

Abigail L. S. Swann

CONTACT INFORMATION	Atmospheric Sciences Department and Biology Department University of Washington Box 351640 Seattle, WA 98195-1640 USA	<i>E-mail:</i> aswann@u.washington.edu www.atmos.washington.edu/~aswann ORCID: 0000-0001-8513-1074
RESEARCH INTERESTS	Ecoclimate. Biosphere-climate feedbacks. Climate and ecosystem modeling. Carbon cycle.	
EDUCATION	<i>Ph.D.</i> , Earth and Planetary Science, University of California, Berkeley Thesis title: <i>Ecoclimate: Variations, Interactions, and Teleconnections</i> Thesis Advisor: Inez Y. Fung	2010
	<i>M.A.</i> , Earth and Environmental Sciences, Columbia University	2005
	<i>B.A.</i> , Earth and Planetary Science, University of California, Berkeley	2003
PROFESSIONAL EXPERIENCE	University of Washington , Seattle, WA USA <i>Associate Professor</i> in the Department of Atmospheric Sciences and the Department of Biology 2018 – ongoing <i>Assistant Professor</i> in the Department of Atmospheric Sciences and the Department of Biology 2012 – 2018 Harvard University , Cambridge, MA USA <i>Giorgio Ruffolo Post-doctoral Fellow</i> in Sustainability Science at the Kennedy School of Government, <i>Visiting Scientist</i> in the Department of Organismic and Evolutionary Biology 2010 – 2012	
HONORS AND AWARDS	Walter Orr Roberts Lecture, American Meteorological Society Global Environmental Change Early Career Award, American Geophysical Union Early Career Fellow, Ecological Society of America Jon C. Graff, Ph.D. Prize for Excellence in Science Communications Science News' 10 Scientists to Watch Editor's Citation for Excellence in Refereeing, American Geophysical Union Fellow, Kavli Frontiers of Science run by the National Academy NSF CAREER Faculty Early Career Development Award DISCCRS VI Scholar Giorgio Ruffolo Post-doctoral Fellow in Sustainability Science at the Harvard Kennedy School NASA Earth Systems Science Fellow IGERT Fellow in Applied Mathematics and Earth Sciences at Columbia University Graduated with Honors, University of California All-America Sportsman of the year, Inter-Collegiate Sailing Association	2021 2019 2019 2019 2019 2018 2018 2016-2020 2011 2010-2012 2007 2003-2005 2003 2003

GRANTS

- DOE RGMA DE-SC0021209: *Evaluating the influence of plant-climate interactions and feedbacks on hydrologic cycling: Quantifying and validating the roles of plant processes and stomatal conductance*
PI A.L.S. Swann
 \$827,000 2020 - 2023
- NSF Climate and Large Scale Dynamics & Arctic Natural Sciences AGS-2041491: *EA-GER: An Oasis for Surface Life on the Ocean of Snowball Earth*
Co-PI A.L.S. Swann, (Project PI S. Warren, Co-PI C. Bitz).
 \$225,000 2020-2022
- NSF Macrosystems EF-1925837: *MSA- Will Ongoing Tree Loss Alter Connectivity Among NEON Domains: Evaluating Detectability of Ecoclimate Teleconnections to Enable Use of NEON Data*
PI A.L.S Swann.
 \$299,761 2019-2021
- NSF Dynamics of Coupled Natural and Human Systems CNH-1824796: *CNH-L: Revealing the Hidden Ecoclimate Teleconnections Between Forest and Agriculture in the U.S. Enables Novel Governance Strategies for a Telecoupled World.*
Co-PI A.L.S Swann, (Project PI D. Breshears, Co-PI J. Soto, Co-PI L. Lopez, Co-PI E. Baldwin).
 \$266,469 (to UW) 2018-2023
- University of Washington Royalty Research Fund: *Maize yield under a changing climate: the hidden role of vapor pressure deficit*
PI A.L.S. Swann
 \$37,631 2018-2019
- NSF Climate and Large Scale Dynamics & Ecosystems AGS-1553715: *CAREER: Ecosystem-driven accelerations and oscillations in the coupled Earth system.*
PI A.L.S Swann
 \$654,040 2016 - 2021
- NSF Macrosystems EF-1550641: *COLLABORATIVE RESEARCH: EAGER-NEON: Prototyping Assessment of Ecoclimate Teleconnections Affecting NEON Domains.*
UW PI A.L.S Swann, (Project PI D. Breshears, Co-PIs S. Saleska, D. Moore, PI S. Stark).
 \$113,719 (to UW) 2015 - 2017
- NSF Macrosystems EF-1340649: *Collaborative Research: Ecoclimate teleconnections between Amazonia and temperate North America: cross-region feedbacks among tree mortality, land use change, and the atmosphere.*
UW PI A.L.S Swann, (Project PI D. Breshears, Co-PI S. Saleska, PI S. Stark).
 \$227,718 (to UW) 2014 - 2017
- NSF Climate and Large Scale Dynamics & Ecosystems AGS-1321745: *Ecoclimate Teleconnections: effects of a shifting ITCZ.*
PI A.L.S Swann
 \$372,287 2013 - 2016

2021

Laguë, M.M., Swann, A.L.S., Boos, W.R., Feedbacks on zonal mean tropical precipitation shifts induced by land surface change, 2021. *Journal of Climate* 34(16):6651-6672 doi:[10.1175/JCLI-D-20-0883.1](https://doi.org/10.1175/JCLI-D-20-0883.1).

Pietsching, M.* , **Swann, A.L.S.**, Lambert, F.H., Vallis, G.K., Response of tropical rainfall to reduced evapotranspiration depends on continental extent, 2021. *Journal of Climate* 34(23):9221-9234 doi:[10.1175/JCLI-D-21-0195.1](https://doi.org/10.1175/JCLI-D-21-0195.1).

Marlies Kovenock*, Charles D. Koven, Ryan G. Knox, Rosie A. Fisher, **Abigail L. S. Swann**, 2021. Leaf trait plasticity alters competitive ability and functioning of simulated tropical trees in response to elevated carbon dioxide. *Global Biogeochemical Cycles* doi:[10.1029/2020GB006807](https://doi.org/10.1029/2020GB006807)

2020

Zarakas, C.* , A.L.S. Swann, M.M. Laguë, K.C. Armour, J.T. Randerson, 2020. Plant Physiology Increases Magnitude and Spread of the Transient Climate Response in CMIP6 Earth System Models. *Journal of Climate* 33(19):8561-8578 doi:[10.1175/JCLI-D-20-0078.1](https://doi.org/10.1175/JCLI-D-20-0078.1)

Koven, C.D., R. G. Knox, R. A. Fisher, J. Chambers, B. O. Christoffersen, S. J. Davies, M. Detto, M. C. Dietze, B. Faybishenko, J. Holm, M. Huang, **M. Kovenock***, L. M. Kueppers, G. Lemieux, E. Massoud, N. G. McDowell, H. C. Muller-Landau, J. F. Needham, R. J. Norby, T. Powell, A. Rogers, S. P. Serbin, J. K. Shuman, **A. L. S. Swann**, C. Varadharajan, A. P. Walker, S. J. Wright, and C. Xu, 2020. Benchmarking and parameter sensitivity of physiological and vegetation dynamics using the functionally assembled terrestrial ecosystem simulator (FATES) at Barro Colorado Island, Panama. *Biogeosciences*, 2019:1-46, 2019. doi:[10.5194/bg-17-3017-2020](https://doi.org/10.5194/bg-17-3017-2020)

Kim, J.E. , Laguë, M.M.***, Pennypacker, S.* , Dawson, E.* , **Swann, A.L.S.**, 2020. Evaporative Resistance is of Equal Importance as Surface Albedo in High Latitude Surface Temperatures Due to Cloud Feedbacks. *Geophysical Research Letters* doi:[10.1029/2019GL085663](https://doi.org/10.1029/2019GL085663)

** Jinhyuk Kim was an undergraduate member of the lab

Allan, Richard; Byrne, Michael ; Cherchi, Annalisa; Douville, Herv; Meteo France Toulouse, Fowler, Hayley; Gan, Thian; Pendergrass, Angelina; **Swann, Abigail**; Wilcox, Laura; Zolina, Olga, 2020. Advances in understanding large-scale responses of the water cycle to climate change. *Annals of the New York Academy of Sciences* (2020). doi:[10.1111/nyas.14337](https://doi.org/10.1111/nyas.14337)

Stark, Scott C., Breshears, David D., Aragn, Susan, Villegas, Juan Camilo, Law, Darin J., Smith, Marielle N., Minor, David M., de Assis, Rafael Leandro, de Almeida, Danilo Roberti Alves, de Oliveira, Gabriel, Saleska, Scott R., **Swann, Abigail L. S.**, Moura, JosMauro S., Camargo, JosLuis, da Silva, Rodrigo, Arago, Luiz E. O. C., Oliveira, R. Cosme (2020). Reframing tropical savannization: linking changes in canopy structure to energy balance alterations that impact climate. *Ecosphere*. doi:[10.1002/ecs2.3231](https://doi.org/10.1002/ecs2.3231)

Brey, Steven J., Barnes, Elizabeth A., Pierce, Jeffrey R., **Swann, Abigail L. S.**, Fischer, Emily V. (2020). Past variance and future projections of the environmental conditions driving western U.S. summertime wildfire burn area. *Earth's Future*. doi:[10.1029/2020EF001645](https://doi.org/10.1029/2020EF001645)

* Graduate Student Author, **Bold type**: member of Swann research group

2019

- Hsiao, J.***, **A.L.S. Swann**, S.-H. Kim, 2019, Maize yield under a changing climate: the hidden role of vapor pressure deficit. *Agricultural and Forest Meteorology*. 279:107692. doi:[10.1016/j.agrformet.2019.107692](https://doi.org/10.1016/j.agrformet.2019.107692)
- Laguë, M.M.***, Bonan, G.B., **Swann, A.L.S.** 2019. The impact of individual land surface properties on terrestrial climate and atmospheric feedbacks. *Journal of Climate*, doi:[10.1175/JCLI-D-18-0812.1](https://doi.org/10.1175/JCLI-D-18-0812.1)
- Longo, M., Knox, R. G., Medvigy, D. M., Levine, N. M., Dietze, M. C., Kim, Y., **Swann, A.L.S.**, Zhang, K., Rollinson, C. R., Bras, R. L., Wofsy, S. C., and Moorcroft, P. R., 2019, The biophysics, ecology, and biogeochemistry of functionally diverse, vertically- and horizontally-heterogeneous ecosystems: the Ecosystem Demography Model, version 2.2 ? Part 1: Model description, *Geosci. Model Dev.*, doi:[10.5194/gmd-2019-45](https://doi.org/10.5194/gmd-2019-45)
- Longo, M., Knox, R. G., Levine, N. M., **Swann, A.L.S.**, Medvigy, D. M., Dietze, M. C., Kim, Y., Zhang, K., Bonal, D., Burban, B., Camargo, P. B., Hayek, M. N., Saleska, S. R., da Silva, R., Bras, R. L., Wofsy, S. C., and Moorcroft, P. R., 2019, The biophysics, ecology, and biogeochemistry of functionally diverse, vertically- and horizontally-heterogeneous ecosystems: the Ecosystem Demography Model, version 2.2 ? Part 2: Model evaluation, *Geosci. Model Dev.*, doi:[10.5194/gmd-2019-71](https://doi.org/10.5194/gmd-2019-71)

2018

- Kooperman, G. J., Fowler, M.G., Hoffman, F. M., Koven, C. D. , Lindsay, K., Pritchard, M.S., **Swann, A.L.S.**, and Randerson, J. T., 2018. Plant-physiological responses to rising CO₂ modify daily runoff intensity with implications for global-scale flood risk assessment. *Geophysical Research Letters* doi:[10.1029/2018GL079901](https://doi.org/10.1029/2018GL079901).
- Kovenock, M.***, **Swann, A.L.S.**, 2018. Leaf trait acclimation amplifies simulated climate warming in response to elevated carbon dioxide. *Global Biogeochemical Cycles*. doi:[10.1029/2018GB005883](https://doi.org/10.1029/2018GB005883)
- Quetin, G.R.***, **Swann, A.L.S.**, 2018. Ecological-Climate Interactions in CMIP5 Carbon Cycle Models. *Journal of Climate*, 30(20):8607-8625. doi:[10.1175/JCLI-D-17-0580.1](https://doi.org/10.1175/JCLI-D-17-0580.1)
- Kooperman, G.J., Chen, Y., Hoffman, F.M., Koven, C.D., Lindsay, K., Pritchard, M.S., **Swann, A.L.S.**, and Randerson, J.T. 2018. Forest response to rising CO₂ drives zonally asymmetric rainfall change over tropical continents. *Nature Climate Change* 8(5):434-440. doi:[10.1038/s41558-018-0144-7](https://doi.org/10.1038/s41558-018-0144-7)
- Swann, A.L.S.**, **Laguë, M.M.***, **Garcia, E.S.**, Breshears, D.D., Field, J.P., Moore, D.J.P., Saleska, S.R., Stark, S.C., Villegas, J.C., Law, D.J., and Minor, D.M. 2018. Continental-scale Consequences of Tree die-offs in North America: Identifying Where Forest Loss Matters Most. *Environmental Research Letters*, 13(5):055014. doi:[10.1088/1748-9326/aaba0f](https://doi.org/10.1088/1748-9326/aaba0f)
- Swann, A.L.S.**, 2018. Plants and Drought in a Changing Climate. *Current Climate Change Reports*. doi:[10.1007/s40641-018-0097-y](https://doi.org/10.1007/s40641-018-0097-y)
- Lemordant, L.* , Cook, B., Scheff, J., **Swann, A.L.S.**, Gentine, P. , 2018. Vegetation physiology equally controls continental dryness response to climate change. (*Proceedings of the National Academy of Sciences*, (published ahead of print April 2, 2018). doi:[10.1073/pnas.1720712115](https://doi.org/10.1073/pnas.1720712115).

* Graduate Student Author, **Bold type**: member of Swann research group

2017

- Swann, A.L.S.** and Koven, C.D., 2017. A direct estimate of the seasonal cycle of evapotranspiration over the Amazon Basin. *Journal of Hydrometeorology*, 18(8):2173-2185. doi:[10.1175/JHM-D-17-0004.1](https://doi.org/10.1175/JHM-D-17-0004.1).
- Quetin, G.R.***, **Swann, A.L.S.**, 2017. Empirically derived sensitivity of vegetation to climate across the globe. *Journal of Climate*, 30(15):5835-5849. doi:[10.1175/JCLI-D-16-0829.1](https://doi.org/10.1175/JCLI-D-16-0829.1).
- Stavros, N.E., Schimel, D., Pavlick, R., Serbin, S., **Swann, A.L.S.**, Duncanson, L., Fisher, J.B., Fassnacht, F., Ustin, S., Dubayah, R., Schweiger, A., Wennberg, P., 2017. International Space Station observations offer an opportunity to understand plant function. *Nature Ecology and Evolution*. 1:0194, 06. doi:[10.1038/s41559-017-0194](https://doi.org/10.1038/s41559-017-0194).
- Villegas, J. C., Law, D. J., Stark, S. C., Minor, D. M., Breshears, D. D., Saleska, S. R. **Swann, A. L. S.**, **Garcia, E. S.**, Bella, E. M., Morton, J. M., Cobb, N. S., Barron-Gafford, G. A., Litvak, M. E., and Kolb, T. E., 2017. Prototype campaign assessment of disturbance-induced tree loss effects on surface properties for atmospheric modeling. *Ecosphere*, 8(3):2150. doi:[10.1002/ecs2.1698](https://doi.org/10.1002/ecs2.1698).

2016

- Garcia, E.S.**, **Swann, A.L.S.**, Villegas, J.C., Breshears, D.D., Law, D.J., Saleska, S.R., Stark, S.C., 2016. Ecoclimate teleconnections from forest loss in disparate regions: Identifying differential responses, mechanisms, and synergies in affected areas. *PLOS ONE*. 11(11):1-12. doi:[10.1371/journal.pone.0165042](https://doi.org/10.1371/journal.pone.0165042).
- Swann, A.L.S.** , Hoffman, F., Koven, C.D., Randerson, J.R., 2016. Plant responses to increasing CO₂ reduce estimates of climate impacts on drought severity. *Proceedings of the National Academy of Science*, doi:[10.1073/pnas.1604581113](https://doi.org/10.1073/pnas.1604581113).
- Laguë, M.M.***, **Swann, A.L.S.**, 2016. Progressive midlatitude afforestation: Impacts on clouds, global energy transport, and precipitation. *Journal of Climate*, 29(15):5561-5573, doi:[10.1175/JCLI-D-15-0748.1](https://doi.org/10.1175/JCLI-D-15-0748.1).

2015

- Stark, S.C., Breshears, D.D., **Garcia, E.**, Law D.J., Minor, D., Saleska, S.R., **Swann, A.L.S.**, Villegas, J.C., Arago, L.E.O.C., Bella, E.M., Borma, L.S., Cobb, N.S., Litvak, M.E., Magnuson, W., Morton, J.M., Redmond, M.D., 2015. Toward accounting for ecoclimate teleconnections: intra- and inter-continental consequences of altered energy balance after vegetation change. *Landscape Ecology*, 31 (1), 181-194, doi:[10.1007/s10980-015-0282-5](https://doi.org/10.1007/s10980-015-0282-5).
- Swann, A.L.S.**, Longo, M.L.* , Knox, R.G.* , Lee, E., Moorcroft, P.R., 2015. Future deforestation in the Amazon and consequences for South American climate. *Agricultural and Forest Meteorology*, 214:215-224, 12, doi:[10.1016/j.agrformet.2015.07.006](https://doi.org/10.1016/j.agrformet.2015.07.006).
- Knox, R.G.* , Longo, M.L.* , **Swann, A.L.S.**, Zhang, K. and Levine, N.M., Moorcroft, P.R., Bras, R.L., 2015. Hydrometeorological Effects of Historical Land-Conversion in an Ecosystem-Atmosphere Model of Northern South America, *Hydrology and Earth System Sciences* 19(1):241-273, doi:[10.5194/hess-19-241-2015](https://doi.org/10.5194/hess-19-241-2015).

2014

- Swann, A.L.S.**, Fung, I.Y., Liu, Y.*, Chiang, J.C.H., 2014. Remote vegetation feedbacks and the mid-Holocene Green Sahara, *Journal of Climate* 27(13) 4857-4870, doi:[10.1175/JCLI-D-13-00690.1](https://doi.org/10.1175/JCLI-D-13-00690.1)

* Graduate Student Author, **Bold type**: member of Swann research group

PEER REVIEWED
PUBLICATIONS
(CONTINUED)

2012

Swann, A. L., Fung, I. Y., Chiang, J. C. H., 2012. Mid-latitude afforestation shifts general circulation and tropical precipitation, *Proceedings of the National Academy of Science*, doi:[10.1073/pnas.1116706108](https://doi.org/10.1073/pnas.1116706108).

2010

Lee, J. -E., and **Swann, A. L.**, 2010. “Evaluation of using the “amount effect” to interpret speleothem data: Asian monsoon study, *IOP Conference Series: Earth and Environmental Science*, 9, 012023, doi:[10.1088/1755-1315/9/9/012023](https://doi.org/10.1088/1755-1315/9/9/012023).

Swann, A. L., Fung, I. Y., Levis, S., Bonan, G., Doney, S. 2010. Arctic vegetation changes induce high-latitude warming through the greenhouse effect, *Proceedings of the National Academy of Science*, doi:[10.1073/pnas.0913846107](https://doi.org/10.1073/pnas.0913846107).

2009

Lee, J., Pierrehumbert, R., **Swann, A.**, Lintner, B. R., 2009. Sensitivity of stable water isotopic values to convective parameterization schemes, *Geophysical Research Letters*, 36, L23801, doi:[10.1029/2009GL040880](https://doi.org/10.1029/2009GL040880).

2006

Swann, A. L., Sobel, A. H., Yuter, S. E., Kiladis, G. N., 2006. Observed radar reflectivity in convectively coupled Kelvin and mixed Rossby-gravity waves, *Geophysical Research Letters*, 33, L10804, doi:[10.1029/2006GL025979](https://doi.org/10.1029/2006GL025979).

* Graduate Student Author, **Bold type**: member of Swann research group

OTHER
PUBLICATIONS

Swann, A.L.S., 2019. The Influence of Trees on Climate. In *Trees*, pages 58-65. Publication Fondation Cartier pour l’art contemporain, Paris.

Fung, I. and **Swann, A.**, 2011. Climatic consequences of afforestation. In *AIP Conf. Proc*, volume 1401, pages 211-219.

GRADUATE
STUDENTS
SUPERVISED

Graduate Students: Chair of Supervisory Committee

Amy Liu, Atmospheric Sciences expected PhD 2026

Greta Shum, Atmospheric Sciences expected PhD 2023

Claire Zarakas, Atmospheric Sciences expected PhD 2023

Awards:

- DOE Computational Geosciences Graduate Fellowship, 2019-2023
- NSF Graduate Research Fellow, (*declined*)
- Program on Climate Change Fellowship, 2018-2019

Jennifer Hsiao, Biology expected PhD 2022

Dissertation topic: Maize yield under a changing climate: impacts, mechanisms, and adaptations

Awards:

- USDA Predoctoral Fellowship, 2020-2022
- UW eScience Data Incubator Program, 2021
- Wingfield/Ramenofksy Award for Environmental Biology, Biology Department, 2018
- Sargent Award, Biology Department, 2018

GRADUATE
STUDENTS
SUPERVISED
(CONTINUED)

<i>Marysa Laguë</i> , Atmospheric Sciences	PhD 2019
Dissertation topic: Atmospheric sensitivity to land surface properties	
Awards:	
<ul style="list-style-type: none"> • James S. McDonnell Foundation Postdoctoral Fellow, 2019-2021 • Community Earth System Model Graduate Student Award, 2019 • Invited talk at the American Geophysical Union Fall Meeting, Washington, DC, 2018 • Selected as one of the Husky 100, 2017 • NSERC (Canadian) Postgraduate Scholarship-Doctoral Program, 2016-2019 • NSERC (Canadian) Graduate Fellowship, 2013-2014 	
<i>Marlies Kovenock</i> , Biology	PhD 2019
Dissertation topic: Climate response to plant trait acclimation	
Awards:	
<ul style="list-style-type: none"> • Wingfield/Ramenofsky Award for Environmental Biology, Biology Department, 2016 • Sargent Award, Biology Department, 2016 • Program on Climate Change Fellowship, 2014-2015 	
<i>Gregory Quetin</i> , Atmospheric Sciences	PhD 2017
Dissertation topic: Sensitivity of vegetation to climate on interannual timescales	
Awards:	
<ul style="list-style-type: none"> • Invited talk at the American Geophysical Union Fall Meeting, New Orleans, LA, 2017 • Program on Climate Change Fellowship, 2012-2013 	

POSTDOCS
SUPERVISED

<i>Elizabeth Garcia</i>	2014-2017
Topic: Climate impacts of forest die-off.	
Current Position: Watershed Manager at Seattle Public Utilities.	
Invited Presentations:	
<ul style="list-style-type: none"> • American Geophysical Union Fall Meeting, San Francisco, CA, 2015 • Ecological Society of America Annual Meeting, Portland, OR, 2017 	

UNDERGRADUATE
RESEARCHERS

<i>Rose Schoenfeld</i>	2021-2022
<i>Jinhyuk Kim</i>	2018-2019
<ul style="list-style-type: none"> • First authored publication resulting from research: Kim et al. 2020 • Presentation at AGU Fall Meeting 2018 	
<i>Eliza Dawson</i>	2017-2018
<ul style="list-style-type: none"> • Co-authored publication resulting from research: Kim et al. 2020 • Presentation at AGU Fall Meeting 2017 	
<i>Parker Malek</i>	2014-2015

VISITORS TO THE
GROUP

<i>Jas Ogiste</i>	Summer 2021
<ul style="list-style-type: none"> • Undergraduate Summer Intern in CICOES Program 	
<i>Marianne Pietsching</i>	Spring 2019
<ul style="list-style-type: none"> • Graduate Student Visitor from University of Exeter • Publication resulting from research conducted during visit: Pietsching et al. 2021 	

INFORMAL
MENTORING

I have provided informal mentoring and career advising to students and postdocs beyond my lab, including three recent PhDs in 2021/22 and two former postdocs in 2019/20.

SERVICE: DEPARTMENTAL	<i>Chair</i> Atmospheric Sciences Department Equity Diversity and Inclusion Committee	2017-2019, 2021-ongoing
	<i>Member</i> Biology Department Diversity and Equity Committee	2021-ongoing
	<i>Member</i> Biology Department Graduate and Postdoc Program Committee	2017-2019, 2021
	<i>Co-chair</i> Biology Department Seminar Committee	2015-2017
	<i>Member</i> Atmospheric Sciences Committee on Graduate Studies	2015
	<i>Presentation</i> Biology Advancement Dinner	2015
	<i>Member</i> Biology Department Seminar Committee	2014-2015
SERVICE: COLLEGE & UNIVERSITY	<i>Member</i> Executive Board for the Program on Climate Change	2020-ongoing
	<i>Member</i> Advisory Board for the Program on Climate Change	2017-2019
	<i>Member</i> Executive Council for the Population Health Initiative	2017-2019
	<i>Member</i> Search Committee for Program on Climate Change Director	2017
	<i>Member</i> Ad-Hoc committee on Family Friendly Policies, College of the Environment	2015-2016
	<i>Member</i> Science Communication Advisory Group, College of the Environment	2015-ongoing
	<i>Member</i> College of the Environment <i>Future of Ice</i> Search Committee for 2 interdisciplinary faculty positions	2014
	<i>Participant</i> UW Faculty Field Tour, extending UW's reach beyond Seattle	2013
	<i>Reviewer</i> Royalty Research Fund Proposals, UW	2012, 2013, 2018, 2021
SERVICE: PROFESSIONAL	Scientific Community	
	<i>Co-chair</i> Biogeochemistry Working Group, Community Earth System Model, National Center for Atmospheric Research	2017-present
	<i>Advisory Board Member</i> Community Terrestrial System Model, National Center for Atmospheric Research	2018-present
	<i>Contributing Author</i> Intergovernmental Panel on Climate Change 6th Assessment Re- port - Working Group I Chapter 1 Framing Context and Methods, and Chapter 8 Water Cycle Changes	2019
	Societies	
	American Geophysical Union	2003-present
	American Meteorological Society	2005, 2016-present
	Ecological Society of America	2014-present
	Earth Science Women's Network	2003-present
	American Association for the Advancement of Science	2019-present

SERVICE:
PROFESSIONAL
(CONTINUED)

Conference Organization

<i>Steering Committee</i> , Joint NCAR/NEON workshops	2019-2022
<i>Convener</i> , Scientific Session at the American Association for the Advancement of Science Annual Meeting	2020
<i>Organizing Committee</i> , AGU Chapman Conference on Understanding Carbon Climate Feedbacks	2019
<i>Chair</i> , Berkeley Atmospheric Science Symposium 20th Anniversary Meeting	2019
<i>Organizing Committee</i> , Inez Fung Symposium, American Meteorological Society annual meeting	2019
<i>Convener</i> , Organized Oral Session at Ecological Society of America annual meeting	2017
<i>Organizing Chair</i> , Program on Climate Change Summer Institute	2015
<i>Convener</i> , Session at American Geophysical Union Fall meeting	2013, 2014, 2015, 2016
<i>Trainer & Organizer</i> , ED+ Training Workshop	2013

Grant Review

<i>Ad-hoc review</i> National Science Foundation	2011, 2012, 2013, 2014, 2015, 2017, 2018, 2019, 2020
<i>Panelist</i> , National Science Foundation	2015

Journal Review

Nature Climate Change	2022
Science	2017, 2021
Nature Geosciences	2021
Climatic Change	2020
Global Biogeochemical Cycles	2019
Nature	2016, 2018
Nature Ecology and Evolution	2017, 2018
Geophysical Research Letters	2013, 2015, 2016, 2018
Nature Communications	2017
Proceedings of the National Academy of Science	2011, 2015, 2016, 2017
Journal of Climate	2012, 2017
Agriculture and Forest Meteorology	2017
Nature Scientific Reports	2016
Nature Climate Change	2012, 2014, 2016
Journal of Advances in Modeling Earth Systems	2016
Journal of Geophysical Research - Biogeosciences	2011, 2012, 2013, 2015, 2016
Environmental Research Letters	2015
Geoscientific Model Development	2015
Hydrology	2015
Climate Dynamics	2011, 2015
Global Change Biology	2013, 2014
Climate of the Past	2014
Annales Geophysicae	2014

INVITED
PRESENTATIONS

2021

Invited Talk Purdue University Forest and Natural Resources Department Seminar
Invited Talk NASA Goddard Scientific Colloquium
Invited Talk University of Wisconsin Department of Atmosphere and Ocean Sciences Colloquium
Invited Talk Rutgers University Department of Environmental Sciences Seminar

2020

Panelist NOAA/CPO/ESSM DOE/ESSD Precipitation Processes and Predictability Workshop
Invited Talk Northern Arizona University EcoInformatics Seminar Series
Invited Talk Geophysical Fluid Dynamics Laboratory Seminar
Invited Talk MIT Civil & Environmental Engineering Department Seminar
Invited Talk Ecological Society of America Annual Meeting
Invited Keynote Talk - POSTPONED Gordon Research Conference on Assessing Plant Vascular Function Through Optical Approaches
Invited Talk - POSTPONED Continental Climate Change Workshop, St. Andrews Scotland

2019

Declined Invited Talk University of Illinois
Declined Invited Talk Geophysical Fluid Dynamics Laboratory, Princeton NJ
Declined Invited Keynote Talk CLIVAR Water Isotopes and Climate Workshop
Declined Invited Talk Perdue University
Declined Invited Speaking Invitation Keynote talk at the “Species on the Move” conference, Kruger National Park in South Africa
Invited Talk Climate and Global Dynamics Division Seminar, National Center for Atmospheric Research, Boulder, CO
Invited Talk Boise State University, Boise, ID

2018

Invited Talks (2) American Geophysical Union Fall Meeting, Washington, DC
Invited Talk NOAA Drought Task Force, webinar
Invited Talk Program on Climate Change Summer Institute, Friday Harbor, WA
Invited Talk School of the Environment Seminar, Washington State University, Vancouver, WA
Invited Talk School of Natural Resources and the Environment Seminar, University of Arizona, Tuscon, AZ
Invited Talk Arctic System Change Workshop, National Center for Atmospheric Research, Boulder, CO
Invited Talk The Future of Earth System Modeling: Biosphere and Land Surfaces, Caltech, Pasadena, CA
Invited Talk Lamont Doherty Earth Observatory, Columbia University, New York, NY
Invited Talk Pacific Northwest National Laboratory, Richland, WA

2017

Invited Talk Department of Earth and Environmental Sciences, Stanford University, Palo Alto, CA
Invited Talk Department of Earth and Planetary Sciences, University of New Mexico, Albuquerque, NM
Invited Talk Santa Fe Climate Conference, Santa Fe, NM

2016

Declined Invited Speaking Invitation Keynote talk at the AGU Chapman Conference on “Emerging Issues in Tropical Ecohydrology”, Cuenca, Ecuador
Declined Invited Speaking Invitation American Quaternary Association Biennial Meeting, Santa Fe, NM

INVITED
PRESENTATIONS
(CONTINUED)

2015

Invited Talks (2) American Geophysical Union Fall Meeting, San Francisco, CA
Invited Talk Department of Earth and Planetary Science, Harvard University, Cambridge, MA
Invited Talk Carnegie Institution for Science, Department of of Global Ecology, Stanford University, Palo Alto, CA
Invited Talk Monsoons and ITCZ workshop, Columbia University, New York, NY
Invited Talk Department of Atmospheric and Environmental Sciences, SUNY Albany, Albany, NY
Invited Talk Ecological Society of America Annual Meeting, Baltimore, MD
Invited Talk Macrosystems Biology Annual Meeting, National Science Foundation, Arlington, VA
Invited Talk Evergreen State College, Olympia, WA
Invited Participant Organization for Tropical Studies Emerging Frontiers in Tropical Science Working Group on Vegetation-precipitation coupling in the Tropics, La Selva, Costa Rica

2014

Invited Talks (2) American Geophysical Union Fall Meeting, San Francisco, CA
Invited Talk Earth System Science Department Seminar, University of California, Irvine, CA
Invited Talk Atmospheric Science Department Seminar, Colorado State University, Fort Collins, CO

2013

Invited Talk Western Roundtable Series at the Center for Sustainability and the Global Environment, University of Wisconsin, Madison WI
Invited Talk Biology Department Seminar, University of Washington, Seattle, WA
Invited Talk Department of Ecology and Evolutionary Biology Department Seminar, University of Arizona, Tucson, AZ

CONTRIBUTED
PRESENTATIONS
TO SCHOLARLY
AUDIENCES

2020

Contributed Talk American Geophysical Union Fall Meeting

2019

Talk Berkeley Atmospheric Science Symposium, Berkeley, CA
Talk Community Land Model Working Group Meeting, Boulder, CO
Talk American Meteorological Society Annual Meeting, Phoenix, AZ

2018

Talk Community Earth System Model Annual Workshop, Boulder, CO

2017

Talk American Geophysical Union Meeting, New Orleans, LA
Talk Ecological Society of America Meeting, Portland, OR
Talk Community Earth System Model Annual Workshop, Boulder, CO

GUEST LECTURES IN COURSES	Exploring Atmospheric Science (<i>ATMS 220</i>) (2018, 2017, 2015, 2014, 2013)	
	2017	
	FLUXCOURSE (organized by University of Arizona, in Nederland, CO) Conservation Biology (<i>BIOL 476</i>)	
	2015	
	Carbon Seminar, School of Environmental and Forest Sciences Program on Climate Change Special Seminar Series FLUXCOURSE (organized by University of Arizona, in Nederland, CO) Climate Modeling (<i>ATMS/OCEAN/ESS 559</i>) Topics in Advanced Ecology (<i>BIOL/SEFS/FISH 567</i>)	
	2013	
	Bioclimatology (<i>AOS 520</i> at University of Wisconsin, Madison) Topics in Advanced Ecology (<i>BIOL/SEFS/FISH 567</i>)	
OUTREACH & PRESENTATIONS TO THE PUBLIC	Public Lectures	
	Bellettini Home, Bellevue, WA	2017
	Rotary Club of South Lake Union, Seattle, WA	2017
	Outreach	
	Organized sessions for the Girls in Science program for middle school girls at the Burke Museum 2015, 2016, 2017, 2018, 2019, 2020	
	Science Storytellers booth, Family Science Day at the AAAS meeting	2020
	“Ask a Climate Scientist” night, Climate Science on Tap	2018, 2019
	“Ask a Climate Scientist” booth, Ballard Sustainability Festival	2017
	Visit to Seattle Waldorf 8th grade class to talk about climate change	2017
	Kindergarten goes to College, visit with Bryant Elementary Kindergarten class	2015, 2017
	Panelist for Public Engagement Workshop for Graduate and Professional Students at UW	2016
	SAMlink seminar for undecided undergraduates	2015
	Paws on Science day at the Pacific Science Center	2014
	Math Day at UW	2014
	Think Evolution Summer Institute (for high school teachers)	2013
	Communicating Climate Science Education Working Group, Lawrence Hall of Science, Berkeley, CA	2012
	Press Releases	
	University of Washington (<i>Kovenock et al. 2021, Swann et al. 2018, Garcia et al. 2016, Swann et al. 2016, Swann et al. 2014</i>)	
	National Science Foundation (<i>Garcia et al. 2016</i>)	
	Selected Press Coverage of Research	
	Science News 10 Scientists to watch (link)(<i>multiple studies</i>)	
	The Record, KUOW Public Radio (link)(<i>multiple studies</i>)	
	Living On Earth, Public Radio International (link) (<i>Swann et al. 2018</i>)	
	Geographical Magazine (link) (<i>Kovenock and Swann 2018</i>)	

Quanta Magazine/the Atlantic ([link](#)) (*multiple studies*)
 Press of Atlantic City ([link](#)) (*Kovenock and Swann 2018*)
 Inside Science ([link](#))(*Swann et al. 2018*)
 Mongabay ([link](#))(*Kooperman et al. 2018*)
 Scientific American 60-Second Science Podcast ([link](#)) (*Garcia et al. 2016*)
 Vocativ ([link](#)) (*Garcia et al. 2016*)
 Huffington Post ([link](#)) (*Garcia et al. 2016*)
 The Oregonian ([link](#)) (*Garcia et al. 2016*)
 Mongabay ([link](#)) (*Garcia et al. 2016*)
 El Mundo (2nd largest newspaper in Spain) ([link](#)) (*Swann et al. 2016*)
 KOMO Radio News (*Swann et al. 2016*)

Selected Media Appearances

ProPublica (link)	May 2019
National Geographic (link)	November 2018
EOS (link)	October 2018
EOS (link)	December 2017
EOS (link)	October 2017
Nature News (link)	August 2017
KUOW Public Radio (link)	April 2017
Mongabay (link)	November 2016
USA Today (link)	October 2016
Climate Central (link)	August 2016
Inside Climate News (link)	June 2016
New York Times (link)	October 2015
Mongabay (link)	June 2015
Climate Central (link)	December 2014
Climate Central (link)	October 2014

CONFERENCES,
SYMPOSIA, AND
WORKSHOPS
ATTENDED

Community Land Model Working Group Meeting, January 31-February 4, 2022, virtual.

NCAR/NEON Joint Workshop on Ecological Forecasting, November 9, 2021, virtual.

DOE AI for Earth System Prediction Workshop on Ecohydrology, November 8, 2021

DOE AI for Earth System Prediction Workshop on Land Modeling, October 25-26, 2021

NCAR/NEON Joint Workshop on Ecological Forecasting, September 14, 2021, virtual.

Community Earth System Model Workshop, June 14-17, 2021, virtual.

Community Land Model Working Group Meeting, February 23-25, 2021, virtual.

American Meteorological Society Annual Meeting, January 11-14, 2021, virtual.

American Geophysical Union Fall Meeting, December 1-15, 2020, virtual.

NOAA/CPO/ESSM DOE/ESSD Precipitation Processes and Predictability Workshop, December 1, 2020, virtual.

Community Earth System Model Workshop, June 15-17, 2020, virtual.

American Association for the Advancement of Science Annual Meeting, February 13-16, 2020, Seattle, WA.

NCAR/NEON Joint Workshop on Ecological Forecasting, April 9-11, 2019, Boulder, CO.

Berkeley Atmospheric Sciences Symposium, April 4-5, 2019, Berkeley, CA.

American Meteorological Society Annual Meeting, January 6-10, 2019, Phoenix, AZ.

American Geophysical Union Fall Meeting, December 10-14, 2018, Washington, DC.

Kavli Frontiers Of Science Symposium, October 18-21, 2018, Nanjing, China.

Community Land Model Working Group Meeting, February 5-7, 2018, Boulder, CO.

American Geophysical Union Fall Meeting, December 11-15, 2015, New Orleans, LA.

Community Earth System Model Workshop, June 19-22, 2017, Boulder, CO.

Santa Fe Climate Conference, February 2-7, 2017, Santa Fe, NM.

American Geophysical Union Fall Meeting, December 14-18, 2015, San Francisco, CA.

Keck Institute for Space Studies Workshop: Exploring New Multi-Instrument Approaches to Observing Terrestrial Ecosystems and the Carbon Cycle from Space, Oct. 5-9, 2015, Pasadena, CA.

Monsoons and the Intertropical Convergence Zone, Sept. 15-18, 2015, New York, NY.

Organization for Tropical Studies, Emerging Frontiers in Tropical Science Working Group on Vegetation-precipitation coupling in the Tropics, March 4-7, 2015, La Selva Biological Station, Costa Rica.

Communicating Climate Science Workshop, Feb 23-24, 2015, Berkeley, CA.

American Geophysical Union Fall Meeting, December 15-19, 2014, San Francisco, CA.

Megafauna and Ecosystem Function Meeting, March 18-20, 2014, Oxford, UK.

National Center for Atmospheric Research Land Model Working Group Meeting, Feb 24-26, 2014, Boulder, CO.

ED+ Working Group Meeting, December 16-18, 2013, Berkeley, CA.

American Geophysical Union Fall Meeting, December 9-13, 2013, San Francisco, CA.

Keck Institute for Space Studies Workshop: Airships: A New Horizon for Science, April 30-May 3, 2013, Pasadena, CA.