



Dragonfly Mercury Project

List of Selected Accomplishments

Updated: September 2020

PUBLICATIONS

- Eagles-Smith, C., J.J. Willacker, S.J. Nelson, C.M. Flanagan Pritz, D.P. Krabbenhoft, C.Y. Chen, J.T. Ackerman, E. Grant, and D.S. Pilliod. 2020. Dragonflies as biosentinels of mercury availability in aquatic food webs of national parks throughout the United States. *Environmental Science & Technology* (54)14: 8779-8790. <https://pubs.acs.org/doi/10.1021/acs.est.0c01255>
- Eagles-Smith, C.A., S.J. Nelson., C.M. Flanagan Pritz, J.J. Willacker Jr., and A. Klemmer. 2020. Total Mercury Concentrations in Dragonfly Larvae from U.S. National Parks (2014-2018): U.S. Geological Survey data release. <https://doi.org/10.5066/P9TK6NPT>
- Watkins, T., A.J. Miller-Rushing, and S.J. Nelson. 2018. Science in Places of Grandeur: Communication and Engagement in National Parks. *Integrative and comparative biology* 58(1): 67–76.
- VanderMeulen, D. D., B. Route, J. Wiener, R. Haro et al. 2018. Protocol for monitoring mercury in dragonfly larvae and fish (version 1.0): Great Lakes Inventory and Monitoring Network. Natural Resource Report NPS/NCCN/NRR—2018/1726. National Park Service, Fort Collins, Colorado.
- Flanagan Pritz, C.M. and S.J. Nelson. 2017. Collecting Data on Charismatic Mini-Fauna: Public Participation and the Dragonfly Mercury Project. *Maine Policy Review* 26(2): 50-54. <https://digitalcommons.library.umaine.edu/mpr/vol26/iss2/9/>
- Eagles-Smith, C.A., S.J. Nelson., J.J. Willacker Jr., C.M. Flanagan Pritz, and D.P. Krabbenhoft. 2016. Dragonfly Mercury Project—A citizen science driven approach to linking surface-water chemistry and landscape characteristics to biosentinels on a national scale: U.S. Geological Survey Fact Sheet 2016-3005, 4 p., <http://dx.doi.org/10.3133/fs20163005>.
- Nelson S.J., H. Webber, and C.M. Flanagan. 2015. Citizen scientists study mercury in dragonfly larvae: Dragonfly larvae provide baseline data to evaluate mercury in parks nationwide. Natural Resource Report. NPS/NRSS/ARD/NRR—2015/938. National Park Service: Fort Collins, CO.

PRESENTATIONS

- Nelson, S.J. 2020. What can Dragonflies tell us about Mercury in National Parks? Visitor presentation, Appalachian Mountain Club's Highland Center, August 8, 2020.
- Eagles-Smith, C. 2019. Dragonflies as biosentinels of mercury availability in aquatic food webs of national parks throughout the United States. National Atmospheric Deposition Program Fall Meeting, Nov 2019: Boulder, CO.
- Hess, M.C., S.J. Nelson, H. Greig, C. Eagles-Smith, A.J. Klemmer, C. Flanagan-Pritz, and J. Willacker, 2019. The Dragonfly Mercury Project: temporal trends in mercury concentrations of dragonfly

- biosentinels from Acadia National Park, Maine, USA. ICMGP 2019, 14th International Conference on Mercury as a Global Pollutant, September 8-13, 2019, Krakow, Poland.
- Flanagan Pritz, C., C.A. Eagles-Smith, S.J. Nelson, J.W. Willacker, D.P. Krabbenhoft. 2019. Dragonfly Mercury Project: Engaging Citizens in Resource Conservation. Invited oral presentation for the Federal Community of Practice on Crowdsourcing and Citizen Science (FedCCS), September 26, 2019: NASA Headquarters, Washington, D.C.
- Ko, K., C.A. Eagles-Smith, C.M. Flanagan Pritz, S.J. Nelson, and J.W. Willacker. 2019. Dragonfly Larvae as Bioindicators of Mercury Pollution. Geological Society of America (GSA) Annual Meeting, September 22-25, 2019, Phoenix, AZ.
- Flanagan Pritz, C., S. Nelson, C. Eagles-Smith, J. Willacker, S. Melena, M. Peters, 2019. Engaging Citizens in Resource Conservation: Communicating Results from the Dragonfly Mercury Project. Citizen Science Association Conference, March 13–17, 2019, Raleigh, NC.
- Hess, M., S. Nelson, C. Eagles-Smith, C.F. Pritz, J. Willacker, 2018. The Dragonfly Mercury Project: Biosentinel Mercury Concentrations and Landscape Drivers across U.S. National Parks. NADP (National Atmospheric Deposition Program) Fall Meeting, Albany, NY, November 5-9, 2018.
- Nelson, S.J., J. Willacker, C. Eagles-Smith, D. Krabbenhoft, C. Flanagan Pritz, et al. 2017. The Dragonfly Mercury Project: a national scale evaluation of variation in biosentinel mercury concentrations and landscape drivers across US national parks. The International Conference on Mercury as a Global Pollutant (ICMGP), Providence, Rhode Island, July 16-21, 2017.
- Nelson, S.J., C.F. Pritz, A. Klemmer, et al. 2017. Charismatic Mini-fauna Connect Citizen Scientists to Air and Water Pollution Issues in National Parks: The Dragonfly Mercury Project. Citizen Science Association, St. Paul, MN, May 18-19, 2017.
- Nelson, S.J., C.Y. Chen, D.P. Krabbenhoft, J.S. Kahl, 2016. Beyond “hotspots” – dragonfly biosentinels describe vulnerability (or not) of northeastern lakes and their foodwebs to mercury accumulation. American Society for Limnology and Oceanography, June 6, 2016, Santa Fe, NM.
- Webber, H., C. Eagles-Smith, C. Flanagan Pritz, D. Krabbenhoft, M. Schaufli, B. Zoellick, S.J. Nelson, 2015. Tools for data literacy: Engaging citizen scientists in analysis of mercury data from national parks across the U.S. Citizen Science 2015, February 11–12, 2015, San Jose, CA.
- Flanagan, C. and Nelson, S.J. 2013. Citizen Scientists Study Mercury in Dragonfly Larvae from National Parks. NAI (National Association of Interpreters) National Workshop. Reno, NV: Nov. 5-9, 2013.
- Nelson, S., B. Zoellick, E. Lindsey, E. Sherman, 2010. Dragonfly larvae as indicators for mercury in the Northeast: interdisciplinary citizen science research. Dragonfly Society of the Americas 2010 Annual Meeting, June 24–27, 2010.

MULTIMEDIA PRODUCTS

- Eagles-Smith, C.A., J.J. Willacker Jr., S.J. Nelson, C.M. Flanagan Pritz, C.S. Emery, B.L. Johnson, K. Ko, D.P. Krabbenhoft, C.Y. Chen, J.T. Ackerman, E.H. Grant, and D.S. Pilliod. 2020. The Dragonfly Mercury Project- A citizen science framework for monitoring mercury pollution in US national parks using dragonfly larvae as biosentinels. USGS Story Map.
<https://doi.org/10.5066/P9SUMI7P>