

2018 Southeast Biodiversity Conservation Forum



Presented by:



North Carolina Botanical Garden

Chapel Hill, NC

March 6-8, 2018

Forum Program

Day 1 (1/2 day) – March 6, 2018

11:30-1:00 Registration – Reeves Auditorium

- 1:00 - Welcome and introductions, orientation, overview of conference goals
– *Buchi Akpati and Meredith Wojcik, Moderators*
- Introductory presentations
 - [NatureServe – Lori Scott \(15 min\)](#)
 - [NCNHP – Misty Buchanan, 15 min](#)
 - NCBG – Damon Waitt, 15 min
- 1:45 - **Exploring North Carolina – Tom Earnhardt, 45 min**
- 2:30 – 2:45 Break
- 2:45 – 5:30 – Concurrent sessions

Day 1 March 6, 2018

Concurrent Sessions	
2:45 – 5:30 Application of Biodiversity Data – Reeves Auditorium South – Michelle Warf, Moderator	Conservation and Mapping Initiatives – Reeves Auditorium North – Meredith Wojcik, Moderator
<ul style="list-style-type: none"> ○ Prioritizing Natural Areas for Conservation in North Carolina Using Natural Heritage Data – Misty Buchanan, NC Natural Heritage Program (15 min) ○ Prioritizing Important Plant Conservation Sites of North Carolina - Lesley Starke, NC Plant Conservation Program (15 min) ○ “Comprehensive Conservation Vision”/Essential Conservation Sites – Rob Evans, VA Natural Heritage Program (15 min) ○ Automated Delineation of Conservation Sites in Virginia – Kirsten Hazler, VA Natural Heritage Program (15 min) ○ Group discussion (15 min) ○ BREAK (15 min) ○ Florida Forever Conservation Needs Assessment – Jon Oetting, FL Natural Areas Inventory (15 min) ○ Ecological Integrity Assessment in Arkansas – Milo Pyne (NatureServe), Theo Witsell (AR Natural Heritage Program) (15 min) ○ Ecological Site Descriptions – Milo Pyne (NatureServe) and Michelle Clendenin (15 min) ○ Group discussion (15 min) 	<ul style="list-style-type: none"> ○ The Southeastern Grasslands Initiative: Charting a New Course for Conservation in the 21st Century – Dwayne Estes, Austin Peay State University (30 min) ○ Longleaf Conservation Roadmap – Hervey McIver, Jodie LaPoint, Margaret Fields, and Liz Kalies; The Nature Conservancy (30 min) ○ Group Discussion (15 min) ○ BREAK (15 min) ○ Landscape Scale Conservation: What’s in your Toolbox? –Lori Scott, NatureServe, Cindy Simpson, NC Wildlife Resources Commission (30 min) ○ Improving Distribution Data via Species Distribution Modeling: An Update on the NatureServe Network Modeling Collaborative –Healy Hamilton, NatureServe (30 min) ○ Group Discussion (15 min)

5:30 Evening reception at North Carolina Botanical Garden (Exhibit Hall) with cash bar

7:00 Dinner with Storytelling by Sam Pearsall (Reeves Auditorium)

	8:00 – 8:30 Continental Breakfast (provided)	
	Plenary Session – Reeves Auditorium – <i>Scott Pohlman, Moderator</i>	
8:30 – 9:40	<ul style="list-style-type: none"> ○ Southern Cumberland/Southern Ridge and Valley – Bill Finch, E.O. Wilson Biodiversity Foundation (30 min) ○ From Biodiversity to Resilience - Kentucky’s 25 Year Wildlife Corridor Project – Hugh Archer and Tara Littlefield, KY Natural Lands Trust and KY Natural Heritage Program (30 min) ○ Questions/Discussion (10 minutes) 	
	Concurrent Sessions	
9:45 – 12:00	Application of Biodiversity Data – Reeves Auditorium South – <i>Scott Pohlman, Moderator</i>	Biology & Data Management Work Groups (combined) – Joslin Classroom C106-107 – <i>Michelle Warf, Moderator</i>
	<ul style="list-style-type: none"> ○ Green Growth Toolbox: Wildlife and Natural Resource Stewardship in Planning – Olivia Munzer, Kacy Cook, Gabriela Garrison, and Brooke Massa; NC Wildlife Resources Commission (15 min) ○ Eno-New Hope Landscape Conservation Project: Combining Biodiversity Data, Corridor Analysis, and Collaborative Planning to Promote Regional Habitat Connectivity – Julie Tuttle, NC Botanical Garden (15 min) ○ Chatham Conservation Partnership: A Model for Conservation Planning, Action, and Implementation at the Local Level - Allison Weakley (15 min) ○ Wake Nature Preserve Partnership – Chris Snow (15 min) ○ Discussion (15 min) ○ BREAK (15 min) ○ Applications of NatureServe Data for North American Land Trust – Lee Echols and Williams Gandy, North American Land Trust (15 min) ○ Explore Natural Communities – Erin Lunsford Jones and Alli Kenlan, NatureServe (15 min) ○ Discussion/Questions (15 minutes) 	<ul style="list-style-type: none"> ○ Species Distribution Modeling Network Workshop – Regan Lyons Smyth, NatureServe; Jon Oetting, FL Natural Areas Inventory; Anne Chazal, VA Natural Heritage Program (1 hour) ○ Discussion/Questions (15 min) ○ BREAK (15 min) ○ Taxonomic Concept Mapping Panel Discussion – Anne Frances, NatureServe; Lori Scott, NatureServe; Alan Weakley, UNC Herbarium (30 min) ○ Communication within the NatureServe Network – Shara Howie, NatureServe (15 min)
	12:00 – 1:00 Lunch (provided) – Reeves Auditorium North	

Day 2 March 7, 2018, continued – Sessions Concurrent with Workshops

	<p>Habitat Restoration – Reeves Auditorium South – <i>Scott Pohlman, Moderator</i></p>
<p>1:00 – 2:30</p>	<ul style="list-style-type: none"> ○ North Carolina Plant Conservation Program Preserve Restoration Efforts – Cheryl Gregory, NC Plant Conservation Program (15 min) ○ Plant Reintroduction and Seed Banking – Johnny Randall, NC Botanical Garden (15 min) ○ Habitat Restoration to Benefit Pollinators in Decline: Examples from North Carolina – Nell Allen, NC Zoo; Mike Kunz, NC Botanical Garden; Gabriela Garrison, NC Wildlife Resources Commission (30 min) ○ Isolated Wetland Restoration in the North Carolina Sandhills – Nathan Shepard, NC Natural Heritage Program (15 min) ○ Discussion (15 min)
<p>2:30 – 2:45</p>	<p>BREAK (15 min)</p>
	<p>Landscape Conservation – Reeves Auditorium North – <i>Rua Mordecai, Moderator</i></p>
<p>2:45 – 5:00</p>	<ul style="list-style-type: none"> ○ Piloting the Development of Landscape-scale Adaptation Strategies for Species of Greatest Conservation Need in Arkansas – D. Todd Jones-Farrand (20 min) ○ Integrating Range-restricted Imperiled Species Conservation into the South Atlantic Conservation Blueprint – Rua Mordecai (20 min) ○ Envisioning the Future of Conservation in the Florida Keys: Identifying Adaptation Options in Response to Rising Sea Levels – Beth Stys (20 min) ○ BREAK (15 min) ○ Conservation Delivery: Scaling Landscape Scale Science to Local Projects Through a Community of Practice – Jessica Graham (20 min) ○ Adding It All Up – The Southeast Conservation Adaptation Strategy – Chris Goudreau (20 min) ○ Facilitated Discussion: What’s working well and what isn’t with linking large landscape conservation and imperiled species? (20 min)
<p>Dinner on your own on Wednesday, March 7</p>	

Day 2 March 7, 2018, continued – Concurrent Natural Heritage Workshops – All are welcome!

	Zoology and Data Management – Joslin Classroom C 110 – <i>Judy Ratcliffe, Moderator</i>		Botany and Ecology – Joslin Classroom C106-107 – <i>Wes Knapp, Moderator</i>		
1:00 – 2:00	<ul style="list-style-type: none"> ○ Environmental DNA (eDNA) in Detection and Monitoring of Aquatic Species – James Godwin, AL Natural Heritage Program (15 min) ○ SEAFWA Update and Next Steps – Bob Gottfried, TX Parks and Wildlife Department (15 min) ○ Overcoming Challenges to Using eBird Data in Heritage Contexts – Bruce Young, NatureServe (15 min) ○ Priorities for Freshwater Invertebrates – Bruce Young (15 min) 		<ul style="list-style-type: none"> ○ Ecological Integrity Framework and Applications (Including and Beyond the EO) – Rickie White, NatureServe (15 min) ○ Flora Manager – producing custom floras - Alan Weakley, UNC (15 min) ○ Discussion (30 min) 		
2:00 – 2:15	BREAK (15 min)				
	Data Access and Data Management		Zoology – Joslin C110 – <i>Judy Ratcliffe</i>	Botany – Joslin C106 – <i>Wes Knapp and Laura Robinson</i>	Ecology – Joslin C107 – <i>Mike Schafale</i>
2:15 – 3:30	Environmental Review Tools – Bell Seminar Room – <i>Rodney Butler, Moderator</i> Presentations of ERTs: (15 min each) Lori Scott, NatureServe; Misty Buchanan and Rodney Butler, NCNHP; Renee Hypes, VANHP ; Nicole Lorenz, LANHP; Ian Horn, KYNHP; Marion Werkheiser, Cultural Heritage Partners. Discussion		Presentations and discussions coordinated by Judy Ratcliffe, NCNHP and Bruce Young, NatureServe Inventory and Conservation Assessment of Lepidoptera and Odonata Faunas of Virginia – Steve Roble, VA Natural Heritage Program (15 min) Discussion of topics covered in the preceding Zoology and Data Management session (time remaining)	Presentations and discussions coordinated by Wes Knapp, NCNHP and Anne Frances, NatureServe Southeastern Partners in Plant Conservation – Carrie Radcliffe (15 min) Coastal Plain Global Biodiversity Hotspot: Botanical Facts and Figures – Bruce Sorrie (15 min)	Update from states; [maybe including “how was your data exchange?”] (30 minutes) Element Ranking and Red-listing of Ecological Systems (IUCN) – Mike Schafale, Pat Comer (30 min) Ecological Integrity Assessment and EO Ranking, Rickie White (30 min) National Vegetation Classification and Peer-Review Process – Don Faber-Langendoen (30 min) Landfire Update and Broad-scale Mapping – Pat Comer (15 min) Climate Change and HCCVI - Regan Smyth (15 min)
3:30 – 5:30	Fees – Bell Seminar Room – <i>Rodney Butler</i>	Data Management – Reeves South – <i>Michelle Warf</i>			
	Presentations from states that charge fees: (15 min each) Rodney Butler, NCNHP; Rene Hypes, VANHP; Ian Horn, KYNHP. Multijurisdictional data coordination and fees: Shara Howie, NatureServe. Discussion: What works, what doesn't, pros and cons of charging fees for data and services.	Presentations and discussions coordinated by Michelle Warf, NCNHP and Whitney Weber, NatureServe Topics will include: <ul style="list-style-type: none"> ○ Bulk data uploads ○ Biotics 5 ○ iNaturalist data ○ SQL 			

Day 3 (Half Day, Optional Full Day) – March 8, 2018

	8:00 – 8:30 Continental Breakfast (provided)	
	Concurrent Sessions	
8:30 – 10:45	Communication – Joslin Classroom C106-107 – Rodney Butler, Moderator	Online Science Tools – Reeves Auditorium – Michelle Warf, Moderator
	<ul style="list-style-type: none"> ○ How Can I Do Science and Communicate About Science at the Same Time? – Roland Kays, NC Museum of Natural Science and NC State University (30 min) ○ Sharing Science with Citizens – Steve Gerkin, NC Zoo (30 min) ○ BREAK (15 min) ○ Leveraging Biodiversity Data to Empower Kids to Act on Behalf of their Ecosystems – Courtney Kimmel, Captain Planet Foundation (15 min) ○ Media Relations – Matthew Shipman, NC State University (15 min) ○ Discussion/breakout groups – Rodney Butler, NC Natural Heritage Program and Buchi Akpati, NatureServe (30 min) 	<ul style="list-style-type: none"> ○ FloraQuest – Alan Weakley, UNC Herbarium and Michael Lee, UNC-Chapel Hill (15 min) ○ Flora of Virginia App – Johnny Townsend, VANHP (5 min) ○ Flora of the Southern and Mid-Atlantic States (http://www.wotas.org) - A Guided Tour of Plant Information Resources at the North Carolina Botanical Garden – Damon Waitt, NC Botanical Garden (15 min) ○ Plant Identification Tools and Resources: The SERNEC Portal and North Carolina Contributions – Alexander Krings, NC State University (15 min) ○ Museum Informatics Data Security: A Need for Collaboration – Zack Murrell and Michael Denslow, ASU; Herrick Brown, SC Heritage Trust Program (15 min) ○ BREAK (10 min) ○ Broad-scale Camera Trap Surveys – Stephanie Schuttler, NC Museum of Natural Science (15 min) ○ Maryland Biodiversity Project – Jim Brighton, 15 min ○ Use of Biodiversity Websites to Share Information Among Scientists, Conservationists, Educators, Naturalists, and the General Public – Steve Hall and Harry LeGrand, North Carolina Biodiversity Project (15 min) ○ Shared Discussion (15 min)
10:45 – 11:00 BREAK/reconvene in Reeves Auditorium		
11:00 – 12:00: The Southeast’s Amazing Biodiversity – a Benediction and Call to Action – Alan Weakley – Reeves Auditorium		
12:00 – 1:00: Boxed lunch (provided)		

- **Afternoon: Field Trips (optional – advanced registration only)**
 - **Mason Farm & NCBG:** Led by Johnny Randall and Dan Stern 1:00-4:00 pm
 - **Weymouth Woods:** Led by Alan Weakley and Wes Knapp, 12:30-6:00 pm
 - **Deep River (paddling trip):** Led by Scott Pohlman and Judy Ratcliffe, 12:30 – 6:00 PM
 - **Occoneechee Mountain State Natural Area** – Led by Misty Buchanan and Nathan Shepard 1:00 – 4:30
 - **Swift Creek Bluffs and Hemlock Bluffs** – Led by Michael Schafale 1:00 – 5:00 PM
 - **Willie Duke’s Bluff Wildflowers** Led by Milo Pyne 1:00 – 6:00 PM

Plenary Speakers:

Tom Earnhardt has worn many hats. An attorney with experience in government, corporate, and private practice, Tom also had over 20 years in the classroom and retired as a full professor. An ardent naturalist and conservationist, Tom has served on numerous conservation boards, including The Nature Conservancy (TNC), Trout Unlimited, Audubon North Carolina, the NC Museum of Natural Sciences, and the North Carolina Botanical Garden. Over the past 14 years he has written, hosted, and coproduced approximately 80 episodes of the UNC TV series “Exploring North Carolina.” His most recent book, *Crossroads of the Natural World*, highlights the natural diversity of North Carolina. For his work in conservation Tom has received numerous awards including: the 1994 North Carolina Conservationist of the Year, the Order of the Longleaf Pine (2013), the 2016 Ney Landrum Park History Award, and the 2016 Flora Caroliniana Award from the North Carolina Botanical Garden.

Sam Pearsall spent his career as an ecologist working with conservation organizations in Maine, Tennessee, Hawaii, and North Carolina. Since retiring in 2013, Sam has been able to cultivate his lifelong talent for storytelling. He has won first place at The Monti StorySLAM twice and has been a featured teller for many other events including Front Porch Stories, The Nature Conservancy Roanoke Celebration, and the NC Audubon Society Gilbert Pearson Dinner. He is a producer and featured teller of Roadhouse Storytellers in Pittsboro, NC. In his free time, he continues to do volunteer work on Roanoke River conservation issues.

Alan Weakley has been with the University of North Carolina Herbarium (NCU) since 2002, first as Curator then as Director (2006). He is Adjunct Faculty in the Biology Department at the University of North Carolina Chapel Hill. In the 80s and 90s, Alan served as ecologist, botanist, assistant director, and acting director for the NC Natural Heritage Program, followed by five years at The Nature Conservancy and two years as NatureServe’s chief ecologist. Highlights of his ongoing work include seats on the board of directors for the Flora of North America project and on the Ecological Society of America’s panel overseeing development of the U.S. National Vegetation Classification. In 2015, he was named NatureServe’s 2015 Morse Botany Fellow, focusing on conservation status assessments for high-priority species across the Southeast.

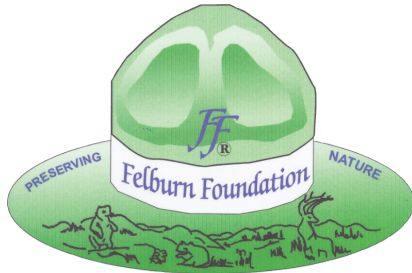
Bill Finch, author of *Longleaf, Far As the Eye Can See* and a well-known regional writer and media host, is working with federal and state agencies and NGOs to address conservation issues in Alabama and along the Gulf Coast. Bill was formerly Alabama conservation director for The Nature Conservancy, director of Mobile Botanical Gardens, and a managing editor with the Mobile Press-Register. He has won numerous regional and national awards for his writing on conservation and environmental issues. Bill works to conserve biodiversity in the Southeastern United States, and he actively blogs for the E.O. Wilson Biodiversity Foundation and the Half-Earth Project.



At **Vimala’s Curryblossom Café**, we grow our community by engaging intentionally in the farm-to-fork process and living our vision of creative resiliency. We bring our community together with love, warmth, and hospitality over delicious, healthy food. We prioritize worker, environmental, and social justice; accessibility through affordability; and sustainability at every level. We pay a living wage. Our producers are local, our investors local, and our long-term goals are about transforming the local economy. We source our produce and meat from nearby family farms; organize our workplace around joy and liberation; honor the land and our relationship to it; and practice interdependence with other organizations and small businesses who share our values.

Local craft beer provided by **Carolina Brewery**, whose award-winning, handcrafted beers have gained national recognition. www.carolinabrewery.com.

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NOTES:

Local Restaurants in Chapel Hill and Carrboro

Breakfast:

Café Carolina Bakery
Carolina Coffee Shop
Elmo's Diner
Foster's Market
Merritt's Store (take out only)
Neal's Deli
Sunrise Biscuit Kitchen (take out only)
Weaver Street Market

Coffee:

Café Dirade
Caribou Coffee
Market Street Coffeehouse

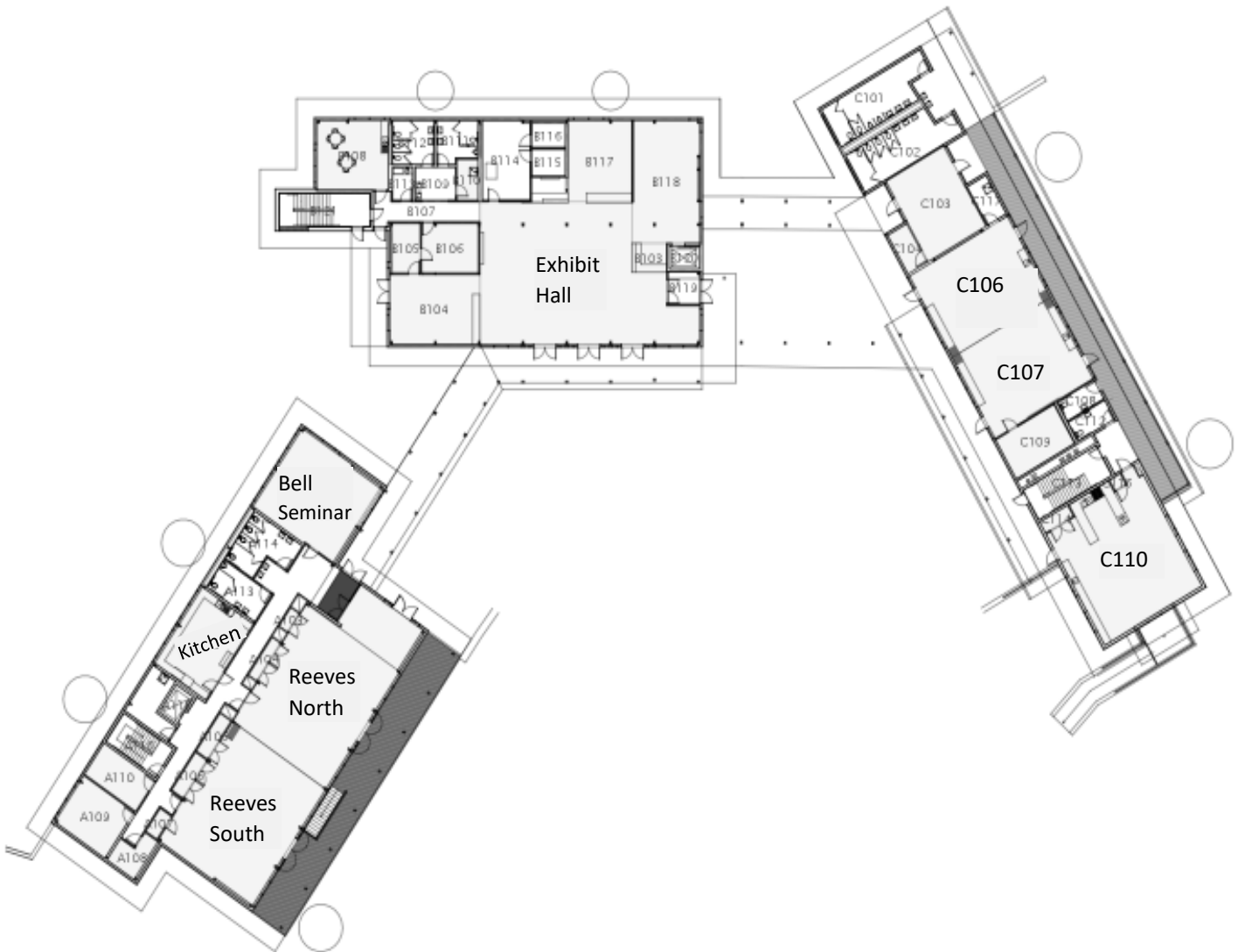
Lunch or Dinner:

Acme
Brixx Woodfired Pizza
Carrburritos
Carolina Brewery (room for a large group)
Esperanza
Jujube
Lantern
Mediterranean Deli
Milltown
Talullas
Thai Palace
Vimala's Curryblossom Café
Weaver Street Market

Vegetarian Friendly:

Brixx Woodfired Pizza
Café Carolina Bakery
Caribou Coffee
Carolina Coffee Shop
Carrburritos
Elmo's Diner
Esperanza
Foster's Market
Neal's Deli
Market Street Coffeehouse
Mediterranean Deli
Talullas
Thai Palace
Vimala's Curryblossom Café

North Carolina Botanical Garden Buildings



For more than half a century, the **North Carolina Botanical Garden** has been dedicated to conserving our state's unique botanical legacy. Today, we are recognized as the nation's most comprehensive center of knowledge on the regional flora of North Carolina and the southeastern United States. We cultivate more than 1,100 acres of garden and conservation areas, maintain the largest herbarium in the southeastern United States, safeguard rare and endangered plant species from extinction, and educate new generations of botanists and scientific leaders. Through stewardship of our natural resources and vigorous conservation and environmental initiatives, we improve the health and quality of life for citizens and communities throughout North Carolina and beyond.