

CURRICULUM VITAE - updated 08/01/23

Name: **Jill S. Baron**

Born: 1954

Academic Training:

<i>Degree</i>	<i>Year</i>	<i>Institution</i>	<i>Major</i>
B.S.	1976	Cornell University	Botany, minor in Geology
M.S.	1979	University of Wisconsin-Madison	Land Resources
Ph.D.	1991	Colorado State University	Ecosystem Ecology

Professional Experience:

2009-present Director, John Wesley Powell Center for Earth System Science Analysis and Synthesis
2016-present Senior Scientist, U.S. Geological Survey, Fort Collins CO
1996-present Research Ecologist; U.S. Geological Survey, Fort Collins, CO
1986-present Senior Research Scientist; Natural Resource Ecology Laboratory, Colorado State University, Fort Collins, CO
2000-present Advising faculty, CSU Graduate Degree Program in Ecology
1993-1996 Research Ecologist; National Biological Service, Mountain Ecosystems Section, Fort Collins, CO
1976-1993 Research Biologist-National Park Service; Great Smoky Mountains National Park TN; Gulf Islands National Seashore MS; Water Resources Division, Washington D.C. and CO

Service and Committees:

- Member, National Academy of Science, Engineering and Medicine Committee on Assessing Causality from a Multidisciplinary Evidence Base for National Ambient Air Quality Standards, 2021-2022
- Chair, USGS Senior Scientist Performance Review Board, 2020
- North American Director, International Nitrogen Initiative, 2015-2019
- Co-Lead International Nitrogen Management System Component 1: Tools and Methods for Understanding the N cycle, 2017-2021
- Co-Editor, International Nitrogen Assessment, Cambridge University Press 2023
- Founder and Co-Director: USGS John Wesley Powell Center for Earth Systems Science Synthesis and Analysis, 2009-present
- President, Ecological Society of America, 2014
- Science Advisory Boards:
 - Advisory Team, Community for Data Science and Open Science in the Aquatic Sciences (DSOS). 2023-2025
 - Co-Chair, Council of Senior Science Advisers (COSSA) U.S. Geological Survey. 2021-2023
 - Technical Advisory Board for updating State of Colorado Lake Nutrient Water Quality criteria, Colorado Department of Public Health and the Environment 2020-2023
 - Aspen Global Change Institute 2018-present
 - Niwot Ridge Long-Term Ecological Research Program 2015-2017
 - Chair, Science Advisory Panel, Alberta Environmental Science and Monitoring Division, 2015-2018
 - Science Policy Exchange, 2013-2016
 - Institute on Alpine Environment, Bolzano Italy, 2013-2019
 - Mountain Research Institute, Bern Switzerland, 2014-2015
 - Natural Resource Ecology Laboratory, CSU, 1993-1996, 2002-2005, 2010-2013
 - USGS Fort Collins Science Center, 2009-2011
 - Department of Interior Climate Change Task Force, 2007
 - USGS Climate Change Science Advisory Council 2007-2012
 - GAO report on how US land management agencies should respond to climate change, 2007

- National Center for Ecological Analysis and Synthesis, 2005-2008
- Grand Canyon Monitoring and Research Center/Glen Canyon Dam Adaptive Management Program, 2001-2009
- NEON (National Ecological Observatory Network) Design Committee, 2005, Domain Science and Education Coordinating Committee member for Domains 10 and 13, 2009-2011
- ROMEO (Rocky Mountain Ecological Observatory Network) Co-chair, 2004-2007
- Mountain Studies Institute, 2004-2006
- HJ Andrews LTER, 2006-2011
- University of Colorado Mountain Research Station, 2004
- Northern Colorado Plateau Inventory and Monitoring Program, 2002-2004
- USGS Biological Resources Division Contaminants Program National Program Review, 2002
- Strategic Plan Development for CSU Water Resources Programs, 1995-1997
- National Park Service: Need for NPS Ecological Research, 1992
- Moderator/Presenter: Options for including nitrogen management in climate policy development. International Nitrogen Initiative Side Event to the COP-15 to the United Nations Climate Change Conference, Copenhagen, December 2009
- Presenter/Author: Climate Change: Global Risks, Challenges, and Decisions: Synthesis Report. Copenhagen, March 2009
- Co-Author/Committee member: Risk and Exposure Assessment for Review of the Secondary National Ambient Air Quality Standards for Oxides of Nitrogen and Oxides of Sulfur, EPA -452/R-09-008a.
- Lead Author, Science and Assessment Project 4.4; Adaptations of National Parks to Climate Change, US Climate Change Science Program 2006-2007
- USGS Science Strategy Team member, 2006-2007
- Other Ecological Society of America activities:
 - Faculty Mentor, CSU SEEDS chapter 2017-2021
 - SEEDS Advisory Board 2019-2021
 - Assigning Editor, *Ecological Applications* 2016-2020
 - Editor-in-Chief *Issues in Ecology* 2007-2012;
 - Governing Board Member-at-Large 1997-1999;
 - Secretary, 2001-2003,
 - Annual Meeting Program Chair 1995-1996;
 - Associate Editor: *Ecological Applications* 2001-2010;
 - Regional Response Team planning 2006,
 - SEEDS Mentor 2004-2005,
 - ESA Committee on Women and Minorities 1991-1993,
 - ESA Nominating Committee 1994-1996, 1997-1999,
 - ESA representative to Advisory Committee on Water Information 1999-2001
- American Society for Limnology and Oceanography activities:
 - Senior Editor, Limnology and Oceanography Letters, 2016-2023
 - Nominated for President, 2010-2016 (did not win)
 - Hutchinson Award Committee, 2004-2009
 - Meeting Planning Committee 1992
- National Science Foundation review panels: IGERT 2007, Biocomplexity in the Environment, 2001-2002; Terrestrial Ecosystems and Global Change (TECO), 1995; LTER 2017
- NASA Climate and Biological Response: Research and Applications Peer Review Panel, 2011
- Research Grade Evaluation of Peers for Biological, Water Resources, and Geologic Divisions Panel Member, 1995-2008
- Environmental Protection Agency Science Advisory Board invited expert, 1995
- National Research Council: Need for National Initiative for Interdisciplinary Study of Inland Waters committee, 1992

- Reviewer of manuscripts for many scientific journals, (including Ecology, Biogeochemistry, Proceedings of the National Academy of Sciences, ES&T), the IPCC Second Assessment Report, and proposals for NSF, EPA, USDA, NPS, USGS, NIH, NSERC (Canada), CONICYT (Chile)

Honors

- United States Presidential Rank Award, 2022
- Distinguished Service Citation, Ecological Society of America 2022
- Fellow of the American Association for the Advancement of Science 2017
- Colorado Woman of Vision 2015
- Resident Distinguished Ecologist, Colorado State University 2014-2015
- Fellow of the Ecological Society of America, 2012
- National Park Service Intermountain Regional Director's Award for Natural Resource Research, 2012
- Rocky Mountain National Park Stewardship Award, 2012
- Department of Interior Awards:
 - Meritorious Service, 2002; Superior Service, 2016;
 - National Biological Survey Superior Achievement, 1995;
 - Outstanding National Park Service Washington Office Research Scientist 1991;
 - Outstanding Contributions to Biological Division USGS, 1999, 2000, 2001; USGS STAR Awards 2009, 2010, 2011, 2012, 2013;
 - USGS Shoemaker Award 2011
- Testimony to U.S. Congress House Science Committee, 2001
- Congressional Briefings:
 - 1999, on western atmospheric deposition
 - 2009, on climate change effects on western water resources
- Congressional Field Trips:
 - 2009: Climate change impacts on Colorado River Basin
 - 2009: Climate change in western mountains for Senators Udall and McCain
- Recognition for contribution to distinguished publication, USDA Forest Service, 1999
- Keynote or Plenary Speaker:
 - Berkeley Catchment Science Symposium Featured Speaker, 2014
 - Center for Ecology at Southern Illinois University Distinguished Speaker, 2014
 - Ecosystem Center Semester in Environmental Science Distinguished Scientist, 2014 Ecological
 - Distinguished Speaker, Center for Ecology at Southern Illinois University, 2014
 - British Ecological Society, 2012;
 - National Atmospheric Deposition Program Annual Meeting 2012
 - Wrigley Lecturer, Arizona State University, 2006;
 - GLOCHAMORE meeting on effects of climate change along altitudinal gradients in mountain ecosystems, 2005;
 - Gordon Research Conference on Catchment Science, 2005;
 - Colorado College Unveiling of State of the Rockies Report Card, 2004;
 - 4th Annual Science Symposium, St. Olaf College, 2003;
 - North American Diatom Symposium 1999
 - Montana State University Mountain Research Center, 1997
- Certified Professional Senior Ecologist, Ecological Society of America 2001-2021
- National Wildlife Federation Fellow, 1979-1981
- Professional Societies
- Ecological Society of America, American Geophysical Union, American Association for the Advancement of Science, American Society for Limnology and Oceanography, American Institute of Biological Sciences

Major Interests:

Biogeochemical cycling/ecosystem ecology

Fostering sustainable human societal/environmental interactions

Increasing opportunities for women and minorities in science

Research Activities Since 2000:

- Principal Investigator: Condition Assessment of Alpine Lakes: How does fire impact lake productivity and water clarity? National Park Service 2021-2023. \$39,887.
- Co-Principal Investigator: Critical Zone Collaborative Hub. National Science Foundation. 2020-2025. \$3.8 million.
- Principal Investigator: Are mountain lakes on a trajectory of rapid eutrophication toward harmful algal blooms? USGS-NPS Water Quality Partnership. 2018-2020 \$253,000.
- Co-Lead Component 1 of the International Nitrogen Management System 2017-2021 \$170,000.
- Co-Principal Investigator: Environmental History, Ecology, and Sustainability in Public Lands, Global Challenges Research Team. 2014-2015 \$17,100.
- Principal Investigator: Long-term ecological research and monitoring in Loch Vale Watershed, Rocky Mountain National Park. 1982-present. NPS, NBS, USGS (cumulative >\$5,251,000)
- Co-Principal Investigator: Western Mountain Initiative, 2004-2023, USGS \$7.5 million
- Co-Principal Investigator: Effects of mountain pine beetle-induced tree mortality on water quality (USGS-NPS Water Quality Partnership). 2010-2013 \$300,000.
- Co-Principal Investigator: Atmospheric deposition of inorganic nitrogen in Grand Teton NP: determining biological effects on algal communities in alpine lakes (NPS). 2010-2012 \$90,000.
- Principal Investigator: In support of a USGS national ecosystem services forecasting program, 2009-2011. \$95,000.
- Co-Principal Investigator: Spatial sensor network for monitoring snowmelt, vegetation, and soil moisture dynamics. 2009-2010. Warner College of Natural Resources. \$10,000.
- Co-Principal Investigator: Identifying Multi-jurisdictional Adaptation Strategies for Responding to Climate Change on Federal Lands. 2007-2011, NPS. \$55,000.
- Principal Investigator: Assessing ecosystem response to atmospheric deposition, 2002-2009, EPA and NPS. \$365,000
- Principal Investigator: Taking America's Pulse: development and application of human and environmental indicators in the South Platte Basin, 2004-2006, USGS \$150,000
- Co-Principal Investigator: The influence of climate-induced alterations in dissolved organic matter on metal toxicity and UV radiation in Rocky Mountain streams, 2002-2005. EPA STAR \$350,000
- Co-Principal Investigator: Assessing the impacts of prolonged severe drought on aquatic ecosystems and water quality. 2002-2004 EPA. \$40,000
- Principal Investigator: A Survey of the Impacts of Fish Introduction and Extirpation on Zooplankton of Alpine Lakes. 2005-2006. NPS. \$20,000
- Co-Principal Investigator: An integrated assessment of the effects of climate change on Rocky Mountain National Park and its gateway community, 1999-2002. EPA STAR
- Lead Author and Organizer: Issues of Freshwater Equity and Ecosystems: Balancing Environmental and Human Needs for Water, an Ecological Society of America White Paper, 1988-2002. ESA
- Principal Investigator: Air Quality Effects Research on DOI Lands, 1998-2002, USGS

Graduate Students

1. Jennifer Back, M.Sc., 1995 (co-adviser), now with National Park Service
2. Michael Martin, M.Sc., 1994 (co-adviser), now with National Park Service
3. Toben LaFrancois, M.Sc. 1995 (co-adviser), now with Northland College
4. Cynthia Brock (Kester), M.Sc., 1997 (co-advisor), now with MIT
5. Heather Reuth, Ph.D., 2001 (adviser), deceased

6. Benjamin Balk, M.Sc., 1999 (co-adviser), now with NOAA, Anchorage, AK
7. Brenda Moraska (Lafrancois), 2003, Ph.D., (co-adviser), now with National Park Service
8. Koren Nydick, Ph.D. 2003 (adviser), now with National Park Service
9. Kathryn Muldoon, M.Sc., 2005 (adviser) now in consulting
10. Sanjay Advani, M. Sc., 2005 (adviser), now in consulting
11. Jill Oropeza, M.Sc. 2008. (adviser), now with City of Fort Collins
12. Melannie Hartman, Ph.D. 2013 (adviser) research scientist, Colorado State University
13. Karen Galles, M. Sc. 2011 (co-adviser) now in consulting
14. Brooke Osborne, M.S., 2012 (adviser) now with USGS
15. Phoenix Mourning-Star, Ph.D., 2014 (adviser) now with National Science Foundation
16. Timothy Fegel, M.Sc. 2015 (adviser) now with Forest Service Rocky Mountain Research Station
17. Isabella Oleksy, Ph.D. 2019 (adviser) now at University of Colorado
18. Jordan Allen, M.Sc. 2015 (co-adviser) now at U Mass-Amherst
19. Alyssa Annenberg, M.Sc. 2017 (co-adviser)
20. Timothy Weinmann, M.Sc. 2020 (co-adviser) now with USGS
21. Caitlin Charlton, M.Sc. current (adviser)
22. Anna Shampain, M.Sc. 2023 (adviser), now at Utah State University

Post-Doctoral Fellows

Robert Kremer, now with Ames Community College
 Laura Landrum, 2003-2005; now with NCAR
 Lindsey Christensen, 2005-2008, now with University of Utah
 Kevin McCluney, 2010-2011, Assistant Professor, Bowling Green State University
 Ed Hall, 2011-2014, Assistant Professor, Colorado State University

Visiting Fulbright Fellows

Dr. Manuel Toro Velasco, Universidad Autonoma de Madrid, Spain
 Dr. Christopher Lemieux, University of Waterloo, Waterloo, Ontario, Canada.
 Luca Colombo, University of Applied Sciences of Southern Switzerland

Undergraduate Advisees

REU Students Matt Ridge, Julie Hawkins, and Toby Minear 1997; REU Students Katrina Gerkin and Roger Andre, 1998. REU Students Seth Martin, Seth Gates, Mary Fitzgerald, and Andrew Ramey, 1999. Hannah Afifi, Trinity College, Dublin, 2000, Bethany Caruso, 2001, Stephanie Gieck, 2003, Katie Lenio, 2004, Katie Williams 2005, Taylor Elm 2006, Julie Markus, Lizzy Asher, and Sabrina Joyce Kleinman, 2008, Shenavia Balcom, 2008-2011, Michelle Bahnik, 2009, Bill Magee 2009, Julia Spencer, 2010. Matt Schoonmeester, 2009-2011, Timothy Fegel, 2012. Gillian Gundersen, 2012-13, Austin Seback 2013, Riley Woodwell 2013, Will Creed 2014-2015, Ryan Davis 2015-2016, Tyler Lompard 2016, Jessica Johnstone 2016, Melanie Burnet 2016-2017, Jacob Kimiecik 2016-2017, Timothy Weinmann 2016-2017; Nick Framsted 2017; Andrea Fairfield 2018-2019, Yanyu Wang 2019, McKenleigh Spitler 2020, Lauryn Howlitt 2020, Varun (Kirk) Acharya, NPS Future Park Leader 2020, Cody Sanford 2020-2021; Megan Pierson 2020-2021, Laura Lenhart 2021-2022, Xiaowen Sun 2021-2022, Sophia Corioso 2021-2022, LeAnna Warren 2020-2022.

Other Mentoring Activities

USGS Mentor for Sara Oyler-McCance, 2003, 2022; Libby Prueher, 2005, Aparna Bamzai, 2018; Ecological Society of America SEEDS Mentor for Yana Reid, 2004-2006; Edith Juarrieta, 2005-2006, ESA Early Career Mentor for Fiona Soper; Faculty Mentor for CSU SEEDS Chapter 2018-present.

Peer-Reviewed Publications:

In Review:

- Wen J, Chan SCP, Aanderud CT, Baron JS, Chandra S, Elser JJ, Leifi D, Suenaga E, Waring B, Brahney J. Experimental evidence of dust driven shifts in production, chlorophyll-a, and community composition in mountain lakes. In review at Water Resources.
- Sadro S, Baron JS, Brahney JL, Chandra S, Culpepper JA, Fradkin SE, Hampton SE, Moser KA, Nanus L, Noble PJ, Olesky IA, Roberts JJ, Rosen MR, Smits, AP, Sommaruga R, Strecker AL, Vinebrooke RD, Walters DM, Williams JJ. The Mountain Gradient and Mosaic Concept: A framework for understanding lake processes across scales. In review at Frontiers in Ecology and Environment.
- Van Grinsven H, Gu B, Brouser R, Zhang L, van Dingenen R, ...Baron J. Approaches and challenges to value nitrogen benefits and threats. Chapter 9 in Sutton M, Howard C. eds. International Nitrogen Assessment, Cambridge University Press, in review.
- Baron JS, Shibata H, Coordinating Lead Authors. 2021. Approaches and challenges to assess nitrogen impacts. Chapter 6 in Sutton M, Howard C. eds. International Nitrogen Assessment, Cambridge University Press, in review.
- Hall EK, Fegel T, Baron JS. The effect of snowpack and headwater ice features on nitrogen dynamics within alpine and sub-alpine surface waters. Hydrobiologia, in review.
- Baron JS, Hooper D, Bruulsema T, Compton J, Sabo R, Bittman S, Homann P, Lin J, Zhang X, Vishwakarma S, Embertson N, Schwede D, Lassaletta L, Ponette-Gonzalez A. Assessment of nitrogen flows, impacts, and solutions in North America. Chapter 23 in Sutton M, Howard C. eds. International Nitrogen Assessment, Cambridge University Press, in review.
- Oleksy IA, Solomon CT, Jones E, Olson C, Bertolet BL, Adrian R, Bansal S, Baron JS, and 21 others. 2024. Controls on lake pelagic primary productivity: formalizing the nutrient-color paradigm. Limnology Oceanography Letters, in review.

In Press:

- Shampain A , Baron JS, Leavitt PR, Spaulding SA. Climatic Variability as a Principal Driver of Primary Production in the Southernmost Subalpine Rocky Mountain Lake. Arctic, Antarctic, and Alpine Research. In press.
- Oleksy IA, Solomon CT, Jones SE, and 28 others (incl. Baron JS). Controls on lake pelagic primary productivity: formalizing the nutrient-color paradigm. Limnology and Oceanography Letters. In press.

Edited Books:

- Baron, J. (Editor). 1992. Biogeochemistry of a subalpine ecosystem: Loch Vale Watershed. Springer-Verlag Ecological Studies 90. New York.
- Baron, J.S. (Editor). 2002. Rocky Mountain Futures: an ecological perspective. Island Press, Covelo, CA.

Published:

- Rocci K, Catrufo MF, Baron JS. 2023. Proximity to roads does not modify inorganic nitrogen deposition in a topographically complex, high traffic, subalpine forest. Water, Air, Soil Pollution, <https://doi.org/10.1007/s11270-023-06762-2>.
- Hampton S; Baron JS; Ladwig R; McClure R; Meyer MF; Oleksy IA; Shampain A. 2023. Warming-induced changes in benthic redox as a potential driver of increasing filamentous algal

- blooms in high-elevation lakes. *Limnology and Oceanography Letters*. doi: 10.1002/lol2.10357
- Baron, JS, Weinmann T, Acharya VK, Charlton C, Nydick K, Esser S. 2023. Marmots do not drink coffee: Human urine contributions to the nitrogen budget of a popular national park destination. *Ecosphere* DOI: 10.1002/ECS2.4504
- Weinmann, T., Baron, J.S., and Jayo, A., 2022, Quality assurance report for Loch Vale Watershed, 2010–19: U.S. Geological Survey Techniques and Methods 1–D9, 21 p., <https://doi.org/10.3133/tm1D9>.
- Clark SC, Barnes RT, Oleksy IA, Baron JS, Hastings MG. Persistent Nitrate in Alpine Waters with Changing Atmospheric Deposition and Warming Trends. *Environmental Science & Technology*. 2021 Oct 12;55(21):14946-56.
- Burpee BT, Saros JE, Nanus L, Baron JS, Brahney J, Christianson KR, Ganz T, Heard A, Hundey E, Koinig KA Kopáček J, Moser K, Nydick K, Oleksy I, Sadro S, Sommaruga R, Vinebrooke R, and Williams J. 2021. Identifying factors that affect mountain lake sensitivity to atmospheric nitrogen deposition across multiple scales. *Water Research*. <https://doi.org/10.1016/j.watres.2021.117883>
- Srivastava DS, Winter M, Gross LJ, Metzger JP, Baron JS, Mouquet N, Meagher TR, Halpern BS, Pillar VD. Maintaining momentum for collaborative working groups in a post-pandemic world. *Nature Ecology & Evolution*. 2021 Sep;5(9):1188-9.
- Vadeboncoeur Y, Marianne V. Moore, Simon D. Stewart, Sudeep Chandra, Karen S. Atkins, Jill S. Baron, Keith Bouma-Gregson, Soren Brothers, Steven N. Francoeur, Laurel Genzoli, Scott N. Higgins, Sabine Hilt, Leon R. Katona, David Kelly, Isabella A. Oleksy, Ted Ozersky, Mary E. Power, Derek Roberts, Adrienne P. Smits, Flavia Tromboni, M. Jake Vander Zanden, Ekaterina A. Volkova, A. Sean Waters, Susanna A. Wood, Masumi Yamamuro. 2021. Blue Waters, Green Bottoms: Filamentous Attached Algal Blooms (FABs) are an Emerging Threat to Clear Lakes Worldwide. *BioScience* 10.1093/biosci/biab049
- Schimel DS, Baron JS. 2021. A more representative community of ecologists. *Ecol. Apps*. DOI: 10.1002/eap.2353
- Baron, JS, Clow DW, Oleksy IA, Weinmann T, Charlton C, Jayo A. 2021. Long-term ecosystem and biogeochemical research in Loch Vale watershed, Rocky Mountain National Park, Colorado. *Hydrol. Proc.* <https://doi.org/10.1002/hyp.14107>
- Oleksy, IA, Baron JS, Beck, WS. 2021. Nutrients and warming alter mountain lake benthic algal structure and function. *Freshwater Sciences* DOI:10.1086/713068.
- Baron, JS, EA Davidson. 2020. The INI North American Regional Nitrogen Center: 2011-2015 Nitrogen Activities in North America. Chapter 34 in: Sutton, M. ed., *Just Enough Nitrogen: Perspectives on how to get there for regions with too much and too little nitrogen*. Springer. https://doi.org/10.1007/978-3-030-58065-0_34.
- Mark A. Sutton, Clare M. Howard, Will Brownlie, David Kanter, Wim de Vries, Tapan Adhya, Jean Ometto, Jill S. Baron, Wilfried Winiwarter, Xiaoutang Ju, Cergele Masso, Oene Oenema, N. Raghuram, Hans J.M. van Grinsven, Isabelle van der Beck, Christopher Cox Steffen C.B. Hansen, Ramesh Ramachandran, & W. Kevin Hicks. 2020. Global challenges for nitrogen science-policy interactions: Towards the International Nitrogen Management System (INMS) and improved coordination between multi-lateral environmental agreements. Chapter 36 in Sutton, M. ed., *Just Enough Nitrogen: Perspectives on how to get there for regions with too much and too little nitrogen*. Springer. https://doi.org/10.1007/978-3-030-58065-0_36.

- Lin, Jiajia, Jana E. Compton, Chris Clark, Shabtai Bittman, Donna Schwede, Peter S. Homann, Peter Kiffney, David Hooper, Gary Bahr, Jill S. Baron. 2020. Key components and contrasts in the nitrogen budget across a US-Canadian transboundary watershed. *JGR-Biogeosciences*, doi:10.1029/2019JG005577.
- Bradford, J.B., Weltzin, J.F., McCormick, M., Baron, J., Bowen, Z., Bristol, S., Carlisle, D., Crimmins, T., Cross, P., DeVivo, J., Dietze, M., Freeman, M., Goldberg, J., Hooten, M., Hsu, L., Jenni, K., Keisman, J., Kennen, J., Lee, K., Lesmes, D., Loftin, K., Miller, B.W., Murdoch, P., Newman, J., Prentice, K.L., Rangwala, I., Read, J., Sieracki, J., Sofaer, H., Thur, S., Toevs, G., Werner, F., White, C.L., White, T., and Wiltermuth, M., 2020, Ecological forecasting—21st century science for 21st century management: U.S. Geological Survey Open-File Report 2020–1073, 54 p., <https://doi.org/10.3133/ofr20201073>
- Oleksy, IA, Beck WS, Lammers RW, Steger C, Wilson C, Christianson K, Vincent K, Johnson G, Johnson PTJ, Baron JS. 2020. Warm, dry summers and variation in snow control phytoplankton dynamics in high-elevation lakes. *Ecology*. <https://doi.org/10.1002/ECY.3132>
- Oleksy IA; Baron JS; Leavitt P; Spaulding SA. 2020. Multiple stressors interact to force mountain lakes into unprecedented ecological state. *Proc. Roy. Soc. B* 287: 20200304. <http://dx.doi.org/10.1098/rspb.2020.0304>
- Baron JS, Chandra, Elser JJ. 2020. Understanding mountain lakes in a changing world: introduction to the topical collection. *Aquatic Sciences* 82:57. <https://doi.org/10.1007/s00027-020-00722-2>
- Kimball S, Goldhaber M, Baron JS, Labson V. 2020. The Modern Geological Survey: A model for research, innovation, synthesis, A USGS Perspective. In: Hill PR, Lebel D, Hitzman M, Smelror M, Thorleifson H (eds). *The Changing Role of Geological Surveys*. Geological Society, London, Special Publications, 499, <https://doi.org/10.1144/SP499-2019-250>
- Piña AJ, Schumacher RS, Denning AS, Faulkner WB, Baron JS, Ham J, Ojima DS, Collett JL, Jr. 2019. Reducing wet ammonium deposition in Rocky Mountain National Park: The development and evaluation of a pilot early warning system for agricultural operations in eastern Colorado. *Environmental Management*, <https://doi.org/10.1007/s00267-019-01209-z>.
- Walker JT, Beachley G; Amos H; Baumgardner R; Baron JS; Bash J; Bell MD; Benedict KB; Chen X; Clow DW; Cole A, Coughlin JG; Cruz K; Daly RW; Decina SM; Elliott EM; Fenn MF; Ganzeveld LF; Gebhart K; Isil SS; Kerschner BM7; Larson RS; Lavery T; Lear GG; Macy T; Mast MA; Mishoe K; Morris K; Padgett PE; Pouyat RV; Puchalski M; Pye HOT; Rea AW; Rhodes MF; Rogers CM; Saylor R; Schichtel BA; Schwede DB; Sexstone GA; Sive BC; Sosa RC; Templer PH; Thompson T; Tong D; Wetherbee GA; Whitlow TH; Wu Z; Yu Z; Zhang L. Toward the improvement of total nitrogen deposition budgets in the United States. *Science of the Total Environment* 691:1328-1352. <https://doi.org/10.1016/j.scitotenv.2019.07.058>
- Fegel T, Boot CM, Baron JS, Hall EK. 2019. Assessing the chemistry and bioavailability of dissolved organic matter from glaciers and rock glaciers. *JGR-Biogeosciences*, <http://dx.doi.org/10.1029/2018JG004874>
- Moser KA, Baron JS, Brahney J, Oleksy IA, Saros JA, Hundey E, and others. 2019. Mountain Lakes: Eyes on Global Environmental Change. *Global and Planetary Change*, invited review. <https://doi.org/10.1016/j.gloplacha.2019.04.001>

- Shaw EA, Boot CM, Moore JC, Wall DH, Baron JS. 2019. Long-term nitrogen addition shifts the soil nematode community to bacterivore-dominated and reduces its ecological maturity in a subalpine forest. *Soil Biology and Biochemistry* 130:177-184.
- Jenni, K.E., Goldhaber, M.B., Betancourt, J.L., Baron, J.S., Bristol, R.S., Cantrill, Mary, Exter, P.E., Focazio, M.J., Haines, J.W., Hay, L.E., Hsu, Leslie, Labson, V.F., Lafferty, K.D., Ludwig, K.A., Milly, P.C., Morelli, T.L., Morman, S.A., Nassar, N.T., Newman, T.R., Ostroff, A.C., Read, J.S., Reed, S.C., Shapiro, C.D., Smith, R.A., Sanford, W.E., Sohl, T.L., Stets, E.G., Terando, A.J., Tillitt, D.E., Tischler, M.A., Toccalino, P.L., Wald, D.J., Waldrop, M.P., Wein, Anne, Weltzin, J.F., and Zimmerman, C.E., 2017, Grand challenges for integrated USGS science—A workshop report: U.S. Geological Survey Open-File Report 2017–1076, 94 p., <https://doi.org/10.3133/ofr20171076>.
- Baron JS, Specht A, Garnier E, Bishop P, Campbell CA, Davis FW, Fady B, Field D, Gross LJ, Guru SM, Halpern BS, Hampton SE, Leavitt PR, Meagher TR, Ometto JP, Parker JN, Price R, Rawson CH, Rodrigo A, Sheble LA, Winter M. 2017. Synthesis centers as critical research structure. *BioScience*. doi:10.1093/biosci/bix053.
- Wohl, E, Leininger K, Baron JS. 2017. Land Before Water: The Relative Temporal Sequence of Human Alteration of Freshwater Ecosystems in the Conterminous United States. *Anthropocene* 18:27-46.
- Castner, EA, Leach AM, Leary N, Baron J, Compton JE, Galloway JN, Hastings MG, Kimiecik J, Lantz-Trissel J, de la Reguera E, Ryals R. 2017. The Nitrogen Footprint Network: A Multi-Institution Program to Reduce Nitrogen Pollution. *Sustainability: The Journal of Record* 10:79-88; DOI: 10.1089/sus.2017.29098.eac
- Kimiecik J, Baron JS, Weinmann T, Taylor E. 2017. Adding a Nitrogen Footprint to Colorado State University's Sustainability Plan. *Sustainability: The Journal of Record* 10:89-95; DOI: 10.1089/sus.2017.29091.jk
- Hampton SE, Halpern BS, Winter M, Balch JK, Parker JN, Baron JS, Palmer M, Schildhauer MP, Bishop P, Meagher TR, Specht A. 2017. Best Practices for Virtual Participation in Meetings: Experiences from Synthesis Centers. *The Bulletin of the Ecological Society of America* 98:57-63.
- Greaver TL, CM Clark, JE Compton, D Vallano, AF Talhelm, CP Weaver, LE Band, JS Baron, EA Davidson, CL Tague, JD Herrick, L Liu, JA Lynch, CL Goodale, E Felker-Quinn, KJ Novak, RA Haeuber. 2016. Key ecological responses to nitrogen are altered by climate change. *Nature Climate Change* 6:836-843. 10.1038/nclimate3088.
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