YALE FOREST FORUM
SPEAKER SERIES SUMMARY

SPRING 2026

YFF Review

From Timber to Tomorrow: Old Challenges, New Pressures, Changing Paradigms

January 2026 – April 2026
New Haven, Connecticut, USA

Yale SCHOOL OF THE ENVIRONMENT
The Forest School

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Front cover: A forester marks a stand for regeneration in a California redwood forest. Image: Lynn Robb

YALE FOREST FORUM AND *YFF REVIEW*

The Yale Forest Forum (YFF) is the convening hub of The Forest School at the Yale School of the Environment. YFF offers weekly webinar speaker series during the academic year to provide opportunities to hear from leaders in forest management, conservation, academia, and policy. Each YFF speaker series is organized around a key theme or challenge facing forests, forestry, and people. Guest speakers represent a wide range of perspectives and organizations, including government, NGOs, and businesses, and across scales from local to international. The *YFF Review* is a publicly available output of the series, summarizing key learnings and examples from the YFF speaker series.

Image: Lynn Robb

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John Gordon and Lynn Jungwirth

Sam Cook

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Left and right: California redwood forest. Image: Lynn Robb

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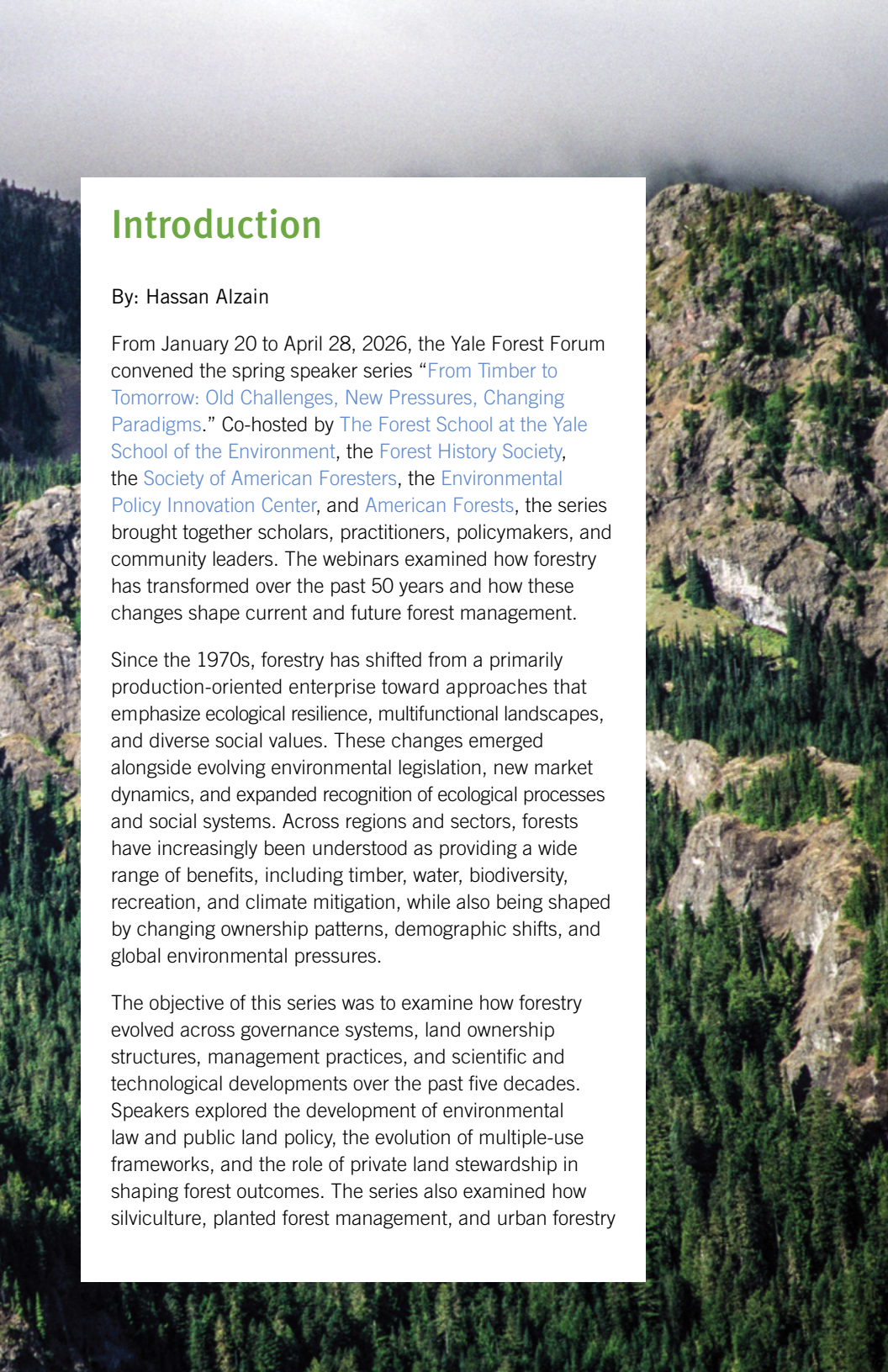
Olympic National Forest. Image: U.S. Forest Service



Introduction

By: Hassan Alzain

From January 20 to April 28, 2026, the Yale Forest Forum convened the spring speaker series "From Timber to Tomorrow: Old Challenges, New Pressures, Changing Paradigms." Co-hosted by The Forest School at the Yale School of the Environment, the Forest History Society, the Society of American Foresters, the Environmental Policy Innovation Center, and American Forests, the series brought together scholars, practitioners, policymakers, and community leaders. The webinars examined how forestry has transformed over the past 50 years and how these changes shape current and future forest management.

Since the 1970s, forestry has shifted from a primarily production-oriented enterprise toward approaches that emphasize ecological resilience, multifunctional landscapes, and diverse social values. These changes emerged alongside evolving environmental legislation, new market dynamics, and expanded recognition of ecological processes and social systems. Across regions and sectors, forests have increasingly been understood as providing a wide range of benefits, including timber, water, biodiversity, recreation, and climate mitigation, while also being shaped by changing ownership patterns, demographic shifts, and global environmental pressures.

The objective of this series was to examine how forestry evolved across governance systems, land ownership structures, management practices, and scientific and technological developments over the past five decades. Speakers explored the development of environmental law and public land policy, the evolution of multiple-use frameworks, and the role of private land stewardship in shaping forest outcomes. The series also examined how silviculture, planted forest management, and urban forestry

have responded to changing economic conditions, environmental priorities, and societal expectations.

The series also sought to understand how relationships between people and forests have changed. The webinars discussed how community engagement, workforce development, and leadership have shaped forest management, including the growing role of interdisciplinary collaboration and stakeholder participation. They also explored the integration of Indigenous knowledge, the importance of equity in land ownership and access, and the increasing recognition of Tribal sovereignty and land stewardship.

The series addressed several guiding questions. How have governance systems, policies, and markets shaped forest management over the past 50 years? How have technological advances, including remote sensing and artificial intelligence, changed forestry practices? How are forests managed under changing climate conditions, including wildfire, disturbance, and adaptation challenges? What role do financial mechanisms, such as climate finance, play in shaping forest management? How do evolving social values, workforce dynamics, and land ownership patterns influence the future of forestry?

This *YFF Review* captures the spring 2026 Yale Forest Forum speaker series by outlining its thematic scope and key areas of inquiry. It provides context for understanding how forestry has evolved in response to ecological, economic, and social change. The following section summarizes the individual webinars and highlights their contributions to understanding contemporary forest management and its future trajectories.

The series "From Timber to Tomorrow: Old Challenges, New Pressures, Changing Paradigms," the final installment of a three-part YFF forest history series, was developed, facilitated, and hosted by Gary Dunning (The Forest School at the Yale School of the Environment), Natasha James (Society of American Foresters), Tania Munz (Forest History Society), Nicole Stiffarm (Environmental Policy and Innovation Center), and Danielle Watson (American Forests). All materials referenced in this document, including bios for speakers, readings, and webinar recordings, can be found on the Yale Forest Forum website.

Image: Lynn Robb

Framing 50 Years of Change in Forestry

WATCH SESSION RECORDING

Presented: January 20, 2026

GARY DUNNING, *Executive Director, The Forest School at the Yale School of the Environment*

NATASHA JAMES, PhD, *Senior Director of Future Forests, Society of American Foresters*

TANIA MUNZ, PhD, *President and CEO, Forest History Society*

NICOLE STIFFARM (CHIPPEWA CREE), *Tribal Partnerships Manager, Environmental Policy Innovation Center*

DANIELLE WATSON, *Senior Director, Policy, American Forests*

Gary Dunning

Natasha James

Tania Munz

Gary Dunning (The Forest School at the Yale School of the Environment), Natasha James (Society of American Foresters), Tania Munz (Forest History Society), Nicole Stiffarm (Chippewa Cree; Environmental Policy Innovation Center), and Danielle Watson (American Forests) opened the Yale Forest Forum spring 2026 speaker series, the final installment of the three-part series on the history of people, forests, and forestry. Dunning explained that the first part examined traditional and Indigenous forest practices, the second focused on the origins and global spread of scientific forestry, and the final will examine the last 50 years and the future of forestry. He highlighted that this series explores the factors and events that shaped forestry during this period, while also considering what we have learned from the past and where those developments suggest forestry is headed.

Dunning invited the co-hosts to reflect on why the series is timely, beginning with Munz. Munz explained that the Forest History Society's mission centers on collecting and preserving documents of forest and conservation history while also helping people learn about that history, inviting researchers into this history and supporting interpretations of forest and conservation history that raise public awareness. She explained that focusing on the last 50

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Nicole Stiffarm

Danielle Watson

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years places the series at the intersection of memory and history and helps participants understand better where we are today and how that understanding can help us to be better stewards of the future. Munz also reflected on how each semester of the series relied on different scholarly toolkits, noting that this period involves direct recounting from participants who lived the events.

Dunning then turned to James, who discussed the pace of change in forestry policy, science, education, and management. She said this moment offers an opportunity to look back at how far forestry has come, including the mistakes that have been made, while considering how science and policy interact in forest management. James emphasized the importance of science-informed, data-driven decision making and communication, noting that rapid change makes alignment across institutions especially important as forestry responds to evolving conditions, along with implementing best practices.

Dunning next invited Watson to address why the series is relevant now. Watson discussed the importance of bringing people together to work through complex forestry challenges and reflected on outcomes of the Ninth American Forest Congress. She emphasized that participants were able to engage in difficult conversations and agree on 10 principles and 16 resolutions. She noted the value of using those outcomes as guiding forces for moving forward together rather than continuing to revisit the same conflicts, highlighting that forests are uniquely bipartisan.

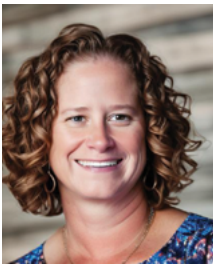
Dunning then turned to Stiffarm, who discussed post-secondary education and natural resources for Native communities over the last 50 years. She identified the Indian Self-Determination and Education Assistance Act as an important development supporting Tribal control over programs and education. She also discussed the importance of sustaining culturally grounded education in maintaining traditional ecological knowledge and highlighted legislative support for Tribal forestry education pathways. Taken together, the panel presented the series, which is organized around four thematic parts across 15 sessions, as a timely opportunity to trace 50 years of change in forestry and draw insights for the years to come.

The Evolution of Multiple Use

WATCH SESSION RECORDING

Presented: January 27, 2026

SUSAN JANE BROWN, *Principal and Chief Legal Counsel, Silvix Resources*



Susan Jane Brown

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Susan Jane Brown, principal and chief legal counsel, Silvix Resources, presented a historical examination of public lands governance, emphasizing that understanding where federal land policy has been helps clarify where it needs to go. The origins of modern public land law were traced to the early 1960s, beginning with congressional calls for a comprehensive review of public land statutes and the establishment of the Public Land Law Review Commission. The commission was charged to review public land laws, rules, regulations, policies, and practices across federal, state, and local governments, along with the broad range of topics examined, while noting that Indigenous stewardship of lands taken by treaty or law was outside the commission's charge and was not considered, constituting a significant omission. She noted that the commission's work was documented in its 1970 report, "One Third of the Nation's Lands," after which many foundational environmental statutes followed its recommendations.

Brown then delved into the commission's identification of what it described as the multiple-use problem. Congress had not defined a primary purpose for National Forests System or Bureau of Land Management lands, instead providing broad multiple-use authority with only general statutory guidance. Multiple use was characterized as an imprecise concept, resulting in confusion throughout public land policy and generating extensive discretion in land management. To address this ambiguity, the commission recommended recognizing the highest and best use of particular areas as dominant, while allowing compatible secondary uses that would not jeopardize achievement of that dominant use.

Although the commission developed this framework, decisions about dominant and secondary uses were ultimately deferred to Congress and federal agencies through land-use planning

processes, a structure that did not include Tribes. Experience since that time has shown that this approach has not succeeded in harmonizing competing uses across public lands. Brown highlighted that present conditions underscore the importance of revisiting public lands governance, including ecological stress in forests linked to climate change, past management decisions, wildfire, insects, disease, and development pressures, alongside growing socioeconomic stress in rural communities and declining federal capacity.

Brown proposed that the highest and best use of federal public lands should be the restoration and maintenance of ecological integrity, and the Forest Service's 2012 planning rule definition was referenced as a useful starting point. Under this approach, multiple uses and benefits would continue only where they maintain or restore ecological integrity, positioning ecological sustainability as the foundation for social and economic sustainability. This positioning was connected to long-standing Indigenous stewardship principles, while emphasizing that available scientific and technical tools are sufficient and that forest management challenges are fundamentally rooted in people and governance rather than technical limitations.

Discussion with the webinar's participants addressed historical knowledge, federal trust and treaty obligations, and future governance pathways. Brown underlined that federal trust and treaty responsibilities to Tribes prevail where conflicts with other uses arise. Brown believes addressing the challenges of the current federal agency reorganization requires forward-looking approaches, rather than rebuilding past systems, with expanded roles for Tribal, state, and local governments and community-based efforts. She also underscored transparency as essential to rebuilding trust with the public. In conclusion, Brown emphasized that while long-term change may ultimately require new statutory frameworks, meaningful progress can and should occur now through place-based action within existing planning and governance authorities, framing this as a practical and achievable path forward today.

Idaho Panhandle National Forest. Image: U.S. Forest Service

Sustainability and Productivity of Planted Forests in the Southern United States

WATCH SESSION RECORDING

Tom Fox

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Presented: February 3, 2026

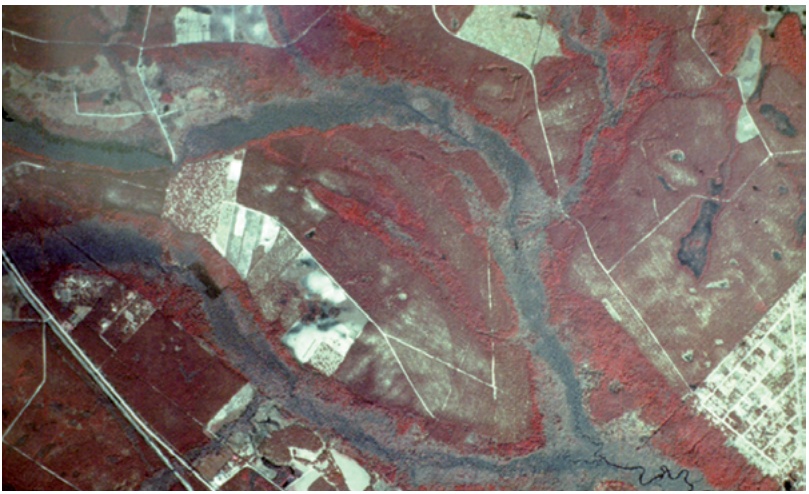
TOM FOX, *Vice President of Forest Productivity and Sustainability, Rayonier*

Tom Fox, vice president of forest productivity and sustainability at Rayonier, outlined how management of planted forests in the Southern United States has evolved through what he termed market-driven precision forestry. He explained that this approach balances forest ecology and silviculture, financial performance, and environmental and social responsibilities. Fox stated that this framework is intended to "do the right thing on every acre." He noted that Rayonier manages both planted forests and naturally regenerated forests, with management intensity varying by soils, site conditions, and objectives including timber production, ecosystem services, and non-timber revenue sources.

Fox cited market conditions as a key factor shaping silvicultural decisions. He pointed to expansion in sawmill capacity across the Southern United States alongside a contraction in pulp mills, explaining how these shifts influence how we manage forests. He addressed emerging and evolving markets for wood products, including mass timber and liquid fuels, observing that markets affect how management decisions are made. Alongside traditional forest products, Fox listed ecosystem services including recreation, carbon sequestration, biodiversity, and water quality as important benefits from forests. Rayonier's revenue sources beyond timber include real estate development, solar projects, minerals, and energy.

Fox also specified how silviculture and tree improvement are used in planted forests to increase growth rates. He detailed practices including site preparation, seedling production and planting, competition control, and fertilization, distinguishing

between stands that are only planted versus those receiving additional treatments. Moreover, he referred to genetic improvement programs that identify superior parent trees and use controlled pollination to pair selected male and female trees. Fox characterized the interaction among genetics, site quality, and management intensity as a primary driver in influencing forest productivity.



Color infrared aerial view of a managed forest landscape, showing planted forests, hardwood stands, and wetland areas. Image courtesy of Rayonier.

Fox outlined how site-specific silviculture is implemented using spatial data and monitoring technologies. He explained how soils, geology, and landforms are mapped to guide management regimes and how variability across landscapes leads to different management practices across the land base. He reviewed the use of remote sensing tools such as lidar to assess forest structure, identify streamside management zones, and monitor growth over time. He also described how spatial datasets are used to delineate sensitive areas, including riparian zones and wetlands, and to support precise application of silvicultural treatments. Fox names geographic information systems and satellite guided equipment as key tools used to ensure operations avoid sensitive areas.

Fox discussed sustainability, long-term stewardship, and responses to changing conditions. He recounted how historically degraded southern landscapes were restored through forest management and wildlife presence linked with managed landscapes, with wildlife returning to these areas over time. He further highlighted Rayonier's approach to longleaf pine, including identifying dry, sandy soils as appropriate sites, managing longer rotations, and supporting habitat for associated species. Fox framed prescribed fire as a management tool with increasing constraints related to safety and smoke management, alongside other vegetation management approaches used as alternatives where fire application is limited. In conclusion, Fox noted climate-related considerations, including drought and hurricanes, and reported adjustments in response to these climate-related risks in species selection, stand density, and planting practices.

S1-55 **S1-85**

Side by side photographs of two adjacent 15-year-old loblolly pine stands on the same landscape. The stand on the left was planted and left to grow, while the stand on the right received additional silvicultural treatments including competition control, fertilization, and site preparation, resulting in different growth responses. Higher site index (SI) values indicate more productive sites with greater growth potential. Image courtesy of Rayonier.

WATCH SESSION RECORDING

How We Engage on Forests

Presented: February 10, 2026

JOHN GORDON, PhD, *Dean Emeritus and Professor Emeritus of Forestry and Environmental Studies, Yale School of Forestry & Environmental Studies*

LYNN JUNGWIRTH, *Founder, The Watershed Center*

John Gordon

Lynn Jungwirth

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John Gordon, dean emeritus and professor emeritus of forestry and environmental studies of the Yale School of Forestry & Environmental Studies (now the Yale School of the Environment), and Lynn Jungwirth, founder of The Watershed Center, shared their experiences with forest management and community involvement through a conversation moderated by Gary Dunning, executive director of The Forest School at the Yale School of the Environment.

Jungwirth characterized her hometown as a forest-dependent community where families worked as loggers and in sawmills. She detailed the 1991 spotted owl decision, explaining that U.S. District Court Judge William Dwyer ruled that the U.S. Forest Service was violating environmental law by harvesting on federal lands with spotted owls and blocked timber harvesting until a recovery plan was created, affecting 10 million acres in the West. She noted that 80% of the land and 90% of the forests in her county were federal lands, resulting in a shutdown of the community.

Gordon reflected on his career, including experience at the U.S. Forest Service laboratory in Rhinelander, Wisconsin, faculty positions at Iowa State University and Oregon State University, and dean and professor at Yale University. He referred to what he described as a significant realization upon arriving at Yale and learning of the work of Frederick C. Hixon Professor Emeritus of Natural Resource Management Bill Burch. Gordon explained that Burch, who pioneered work in community and social forestry, demonstrated that if colonial foresters did not give sufficient attention to the people who lived in and around forests, local residents might put their conservation and wood supply at risk. He stated that at Yale the social dimensions of forestry were placed

at the forefront of the curriculum, reinforcing the importance of integrating social considerations into forestry practice.

Also speaking to the friction between forest management and communities, Jungwirth recounted visiting a local high school, where she encouraged students to pursue a broad liberal arts education to prepare them to be flexible in the workforce. She asked 19 seniors about their plans, and most did not know where to seek employment because working in the woods was no longer an option. She described that experience as prompting her decision to establish an institution focused on ecosystem management so the town could rebuild. When forming The Watershed Center, Jungwirth required board members from both

A burned redwood marked for a regeneration harvest in California. Image: Lynn Robb

environmental and timber communities to demonstrate that they were active community members to mitigate antagonism and divisiveness amongst them.

Jungwirth explained that forest planning processes in the 1990s presented environmentalists and industry options, after which the U.S. Forest Service developed an alternative that left all parties dissatisfied, a planning approach she noted was used for all forest planning on federal lands. She described how conflict resolution relied on zoning forests and stated that this approach was ineffective, as disputes over zone size followed. Gordon underscored that zoning approaches did not resolve underlying conflicts and stated that zoning does not work. He discussed the need to move beyond zoning frameworks in order to address the deeper sources of conflict in forest policy. Jungwirth and Gordon concluded by emphasizing the importance of attending to people and culture in forest management.

Gordon … discussed the need to move beyond zoning frameworks in order to address the deeper sources of conflict in forest policy.

In the speakers' discussion on resolving conflict, Gordon highlighted that communities once regarded forest products workers as respected pillars of local life but later treated forestry as a term of disrepute. Gordon described the development of an approach to conserving biodiversity within the range of the northern spotted owl that looked at the full array of species of interest and related that to forest management, including timber cutting, structured as a matrix and presented to Congress. He noted that Congress rejected the proposal and that President Bill Clinton resuscitated it through the Northwest Forest Plan (NFP), which resulted in stronger limits on cutting than initially anticipated. He described the NFP as a successful experiment in changing forest management as old growth declined and preservation demands increased.

Forests in Transition: Ownership, Equity, and the Next Generation of Private Land Stewardship

WATCH SESSION RECORDING

Sam Cook

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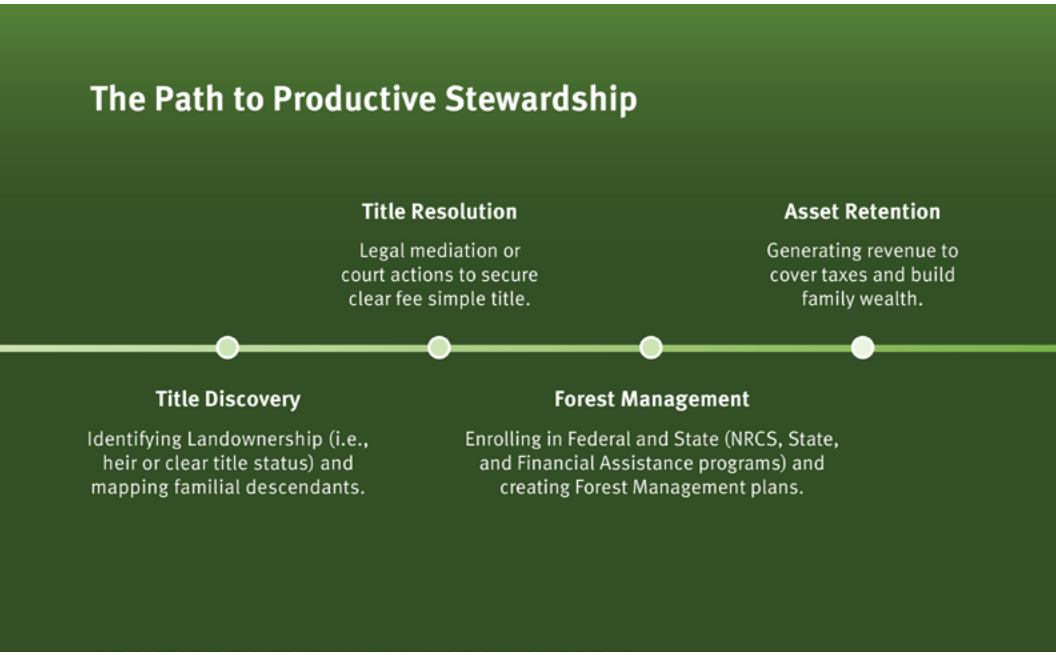
Presented: February 17, 2026

SAM COOK, *Executive Director, Forest Assets and Vice President, Natural Resources Foundation, College of Natural Resources, North Carolina State University*

Sam Cook, executive director of forest assets and vice president of the Natural Resources Foundation at North Carolina State University's College of Natural Resources, opened with a story about a South Carolina family that inherited around 80 acres anchored by a longleaf pine tree planted by an earlier generation. He described how heirs' property, rising taxes, and children relocating to cities created uncertainty about continued ownership, prompting pressure to sell. Cook stated that forests do not disappear overnight, but ownership can shift through unplanned decisions, and that stewardship changes when ownership changes. He introduced the webinar by discussing how demographic shifts, market pressures, legal challenges, and new opportunities are redefining private forests across the Southern United States today.

Cook then examined the southern wood basket and indicated that the region supplies over 50% of the United States' sustainable timber, generates around $251 billion in annual economic activity, supports more than 1.3 million jobs, and produces 18% of the world's pulpwood while occupying nearly 2% of global forest area. He reported that approximately 86-87% of southern forestland is privately owned and that families and individuals manage 57% of southern forests. Moreover, he noted that 75% of southern forest acreage is owned by individuals aged 55 and older and that ownership has shifted from industrial firms to institutional investors, now managing about 40 million acres nationwide.

Cook detailed economic and demographic forces shaping stewardship and highlighted the average forest landowner is 60 or older, signaling a substantial generational wealth transfer. He explained that heirs' property affects 5.3 million acres and remains a major driver of land loss in the African American community, notably where land passed down without a will results in unclear titles and vulnerability to partition sales. He specified that unresolved title issues limit access to federal cost share programs, loans, and emerging carbon markets and contribute to declines in management decisions. He further underscored matters related to rising land values, development pressure, and limited access to legal and technical assistance as barriers that disproportionately affect small and historically underserved landowners.



The pathway to productive stewardship shows the progression of family forest landowners from title discovery and title resolution to forest management planning and long-term asset retention through revenue generation. Image courtesy of Sam Cook.

Cook presented integrated approaches that link legal services, forestry assistance, and market access through the Sustainable Forestry and African American Land Retention Network, supported by federal agencies. He outlined a pathway that includes title discovery, title resolution, enrollment in federal and state programs, forest management planning, and asset retention through revenue generation. In addition, he referenced organizations working across southern states that combine legal aid, technical support, and market connections to help families retain and manage their land. In conclusion, Cook emphasized that coordinated legal, technical, and financial support are necessary to sustain generational land retention and forest resilience.

In the speakers' discussion, Cook responded to questions about regional trends, management patterns, mill closures, and policy support. He observed that educational efforts have increased landowner awareness and participation in land management decisions and identified mill closures as a significant concern that requires markets for small diameter wood to maintain silvicultural viability. He cited programs such as the Environmental Quality Incentives Program and the Conservation Stewardship Program as helpful for land retention and highlighted the American Forest Foundation's Family Forest Carbon Program as an emerging opportunity. He also acknowledged ongoing challenges in agency engagement and equitable access for small and historically underserved landowners.

A forester flags a stand for a regeneration treatment. Image: Lynn Robb

WATCH SESSION RECORDING

Conserving America: Environmental Legislation and Forest Management, 1964-2026

Char Miller

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Presented: February 24, 2026

CHAR MILLER, PhD, *W.M. Keck Professor of Environmental Analysis and History, Pomona College*

Char Miller, W.M. Keck Professor of Environmental Analysis and History at Pomona College, opened by connecting the series theme, "From Timber to Tomorrow," to the relationship between past and present forest policy debates. He argued that the National Forest Management Act of 1976 formed part of a longer legislative trajectory that began in the 1870s rather than a standalone reform. Miller referenced President Lyndon B. Johnson's 1965 Special Message to the Conservation Congress, Johnson's term for the legislative push he urged the U.S. Congress to undertake in the mid-1960s, as a call for creative conservation grounded in restoration and innovation alongside protection and development. He framed the legislative surge of 1964 to 1976 as the fourth wave in this sequence that reshaped federal authority over forests.

Miller traced the first wave of conservation to the 1870s, when early forestry leaders and grassroots advocates pressed Congress to respond to industrial resource extraction. He highlighted the Progressive Era – the second wave – as a period of institutionalization and scientific management. Moreover, Miller explained that the 1891 authority to create forest reserves and the 1897 Organic Act defined the purpose of national forests, prioritizing water and then timber production. He emphasized that western reserves often encompassed mountainous watersheds, while the Weeks Act later expanded the system eastward through land purchases from willing sellers.

Miller then outlined the New Deal as a third wave that expanded federal landscape management through new agencies and

large-scale interventions. He characterized the period between 1964 and 1976 as unusually dense in legislation, listing measures that addressed wilderness, water, air, species protection, and agency procedure. Miller discussed that these statutes regulated federal land agencies by imposing planning requirements and opening decisions to public comment. He stated that this framework changed the relationship between federal expertise and citizen participation and embedded ecological language, such as biodiversity and habitat, into management debates.

The Inter-Mountain

Only Daily Newspaper in Randolph and Seven Bordering Counties

VOL. LXVII NO. 94 ELKINS, W. VA., 26241, THURSDAY AFTERNOON, NOVEMBER 8, 1973 TEN CENTS

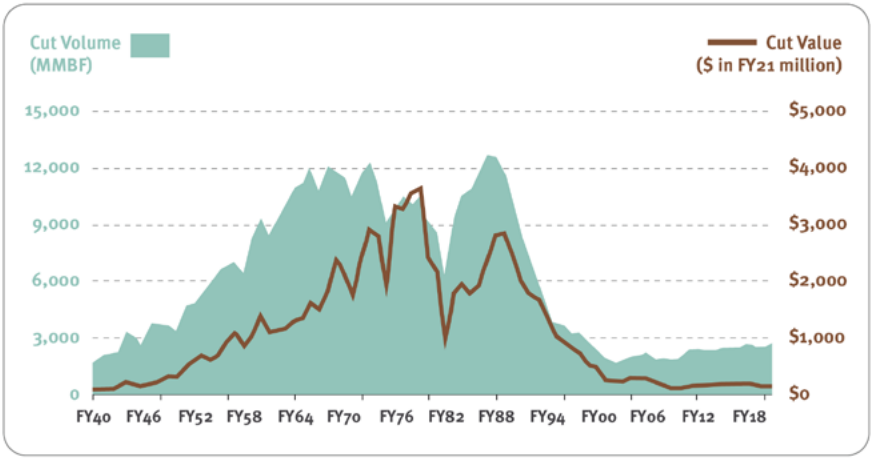
Only Congress Can Change 1897 Law Governing Timber Practices

Maxwell Says Clearcutting Forbidden In National Forest by Organic Act

Newspaper coverage of Judge Maxwell's ruling that barred clearcutting under the Organic Act and pushed Congress to revisit national forest management authority. Image courtesy of "The Greatest Good" film website.

Miller then explained that national forest timber harvest patterns after World War II included a steep increase in cutting from the late 1940s to the late 1970s. He linked clearcutting controversies in places such as the Bitterroot and the Monongahela National Forests to academic critique, citizen opposition, and litigation. Miller recounted that Judge Maxwell ruled in 1973 that clearcutting violated the 1897 Organic Act and required congressional

action. In conclusion, Miller underscored that the National Forest Management Act of 1976 required forest plans and broader attention to habitat and biodiversity, and that it marked a pivotal pause that forced reconsideration of what national forests should provide.



National forest timber harvest trends show rising cut volume and cut value after World War II, with a peak in the late 1970s and a subsequent decline. Figure courtesy of the Library of Congress, based on U.S. Forest Service data.

Miller responded to questions about proposals to transfer national forests to state control and about the role of ecological science in shaping conservation law. He pointed to legislative, judicial, and public guardrails as the historical framework structuring the national forest system and noted grassroots engagement as central to its future. Miller also clarified matters related to recreation, timber economics, watershed protection, and state forests, and he reiterated that water management has remained a unifying purpose since the 19th century. He concluded by reflecting on how, by the 1990s, many U.S. Forest Service professionals were engaging with a wider set of ecological and management concerns beyond traditional timber production.

Panel Discussion: Workforce Transitions and Women's Leadership in Forestry

WATCH SESSION RECORDING

Presented: March 3, 2026

PANELISTS:

TIA BEAVERT, *Tribal Forestry Program Manager, Yakama Nation Tribal Forestry*

SARA SANTIAGO, *Assistant Director, The Forest School at the Yale School of the Environment*

ELIZABETH WOODWORTH, *Founder and CEO, Wood & Co. Consulting*

MODERATOR:

NATASHA JAMES, PhD, *Senior Director of Future Forests, Society of American Foresters*

Tia Beavert

Sara Santiago

Elizabeth Woodworth

Tia Beavert, Tribal forestry program manager, Yakama Nation Tribal Forestry; Sara Santiago, assistant director, The Forest School at the Yale School of the Environment; and Elizabeth Woodworth, founder and CEO, Wood & Co. Consulting, discussed workforce transitions and women's leadership in forestry through a conversation moderated by Natasha James, PhD, senior director of future forests, Society of American Foresters.

James asked what drew the panelists to forestry and how early experiences shaped their engagement. Woodworth explained that she entered the forest sector through sustainability and communications work at a forest products company and became interested in connections among forests, global markets, rural communities, and environmental responsibility, noting that forestry is often misunderstood and requires thoughtful, transparent communication to build trust. Beavert described

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Natasha James

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entering forestry through Yakama Nation, working in timber sale layout and timber cruising before later completing formal forestry education. Santiago recounted that geography fieldwork examining how people and place are connected led her to a stakeholder engagement role examining corporate zero-deforestation policies, then to community forestry work at the International Institute of Tropical Forestry, and later to Yale to deepen ecological understanding.

James next raised workforce shifts shaping forestry practice over the past 50 years. Woodworth outlined a shift seen over the past 20 years from a primarily operations-focused profession toward a more interdisciplinary, stakeholder-driven field equally shaped by communications, policy, finance, community engagement, certification, conservation, and climate science, noting decisions now involve landowners and forest product companies as well as Indigenous communities, environmental NGOs, corporate investors, policymakers, and consumers. Beavert indicated that the perspective has changed from looking at a tree to examining the environment as a whole, with forestry now including water, wildlife, and culturally sensitive plants, foods, and medicines, and that technology has changed how forests are measured. Santiago noted another shift involving who participates in forestry decisions, pointing to greater participation from people within forest communities rather than a complete top-down approach, and expanded pathways and opportunities for young people entering the forest and environmental sector.

Hiker in the Olympic National Forest. Image: U.S. Forest Service

James then turned to how the role and visibility of women in forestry have changed. Beavert recalled that when she began working at Yakama Nation, only three women worked in forestry, whereas now more women are entering forestry and

environmental fields and working across Tribal, state, federal, and private forestry organizations. Santiago observed that mentorship has supported women in the field while institutional culture and leadership structures still require change so that qualified women can exercise real decision- making power. Woodworth remarked that when she entered the forest sector around 2010, women often held communications or support roles but now appear more frequently in sustainability, certification policy, and corporate strategy positions, though operational and technical roles remain underrepresented as the sector still lags in creating clear pathways into and through the profession and in shifting traditional forestry culture.

Beavert recalled that when she began working … only three women worked in forestry, whereas now more women are entering forestry and environmental fields and working across Tribal, state, federal, and private forestry organizations.

James also addressed how workforce diversity strengthens forest stewardship. Santiago pointed to diverse backgrounds, geographic experiences, and collaborative ideas enriching forestry conversations and informing pathways forward. Woodworth emphasized that forestry benefits from diverse perspectives, disciplines, cultures, and lived experiences that strengthen problem solving and help address challenges such as wildfire risk, biodiversity loss, and climate change. Beavert stressed that Indigenous perspectives guide decisions considering the needs of future generations, while sharing cultural perspectives and peer learning strengthens forest management. In conclusion, the panelists highlighted key themes including preparation for the next generation of forestry professionals, clearer understanding of forestry roles, and women entering the profession.

WATCH SESSION RECORDING

Urban Forests as Nature-based Solutions: How Historic Lessons Helped Shape Contemporary Practice

Asia Dowtin

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Presented: March 10, 2026

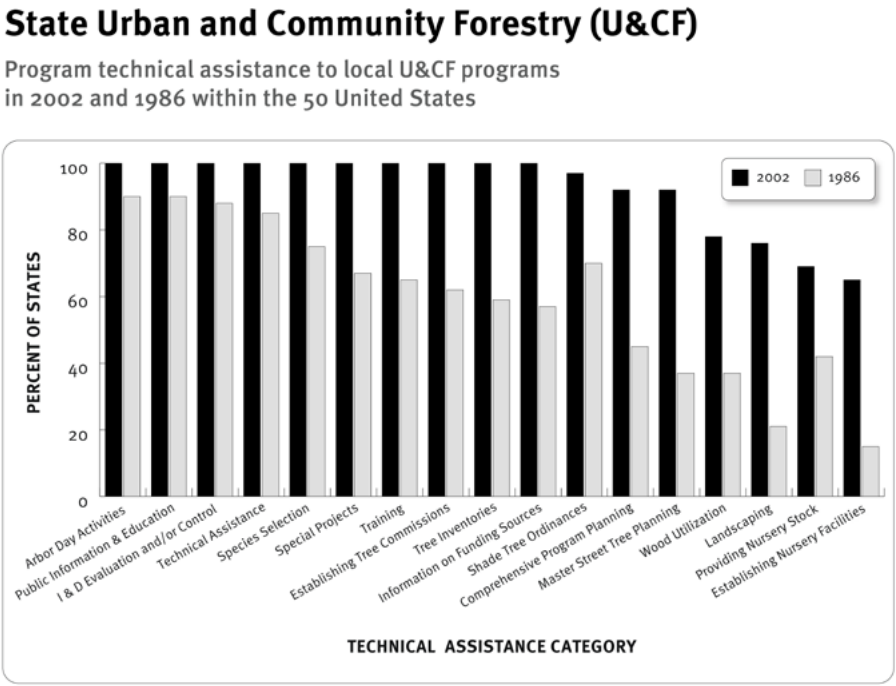
ASIA DOWTIN, PhD, *Associate Professor, Urban Forestry, Department of Forestry, Michigan State University*

Asia Dowtin, associate professor of urban forestry in the department of forestry at Michigan State University, discussed how historic practices inform contemporary urban forestry and nature-based solutions. She began by outlining early recognition of urban green space benefits in the quadrilateral chaharbagh public gardens of Persia and South Asia. Dowtin explained that their construction required knowledge of engineering, water management, botany, vegetation management, and culture and that they reflected aesthetic, religious, and environmental values. Importantly, these gardens provided spaces of respite from the harsh conditions of urban life. Dowtin stated that these historic designs served as a prototype for modern gardens and tree-lined streets.

Dowtin examined early European and American influences on urban forestry. She remarked that European cities introduced tree-lined boulevards and allées in the 15th through 18th centuries. She highlighted 19th-century horticulturist Andrew Jackson Downing, who promoted increased urban canopy cover and forest conservation into expanding American cities. Downing's work formed early discussions about tree planting and vegetation management in urban environments in the United States.

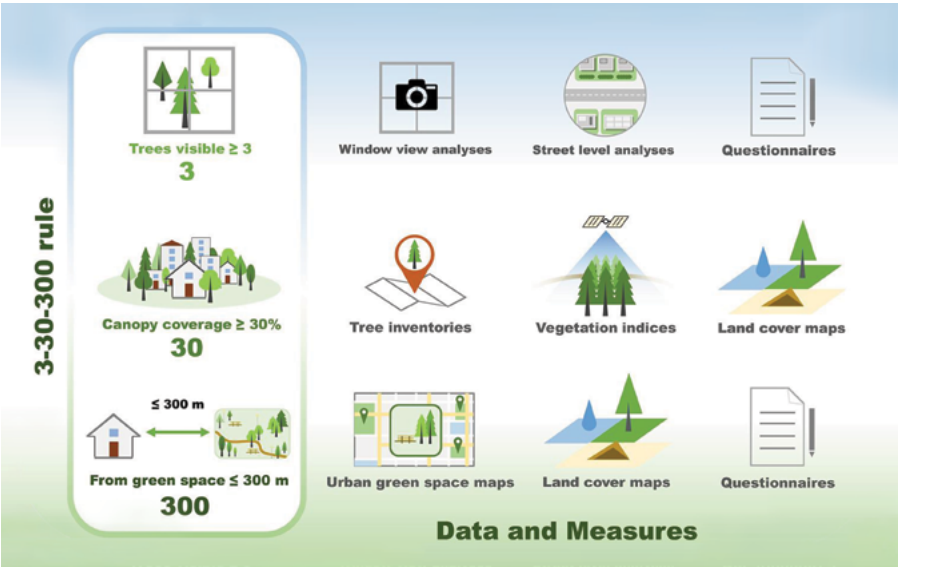
Dowtin further described how 19th-century Washington D.C. lacked both grey and green infrastructure, resulting in poor sanitary conditions. Under Alexander Robey Shepherd, vice chair of the Board of Public Works and later the Territorial

Governor of the District of Columbia, the city built streets, sidewalks, and sewer lines. These projects also incorporated urban tree planting. Dowtin cited an estimate of more than 63,000 trees planted during this period. These efforts demonstrated how political leadership, financial support, and planning enabled and linked both urban forestry initiatives and infrastructure development.



Percentage of states in the United States providing technical assistance to local urban and community forestry programs across categories in 1986 and 2002, showing increased state technical assistance and program capacity following the 1990 Farm Bill. Figure courtesy of Hauer et al. (2008).

Dowtin then explored landscape design movements that guided urban forestry practices in the United States. The City Parks Movement, highly influenced by American landscape architect Frederick Law Olmstead, encouraged the creation of large, vegetated parks like Central Park within cities and expanded access to public green space. Next, Dowtin addressed the Romantic Landscape Movement, which accompanied suburban expansion and introduced tree-lined streets and vegetation on private property. Lastly, the City Beautiful Movement promoted landscaped boulevards, parkways, and public spaces across cities to benefit both city dwellers and visitors. These movements enhanced tree presence across cities and suburbs and shaped the development of modern urban forestry practices.



Conceptual illustration of the 3-30-300 rule for urban nature access. Figure courtesy of Browning et al. (2024).

Finally, Dowtin explored how urban forestry developed as a professional and scientific field. She reported that urban forestry was defined by University of Toronto Professor Erik Jorgensen as "the cultivation and management of trees for their present and potential contribution to the physiological, sociological, and economic well-being of urban society." Urban forestry research took off in the 20th century around urban tree management, ecosystem services, and contributions to public health and environmental quality. When Dutch elm disease caused significant urban tree loss, cities began diversifying tree planting. In 1978, federal legislation like the Cooperative Forestry Assistance Act provided funding and technical assistance for urban forestry. In conclusion, Dowtin emphasized integrating nature-based solutions in cities, utilizing the 3-30-300 rule, quantifying and communicating the benefits of urban trees amid competing development interests, and sharing lessons learned through professional collaboration, networks, and accessible research resources.

The Urban Resources Initiative plants trees with the New Haven Health Department in 2022. Image: Mark Conrad, courtesy of the Yale School of the Environment.

WATCH SESSION RECORDING

Expectations and Adaptation in a Changing Climate

Presented: March 17, 2026

Chris Swanston

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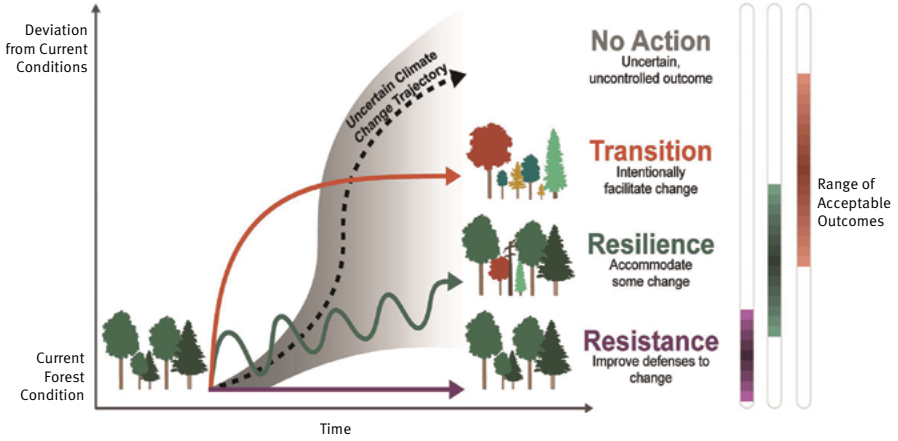
CHRIS SWANSTON, PhD, *Director of Science, Save the Redwoods League*

Chris Swanston, director of science at Save the Redwoods League, opened by stating that recent wildfires, drought, insect mortality, and range shifts fall outside historical expectations, even though these changes are not surprising from a climate science perspective. He framed history as a source of stability, direction, and generalizations, and our history shapes our expectations, which in turn shape our perception of risk. Swanston linked expectations to risk perception and values to risk tolerance, using values broadly from ethics to economics. He observed that adaptation choices reflect who people are as much as they reflect climate science, and he defined realized risk as the outcome of those decisions.

Swanston then traced forestry across several eras. He said early professional forestry, associated with Gifford Pinchot, Theodore Roosevelt, and the founding of the U.S. Forest Service, shifted from outright exploitation to sustained yield centered on timber production and protection of water supply while treating climate as a stable background. He next described the emergence of multiple use from 1960 to 1990 through the Multiple-Use Sustained-Yield Act of 1960 and the Federal Land Policy and Management Act of 1976, which broadened forest purposes while maximum sustained yield remained dominant. Swanston further reported that researchers were increasingly focused on disturbance ecology, fire regimes, and drought cycles; however, for the most part, these disturbances were understood within a stationary view of climate across most management thinking at the time.

Intentional Ecosystem Adaptation



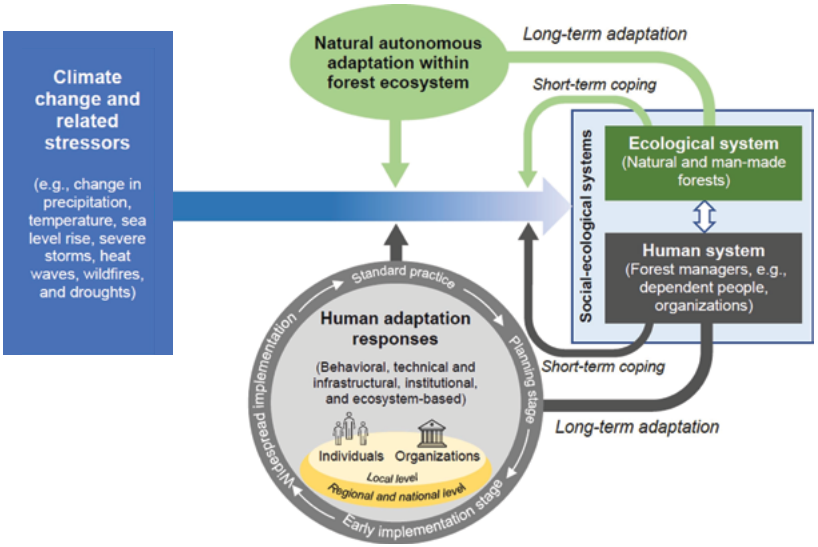
This intentional ecosystem adaptation framework illustrates resistance, resilience, transition, and no action pathways over time. Figure: Nagel et al. (2026), courtesy of Save the Redwood League.

Turning to the 1990s and early 2000s, Swanston noted that ecosystem management emerged during this period, the Intergovernmental Panel on Climate Change assessments introduced warming projections, and vulnerability frameworks began appearing. He remarked that others dismissed climate change warnings, while adaptation itself often sounded like capitulation to both environmental advocates and industry actors. Swanston subsequently outlined the greenhouse gas mitigation period, when forests entered climate policy as carbon sinks through the Kyoto Protocol and emerging markets, even as many strategies assumed relatively stable ecosystem conditions. He also pointed out that, to most of the forest management community, vulnerability assessments were more of a curiosity than a critical foundation for planning.

Swanston indicated that since 2015, climate adaptation has moved into practice, with surreptitious and explicit approaches becoming more evident, while assisted migration remained debated and refined. He characterized surreptitious adaptation

as led by managers who adjust practice without public discussion to avoid backlash, legal challenges, or internal resistance. Swanston further emphasized that while forests now function as forms of global climate infrastructure including nature-based solutions and climate-smart forestry, carbon goals can conflict with fuels reduction and resilience work. Swanston urged for carbon stewardship and acknowledged the importance of enhancing or stabilizing carbon within forests, but he recentered the focus on ecosystem integrity as the North Star. In conclusion, he underscored that forests are adapting faster than humans are, highlighting the need to update expectations for a non-stationary climate, make values and risk explicit, and advance adaptation across institutions and ecosystems.

Social and Organizational Adaptation



This social and organizational adaptation framework shows how climate stressors interact with ecological systems, human systems, and adaptation responses across short-term coping and long-term adaptation pathways. Figure: Paige Fischer et al. (2024), courtesy of Save the Redwoods League.

Applying Silviculture to the Forests of the Future

WATCH SESSION RECORDING

Presented: March 24, 2026

MARK ASHTON, PhD, *Senior Associate Dean, Morris K. Jesup Professor of Silviculture and Forest Ecology, and Director of Yale Forests, The Forest School at the Yale School of the Environment*

Mark Ashton

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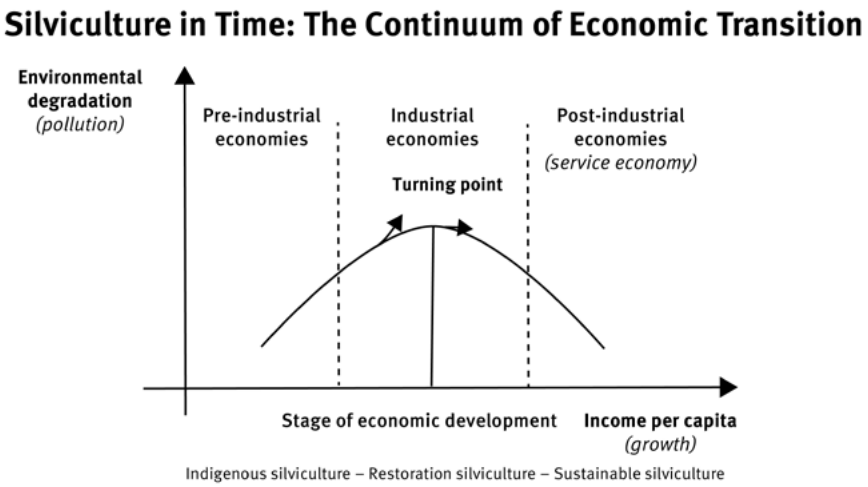
Mark Ashton, senior associate dean and Morris K. Jesup Professor of Silviculture and Forest Ecology at The Forest School at the Yale School of the Environment and director of Yale Forests, discussed silviculture through time as shaped by economic transitions and social systems. He explained that silviculture has been practiced through deep experiential learning across pre-industrial, industrial, and post-industrial economies, with early practices linking trees with food through swidden agriculture and the use of fire, while industrial transitions involved economic and land tenure instability. He also emphasized silviculture changes with relationships between people, forests, and economies, and these transitions continue to shape forests and silvicultural practice today.

Ashton described pre-industrial and colonial periods as phases involving clearing for subsistence agriculture and settlement. Forests were cleared and cultivated across eastern North America on both marginal and fertile lands, leaving legacies still visible. Ashton remarked that these landscapes include stone walls, cellar holes, and woodlots. He pointed out that the Industrial Revolution, the Civil War, and the collapse of agrarian markets in the Eastern U.S. led to rural depopulation and subsequent forest regrowth. He underscored these overlapping transitions resulted in heavy cutting of the forest frontier in the West to fuel industry, and in widespread second growth forests in the East, as people abandoned land to work in the new industrial cities.



Environmental degradation initially increases with economic development before declining at higher income levels, illustrating the economic transition from pre-industrial to post-industrial systems and its implications for silviculture. Figure courtesy of Panayotou (1993).

Ashton outlined the post-industrial period, in which forests exist within relatively stable social infrastructure characterized by secure land tenure, defined ownership, and the development of monetarization for service values. He stated that forests provide water, recreation, wildlife habitat and biodiversity conservation, and climate mitigation alongside traditional timber products. However, Ashton reinforced the notion that though today's forests represent direct legacies of past land use, they now face a range of diffuse and indirect impacts that are beyond the control of the forester. He identified impacts from invasive species, infrastructure development, and global trade as ongoing interacting stressors, and noted that climate change introduces region-specific impacts such as drought, storms, and temperature changes. Such impacts suggest that future silviculture needs to be much more risk averse with a diverse portfolio strategy of treatments both active and passive for a future that is unpredictable.

Ashton concluded by stating silviculture operates within continuums of time and place and depends on soil fertility, culture, ownership, and economics. He stressed that these place-based conditions shape how silviculture is applied across different landscapes; forests on marginal lands grow more slowly and require different approaches than productive lands. He highlighted that most native forests today are now restricted to the more marginal lands, meaning they grow slowly and over time are exposed to greater levels of unpredictable events as compared to forests on more fertile soils that can grow more quickly. Native forests on marginal lands therefore face circumstances where social values change more rapidly than forests grow, requiring diversified approaches, and that silviculture requires cross geographic, cultural, and disciplinary learning to address future uncertainties.

Industrial Legacies of Land Use

The Upper Peninsula, MI

The West Coast

The Allegheny Plateau, PA

Industrial legacies of land use across the Upper Peninsula Michigan, the West Coast, and the Allegheny Plateau in Pennsylvania. Images courtesy of U.S. Forest Service.

WATCH SESSION RECORDING

Evolving Fieldcraft: AI, Remote Sensing, and the Future Forestry Workforce

JR Washebek

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Presented: March 31, 2026

JR WASHEBEK, *Senior Fellow, AI and Ecosystem Management, Environmental Policy Innovation Center and New America Digital Service for the Planet Fellow*

JR Washebek, senior fellow for AI and ecosystem management at the Environmental Policy Innovation Center and New America Digital Service for the Planet Fellow, opened by arguing that for the first time in the history of the forestry profession, the tools exist to integrate three forms of knowledge — fieldcraft, datacraft, and statecraft — which have historically developed separately across different people, institutions, and training pathways.

Washebek defined fieldcraft as the practitioner's place-based, embodied knowledge of a specific piece of ground, acquired through seasons in a landscape rather than coursework. She defined datacraft as the analytical infrastructure including remote sensing, LiDAR, hyperspectral imaging, and machine learning that characterizes landscapes continuously at scale. Finally, she defined statecraft as the governance systems, institutional relationships, professional standards, and co-management agreements through which integrated knowledge reaches a decision. She stated that this integration depends on three conditions being present simultaneously: a mechanism for practitioner knowledge to enter the analytical process, a pathway through which that knowledge can travel across organizational boundaries, and a relationship of shared history and mutual accountability that gives the knowledge weight when it arrives.

Washebek traced seven tool eras in forestry — from the crosscut saw through AI and generative AI — and argued that each transition reshaped practitioner perception, practice,

and ultimately the landscape. She referenced German scientific forestry as a case where optimization was simultaneously internally coherent and ecologically catastrophic because the accounting system excluded factors outside its measurement framework. She cited FORPLAN, the forest planning model used to estimate land management resources, in the 1980s as an illustrative case of the profession's historical response to an optimization tool.

Washebek outlined six AI operations relevant to forest management … and argued that current technologies enable movement from documenting activities to verifying ecological conditions at scale.

Washebek outlined six AI operations relevant to forest management — perception and detection, classification, change detection, prediction, optimization, and generation — and argued that current technologies enable movement from documenting activities to verifying ecological conditions at scale. Drawing on Goodhart's Law, she argued that the relevant practitioner question is not whether a model output is accurate but what the system was built to maximize and whose values defined the target. She identified what she described as an empty cell in the era map, noting that while many environmental ethics are active in forestry, no domain-specific ethic governs how AI tools are designed and deployed in forest management.

She then presented a Five Functional Positions framework — sensing, structuring, analyzing, integrating, and deciding — and argued that the workforce bottleneck has migrated to position four: the integrating function that translates between what the field knows, what models require, and what decision-makers can be accountable for. Washebek delivered this claim as an inference from converging evidence and noted that no forestry program, to her knowledge, treats the integrating function as an explicit competency.

Washebek closed by offering practitioners five diagnostic questions for any model output, centering on what the system optimizes for, what it does not measure, what would indicate it is outside its reliable range in a specific place, the institutional cost of error in either direction, and who needs to know what the practitioner knows before the next deployment decision is made. She framed the empty ethics cell not as a problem the session resolves but as a design assignment, and she positioned this webinar as opening the futures section of the series.

LiDAR setup for evaluating an archeology site in the Idaho Panhandle National Forest. Image: U.S. Forest Service

Panel Discussion: Wildfire Management Over Suppression

WATCH SESSION RECORDING

Presented: April 7, 2026

PANELISTS:

AARON BALDWIN, *Director, Office of Tribal Trust, United States Wildland Fire Service*

JULIETTE JEANNE, *Deputy Director of Tribal Engagement, Office of Tribal Trust, United States Wildland Fire Service*

BRIAN KITTLER, *Chief Program Officer, Resilient Forests, American Forests*

MODERATOR:

NICOLE STIFFARM (CHIPPEWA CREE), *Tribal Partnerships Manager, Environmental Policy Innovation Center*


Aaron Baldwin


Juliette Jeanne


Brian Kittler

Aaron Baldwin, director of the Office of Tribal Trust at the U.S. Wildland Fire Service; Juliette Jeanne, deputy director of Tribal engagement at the U.S. Wildland Fire Service; and Brian Kittler, chief program officer of resilient forests at American Forests, discussed wildfire management over suppression through a conversation moderated by Nicole Stiffarm, Tribal partnerships manager at Environmental Policy Innovation Center.

Brian Kittler opened by sharing a timeline of wildfire history in the U.S., starting with the 1905 establishment of the U.S. Forest Service, which centralized federal forest management and institutionalized wildfire suppression. He underscored the 1911 Weeks Act, which formalized federal-state cooperation on wildfire suppression, including establishing national forests in the eastern U.S.; the 1935 10 AM mandate, which required all reported wildfires to be suppressed by 10:00 a.m. the following morning; the 1963 Leopold Report that recognized fire as an ecological process; the 1964 Wilderness Act, which allowed fire as a natural process; and the 1968 start of National Park Service-prescribed

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Nicole Stiffarm

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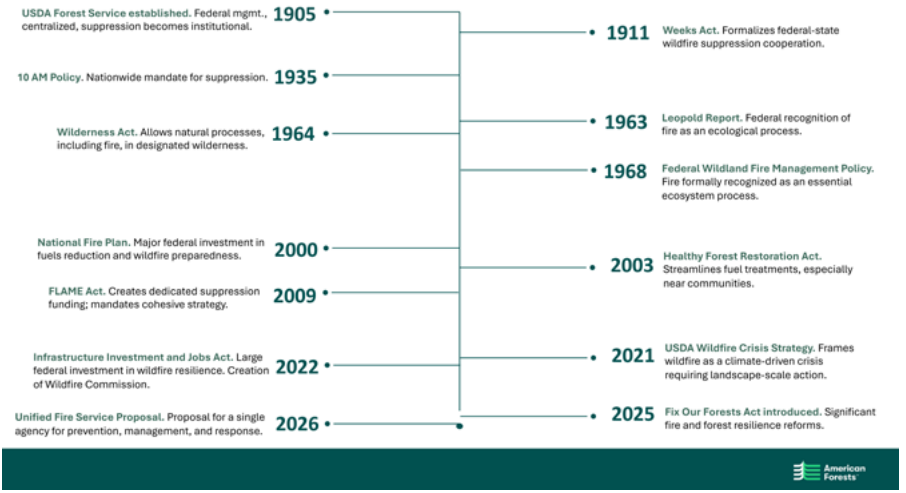
fires at Sequoia Kings Canyon National Park, followed by seven other parks. Kittler outlined developments from 2000-2006, including major wildfire events, federal policies, and legislative actions, culminating in a proposal for a single agency for wildfire prevention, management, and response.

Aaron Baldwin highlighted that Tribes have been burning much longer than the National Park Service and identified wildland fire impacts on sacred, cultural, and medicinal sites tied to Tribal identity and sovereignty. He explained that current conditions reflect cumulative fuels, which result in faster moving fires in a less predictable environment. Baldwin noted the number of fires in the U.S. has remained relatively consistent, while the area burned has increased over time. He underscored that initial attack success rates, defined as how quickly fires are contained, are about 97% nationally. Juliette Jeanne stated that the U.S. is currently in a wildfire crisis that requires more cohesion and integration in managing. She pointed to the need for coordination across federal, state, local, and Tribal partners and for addressing both wildland and wildland-urban interface fire, while also recognizing the need to reduce risks to communities and infrastructure.

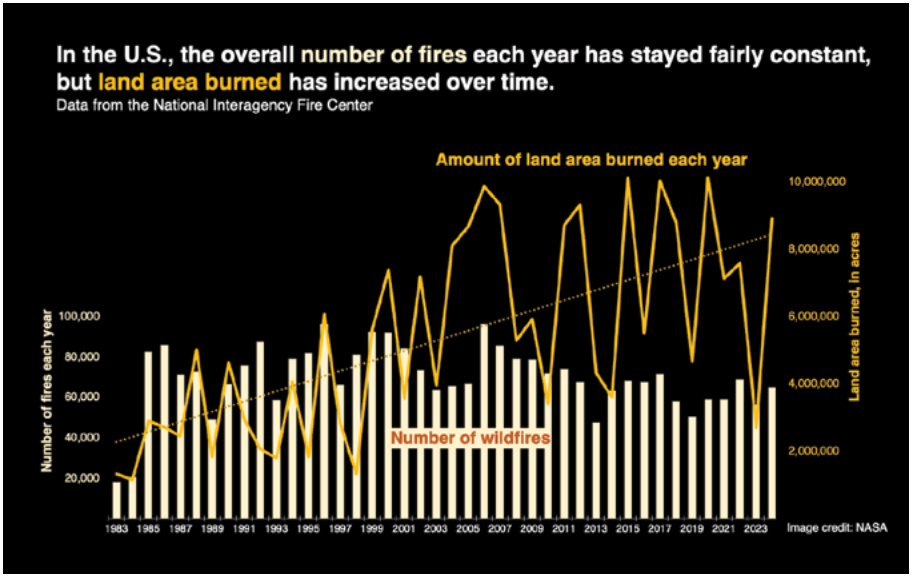


Timeline of wildfire policy and management developments in the United States. Figure courtesy of American Forests.

Nicole Stiffarm then explored unification intent and implementation. Kittler stated there is a priority to unify a single fire agency for federal response. This has begun within the U.S. Department of Interior, while efforts involving the U.S. Department of Agriculture, including a reorganization of the U.S. Forest Service and a commissioned study, remain in early stages. Baldwin explained that fire programs have historically been split across four bureaus that do not have fire as their primary mission focus, creating administrative challenges across contracting, funding, and operations. He highlighted that unifying into one structure centers the mission on response, fuels, and rehabilitation. Jeanne added that differing funding mechanisms and duplication across bureaus, notably in post-fire recovery where coordination across jurisdictions becomes complex, present challenges. She also remarked that unification aims to streamline systems and address these coordination issues across jurisdictions.

Riverside Fire from La Dee Flats on the Mount Hood National Forest, September 9, 2020. Image: U.S. Forest Service

Stiffarm concluded the panel discussion by raising a question on reframing what is considered natural through Indigenous fire stewardship. Kittler asserted Indigenous-led fire stewardship



Annual wildfire activity in the U.S. shows the number of fires and land area burned. Figure courtesy of National Aeronautics and Space Administration, based on National Interagency Fire Center data.

needs to be a priority and invested in. He reinforced that the right to burn and its importance should be front and center in forest management, with recent policy developments enabling progress. Baldwin described that the Reserved Treaty Rights Lands program places resources directly in Tribal hands, enabling Tribes to lead programs, define priorities, and partner across jurisdictions, which shifts performance measures from acres treated to meeting Tribal priorities. Jeanne noted Tribal knowledge can help reestablish society's relationship with fire and can help guide its use today.

A Scientific Review of the Potential for Climate Finance to Transform Natural Forest Management

WATCH SESSION RECORDING

Bronson Griscom

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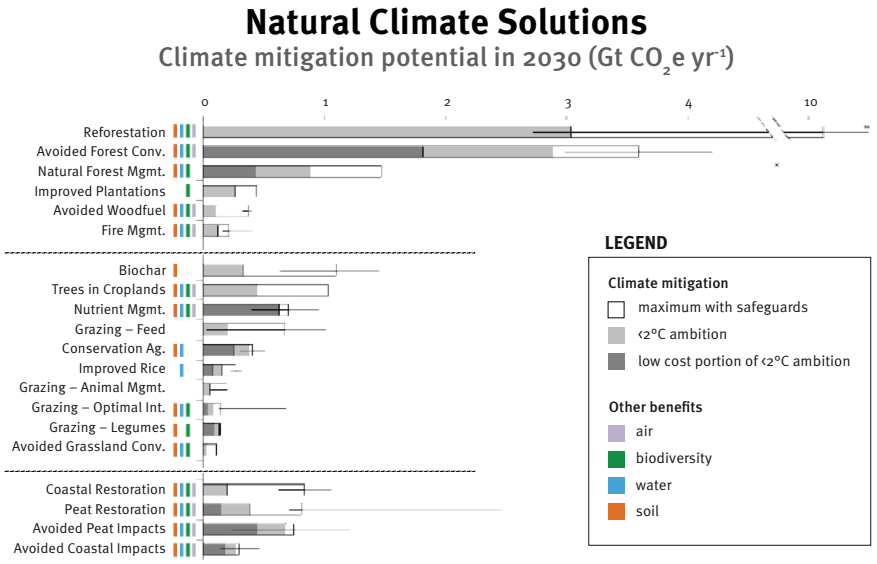
Presented: April 14, 2026

BRONSON GRISCOM, PhD, *Founder and CEO, Ceiba Earth PBC*

Bronson Griscom, founder and CEO of Ceiba Earth PBC, opened by focusing on the biophysical potential and silvicultural dimensions of natural forest management. He explained that despite global uncertainty, there are reasons for optimism about the future of forests. For the first time in human history, we appear to have passed "peak land," and we are beginning to see a decline in the extent of the human footprint on earth. This is due to several interacting macro trends including declining rates of human population growth and ongoing improvements in agricultural yields per acre. In other words, we are entering an age of restoration.

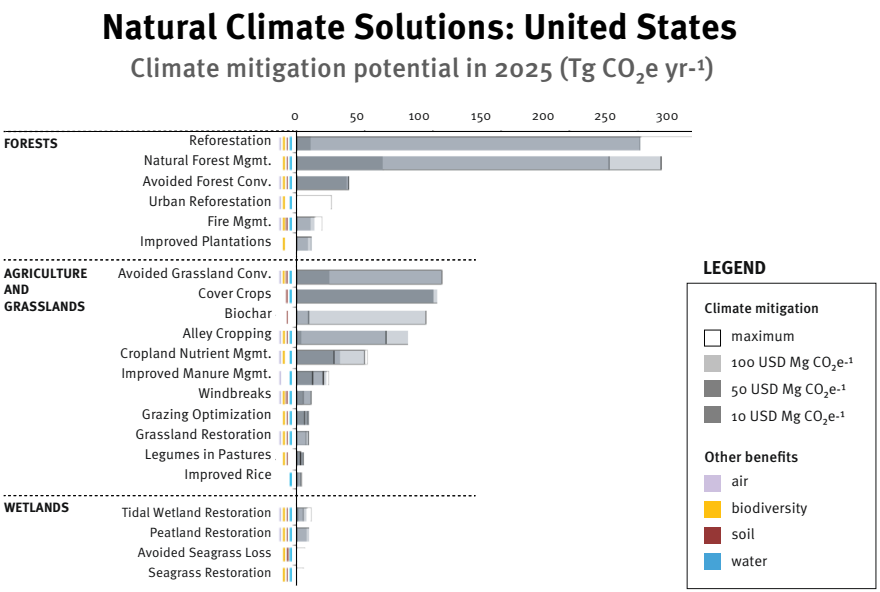
Griscom examined forest-specific trends and conveyed that global forest loss continues, mainly in tropical regions, although the rate of loss is declining. He contrasted this with net gains in temperate forests and described these trends as part of broader macro trends supporting optimism. Griscom argued that ecosystems themselves are key solutions to climate change and stated that the Intergovernmental Panel on Climate Change findings show agriculture, forestry, and other land uses represent the largest mitigation potential among sectors. He emphasized that these solutions receive the lowest levels of financing and noted costs may be higher than previously estimated, alongside credibility concerns around carbon accounting and the complexity of land stewardship.



Source: Griscom et al., PNAS (2017)

Global climate mitigation potential across natural climate solutions pathways, illustrating the relative contribution of forests, agriculture and grasslands, and wetlands, with natural forest management among the largest mitigation opportunities. Figure courtesy of Griscom et al. (2017).

Griscom then focused on improved natural forest management as a priority category within natural climate solutions, defining it as improvement to our management of naturally regenerating forests under timber production to reduce carbon emissions and/or enhance removals. He clarified this approach is relatively low risk and rapidly scalable because it enables climate mitigation without requiring fundamental changes to existing land use. Griscom also pointed to this category as offering large mitigation potential, with contributions from improved natural forest management alongside avoided forest conversion that occurs within lands under forest management for forestry. He added natural forest management ranks among the highest mitigation opportunities globally and is the largest natural climate solution in the United States when constrained by cost.



Source: Fargione et al. 2019

Climate mitigation potential across natural climate solutions pathways in the United States, showing natural forest management as one of the largest contributors among forest-based interventions and a major component of overall mitigation potential. Figure courtesy of Fargione et al. (2019).

Griscom presented nine types of improved natural forest management, comprising enhanced growth, avoided deforestation, extended harvest rotations, reforestation of deforested areas within timber production lands, stopping logging in high conservation value areas, reduced impact logging, fire management, avoided degradation via improved cookstoves, and increased albedo via restoration of deciduous species. He discussed these interventions in relation to removals versus avoided emissions, leakage risk, and scale. Griscom underscored alignment of enhanced removals with current finance preferences, and identified enhanced growth as a leading opportunity. He explained how interventions with lower leakage risk and higher removals potential can reduce barriers to investment and improve implementation credibility.

Griscom detailed examples of enhanced growth interventions, such as removal of competing vegetation, crop tree release, and mycorrhizal inoculation, which enhance forest growth and net carbon sequestration. He highlighted research that demonstrates thinning super abundant lianas after selective harvest in tropical forests can approximately double the rate of net sequestration of carbon. Griscom further discussed advances in monitoring and carbon accounting, drawing on satellite monitoring and randomized controlled trial approaches to strengthen credibility. He concluded by emphasizing integration of multiple management approaches and scaling improved forest management can help accelerate the transition toward an age of restoration.

Malheur River in the Malheur National Forest. Image: U.S. Forest Service

Public Land Management: One Leader's Journey in Forestry

WATCH SESSION RECORDING

Presented: April 21, 2026

VICKI CHRISTIANSEN, *19th Chief, United States Forest Service*

Vicki Christiansen

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Vicki Christiansen, 19th Chief of the U.S. Forest Service, reflected on her forestry leadership journey in a conversation with Tania Munz, president and CEO of the Forest History Society. Christiansen opened by explaining her leadership development was a process of merging her interest in people and forest science. Her empathy for others helped her understand the people side, while she also closely examined the ecological, economic, and social dimensions of forests. This combination, and the organizations she led, ultimately shaped her approach to leadership. She also pointed to values including showing care, leveraging curiosity to unlock innovation, choosing courage, and practicing humility while building trust.

Munz asked how Christiansen, whose term as USFS chief ran from March 2018 to July 2021, engaged with agency personnel during COVID-19 lockdowns. Christiansen described leading the U.S. Forest Service and its 30,000 employees – and an additional 10,000 personnel for emergency response – during the pandemic while also preparing for fire season. She stated the agency had to connect to its core values, including service, conservation, safety, diversity, and interdependence, emphasizing that safety and service were both important and held together as priorities when recreational use of the national forests increased by 200% to 300% during lockdowns. She underscored that speaking regularly to employees about what was known, unknown, and concerning while sharing personal experiences resulted in employees feeling a connection across the agency.

Munz asked Christiansen how she came to be appointed chief. Christiansen shared she had been serving in leadership roles, including as USFS Deputy Chief and 30 years in state government,

where she worked in partnership with the U.S. Forest Service. U.S. Secretary of Agriculture Sonny Perdue appointed Christiansen to serve as Interim Chief, and she accepted out of a sense of service and a call to the American people. Her appointment later became permanent, and Christiansen highlighted her core initiative across the agency, Stand Up for Each Other, which elevated safe and fair work environment priorities through the Work Environment and Performance Office.

U.S. Department of Agriculture Secretary Sonny Perdue (left) and U.S. Forest Service Chief Vicki Christiansen (center) attend a roundtable and signing of the Shared Stewardship Agreement at the Utah State Capitol, May 22, 2019. Image: U.S. Forest Service

Munz and Christiansen discussed shared stewardship and what it meant for the agency. Christiansen explained the U.S. Forest Service manages 193 million acres and has a broader mission to sustain the health, diversity, and productivity of the nation's 766 million acres of forests through collaboration. She explained shared stewardship as a scientific, policy, and cultural approach to address declining forest health, increasing threats including drought, climate change, insects, disease, and wildfire, and a mismatch between the scale of challenges and existing efforts.

Christiansen stated that the approach emphasized working across boundaries, engaging states and partners to set priorities, and using scenario-based planning to assess outcomes across competing values, including timber harvesting, watersheds, wildlife, and community protection.

Ancient western red cedar in Olympic National Forest. Image: U.S. Forest Service

Munz concluded with reflections on major changes in forestry over the past 40 years. Early in her career, Christiansen explained that field work was influenced by the interpretation of and challenges posed by 1960s and 1970s legislation, such as the Clean Water Act and Endangered Species Act, that established expectations for natural resource management. She expressed that forest management expanded from timber supply to include broader areas of focus, such as water, habitat, recreation, and carbon. Over her career, Christiansen observed that ecosystem-based management involved understanding the complexity of interdependent systems and of changing landscape conditions, including fire and climate impacts. In closing, she highlighted that collaboration, evolving science, and cross-boundary tools supported stakeholders in finding common ground and setting shared goals to address these challenges, underscoring that aligned values enable coordinated action across boundaries.

WATCH SESSION RECORDING

Future of the Land Back Movement

Cody Desautel

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Presented: April 28, 2026

CODY DESAUTEL, *Executive Director, Confederated Tribes of the Colville Reservation*

Cody Desautel, executive director of the Confederated Tribes of the Colville Reservation, opened his presentation by explaining that the term land back reflects long-standing Tribal efforts to regain Tribal land lost since the Reservation Era (1850-1887) and especially since the passage of the Dawes Act of 1887, which reallocated Tribal land at scale. He stated all land in the continental United States constituted Indian country in 1491 and recounted how colonial settlement, forced relocation, disease, violated treaties, and fraudulent land sales contributed to dispossession. He outlined key policies including the Indian Removal Act of 1830 and the associated Removal Era (1830-1850), the Dawes Act of 1887, and the Termination Era (1953-1968), noting that Tribal land declined from 1.9 billion acres to 56.2 million acres today.

Desautel traced these policies across time, highlighting the forced relocation of over 60,000 members of the Five Civilized Tribes in the Southeast from 1830 to 1850 and the loss of 4,000 Cherokee during the 1838 Trail of Tears. He elaborated on how the Dawes Act of 1887 divided reservations into allotments to force Tribes to assimilate into agriculture and ranching and reduced Tribal land from approximately 140-150 million acres to about 48 million acres by 1934. Desautel then addressed the Termination Era from 1953 to 1968, during which nearly 60 termination proceedings eliminated federal Tribal status and resulted in the loss of around three million acres, though some Tribes later regained recognition and land.

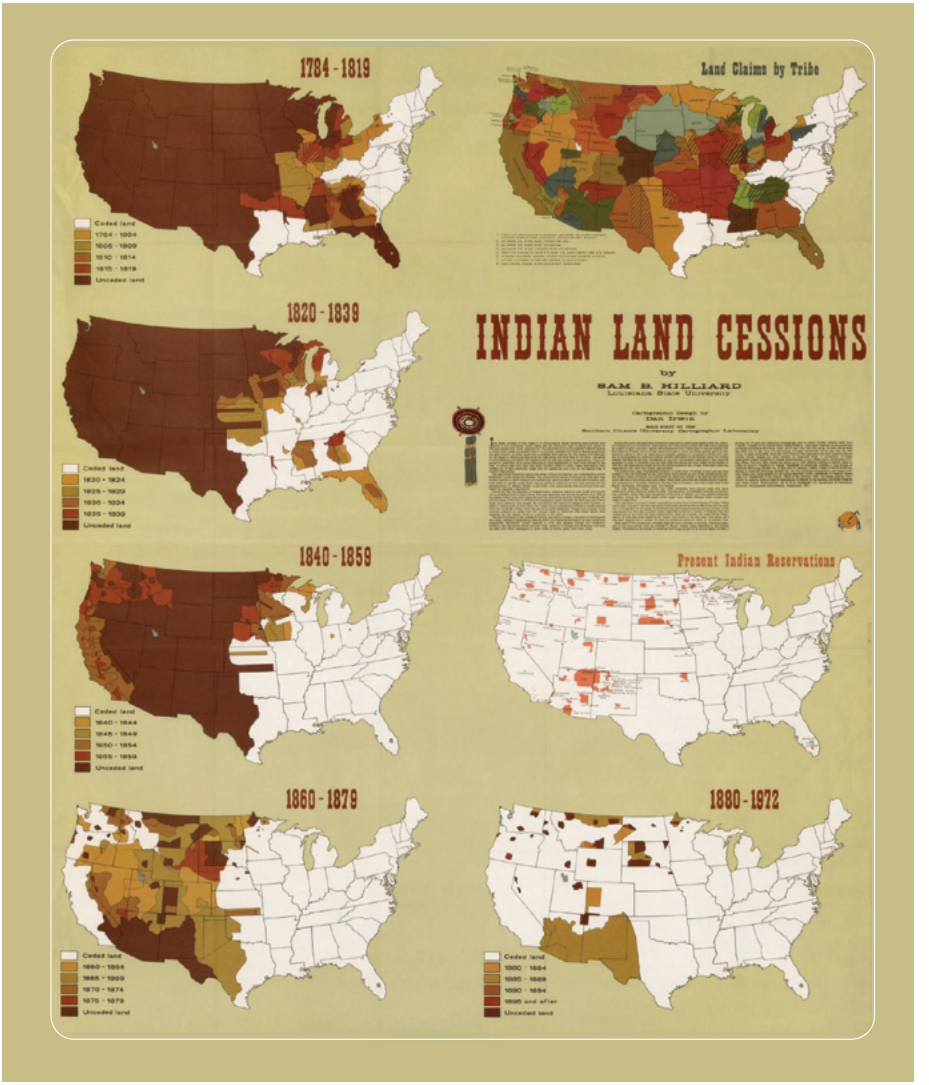
Desautel described current drivers of land loss, including declining Tribal membership linked to blood quantum requirements in Tribal

constitutions. He clarified that only enrolled members or first-line descendants can hold trust land, and inheritance can convert land to fee status when ownership passes to a non-enrolled second-generation heir, shifting jurisdiction. He detailed how fractionation creates parcels with hundreds of owners, citing a 40-acre parcel with roughly 400 owners, limiting management. He referenced the American Indian Probate Reform Act of 2004 as a partially successful reform and pointed to the definition of land back as an Indigenous-led effort to reclaim stewardship, sovereignty, and ownership, while emphasizing that each of the 575 federally recognized Tribes defines it independently.

Desautel … addressed the Termination Era from 1953 to 1968, during which nearly 60 termination proceedings eliminated federal Tribal status and resulted in the loss of around three million acres …

Desautel indicated land back matters because Tribal identity, culture, and ceremonies remain tied to place, including areas for gathering roots and berries, fishing salmon, and hunting. He observed that treaty rights to hunting, fishing, and gathering often depend on access to open and unclaimed lands. He examined mechanisms for land recovery, including Tribal purchases, partnerships with NGOs, legislative transfers, litigation, federal and state programs, and private donations. He cited examples including 165,000 acres repurchased by the Colville Tribe since 1957 for $80 million, the 9,243-acre Figlenski Ranch acquired in 2021, and 2018 legislative transfers totaling over 32,261 acres.

Desautel presented additional mechanisms including the Cobell settlement, which allocated $3.4 billion, including $1.9 billion for land buyback, restoring nearly three million acres and compensating about 123,000 individuals. He acknowledged state-supported acquisitions and private donations as additional pathways for land recovery. Desautel underscored challenges Tribes face including operational costs, taxation, jurisdictional complexity,



Historical maps show the reduction of Tribal land across the continental United States from 1784 to 1972, alongside a present-day map of Tribal reservations, highlighting the progressive contraction of Tribal territories over time. Image courtesy of Sam B. Hilliard.

Map illustrating the routes of the Trail of Tears during the Indian Removal Era shows the forced relocation paths of Southeastern Tribes to present-day Oklahoma, including land and water routes and key locations associated with the 1838 Cherokee removal. Figure: Encyclopaedia Britannica.

and a 16-step fee-to-trust process that requires multiple years to complete. He stressed that land recovery supports infrastructure, natural resource management, and access to culturally important places, and noted increasing recognition of Tribal natural resource management capacity in land stewardship and co-management efforts. Desautel concluded with expectations that land back efforts will expand with growing capacity and support, with the trend expected to accelerate into the future.

Conclusion

By: Hassan Alzain

The spring 2026 Yale Forest Forum speaker series showed that forestry has evolved through responses to changing environmental conditions, governance systems, and social and economic priorities over the past 50 years. Shifting from production forestry to ecological forestry has shaped institutions, management practices, and outcomes that continue to evolve under current pressures and global realities.

The series opened with **Gary Dunning**, **Natasha James**, **Tania Munz**, **Nicole Stiffarm**, and **Danielle Watson**, who framed the series by emphasizing past developments to inform future forestry. **Susan Jane Brown** then traced the evolution of multiple-use governance on public lands, highlighting challenges in defining land use priorities and the role of ecological integrity in guiding management decisions within federal frameworks.

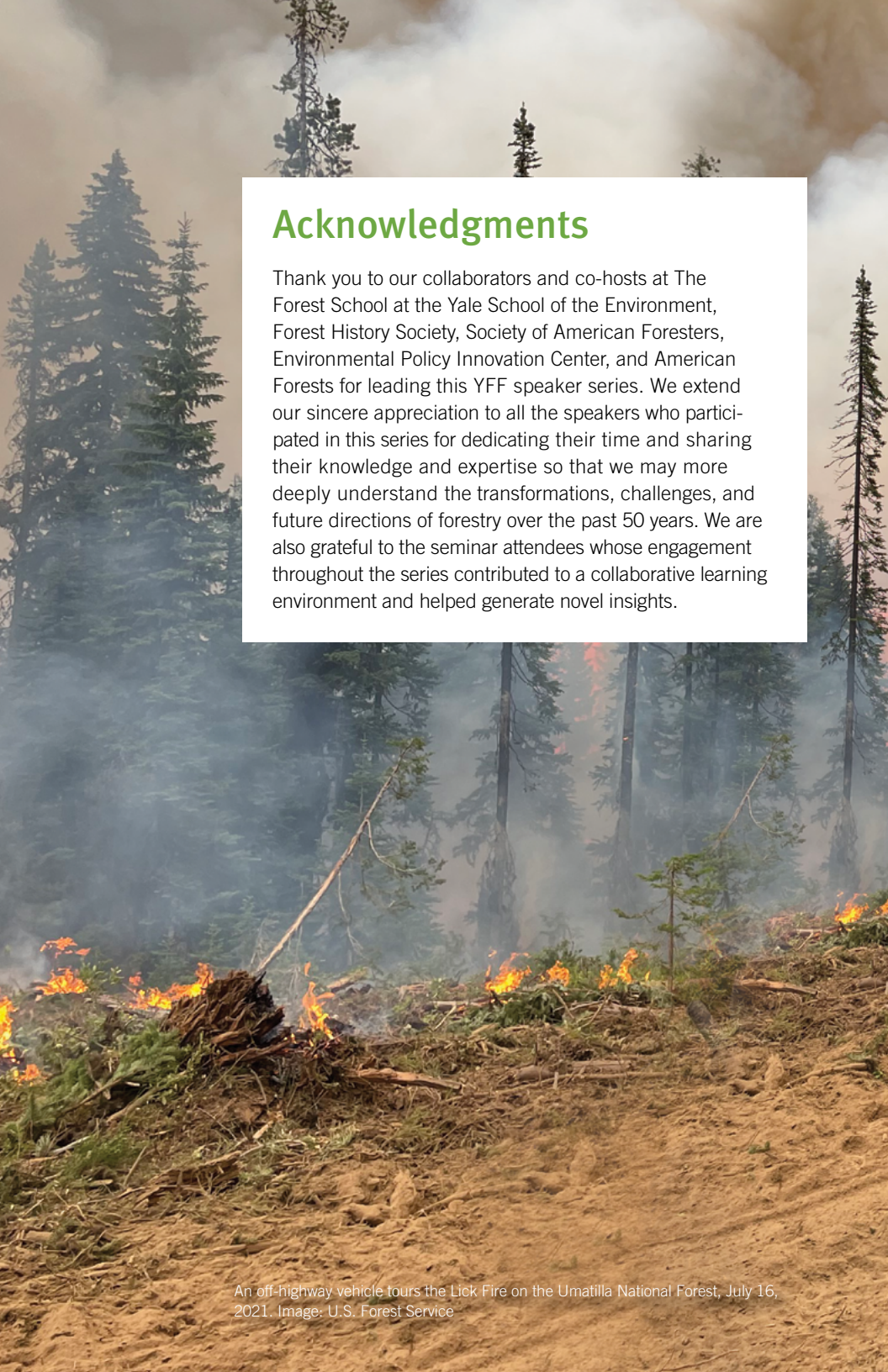
Subsequent sessions examined forest management practices and community engagement. **Tom Fox** described market-driven precision forestry in the Southern United States, outlining how silviculture, genetics, and spatial data shape productivity and sustainability. **John Gordon** and **Lynn Jungwirth** explored how forest management intersects with communities, underscoring the importance of social considerations, stakeholder engagement, and addressing conflict beyond zoning-based approaches.

The series then addressed land ownership, policy, and workforce dynamics. **Sam Cook** reviewed private forest ownership and generational transitions, highlighting heirs' property challenges and pathways for land retention. **Char Miller** recounted the development of environmental legislation and its influence on forest management through planning requirements, public participation, and ecological considerations. The panel featuring **Tia Beavert**, **Sara Santiago**, and **Elizabeth Woodworth** discussed workforce transitions and women's leadership, showcasing the value of interdisciplinary practice and broader participation of women in forestry.

Further sessions focused on urban forestry, climate adaptation, and silvicultural systems. **Asia Dowtin** presented urban forestry as a nature-based solution shaped by historical practices and contemporary planning. **Chris Swanston** outlined the transition toward climate adaptation, focusing on changing expectations, risk planning, and decision-making under non-stationary conditions. **Mark Ashton** analyzed silviculture across economic transitions, demonstrating how historical land use continues to influence forest structure and management.

The final sessions examined technology, disturbance, finance, leadership, and land stewardship. **JR Washebek** delved into the integration of fieldcraft, datacraft, and statecraft through emerging technologies. The panel featuring **Aaron Baldwin**, **Juliette Jeanne**, and **Brian Kittler** discussed wildfire management beyond suppression, including Indigenous fire stewardship and cross-jurisdictional coordination. **Bronson Griscom** analyzed the role of climate finance and natural forest management in mitigation efforts. **Vicki Christiansen** reflected on leadership and shared stewardship in public land management. The series concluded with **Cody Desautel**, who investigated the history and future of the land back movement, emphasizing Tribal stewardship, land recovery, and evolving governance of forest landscapes, bringing us back to the original forest stewards and stewardship on this continent.

Images left and right: Lynn Robb



Acknowledgments

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An off-highway vehicle tours the Lick Fire on the Umatilla National Forest, July 16, 2021. Image: U.S. Forest Service


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