kaspar RE\*\*, Flaxman SM, Breed MD. 2016. Rapidly changing environment modulates the thermoregulatory fanning response in honeybee groups. *Animal Behaviour* 115:237–243. doi: [10.1016/j.anbehav.2016.03.014](https://doi.org/10.1016/j.anbehav.2016.03.014)
- 28) Comeault AA, Flaxman SM, Riesch R, Curran E, Soria-Carrasco V, Gompert Z, Farkas TE, Muschick M, Parchman TL, Schwander T, Slate J, Nosil P. 2015. Selection on a genetic polymorphism counteracts ecological

- speciation in a stick insect. *Current Biology* 25:1975–1981. doi: 10.1016/j.cub.2015.05.058
- 27) Feder JL, Nosil P, and Flaxman SM. 2014. Assessing when chromosomal rearrangements affect the dynamics of speciation: implications from computer simulations. *Frontiers in Genetics* 5:295. doi: 10.3389/fgene.2014.00295.
- 26) Mendelson TC, Martin MD, and Flaxman SM. 2014. Mutation–order divergence by sexual selection: diversification of sexual signals in similar environments as a first step in speciation. *Ecology Letters* 17:1053–1066. doi: 10.1111/ele.12313.
- 25) Feder JL, Nosil P, Wacholder AC\*, Egan SP, Berlocher SH, and Flaxman SM. 2014. Genome-wide congealing and rapid transitions across the speciation continuum during speciation with gene flow. *Journal of Heredity* 105:810–820.
- 24) Flaxman SM, Wacholder AC\*, Feder JL, and Nosil P. 2014. Theoretical models of the influence of genomic architecture on the dynamics of speciation. *Molecular Ecology* 23:4074–4088. doi: 10.1111/mec.12750.  
 → Source code published at:  
<http://sourceforge.net/projects/bu2s/files/>  
 → Data package published at Dryad:  
 Flaxman SM, Wacholder AC, Feder JL, Nosil P (2014) Data from: Theoretical models of the influence of genomic architecture on the dynamics of speciation. Dryad Digital Repository.  
<http://dx.doi.org/10.5061/dryad.kc596>
- 23) Flaxman SM. 2013. Surfing downhill: when should population range expansion be characterized by reductions in fitness? *Molecular Ecology* 22:5963–5965. doi: 10.1111/mec.12564
- 22) Feder JL, Flaxman SM, Egan SP, Comeault AA, and Nosil P. 2013. Geographic mode of speciation and genomic divergence. *Annual Review of Ecology, Evolution, and Systematics* 44: 73–97. doi: 10.1146/annurev-ecolsys-110512-135825
- 21) Williams AC\*, Flaherty SE\*\*, and Flaxman SM. 2013. Quantitative tests of multitrophic ideal free distribution theory. *Animal Behaviour* 86:577–586. doi: 10.1016/j.anbehav.2013.06.013
- 20) Flaxman SM, Feder JL, and Nosil P. 2013. Genetic hitchhiking and the dynamic buildup of genomic divergence during speciation–with–gene–flow. *Evolution* 67:2577–2591. doi: 10.1111/evo.12055.  
 → Source code published at:  
<http://sourceforge.net/projects/bu2s/files/>  
 → Data package published at Dryad:  
 Flaxman SM, Feder JL, Nosil P (2013) Data from: Genetic hitchhiking and the dynamic buildup of genomic divergence during speciation–with–gene–flow. Dryad Digital Repository. doi:10.5061/dryad.t894r
- 19) Feder JL, Flaxman SM, Egan SP, and Nosil P. 2013. Commentary: Hybridization and the build-up of genomic divergence during speciation. *Journal of Evolutionary Biology* 26: 261–266. doi: 10.1111/jeb.12009.
- 18) Flaxman SM, Feder JL, and Nosil P. 2012. Spatially explicit models of divergence and genome hitchhiking. *Journal of Evolutionary Biology* 25: 2633–2650. doi: 10.1111/jeb.12013.  
 → Source code published at:  
<http://sourceforge.net/projects/spatialhitchhik/files/>  
 → Data package published at Dryad:

- Flaxman SM, Feder JL, Nosil P (2012) Data from: Spatially explicit models of divergence and genome hitchhiking. Dryad Digital Repository. doi:10.5061/dryad.8sc8b
- 17) Safran RJ#, Flaxman SM#, Kopp M#, Irwin DE, Briggs D, Evans MR, Funk WC, Gray DA, Hebets EA, Seddon N, Scortdato E, Symes LB, Tobais JA, Toews DPL, Uy JAC. 2012. A robust new metric of phenotypic distance to estimate and compare multiple trait differences among populations. *Current Zoology* 58: 426–439. (# denotes equal contributions)  
→ Source code and example data published separately at:  
<http://sourceforge.net/projects/deltap/files/Version1.1/>
  - 16) Galanthay T\* and Flaxman SM. 2012. Generalized movement strategies for constrained consumers: ignoring fitness can be adaptive. *American Naturalist* 179: 475–489. DOI: 10.1086/664625.  
→ Data package published at Dryad:  
Galanthay TE and Flaxman SM (2012) Data from: Generalized movement strategies for constrained consumers: ignoring fitness can be adaptive. Dryad Digital Repository. doi:10.5061/dryad.hd301f6n
  - 15) Williams AC\* and Flaxman SM. 2012. Can predators detect and respond adaptively to the quality of their prey's resource? *Animal Behaviour* 83: 883–890. DOI: 10.1016/j.anbehav.2012.01.008
  - 14) Flaxman SM, Lou Y, and Meyer FG. 2011. Evolutionary ecology of movements by predators and prey. *Theoretical Ecology* 4: 255–257. DOI: 10.1007/s12080-011-0120-6.
  - 13) Nosil P, Flaxman SM. 2011. Conditions for mutation–order speciation. *Proceedings of the Royal Society B: Biological Sciences* 278: 399–407. DOI: 10.1098/rspb.2010.1215.
  - 12) Flaxman SM, Lou Y. 2009. Tracking prey or tracking the prey's resource? Mechanisms of movement and optimal habitat selection by predators. *Journal of Theoretical Biology* 256:187–200. DOI: 10.1016/j.jtbi.2008.09.024.

#### ADDITIONAL PEER-REVIEWED PUBLICATIONS

- 11) Brennan BJ, Flaxman SM, Alonzo S. 2008. Female alternative reproductive behaviors: the effect of group size on mate assessment and copying. *Journal of Theoretical Biology* 253:561–569. DOI: 10.1016/j.jtbi.2008.04.003.
- 10) Flaxman SM, Sherman PW. 2008. Morning sickness: adaptive cause or non-adaptive consequence of embryo viability? *American Naturalist* 172:54–62. DOI: 10.1086/588081.
- 9) Safran RJ, Doerr VAJ, Sherman PW, Doerr ED, Flaxman SM, Winkler DW. 2007. Group breeding in vertebrates: linking individual and population-level approaches. *Evolutionary Ecology Research* 9:1163–1185.
- 8) Flaxman SM, deRoos CA. 2007. Different modes of resource variation provide a critical test of ideal free distribution models. *Behavioral Ecology and Sociobiology* 61: 877–886. DOI: 10.1007/s00265-006-0316-8.
- 7) Flaxman SM, Reeve HK. 2006. Putting competition strategies into ideal free distribution models: habitat selection as a tug of war. *Journal of Theoretical Biology* 243: 587–593. DOI: 10.1016/j.jtbi.2006.07.012.
- 6) Flaxman SM, Sherman PW. 2002. Is morning sickness maladaptive? *Trends in Ecology and Evolution* 17:359.

- 5) Sherman PW, Flaxman SM. 2002. NVP in an evolutionary perspective. *American Journal of Obstetrics and Gynecology* 186:S190–S197.
- 4) Flaxman SM. 2002. Invited commentary on DMT Fessler's "Reproductive immunosuppression and diet: An evolutionary perspective on pregnancy sickness and meat consumption." *Current Anthropology* 43:41.
- 3) Sherman PW, Flaxman SM. 2001. Protecting ourselves from food. *American Scientist* 89:142–151.
- 2) Flaxman SM. 2000. The evolutionary stability of mixed strategies. *Trends in Ecology and Evolution* 15:482–484.
- 1) Flaxman SM, Sherman PW. 2000. Morning sickness: a mechanism for protecting mother and embryo. *Quarterly Review of Biology* 75:113–148.

#### INVITED PRESENTATIONS

- Flaxman SM. "Predictions about the Genome-Wide Dynamics of Population Divergence Across the Speciation Continuum." Departmental colloquium talk at University of Notre Dame. March 23, 2016.
- Flaxman SM. "Predictions about the Genome-Wide Dynamics of Population Divergence Across the Speciation Continuum." Departmental colloquium talk at University of Texas, Arlington. March 15, 2016.
- Flaxman SM, Gompert Z, Nosil P. "Patterns of differentiation at neutral loci during divergence with gene flow." Invited workshop presentation at the Society for Molecular Biology and Evolution SMBEBA 2015: Investigating biological adaptation with NGS: data and models. May 28, 2015, Le Hameau de l'étoile, France.
- Flaxman SM. "Predictions about the Genome-Wide Dynamics of Population Divergence Across the Speciation Continuum." Departmental colloquium talk at University of Wisconsin, Milwaukee. September 12, 2014.
- Flaxman SM. "Genomic Architecture Drives the Origin of New Species". Applied Mathematics Department Dynamical Systems seminar, February 6, 2014, Boulder, CO.
- Flaxman SM. "Genomic Architecture Drives the Origin of New Species". Invited symposium talk, Department of Neurobiology and Behavior, Cornell University, September 1, 2013, Ithaca, NY.
- Flaxman SM. "Genomic Architecture Drives the Origin of New Species". Invited talk, American Genetic Association Annual President's Symposium, July 22, 2013, Ithaca, NY.
- Flaxman SM. "Habitat selection, information use, and coevolution in predator-prey systems." Departmental Seminar, University of Colorado Denver. March 8, 2013.
- Flaxman SM. "Genetic Hitchhiking and the Dynamic Buildup of Divergence during Speciation-with-Gene-Flow". Departmental colloquium presentation at University of Northern Colorado, October 5, 2012, Greeley, CO.
- Flaxman SM. "Evolutionary ecology of habitat selection by predators and prey: interactions and information use in exploiter-victim systems."

- Invited talk, 9<sup>th</sup> AIMS Conference on Dynamical Systems, Differential Equations, and Applications, July 3, 2012, Orlando, FL.
- Flaxman SM. "Morning sickness: testing hypotheses about the adaptive significance of nausea and vomiting in human pregnancy." Departmental colloquium talk, University of Michigan–Dearborn, September 23, 2011.
- Flaxman, SM. "Hypotheses, predictions, facts and theories: evolution and intelligent design in the science classroom." Keynote address at Evolution Outreach Workshop (organized by CU EBIO evolution outreach committee) on October 9, 2010
- Flaxman SM. "Coevolution of predator and prey movement mechanisms in an individual based model." Department of Applied Mathematics colloquium, University of Colorado at Boulder, February 19, 2010.
- Flaxman SM. "Coevolution of predator and prey movement mechanisms in an individual based model." Invited talk, Fields Institute workshop on Adaptive Movements of Interacting Species, September 10, 2009, Toronto.
- Flaxman SM. "Simultaneous habitat selection by predators and prey: theory and experiments." Applied Mathematics Dynamical Systems seminar, University of Colorado at Boulder, April 16, 2009.
- Flaxman SM. "Causes and effects of morning sickness." Departmental Seminar at Carleton University, Ontario, November 2002.
- Flaxman SM. "Evolving with our food: an evolutionary perspective on morning sickness." Invited talk, Annual Meeting of the Teratology Society, 27 June 2001, Montréal, Québec.
- Flaxman SM & Sherman PW. "A Darwinian perspective on NVP." Invited talk, NIH NICHD Conference on Exploring Nausea and Vomiting of Pregnancy, 19 September 2000, Bethesda, Maryland.

#### CONTRIBUTED PRESENTATIONS

- (\* denotes graduate student author and presenter; \*\* denotes undergraduate student author and presenter)
- Flaxman SM. "Genome wide congealing and the dynamics of speciation with gene flow". Contributed talk, annual meeting of the Society for the Study of Evolution, June 24, 2014, Raleigh, NC.
- Flaxman SM. "The Dynamics of Speciation with Gene Flow: Rapid Transitions from One Species to Two". Contributed talk, annual meeting of the Society for the Study of Evolution, June 25, 2013, Snowbird, UT.
- Flaxman SM. "Genetic Hitchhiking and the Dynamic Buildup of Divergence during Speciation-with-Gene-Flow". Contributed talk, annual meeting of the Guild of Rocky Mountain Ecologists and Evolutionary Biologists, September 15, 2012, Nederland, CO.
- Flaxman SM. "Relationships between environmental structure and genome structure during population divergence: spatial environmental heterogeneity and the efficacy of 'hitchhiking'". Contributed talk, 1<sup>st</sup> Joint Congress on Evolutionary Biology, July 10, 2012, Ottawa, ON.
- Galanthay TE\*, Flaxman SM. "Dynamics of evolution in two-patch ecological models." Contributed talk, 9<sup>th</sup> AIMS Conference on Dynamical Systems, Differential Equations, and Applications, July 5, 2012, Orlando, FL.

- Williams AC\*, Flaxman SM. "Can predators assess the quality of their prey's resource?" Contributed poster given at the joint meeting of the Animal Behavior Society and the International Ethological Conference, July 2011, Bloomington, IN.
- Flaxman SM, Lou Y, Meyer FG. "Evolutionary dynamics of information use in animal movement strategies." Contributed talk, annual meeting of the Guild of Rocky Mountain Ecologists and Evolutionary Biologists, September 17, 2011, Nederland, CO.
- Flaxman SM, Lou Y, Meyer FG. "Evolutionary dynamics of information use in animal movement strategies." Contributed talk, annual meeting of the Society for the Study of Evolution, June 21, 2011, Norman, OK.
- Galanthay TE\*, Flaxman SM. "Why ignoring your Darwinian fitness may be adaptive: evolutionary dynamics of movement strategies in the presence of realistic constraints." Contributed poster, SIAM Conference on Applications of Dynamical Systems, May 22, 2011, Snowbird, UT.
- Williams AC\*, Flaxman SM. "Movement and Habitat Choice Mechanisms in Tritrophic Systems." Contributed talk, Ecology and Evolutionary Biology Spring Symposium, April 15, 2011, Boulder, CO.
- Galanthay T\*, Flaxman SM. "Why ignoring your Darwinian fitness may be adaptive: evolutionary dynamics of movement strategies in the presence of realistic constraints." Contributed talk, 7<sup>th</sup> annual meeting of the Front Range Applied Mathematics Conference, March 5, 2011, Denver, CO.
- Perkins JP\*\*, Galanthay TE\*, Flaxman SM. "Influence of food web structure on predator-prey dynamics in a patchy environment." Contributed talk, 7<sup>th</sup> annual meeting of the Front Range Applied Mathematics Conference, March 5, 2011, Denver, CO.
- Trantow T\*\*, Galanthay TE\*, Flaxman SM. "An age structured SIR/SIRS endemic model with age groups and its importance in modeling an epidemic." Contributed talk, 7<sup>th</sup> annual meeting of the Front Range Applied Mathematics Conference, March 5, 2011, Denver, CO.
- Galanthay TE\*, Flaxman SM. "Why ignoring your Darwinian fitness may be adaptive: evolutionary dynamics of movement strategies in the presence of realistic constraints." Contributed talk, Applied Mathematics Dynamical Systems seminar series, March 3, 2011, Boulder, CO.
- Galanthay TE\*, Flaxman SM. "Optimal Movement Strategies: How might natural selection shape organism movement?" Contributed poster, Dynamics Days 30<sup>th</sup> Annual International Conference, January 5-8, 2011, Chapel Hill, NC.
- Flaxman SM. "Counterintuitive optimal patch choice: predators drive prey to match resources." Contributed talk, Animal Behavior Society meeting, Burlington, Vermont, July 2007.
- Flaxman SM. "Counterintuitive mechanisms of optimal patch choice: predators 'help' prey achieve an ideal free distribution." Contributed poster, International Society for Behavioral Ecology meeting in Tours, France, July 2006.

Flaxman SM. "Darwinian Medicine". Guest lecture for Evolution Class (EBIO 3080), Boulder, CO. Given in 2009, 2010, and 2014.

Flaxman SM. "Morning sickness: protecting mother and embryo." Lecture given to the Writing in the Majors section of the Evolutionary Biology class at Cornell University, 19 April 2001.

Flaxman SM. "Morning sickness: protecting mother and embryo." Lecture given to the Evolutionary Biology class at the University of Toronto at Scarborough, 13 March 2001.

#### GRANTS AND FELLOWSHIPS RECEIVED

Sole PI on "EAGER: How predictable is the evolving genomic architecture of speciation?", \$299,000 from the National Science Foundation, June 2016 – May 2018.

Co-investigator on \$480,000 grant to CU's EBIO department from the Science Education Initiative (PI: Andrew Martin). 2011–2016.

Santa Fe Institute, James S. McDonnell Foundation Program of Robustness of Social Processes (one and one-half years of postdoctoral support, 2006–2007; \$29,000)

Princeton University Council on Science and Technology, Postdoctoral Teaching Fellow (two years of postdoctoral support, 2006–2008; \$61,000)

Department of Neurobiology & Behavior Animal Behavior Research Grant (\$2000 in each of 2004 and 2005)

National Science Foundation Graduate Research Fellowship (three years of graduate support during 1999–2005)

Cornell University College of Agriculture and Life Sciences Presidential Fellowship (one year of graduate support during 2001–2002)

Cornell University Olin Fellowship (one year of graduate support during 2000–2001)

Animal Behavior Society Student Research Grant (\$1000, summer 2002)

Cornell Chapter of Sigma Xi Research Grant (\$500 in 2001, \$600 in 2002, \$800 in 2005)

#### AWARDS

Outstanding Faculty Member award from the Office of Disability Services, Spring 2017.

Outstanding Teacher for Technology in Teaching, Award of Excellence, Arts and Sciences Support of Education through Technology (ASSETT), University of Colorado, Boulder. January 2014.

Outstanding Teaching Assistant Award, College of Agriculture and Life Sciences. Fall 2003.

#### COURSES TAUGHT AT UNIVERSITY OF COLORADO BOULDER

2009–2017 Co-Instructor for General Biology I (EBIO 1210), a lecture class with 4 sections having combined enrollment of ~1400 undergraduates. Developed new lectures, exams, and interactive classroom exercises. Taught two sections in 2009, 2010, and 2012–2015; taught four sections in 2011.

- 2017 Developed a brand new course: EBIO 4420/5420 "Computational Biology", designed to provide biologists with tools for entering the modern world of computing.
- 2010–2015, 2017 Mentor/supervisor for EBIO 3010, an undergraduate teaching experience "class" in which upper level undergraduates acted as Undergraduate Learning Assistants for the General Biology I class (EBIO 1210).
- 2015–2016 Critical Thinking: Building Models in Ecology and Evolution (EBIO 4800/5800), a course for undergraduates and graduate students on building mathematical and simulation models. Developed all lectures, assignments, and discussions for the class.
- 2015 Co-Instructor for Evolutionary Genomics (EBIO 6300–002), a graduate seminar discussion class on current topics in evolutionary biology, genetics, and genomics.
- 2014 TheorEE: Theoretical Ecology and Evolution (EBIO 5460–003), a course for graduate students on building mathematical and simulation models in ecology and evolution. Developed all lectures, assignments, and discussions for the class.
- 2010–2011 Darwinian Medicine (EBIO 4800/5800), a Critical Thinking class with 25 students. Developed all lectures, assignments, and discussions for the class.
- 2010 Co-Instructor for Seminar in Organismic Biology (EBIO 6300), a practical skills seminar for graduate students focused on grant writing.

Summary metrics of teaching evaluations from students can be obtained by visiting <https://fcq.colorado.edu/UCBdata.htm> and searching under "Flaxman, Samuel"

#### EFFORTS TO IMPROVE TEACHING IN MY OWN CLASSES AND FOR ALL OF EBIO

- 2017–2019 ASSETT Faculty Fellow
- 2015–present Collaborating with Noah Finkelstein, Joel Corbo, and a number of EBIO faculty members as part of AAU- and NSF-sponsored projects to transform STEM teaching at the departmental level and to help in the development of CU Boulder's "Teaching Quality Framework."
- 2016–present Collaborating with OIT's Academic Technology Design Team to study and improve large lecture sections of EBIO 1210 and 1220.
- 2015–2016 Participated in and helped to lead weekly meetings of EBIO faculty in a learning community devoted to the scholarly practice of teaching.
- 2013 Collaborated with Jenny Knight (MCDB) and Sarah Wise (ASSETT) to run an experiment in my General Biology sections on how to enhance the value of student discussions during active learning exercises.
- 2012–2014 Attended EBIO teaching retreats, focused on development of learning goals and assessment tools for EBIO courses.
- 2011–2016 Co-investigator on \$480,000 grant to CU's EBIO department from the Science Education Initiative (SEI; PI: Andrew Martin). Participated in meetings to develop and discuss consensus goals and assessment strategies for core courses in EBIO. Worked with SEI Teaching Fellows to improve practices in all the courses I teach.

Designed and implemented pre- and post-assessments. Used my General Biology I classroom to participate in experiments on ways to increase student participation in and benefits of clicker questions.

2009–present Participated in data-based revision of teaching and curriculum in collaboration with Science Teaching Fellows, colleagues in the department, and the Office of Information Technology's Academic Technology Design Team.

#### GRADUATE STUDENTS FOR WHOM I HAVE SERVED AS PRIMARY ADVISOR

Student name	Department	Degree	Degree year (expected)	Current position (if graduated)
Benefield, Amy	EBIO	Ph.D.	(2022)	n/a
Catchen, Michael	EBIO	B.S.–M.S.	2020	Ph.D. Student at McGill University
Galanthay, Theodore III	APPM	Ph.D.	2013	Assistant Professor, Ithaca College
Perkins, Jerome	APPM	B.S.–M.S.	2013	Trader and Investment Advisor Associate, RIA Wealth Management, Denver, CO
Smith, Chris	EBIO/IQBio	Ph.D.	(2020)	n/a
Westmoreland, Aaron	EBIO	Ph.D.	(2024)	
Williams, Amanda	EBIO	M.A.	2012	Development and Events Coordinator, Humane Society of Boulder Valley

#### ADDITIONAL MENTORING/ADVISING OF GRADUATE AND UNDERGRADUATE STUDENTS

##### Rotation advisor to:

Lisa Natale, Ph.D. student, Interdisciplinary Quantitative Biology  
 Chris Smith, Ph.D. student, Interdisciplinary Quantitative Biology  
 Courtney Van Den Elzen, Ph.D. student, Interdisciplinary Quantitative Biology  
 Aaron Wacholder, Ph.D. student, Interdisciplinary Quantitative Biology

##### Ph.D. or M.A./M.S. committee member for:

Kevin Bracy-Knight, Ph.D. student, Ecology and Evolutionary Biology  
 Kelly Carscadden, Ph.D. student, Ecology and Evolutionary Biology  
 Javan Carter, Ph.D. student, Ecology and Evolutionary Biology  
 Chelsea Cook, Ph.D. student, Ecology and Evolutionary Biology  
 Kyle Donahue, B.A./M.A. student, Ecology and Evolutionary Biology  
 Timothy Farkas, Ph.D. student, Ecology and Evolutionary Biology  
 Andrew Flynn, B.A./M.A. student, Ecology and Evolutionary Biology  
 (defended thesis in spring 2012)

Amanda Hund, Ph.D. student, Ecology and Evolutionary Biology  
(defended thesis in fall 2017)

Maxwell Joseph, Ph.D. student, Ecology and Evolutionary Biology  
(defended thesis in spring 2015)

Geoff Legault, Ph.D. student, Ecology and Evolutionary Biology

Helen McCreery, Ph.D. student, Ecology and Evolutionary Biology  
(defended thesis in spring 2017)

Joseph Mihaljevic, Ph.D. student, Ecology and Evolutionary Biology  
(defended thesis in spring 2015)

Wynne Moss, Ph.D. student, Ecology and Evolutionary Biology

Lisa Natale, Ph.D. student, Ecology and Evolutionary  
Biology, and Interdisciplinary Quantitative Biology

Sarah Orlofske, Ph.D., Ecology and Evolutionary Biology  
(defended thesis in spring 2013)

Lledó Ortells, M.S. student, Electrical, Computer, and Energy  
Engineering (defended thesis in fall 2012)

Chelsea Pretz, Ph.D. student, Ecology and Evolutionary Biology

Laurel Rachmeler, Ph.D., Physics (defended thesis in fall 2009)

Michael Rodriguez, M.S. student, Ecology and Evolutionary Biology  
(defended thesis in spring 2014)

Chris Steenbock, Ph.D. student, Ecology and Evolutionary Biology

Silas Tittes, Ph.D. student, Ecology and Evolutionary Biology

Sheela Turbek, Ph.D. student, Ecology and Evolutionary Biology

Courtney Van Den Elzen, Ph.D. student, Ecology and Evolutionary  
Biology, and Interdisciplinary Quantitative Biology

Kristin White, Ph.D. student, Ecology and Evolutionary Biology

Rachel Wildrick, B.A./M.A. student, Ecology and Evolutionary Biology  
(defended thesis in spring 2013)

David Zonana, Ph.D. student, Ecology and Evolutionary Biology

Advisor for CU undergraduates conducting independent research/studies:

Michael Catchen, Kristin White, Kendall Flanagan, Yesha Patel,  
Lauren Parrish, Sean Flaherty, Kirill Langer, Jacob West-Roberts

Advisor for CU undergraduates supported by UROP grants:

Kendall Flanagan, Pamela Williams, Alex Lickers-Lawson, Kirill  
Langer, Sean Flaherty, Joseph Arehart

Advisor for CU undergraduates in Applied Mathematics NSF-funded MCTP program:

Thomas Trantow (2010-2011), Jerome Perkins (2010-2012)

Supervised undergraduate honors thesis for:

Catherine Wolfe, graduated in spring 2009 (ENVS)

### CONTRIBUTIONS TO JUSTICE, EQUITY, DIVERSITY, AND INCLUSION EFFORTS

Time Frame	Description
2016-present	Led efforts in General Biology (EBIO 1210 and 1220, serving over 1000 students every semester) to make material meet accessibility standards
2017	Co-organized and co-produced the campus event “#BuffsUnited: a celebration of the CU Boulder community in support of our shared vision for an inclusive, affirming campus”
2017-present	Faculty advisor to CU Café, a student and postdoc group focused on supporting the success of underrepresented identities in STEM
2017-present	Participated in dozens of professional developing trainings on inclusive pedagogy, anti-racism, diversity, and inclusion
2017-present	Member of Boulder Faculty Assembly’s Diversity Committee; co-author of two resolutions passed by the Assembly
2017-present	Presented interactive “how-to” sessions on making PowerPoint slides accessible to my department, ASSETT faculty fellows, and the Campus Diversity Summit
2018	Member of authoring committee of campus’s Diversity Plan (“IDEA plan”)
2018	Co-organized and co-produced the campus event “#BuffsUnited: Interwoven Intersectionalities”
2019	Traveled to US-Mexico border to volunteer, helping asylum seekers from Guatemala, Honduras, and El Salvador who were part of a migrant caravan.
2020	Panelist on two different “Difficult Dialogues” panels on race and racism organized by the Center for Arts and Humanities
2020	Panelist in a session in the fall 2020 Campus Diversity Summit discussing the book <i>So You Want to Talk About Race</i> , by Ijeoma Oluo

### SERVICE

#### Departmental Service:

Year	Description
2020	Chair, Department Faculty Affairs Committee
2017	EBIO Retreat Planning Committee
2016	Member of PURC for Nancy Emery’s comprehensive review
2016-present	EBIO Graduate Committee
2016-2017	EBIO Faculty Learning Community facilitator
2015-2017	EBIO AAU Department Action Team
2015-2016	Synthesized and analyzed departmental syllabi and learning goals
2015-2016	EBIO DBER job search committee

2014–present	E BIO Website Committee
2012–2015	E BIO Executive Committee
2009–present	E BIO General Biology Committee; Committee chair from 2016–present
2009–2014	E BIO Greenhouse Committee
2012	E BIO ARPAC Committee
2012	E BIO Academic Advisor Job Search Committee

#### University Service:

Year	Description
2017	Presenter and discussion facilitator at UGGS new graduate student orientation (multiple sessions)
2016–present	Co-organizer of #BuffsUnited
2017–present	Faculty advisor to CU Café
2017–2018	Faculty Leadership Institute member
2017–2018	Foundations of Excellence Initiative, Faculty Dimension Committee member
2017–present	At-Large Representative, Boulder Faculty Assembly
2015	Member of PURC for Rob Buchwald's reappointment
2014–present	BioFrontiers Task Force member
2008, 2011, 2016	Participant, Buffalo Bicycle Classic

#### Professional Service:

Year	Description
2017–2019	Associate Editor for <i>Evolution</i>
2017	National Science Foundation Graduate Research Fellowship Program panelist
2015–2019	Editorial Board Member for <i>Proceedings of the Royal Society of London. B. Biological Sciences.</i>
2014	National Science Foundation Doctoral Dissertation Improvement Grant Panelist
2010, 2012	Animal Behavior Society Student Research Grant reviewer
2009–present	Reviewer for ~15 manuscripts and grant proposals per year

#### Community Service and Outreach:

Year	Description
2017	Outreach in local schools: presentations on evolutionary genomics
2016	STEM mentor for three independent student projects, Horizons K–8 public school
2010, 2012, 2013, 2015	Speaker, participant, and panelist at the E BIO Evolution Outreach Workshop (provides continuing education credit for

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K-12 teachers)

2013-present Crossing guard, Horizons K-8 public school

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