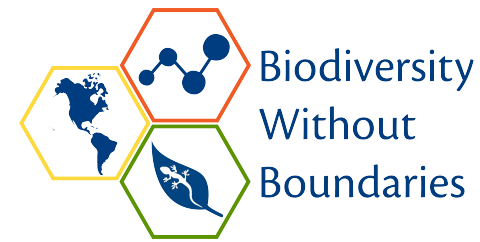


Biodiversity Without Boundaries Conference

Program Agenda
April 15, 2021



Continuing Education Credits

The Biodiversity Without Boundaries 2021 agenda is approved for continuing education credits/units from the Society of American Foresters (SAF), Canadian Institute of Forestry (CIF), and The Wildlife Society (TWS) for your participation.

- 12 hours of SAF CFE credits in Category 1, for full event participation. Single-day credits are as follows: Day 1 – 3 credits; Day 2 – 3.5 credits; Day 3 – 3.5 credits; and Day 4 – 2 credits. NatureServe will submit attendance records to SAF upon completion of the event. If you require a certificate, please contact bwb@natureserve.org.
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- 15 Continuing Education Units (CEUs) in Category I of the Certified Wildlife Biologist® Renewal/Professional Development Certificate Program provided by TWS. Participants simply list these CEUs on your Renewal or Professional Development Certificate application.

Monday April 26

Time	Session Details	Type
1:00-1:15pm	Conference Opening	Plenary
1:15-1:45pm	Keynote Speaker Gabriel Popkin, Science & Environmental Writer Gabriel Popkin is a science and environmental writer covering trees, forests and the environment, among other topics, from Mount Rainier, Maryland, just outside the nation's capital. His writing has appeared in the New York Times, Washington Post, Science, Nature, and many other publications. He also leads tree ID walks in the DC area.	Plenary
2:00-3:15pm	Biodiversity data and methods now and into the future Moderator: Kathy Goodin, VP for Data & Methods, NatureServe <ul style="list-style-type: none"> • <i>NatureServe Biodiversity Status Report 2021</i>, Bruce Young, Chief Zoologist and Senior Conservation Scientist, and Healy Hamilton, Chief Scientist, NatureServe • <i>Observations, habitat models, and range maps: A new spatial data model to support conservation decision-making</i>, Regan Smyth, Director of Spatial Analysis, NatureServe and David Jones-Farrand At-Risk Science Coordinator • <i>Data intelligence services to improve conservation status assessment and data aggregation</i>– Leah Oliver, Senior Research Botanist, NatureServe and Beckett Sterner, Assistant Professor, School of Life Sciences, Arizona State University • <i>Advancing conservation and restoration of the natural world through immersive technology</i>, Christine Pickens PhD, Science Director, Unique Places to Save, NatureXR Project Manager; Derek Alan Rowe, AR/VR Producer, Wildeyes, NatureXR Creative Director 	Plenary
3:15-4:30pm	Innovations in Technology Moderator: Lori Scott, VP for Technology and Partnerships, NatureServe	Plenary

	<ul style="list-style-type: none"> • <i>NatureServe Explorer provides online access to detailed biodiversity data for the US and Canada</i>, Lori Scott, VP for Technology and Partnerships, NatureServe • <i>Environmental Review Tools support local decision-making:</i> <ul style="list-style-type: none"> • Suzanne Mason, Conservation Data Manager, North Carolina Natural Heritage Program • René Hypes, Project Review Coordinator, Virginia Division of Natural Heritage 	
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Wednesday April 28

Time	Session Details	Type
11:30 am-11:45 am	Daily Conference Opening	Plenary
11:45am-12:30pm	Notes from the Field Bruce Young, Chief Zoologist and Senior Conservation Scientist, NatureServe	Plenary
12:45-1:30pm	Lunch Roundtables <ol style="list-style-type: none"> 3. <i>Landscape blocks as conservation elements</i>, Don Faber-Langendoen, Senior Ecologist & Conservation Methods Coordinator NatureServe 4. <i>Incorporating fungal conservation in the NatureServe Network</i>, Anne Frances, Lead Botanist, NatureServe 5. <i>Collections and Conservation—A conversation with members of the biodiversity collections community on data, methodology, and optimizing value</i>, Austin Mast, Professor, Florida State University 6. <i>Biodiversity of southeastern grasslands: Conservation challenges and opportunities</i>, Jennifer Cartwright, Biologist, US Geological Society 	Roundtables
1:45-3:15pm	Tools & Tech Learn about the latest efforts from the Network to fight invasive species Moderator: Shelley Cooke, Project Manager, NatureServe <ul style="list-style-type: none"> • <i>Ready, set, search! How an invasive species scavenger hunt promoted engagement with citizen scientists and efforts to detect high priority species</i>, Amy Jewitt, Invasive Species Coordinator, Western Pennsylvania Conservancy (PA Natural Heritage Program) • <i>Creating a web-based decision tool in iMapInvasives using invasive species management optimization models</i>, Jennifer Dean, Invasive Species Biologist, New York Natural Heritage Program • <i>Focusing volunteer survey efforts for high priority early detection species</i>, Meg Wilkinson, Invasive Species Database Coordinator, New York Natural Heritage Program 	Breakout
1:45-3:15pm	Data & Methods New developments in biodiversity mapping Moderator: Regan Smyth, Director of Spatial Analysis, NatureServe <ul style="list-style-type: none"> • <i>An overview of the NatureServe Species Habitat Model Standard</i>: Regan Smyth, Director of Spatial Analysis, NatureServe and Gary Beauvais, Director, Wyoming Natural Diversity Database • <i>NatureServe Canada Ecosystem-based automated range (EBAR) mapping: creating reliable accessible range maps for conservation</i>, Christine Terwissen, EBAR National Coordinator, NatureServe Canada • <i>Using NASA earth observations to enable open science with GIS</i>, Leah Schwizer, NASA Earth Science Data Systems 	Breakout

	<ul style="list-style-type: none"> • <i>Protecting riparian corridor networks in the Southwest: a novel approach to habitat connectivity analysis to optimize conservation and restoration of an at-risk ecosystem</i>, Esteban Muldavin, Director, and John Leonard, Ph.D., Research Assistant Professor and GIS Coordinator, Natural Heritage New Mexico 	
1:45-3:15pm	<p>Addressing Threats to Biodiversity</p> <p>Moderator: Anne Frances, Lead Botanist, NatureServe</p> <ul style="list-style-type: none"> • <i>Mitigating climate change through North Carolina's natural and working lands</i>, Misty Buchanan, Deputy Director for Natural Heritage, North Carolina Natural Heritage Program • <i>Prioritizing single site endemic plants conservation</i>, Anne Frances Lead Botanist, NatureServe, Amanda Treher, Research Botanist, NatureServe, Wesley Knapp Botanist, North Carolina Natural Heritage Program • <i>Plant extinctions and dark extinctions: the current state of knowledge</i>, Wesley Knapp, Botanist, North Carolina Natural Heritage Program • <i>Effective Hawaiian forest conservation and invasive plants: Evidence for the role of management from the Forest Inventory and Analysis Program</i>, Kevin Potter, Research Professor, North Carolina State University 	Breakout
3:30-5:00pm	<p>Tools & Tech</p> <p>New efforts from the Network to support planning, management, and mapping</p> <p>Moderator: Misty Nelson, Deputy Director of Network Relations, NatureServe</p> <ul style="list-style-type: none"> • <i>Assessing the ecological need for prescribed fire in Michigan using GIS-based multicriteria decision analysis: Igniting fire gaps</i>, Joshua Cohen, Lead Ecologist, Michigan Natural Features Inventory • <i>An optimized vegetation classification and modeling procedure for mapping national parks in the Pacific Northwest</i>, Eric Nielsen, ORBIC, Portland State University • <i>Ecological Integrity Assessments of Washington State Parks</i>, Tynan Ramm-Granberg, Vegetation Ecologist, Washington Natural Heritage Program • <i>New tools streamline development of site-based conservation planning data in Pennsylvania</i>, Anna Johnson, Western Pennsylvania Conservancy (PA Natural Heritage Program) 	Breakouts
3:30-5:00pm	<p>Collaboration and Innovation</p> <p>Learn about efforts of NatureServe's partners to advance shared conservation objectives</p> <p>Moderator: Allison Gratz, Director of Network Relations</p> <ul style="list-style-type: none"> • <i>Natural Areas Association: A Partner in the Ongoing Protection of Biodiversity</i>, Lisa Smith, Executive Director, Natural Areas Association • <i>Landscape and seascape connectivity</i>, Dr. Grant Connette, Smithsonian Institution • <i>Tools for forest management and the conservation of biodiversity: Collaborations and innovation</i>, Darren Sleep, Senior Director, Conservation, Science and Strategies, Sustainable Forestry Initiative, Inc. • <i>Essential Biodiversity Variables and the challenges of building a regional biodiversity observation network</i>, Miguel Fernandez, Senior Global Change Scientist, NatureServe • <i>Designing science to improve impact</i>, Jon Fisher, Conservation Science Officer, The Pew Charitable Trusts 	Breakouts
3:30-5:00pm	<p>Network Initiatives</p> <p>Learn about efforts across North America to restore pollinator habitat and conserve important pollinator species.</p> <p>Moderator: Bruce Young, Chief Zoologist and Senior Conservation Scientist, NatureServe</p> <ul style="list-style-type: none"> • <i>The status of North American native bees</i>, Bruce Young, Chief Zoologist and Senior Conservation Scientist, NatureServe • <i>Bee diversity of three Appalachian shale barren sites</i>, Olivia Latham, Zoology Technician, Virginia Natural Heritage Program 	Breakouts

- *Pollinator-Smart Program* Rene' Hypes, Environmental Review Coordinator & Kevin Heffernan, Stewardship Biologist, VA Department of Conservation & Recreation, Virginia
- *Assessing the conservation status of New York's pollinators in a four-year study*, Matthew Schlesinger, Chief Zoologist, NY Natural Heritage Program

Monday May 3

Time	Session Details	Type
12:15-12:30pm	Daily Conference Opening	Plenary
12:30-1:30pm	Student Research Moderator: Allison Gratz, Director of Network Relations <ul style="list-style-type: none"> • <i>Bringing the extended specimen into adaptive management: Collections informing conservation</i>, Blake C. Cahill, PhD Candidate, Central Michigan University • <i>A three-way street: A collaboration between two federal agencies and academia to protect an imperiled tree species in the face of climate change</i>, Clayton W. Hale, Graduate Research Assistant, Dept of Forestry, Mississippi State University • <i>Colorado prairie diversity</i>, Emma Balunek, Field Technician, Colorado Natural Heritage Program • <i>Context-dependent selection of maternal roosts by northern long-eared bats</i>, Ellen Whittle, Graduate Student, University of Wyoming • <i>Movement patterns of migratory tree-roosting bats during autumn migration</i>, Erin Swerdfeger, Student, University of Regina 	Plenary
1:45-2:45pm	The role of the NatureServe Network in advancing Key Biodiversity Areas Moderator: Dr. Healy Hamilton, Chief Scientist, NatureServe	Breakouts
1:45-2:45pm	Meeting Sector Data Needs Hear from data users how access to Network data supports conservation actions Moderator: Allison Gratz, Director of Network Relations <ul style="list-style-type: none"> • <i>Use of NatureServe Network data to support implementation of sustainable forestry certification programs</i>, Chris Muckenfuss and Katie Cava, Weyerhaeuser • <i>A tool to rapidly sequence ESA-listed species for Pesticide/ESA Processes</i>, Leah Duzy, Ph.D., Principal Consultant, and Ashlea Frank, Principal Consultant, Compliance Services International • <i>Driving Better Decision Making for Industry and Biodiversity</i>, Christian Newman, Technical Executive, Endangered and Protected Species, and Rebecca Madsen, Senior Technical Leader, Endangered and Protected Species, Electric Power Research Institute 	Breakouts
1:45-2:45pm	Collaboration & Innovation New efforts in fungi conservation Moderator: Anne Frances, Lead Botanist, NatureServe <ul style="list-style-type: none"> • <i>FunDiS Rare 10 West Coast Fungi Project: Engaging citizen scientists to find fungi</i>, Sigrid Jakob, President of the New York Mycological Society, and Christin Swearingen • <i>The need and opportunities for including fungi in biodiversity databases and conservation activities</i>, Gregory M. Mueller, Chief Scientist, Negaunee Vice President of Science, Chicago Botanic Garden, and Bill Sheehan, President, Fungal Diversity Survey (FunDiS) 	Breakouts

	<ul style="list-style-type: none"> <i>Building a rare lichen list for Washington: A symbiotic relationship between knowledgeable lichenologists and a dimwitted but well-meaning heritage botanist</i>, Walter Fertig, State Botanist, Washington Natural Heritage Program. 	
3:30-5:00pm	Tools & Tech Latest in tools & tech to support collaborative science Moderator: Lori Scott, VP for Technology and Partnerships <ul style="list-style-type: none"> <i>Cloud infrastructure to support next gen data management and analyses</i>, Frank Mclean <i>NatureServe Model Review Tool</i>, Regan Smyth, Director of Spatial Analysis, NatureServe <i>Gulf of Mexico Open Data Hub</i>, Pete Cutter, Project Manager and Senior Conservation Scientist and Carl Nordman, Vegetation Ecologist, NatureServe <i>NASA Surface Biology & Geology mission and next generation of remote sensing</i>, Dave Schimel, NASA Jet Propulsion Lab, and Pat Comer, Chief Ecologist, NatureServe 	Breakouts
3:30-5:00pm	Network Initiatives Efforts from the Network to improve access to and use of NatureServe tools and data Moderator: Misty Nelson, Deputy Director of Network Relations, NatureServe <ul style="list-style-type: none"> Open Data and Data Security – optimizing data availability to support conservation, Charles M. Francis, Environment Climate Change Canada <i>Lessons in data acquisition, curation, and dissemination across multiple biodiversity projects</i>, Rachel Hackett, Conservation Associate, Michigan State University - Michigan Natural Features Inventory <i>Incorporating Plants in SWAPS</i> - Jonathon Ambrose, Wildlife Conservation Chief, Wildlife Resources Division, Georgia Department of Natural Resources and Naomi Edelson, Senior Director, Wildlife Partnerships, National Wildlife Federation 	Breakouts

Wednesday May 5

Time	Session Details	Type
11:45am-1:15pm	Daily Conference Opening & Awards Luncheon Presentation of the NatureServe Network Awards for Collaboration, Innovation, and Leadership Presentation of the Bob Jenkins Lifetime Achievement Award 2021	Plenary
1:30-3:00pm	Network Initiatives Projects and partnerships from around the Network to improve conservation efforts Moderator: Misty Nelson, Deputy Director of Network Relations, NatureServe <ul style="list-style-type: none"> <i>Deriving S ranks for entire state flora</i>, Walter Fertig, <i>State Botanist</i>, Washington Natural Heritage Program <i>Relaunching ecology conservation status assessments across the Network</i>, Don Faber-Langendoen, Senior Ecologist & Conservation Methods Coordinator NatureServe <i>iNaturalist Network survey results and next steps</i>, Lindsey Wise, Biodiversity Data Manager, Oregon Biodiversity Information Center 	Breakouts
	Tools & Tech Moderator: Shelley Cooke, Project Manager, NatureServe <ul style="list-style-type: none"> <i>Introducing Explorer Pro: advanced map search and biodiversity reporting tools</i>, Shara Howie, Program Manager, NatureServe <i>Facilitating data collection & review - updates to the observation survey and new developments!</i> Whitney Weber, DBA & Product Support Specialist, NatureServe 	Breakouts

	<ul style="list-style-type: none"> • <i>Leveraging the Observation Data Standard to integrate field observations into the Network: a collaboration with the BLM and western heritage programs</i>, Patrick McIntyre, Senior Ecologist, NatureServe 	
	<p>Collaboration & Innovation</p> <p>Prioritizing places for conservation</p> <p>Moderator: Pat Comer, Chief Ecologist, NatureServe</p> <ul style="list-style-type: none"> • <i>How might biodiversity data advance the 30x30 objective?</i> Pat Comer, Chief Terrestrial Ecologist, NatureServe • <i>Identifying Canada's Key Biodiversity Areas</i>, Chloe Debyser, Canada Key Biodiversity Areas (KBA) Lead Data Analyst, Wildlife Conservation Society Canada • <i>Essential Conservation Sites: A tool for setting & sharing conservation goals</i>, Rob Evans, Natural Area Protection Manager, Virginia Natural Heritage Program • <i>Delineating conservation sites for Virginia's significant caves and cave biota</i>, Wil Orndorff, Karst Protection Coordinator, Virginia Natural Heritage Program 	Breakouts
3:15-3:30 pm	Closing	Plenary