EPA United States Environmental Protection Agency

EPA's Office of Research and Development, Safe and Sustainable Water Resource Research Program invites you to a **free webinar**

Water Research Webinar Series

A bimonthly webinar series focused on EPA's water research

Multi-Source Remote Sensing for Assessment and Management of Surface Waters

A certificate of attendance will be provided for attending this webinar

Wednesday, May 22, 2019 from 2:00 to 3:00 pm ET

Registration: https://register.gotowebinar.com/register/1221319512239738 91

Satellite imagery provides powerful datasets for understanding the dynamics of aquatic ecosystems across space and over time. The amount of imagery and diversity of data types are rapidly growing as new sensors with increased resolution and coverage continue to be launched across the globe (e.g., Sentinel-2, Sentinel-1, NISAR, CubeSats). EPA's Office of Research and Development (ORD) is a leader in applied research to develop powerful, cost-efficient tools using advanced remote sensing to assess and manage aquatic resources for a range of regulatory and non-regulatory purposes. Here we present recent research integrating remote sensing with widely-used geospatial tools to (1) assess restoration success in Western headwater streams; (2) quantify the effects of irrigation practices on riparian condition in the Upper Missouri River watershed; and (3) detect changes in wetland extent in Mid-Atlantic Region.

Presenters:

Melanie Vanderhoof, Ph.D. (Contact: Mvanderhoof@usgs.gov)
Melanie is a research geographer with the U.S. Geological Survey in Denver, Colorado. Her research uses diverse sources of satellite imagery to explore how ecosystems change over time. She has collaborated with EPA scientists on a number of projects focused on monitoring surface waters across U.S. regions. Melanie received her Ph.D. in geography from Clark University and was formerly an ORISE Post-Doctoral Fellow with EPA's ORD.

Jay Christensen, Ph.D. (Contact: christensen.jay@epa.gov)
Jay is a research ecologist with EPA, ORD's National Exposure Research Laboratory (NERL) in Cincinnati, Ohio. His studies include spatial and temporal dynamics of wetlands, their interactions with the surrounding landscape, and their downstream effects on hydrology and water quality. Jay's research explores the interaction of wetlands with agroecosystems at watershed- and regional-scales using GIS, remote sensing, and modeling. He has been with EPA for 12 years, including a post-doctoral position in landscape ecology with NERL in Las Vegas, NV. Jay received a Ph.D. in ecology from Iowa State University and a B.S. in conservation biology from Brigham Young University.

Laurie Alexander, Ph.D. (Contact: alexander.laurie@epa.gov)
Laurie is an ecologist with EPA, ORD's National Center for Environmental Assessment in Washington, D.C., where she focuses on applied research to support science-based decision making. Her current research focuses on flows and functions by which small or temporary streams, non-tidal wetlands, and open waters interact with larger rivers, lakes, reservoirs, and estuaries. Laurie has a Ph.D. in aquatic entomology from the University of Maryland and an MSc in computer science from the Johns Hopkins' Whiting School of Engineering.

Get feature articles about our science: www.epa.gov/sciencematters/

Schedule of upcoming water research webinars: www.epa.gov/water-research/water-research-webinars

Webinar series contact: latham.michelle@epa.gov