

HUBBARD BROOK MONTHLY January 2022 issue

Recent Publications

Burakowski, EA, AR Contosta, D Grogan, SJ Nelson, S Garlick, N Casson. 2022. Future of Winter in Northeastern North America: Climate Indicators Portray Warming and Snow Loss that will Impact Ecosystems and Communities. 2022. Northeastern Naturalist.

<https://www.eaglehill.us/NENAonline/articles/NENA-sp-11/19-Burakowski.shtml>

Cayuela, H, JF Lemaître, JP Léna, V Ronget, I Martínez-Solano, E Muths, DS Pilliod, BR Schmidt, G Sánchez-Montes, J Gutiérrez-Rodríguez, G Pyke, K Grossenbacher, O Lenzi, J Bosch, KH Beard, LL Woolbright, BA Lambert, DM Green, N Jreidini, JM Garwood, RN Fisher, K Matthews, D Dudgeon, A Lau, J Speybroeck, R Homan, R Jehle, E Başkale, E Mori, JW Arntzen, P Joly, RM Stiles, MJ Lannoo, JC Maerz, WH Lowe, A Valenzuela-Sánchez, DG Christiansen, C Angelini, JM Thirion, J Merilä, GR Colli, MM Vasconcellos, TCV Boas, IdC Arantes, P Levionnois, BA Reinke, C Vieira, GAB Marais, JM Gaillard, and DAW Miller. 2022. Sex-related differences in aging rate are associated with sex chromosome system in amphibians. Evolution. <https://doi.org/10.1111/evo.14410>

Shan, S, H Devens, TJ Fahey, RD Yanai, and MC Fisk. 2022. Fine root growth increases in response to nitrogen addition in phosphorus-limited northern hardwood forests. Ecosystems. <https://link.springer.com/article/10.1007/s10021-021-00735-4>

Sharma, S, R Andrus, Y Bergeron, M Bogdziewicz, DC Bragg, D Brockaway, NL Cleavitt, B Courbaud, AJ Das, M Dietze, TJ Fahey, JF Franklin, GS Gilbert, CH Greenberg, Q Guo, JHR Lambers, I Ibanez, JF Johnstone, CL Kilner, JMH Knops, WD Koenig, G Kunstler, JM LaMontagne, D Macias, E Moran, JA Myers, R Parmenter, IS Pearse, WH Schlesinger, MA Steele, NL Stephenson, JJ Swenson, M Swift, TT Veblen, AV Whipple, TG Whitham, AP Wilson, CW Woodall, R Zlotin, JS Clark. 2022. North American tree migration paced by climate in the West, lagging in the East. PNAS.

<https://www.pnas.org/content/119/3/e2116691118>

If your publication is missing from this list, please let us know:

scielinks@hubbardbrookfoundation.org

Hubbard Brook in the News

Legacy of Coal: How coal companies walked away from their 'absolutely massive' environmental catastrophes by James Bruggers

[Courier Journal](#)

The last 7 years have been the warmest on record as planet approaches critical threshold by Rachel Ramirez

[CNN/SC Now](#)

Outreach and Education Update

On January 4, Susan Arnold, a longtime member of the Hubbard Brook Advisory Council, was appointed interim CEO of the Appalachian Mountain Club (AMC).

On January 27, HBRF Executive Director Anthea Lavallee gave a presentation on the Hubbard Brook Ecosystem Study to the Ammonoosuc Conservation Trust.

Oika Arts, a collaboration between artist Rita Leduc, Forest Service Team Lead Lindsey Rustad, and Oika founder Rich Blundell is entering its final stages after months of inspired work at Hubbard Brook Experimental Forest. Read more about the project [here](#).

Announcements

2022 SummerREU applications are due by February 25th. There are four available student positions. Research topics include soil carbon cycling, ash tree assessments, forest drought tolerance, and insect biodiversity. Please share this student opportunity with your network! Find the flyer [here](#), and/or email wilsong@caryinstitute.org.

The Forest Ecosystem Monitoring Cooperative (FEMC) program is seeking 9-12 undergraduate field technicians for Summer 2022. Students will conduct surveys for the Forest Health Monitoring (FHM) program. Please share with your network: <https://www.uvm.edu/femc/attachments/project/999/>

Please take a moment to review and update the [graduate/postdoc list](#) with your current information.

Hubbard Brook Data Report

Submissions to the Environmental Data Initiative Repository (EDI; <https://portal.edirepository.org>) this month include entirely new datasets and additions to long-term datasets.

Hubbard Brook has 23 GIS datasets in EDI – the underlying spatial data have not changed, but all data packages have been updated this month to incorporate metadata best practices that have emerged since these data were first submitted. These data are also available as a bulk download, which includes a QGIS project file that may give you a jump-start on creating your customized maps (email Mary for access to this).

For all of our R users/learners/teachers, you may be interested in a new R package under development, that will be based entirely on data from the 28 LTER sites. A few dataset vignettes have been developed, and Hubbard Brook is included in this early stage. With many more examples to come, you may find inspiration for your work, and examples for instruction here: <https://lter.github.io/lterdatasampler/>

For questions about Hubbard Brook data, please contact:

nina.lany@usda.gov – for questions about data collected by the US Forest Service

mary.martin@unh.edu – for questions, instructions, and assistance in submitting your data to the repository.

New datasets:

Cleavitt, N. and J.J. Battles. 2022. Hubbard Brook Experimental Forest: Seedling bank – watershed 1 and watershed 6 (2018) ver 1. Environmental Data Initiative.

<https://doi.org/10.6073/pasta/f1c35455db94754db3146c1d90f52f54>

(Accessed 2022-01-20).

Asbjornsen, H., M.A. Vadeboncoeur, K.A. Jennings, P.H. Templer, and L.E. Rustad. 2022. Hubbard Brook Experimental Forest: Droughtnet fine root production from ingrowth cores ver 1. Environmental Data Initiative.

<https://doi.org/10.6073/pasta/384dc65fd09c51d61ffe1f25764f036f>

(Accessed 2022-01-20).

McGuire, K. and C. Jensen. 2022. Appalachian stream length dynamics: shapefiles ver 1. Environmental Data Initiative.

<https://doi.org/10.6073/pasta/c72912c881e85f8e8d51ab75e43d8a71>

(Accessed 2022-01-22).

Asbjornsen, H., M.A. Vadeboncoeur, K.A. Jennings, B. Leonardi, G. Winant, P.H. Templer, and L.E. Rustad. 2022. Hubbard Brook Experimental Forest: Droughtnet dendrometer band measurements ver 1. Environmental Data Initiative.

<https://doi.org/10.6073/pasta/05cc90ac4b03c5a35ca1c1e7c7219577>

(Accessed 2022-01-24).

Updated datasets:

Fraser, O.L., K.J. McGuire, and S.W. Bailey. 2022. Hubbard Brook Experimental Forest: 1 meter LiDAR-derived and Hydro-enforced Digital Elevation Models, 2012 ver 2. Environmental Data Initiative.

<https://doi.org/10.6073/pasta/dcab665da20b8e75a57506b19f90262a>
(Accessed 2022-01-22).

Groffman, P.M., J. Duran, J.L. Morse, G.F. Wilson, and M.B. Green. 2022. Soil temperature along an elevation gradient at the Hubbard Brook Experimental Forest, 2010 - present ver 1. Environmental Data Initiative.
<https://doi.org/10.6073/pasta/85d9bc546191e92dad23077acc90a4bf>
(Accessed 2022-01-31).

Groffman, P.M., J. Duran, J.L. Morse, G.F. Wilson, and M.B. Green. 2022. Soil moisture along an elevation gradient at the Hubbard Brook Experimental Forest, 2010 - present ver 4. Environmental Data Initiative.
<https://doi.org/10.6073/pasta/a4a7019d24b4cbfadc6efa11238a8e58>
(Accessed 2022-01-31).

Thanks for reading!