

Fostering Resilient Stands and Landscapes with Innovative Silviculture

2024 USFS National Silviculture Workshop

July 16-18, 2024, Greater Tacoma Convention Center, Tacoma, WA

Pre-Workshop Events: Monday, July 15, 2024

Time	Event
8:00 – 17:00	National Silviculture Business Meeting (<i>invite only</i>), Room 404
13:00 – 17:00	Climate Change Training: Climate-Adaptive Silviculture (<i>selected only</i>), Room 407

Tuesday, July 16, 2024, Rooms 315-317

8:00	Greetings, Logistics, and volunteer acknowledgments - Rob Slesak , 2024 NSW Program Chair, Pacific Northwest Research Station Dedication to David Gwaze, National Silviculturist - Stephanie Miller , Assistant Director, USDA Forest Service NFS Washington Office
8:20	Welcome Address: Dan Shively , Director Natural Resources, USDA Forest Service, Pacific Northwest Region
8:35	Welcome Address: Valerie Hipkins , Director, USDA Forest Service, Pacific Northwest and Southwest Research Stations
8:50	Welcome Address: Duane Emmons , Assistant Deputy Supervisor for State Uplands, Washington State, DNR
9:05	Keynote Address: <i>Silvicultural Challenges in an Unpredictable World</i> – John Bailey , Professor, College of Forestry, Oregon State University
10:05	Break Session 1 Moderator: Jason Rodrigue , Regional Silviculturist, USDA Forest Service, Region 8
10:20	<i>Training the next generation of silviculturists in the US Forest Service</i> – David Gwaze National Silviculturist, USDA Forest Service, NFS Washington Office and Megan Lowell (presenting) , Regional Silviculturist, USDA Forest Service, Region 2
10:50	<i>Updating silvics of north America Project (USNAP): Progress, timeline, and involvement</i> - Steven McNulty , Senior Supervisory Ecologist, USDA Forest Service, Southern Research Station
11:20	<i>Operationalizing the REPLANT act and national strategy to foster future resilient forests-</i> Nicole Balloffet , Program Manager National Reforestation and Nursery System, USDA Forest Service, NFS Washington Office
11:50	Lunch

Session 2 Moderator: **David Wright**, Ecologist, USDA Forest Service, Rocky Mountain Research Station

- 13:00 *Synthetic stands - automated FLA BIGMAP-derived inputs for stand silvicultural modeling tools like REGEN3*- **Bernard Isaacson**, Research Ecologist, USDA Forest Service, Southern Research Station (FIA)
- 13:20 *Drone augmented forest inventories to inform silvicultural prescriptions from tree to stand scales* - **Wade Tinkham**, Research Forester, USDA Forest Service, Rocky Mountain Research Station
- 13:40 *Licosim and RxGaming; two new tools using aerial lidar to assess forest resilience and inform management decisions and spatial heterogeneity*- **Bryce Bartl-Geller**, Research Analyst, School of Environmental and Forest Sciences, University of Washington
- 14:00 *Intermountain forestry cooperative* - **Mark Kimsey**, Director, Intermountain Forestry Cooperative, University of Idaho
- 14:20 *What genetics can contribute to national forest management* - **Keith Woeste**, National Program Lead - Genetics and Biodiversity Conservation, USDA Forest Service, R&D Washington Office
- 14:40 *Silviculture innovation using learning-based collaboration on the Olympic Experimental State Forest* - **Bernard Bormann**, Director (Olympic Natural Resources Center) and Professor (School of the Environment and Forest Sciences), University of Washington

15:00 **Break**

Session 3 Moderator: **Jessica Brewen**, Science Delivery Specialist, USDA Forest Service, Rocky Mountain Research Station

- 15:20 *A case for multi-aged incrementalism in ponderosa pine forests* - **Justin Crotteau**, Research Forester, USDA Forest Service, Rocky Mountain Research Station
- 15:40 *Drivers of change in mature and old-growth forest nationally over the last 20 years* – **Andy Gray**, USDA Forest Service, Pacific Northwest Research Station
- 16:00 *Classifying mature federal forests in the United States: The Forest Inventory Growth Stage System*, **Chris Woodall** – National Program Leader – USDA Forest Service, R&D Washington Office
- 16:20 *Long term stand dynamics and current three-dimensional structural characteristics of old growth and managed forests in southern Illinois* - **Jacob Fraser**, Research Ecologist, USDA Forest Service, Northern Research Station
- 16:40 *Forest resource index for decisions in adaptation (FRIDA), a library of resources for forest stewardship in the southwest* - **Lauren Kramer**, Biological Science Technician, USDA Southwest Climate Hub

17:00 Closing Day Remarks and Field Trip Overview - **Rob Slesak**

17:15 **Adjourn**

Wednesday, July 17, 2024, field tour and Rooms 315-317

7:00 Group A departure for field tour

8:00 Group B departure for field tour

17:00 Return from field tour (Group A will return earlier)

18:30 Celebration of the life and accomplishments of David Gwaze.

Moderated by **Stephanie Miller**, Assistant Director, USDA Forest Service NFS
Washington Office

19:00 **Dinner**

19:40 **Presentation of National Awards**

22:00 **Adjourn**

Session 4 Moderator: **Jessica Halofsky**, Director NW Climate Hub and Western Wildland Environmental Threat Assessment Center, USDA Forest Service

- 8:00 *Practitioner perspectives on assisted migration and adapting reforestation in a warming climate* - **Michelle Agne**, Postdoctoral Fellow, USDA Forest Service, Pacific Northwest Research Station
- 8:20 *Planning for the future: The Adaptive Silviculture for Climate Change (ASCC) network* - **Maria Janowiak**, Acting Director USDA Northern Climate Hub and Northern Institute of Applied Climate Science, USDA Forest Service
- 8:40 *Informing reforestation in the western US: The Experimental Network for Assisted Migration and Establishment Silviculture* - **Rob Slesak**, Research Forester, Pacific Northwest Research Station
- 9:00 *Policy to practice: Operationalizing forestry assisted migration on NFS lands* – **Andy Bower**, Climate Adaptation Specialist, USDA Forest Service, Office of Sustainability and Climate, **Katie Ferker**, Climate Adaptation Specialist, USDA Forest Service, Northern Institute of Applied Climate Science
- 9:20 *Managing for resilience and adaptive capacity in southwestern aspen ecosystems* - **Connor Crouch**, Forester, USDA Forest Service, Northern Research Station
- 9:40 *Balancing climate change adaptation with forest carbon and biodiversity objectives in mature westside forests* – **Neil Williams**, Postdoctoral Fellow, Rocky Mountain Research Station
- 10:00 **Break**

Session 5 Moderator: **Keith Moser**, Research Forester, USDA Forest Service, Rocky Mountain Research Station

- 10:20 *Log landings are for the bees: a case study in the coproduction of actionable science to benefit native pollinators* - **Lauren Pile Knapp**, Research Ecologist, USDA Forest Service, Northern Research Station
- 10:40 *Creating and maintaining resiliency in mature longleaf pine woodlands* - **Joshua Puhlick**, Silviculturist, The Jones Center at Ichauway
- 11:00 *Species and stand density effects on adaptation to extreme climate events in moist, westside Pacific northwest forests* - **Matt Powers**, Assistant Professor, College of Forestry, Oregon State University
- 11:20 *Strategic silviculture and economic incentives to reduce cross-boundary wildfire risk in a WCS landscape* - **Riling John**, Project Manager, Wildfire Crisis Strategy - Southwest Idaho Landscape, USDA Forest Service

11:40 *Landscape evaluations to restore landscapes and reduce wildfire risk in the central Washington Initiative* - **Derek Churchill**, Forest Health Scientist, Washington Department of Natural Resources

12:00 **Break (lunch)**

Note: The conference room will be split into two rooms for concurrent sessions in the afternoon.

8:00 – 15:00 **Poster Session, Room 318**

List of Posters

- *The terrestrial condition assessment (TCA)*. **Sarah Anderson**, Ecologist, USDA Forest Service, NFS Washington Office
- *Diagnosing regeneration failure in western redcedar in moist habitats in the northern Rockies: from seed to seedling*, **Hannah Basham**, Forester, USDA Forest Service, Rocky Mountain Research Station
- *Restoration management experiment of Mexican spotted owl protected activity centers on the Lincoln National Forest in southeastern New Mexico*, **Marisa Bowen**, Silviculture Program Manager, USDA Forest Service, NFS Umpqua National Forest
- *Snow for trees: Forestry techniques to slow snow-melt and increase soil moisture*, **Rowan Braybrook**, Director of Programs, Northwest Natural Resource Group
- *Adaptive forest restoration: Planting the right tree, at the right site, for the right reasons*, **Rowan Braybrook**, Director of Programs, Northwest Natural Resource Group
- *Terrestrial ecological unit inventory (TEUI)*, **Andy Colter**, National Soils Program Leader, USDA Forest Service, NFS Washington Office
- *Restoring resilience in northern Rockies mixed conifer forests*, **Madison Litzenberger**, Graduate Research Assistant, School of Forestry, Northern Arizona University
- *Silvicultural canopy gaps improve health and growth of eastern hemlocks infested with *Adelges tsugae* in the southern Appalachian Mountains*, **Albert (Bud) Mayfield**, Research Entomologist, USDA Forest Service, Southern Research Station
- *Plant understory dynamics across a landscape silviculture experiment in the northern Rockies*, **Nicole Mutchler**, Botanist, USDA Forest Service, Rocky Mountain Research Station
- *Forest community structure determines the balance of facilitation and parasitism between sandalwood and host species in a Hawaiian restored tropical dry forest*, **Pandu Wirabuana**, Graduate Research Assistant, Department of Natural Resources and Environmental Management, University of Hawai'i at Manoa.

Session A, Rooms 315-317

Session 6 A Moderator: **Cheri Hartless**, National Fires and Fuels Silviculturist Specialist, USDA Forest Service, NFS Washington Office

13:00 Panel: Ecological mapping tools and approaches to scale from stands to landscapes to build resilient ecosystems. **Sarah Anderson** – Ecologist, USDA Forest Service, NFS Washington Office, **Greg Nowacki** - Regional Ecosystem Mapping Leader, USDA Forest Service, NFS Region 9, **Andy Casillas** - Regional Soil Scientist, USDA Forest Service, NFS Region 3, **Trevor Hobbs** – Forest Soil Scientist, USDA Forest Service, NFS Huron-Manistee National Forest

13:50 Panel: Shaded fuel breaks and innovative silviculture. **Tony Bertel** - Silviculturist, USDA Forest Service, NFS Deschutes National Forest, **Olivia Roe** - Forester and District Silviculturist, USDA Forest Service, NFS Sierra National Forest, **Jacob Baker** - District Silviculturist, USDA Forest Service, NFS Stanislaus National Forest

14:40 Break

Session 7 A Moderator: **Matt Powers**, Assistant Professor, College of Forestry, Oregon State University

15:00 *Watershed response to silvicultural prescriptions for longleaf pine restoration in the southern Atlantic coastal plain* – **Hope Fillingim**, Forester, USDA Forest Service, Southern Research Station

15:20 *Increasing post-wildfire planted seedling survival: from experimental plantings to reforestation planning* - **Christopher Marsh**, Research Assistant Professor, Department of Biology, University of New Mexico

15:40 *Elucidating some of the factors that control planted tree seedling survival in severely burned Colorado dry conifer forests* - **Paula Fornwalt**, Research Ecologist, USDA Forest Service, Rocky Mountain Research Station.

16:00 *The Newly Expanded Reforestation, Nurseries, & Genetics Resources Team: An Overview.* **Nabil Khadduri**, Western Nursery Specialist, USDA Forest Service

16:20 *Modeling hardwood regeneration and restoration potential across the eastern hardwood forest* - **Margaret Woodbridge**, Forest Ecologist, USDA Forest Service, Southern Research Station

16:40 *Nine-year performance of plantation and agroforestry practices on growth and survival of loblolly pine clones* - **Shaik Hossain**, Assistant Professor of Forestry, Department of Natural Resources and Environmental Sciences, Alabama A&M University

Session B, Room 318

Session 6 B Moderator: **Florian Deisenhofer**, State Lands Silviculture Scientist, Washington Department of Natural Resources

13:00 *USFS and WA DNR collaboration in tree seed orchard restoration* - **Jeff DeBell**, Geneticist and Silviculturist, Washington Department of Natural Resources

13:20 *Using climate-smart seed sourcing to help fill the SW OR reforestation backlog* - **Bryan Reatini**, Zone Geneticist, USDA Forest Service, NFS Region 6

13:40 Panel: Meeting seed needs for reforestation – **Kayla Herriman** – National Seed Specialist, USDA Forest Service, NFS Washington Office, **Mike Tighe** – Assistant Regional Silviculturist, USDA Forest Service, NFS Region 9, **Vicky Erickson** – Regional Geneticist, USDA Forest Service, NFS Region 6, **Jeff DeBell**, Geneticist and Silviculturist, Washington Department of Natural Resources

14:40 Break

Session 7 B Moderator: **Lexi Neukirch**, Science Delivery Specialist, USDA Forest Service, Rocky Mountain Research Station

15:00 *A primer on variable density thinning* – **Connie Harrington**, Research Forester (emeritus), USDA Forest Service, Pacific Northwest Research Station

15:20 *Comparing the tree spatial patterns and subsequent growth derived from various treatments in Black Hills ponderosa pine forests* - **Mike Battaglia**, Research Forester, USDA Forest Service, Rocky Mountain Research Station

15:40 *Silviculture for Line Officers* – **Megan Lowell**, Regional Silviculturist, USDA Forest Service, NFS Region 2 and **Ramiro Rojas**, Assistant Regional Silviculturist, USDA Forest Service, NFS Region 5.

16:00 *The use of thinning and prescribed fire to advance the development of mature forest characteristics in the southern Cascades, California* - **Christopher Looney**, Research Forester, USDA Forest Service, Pacific Southwest Research Station

16:20 *Transforming sitka spruce plantations to continuous cover forestry in Ireland: comparison of three thinning pathways after three stand interventions* - **Edward Wilson**, Silviculturist, Teagasc Forestry Development Department, Ashtown Research Centre, Dublin, Ireland

16:40 *The story of the western white pine type in northern Idaho: Permanent plots, vigor quality, and free selection silviculture* - **Jason Reinhardt**, Research Forester, USDA Forest Service, Rocky Mountain Research Station

17:15 **Closing Remarks**, Rob Slesak and Stephanie Miller, **Rooms 315-317**

17:30 Workshop ends