

Proceedings of the 2007 National Silviculture Workshop

Learning, Connecting, Reconnecting: Summary of the 2007 National Silviculture Workshop

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NATIONAL SILVICULTURE WORKSHOP

The National Silviculture Workshop's genesis in 1973 was the result of forward thinking individuals within the Timber Management staff of National Forest Systems. Several national issues of the 1970s including, but not limited to: 1) the passing of the National Forest Management Act, 2) the mandate that all timber removal, reforestation, and timber stand improvement on Forest Service lands be prescribed by trained and certified silviculturists, and 3) a national policy of intensive timber management on Forest Service lands provided the impetus for "National Silviculture Work Conferences" (Nelson 1974, Gillespie 1977). In 1973, a group of 70 to 80 individuals, primarily from the Division of Timber Management along with several members of the Timber Management Research Staff of the Forest Service, met in Marquette, MI to discuss the theme of hardwood management (uneven-aged management). The organizers, the Silviculture Group from the Timber Management Staff in the Washington Office, recognized the need for Na-

tional Forest System Silviculturists and their associates to become acquainted and share information often of regional and national consequence. In addition, they recognized that Forest Service Research was an integral part of this information exchange so individuals from Forest Service Research were included in the Workshops. Proceedings followed the Workshops and were initially published by the Timber Management Staff in the Washington Office. These proceedings had minimal numbers printed, minimal review, lacked a consistent format, and no library deposition. Because the proceedings contained information addressing issues relevant to the practice and evolution of silviculture, Forest Service Research and in particular, the Station co-hosting the meeting, began to publish the proceedings in 1991. As a result, the proceedings are readily retrievable from libraries, meet the highest standards (e.g., peer, policy, statistics review) for Forest Service publications, and are available from Station Internet sites.

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The early meetings were held annually and their locations moved around the country and were hosted by different Regions and associated Research Stations (Table 1). These conferences addressed various topics of local, regional, and national concern. For example, several of the meetings in the 1970s addressed how forest management would be impacted by the National Environmental Policy Act of 1969 and how timber management and silviculture could fulfill the goals of the National Forest Management Act of 1976 (Doolittle 1975, Berntsen 1977) (Table 1). Uneven-aged management and uneven-aged silviculture were common topics throughout the life of the Workshop beginning in 1973 and are still topics in 2007 (Marquis 1978). Two research sponsored workshops were devoted to the subjects partly in response to the “alternatives to clearcutting issue” and a large portion of the Workshop in Petersburg, AK (1989) was devoted to the subject (Berntsen 1977, Forest Service 1990).

Silviculture and timber management are often considered synonymous by many within the Forest Service and those on the outside (Graham and Jain 2004). Even though timber management was central to most National Forest Management in the 1970s, the recognition of other resources such as water and wildlife were frequent topics during early Workshops (Schneegas and Sundstrom 1977, Lewis 2005). In 1987 the entire Sacramento Workshop was devoted to silviculture for all resources and the 2004 Workshop was devoted to silviculture in special places (Table 1). As these examples show, the practice of silviculture within the Forest Service has been very inclusive. Other evidence of inclusiveness in the Workshops is the multitude of disciplines both from National Forest Systems and Research, including but not limited to wildlife, forest ecology, hydrology, fisheries, soils, range, economics, social, management, and policy that have made presentations and attended the Workshops. By far the National Silviculture Workshop is one of the most well attended national meetings and the 2007 meeting in Ketchikan, AK continued this standard with a diversity of attendees and overflowing attendance.

2007 KETCHIKAN MEETING

In 1905, Gifford Pinchot suggested the Forest Service strive to provide the greatest good, for the greatest number, for the longest time (Lewis 2005). The dedication and commitment of Forest Service silviculturists exemplifies this

ethic and it is showcased biannually with the planning, execution, and attendance at the National Silviculture Workshop. The 2007 meeting was a return visit of the Workshop to Alaska. The 1989 meeting, in Petersburg (93 attendees) was hosted by the Tongass National Forest, Region 10, and the Pacific Northwest Research Station. The 1989 meeting overwhelmed the commercial accommodations available and the Forest Service Family opened their homes providing rooms and meals to several attendees. Ketchikan, being frequented by cruise boats, had sufficient infrastructure to support the meeting but it too felt the meeting’s presence (121 plus attendees) (McDowell 2007). The meeting planners, who did a superb job, secured the Ted Ferry Civic Center overlooking downtown Ketchikan for the Workshop.

Issues, trends, and setting

In the welcoming addresses it was obvious that the issues, trends, and concerns facing the management of southeastern Alaskan forests reflect those of forests throughout the United States (Ginn this proceedings). The forests of Alaska, and throughout the United States, are changing and the expectations of local, regional, and national stakeholders are also changing. For example, the nearly 6.9 million hectare Tongass National Forest, the largest National Forest in the United States, began its modern timber program in the 1940s by producing Sitka spruce logs for airplane construction. As the need for airplane spruce rapidly declined there was a desire locally, regionally, and nationally to provide economic stability and job opportunities in Southeast Alaska (Byers 1960, Durbin 1999). The Tongass Timber Act of 1947 authorized the Forest Service to develop long-term timber supply contracts and in 1954 the Ketchikan Pulp Company opened a mill in Ketchikan and in 1959 the Alaska Lumber and Pulp Co.’s mill opened in Sitka. These two mills anchored the forest products industry in southeastern Alaska until both mills closed in 1990s impacting the lives of many Alaskans (Durbin 1999). These changes in Alaska reflected the changes that occurred in western Oregon and Washington when the timber industry receded in the late 1980s as result of forest simplification, loss of old-growth, and protection of spotted owl habitat (Byers 1960, Durbin 1999, Donovan and others 2005, Lewis 2005).

Although timber production has decreased dramatically in the United States in the last decade, its citizens consume approximately 20 billion cubic feet per year or 67 cubic feet per person compared to a global average per capita

Table 1. The evolution of the national silviculture workshop. Various national silvicultural meetings hosted by both National Forest Systems and Research developed into what is now a national biannual meeting that began in earnest in 1979 in Charleston, SC.

Year	Location	Title/theme
1973	Marquette, MI	Hardwood management
1975	Morgantown, WV	Uneven-aged silviculture and management in the eastern United States
1976	Eugene, OR	Stocking control and tree density
1976	Redding, CA	Uneven-aged silviculture and management in the western United States
1977	Flagstaff, AZ	Silvicultural implications of Section 4 of National Forest Management Act
1978	Missoula, MT	Silvicultural examination, prescriptions and related activities
1979	Charleston, SC	Shelterwood regeneration method
1981	Roanoke, VA	Hardwood management
1983	Eugene, OR	Economics of silvicultural investments
1985	Rapid City, SD	Success in silviculture
1987	Sacramento, CA	Silviculture for all resources
1989	Petersburg, AK	Silviculture challenges and opportunities of the 1990's
1990	Wenatchee, WA ¹	Genetics/silviculture workshop
1991	Cedar City, UT	Getting to the future through silviculture
1993	Hendersonville, NC	Silviculture from the cradle of forestry to ecosystem management
1995	Mescalero, NM	Forest health through silviculture
1997	Warren, PA	Communicating the role of silviculture in management of the National Forests
1999	Kalispell, MT	The role of silviculture in the stand, forest, landscape, and beyond
2001	Hood River, OR	Silviculture odyssey to sustaining terrestrial and aquatic ecosystems
2003	Grandby, CO	Integrated restoration of forested ecosystems to achieve multi-resource benefits
2005	Lake Tahoe, CA	Restoring fire adapted forested ecosystems
2007	Ketchikan, AK	Integrated restoration efforts for harvested forest ecosystems

¹Although the genetics workshop held in 1990 was not organized as a National Silviculture Workshop it took on such a flavor as both the genetics and silviculture disciplines from the throughout Forest Service were represented.

consumption of 21 cubic feet (Shifley this proceedings). A high proportion of the wood consumed in the United States is imported though the citizens of the United States enjoy an abundance of parks, wildernesses, and other wildlands (Haynes and Horne 1997). Alaskans reflect this trend with

the majority of their wood building products being produced in the lower 48 States despite the state's abundance of forest lands. This conundrum provides context for use, preservation, and restoration of United States forests in the 21st century.

Even though the large timber markets have declined in Alaska, similar to the declines in the western United States, the concept of ecosystem services is evolving into a forest management issue, for which silviculture is essential for its success. Ecosystem services include a wide variety of benefits humans gain from ecosystems and include such things as purification of air and water, mitigation of droughts and floods, detoxification and decomposition of wastes, and the sequestration of carbon in which forests and silviculture play important roles (Daily and others 1997, Collins this proceedings). The sequestration of carbon and the evolving carbon markets are integral to reducing emissions of the greenhouse gases that cause climate change. Both National Forest Systems and Forest Service Research

will have critical roles addressing this issue in the future. For example, the National Service Center in Fort Collins, CO in cooperation with Research and Development, provided the Forest Vegetation Simulator (FVS) the ability to produce and project carbon metrics for forests (Collins this proceedings, Dixon 2002).

United States forests have changed as the result of fire exclusion, introduction of invasive species, urbanization, land-use changes, and timber harvesting. As a result, there is considerable interest in restoring forests and the Forest Service has developed a framework outlining several principles for restoration, and the practice of silviculture is critical for these restoration activities (Crow this proceedings).

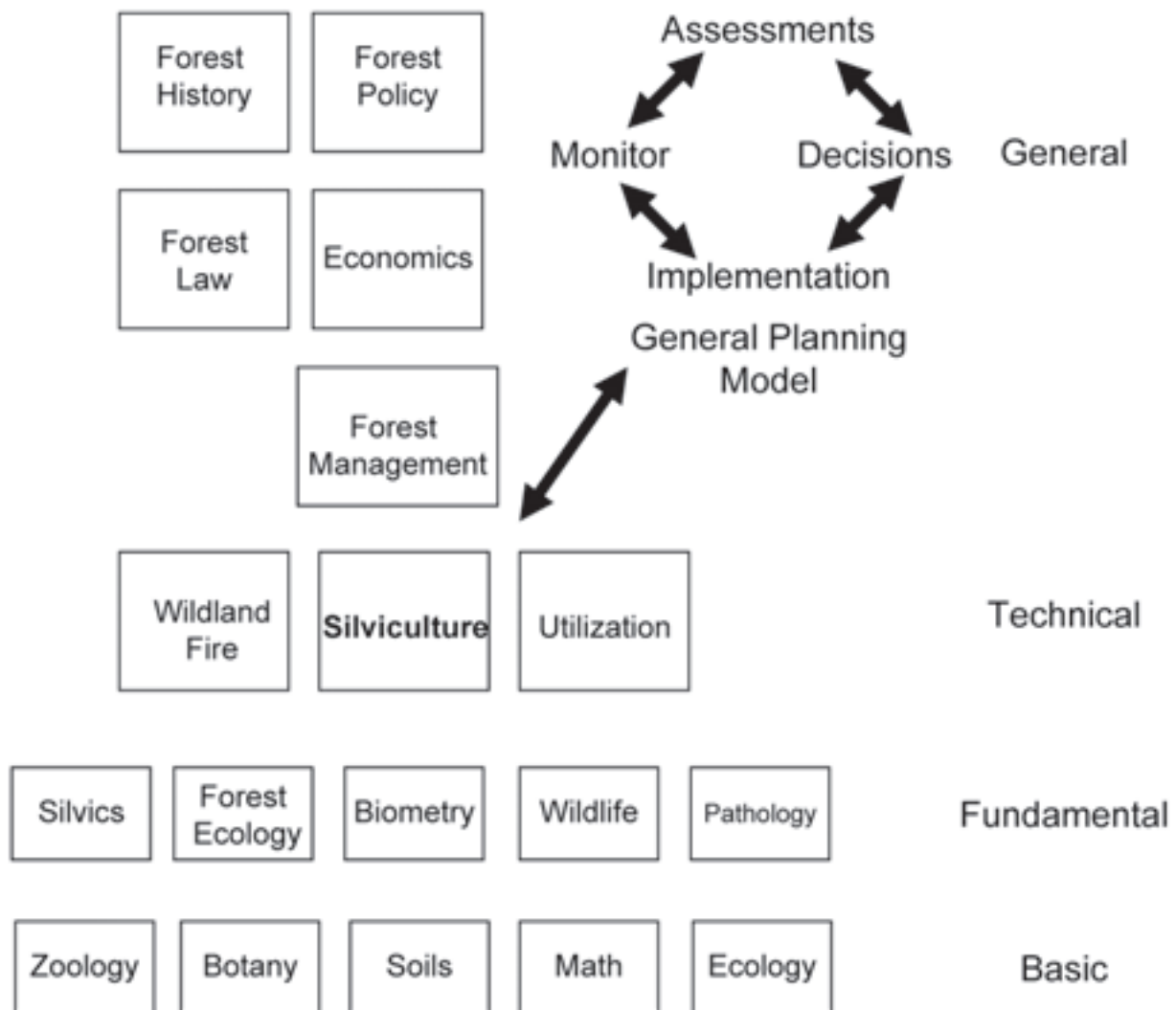


Figure 1. Silviculture is an integrative discipline incorporating basic, fundamental, and general knowledge into management frameworks (silvicultural systems) applicable for managing forests and woodlands (adapted from Nyland 2002).

There are several issues intertwined with forest restoration including, but not limited to, restoring degraded ecosystems, restoring watersheds valued for domestic water production, and restoring wildlife habitat. Restoring wildlife habitat is especially important for those wildlife species considered threatened and endangered under the Endangered Species Act. A prime concern inextricably connected to these issues and to forest restoration is the protection of communities and developments from wildfire (Graham and others 2004). As mentioned before, climate change is the overriding constraint or over-arching unknown influencing forest management policy, decisions, and silvicultural practices no matter the landowner or their objectives. For example, in Alaska there is evidence that the decline of yellow cedar is related to climate change. Specifically, warmer springs and reduced snow pack initiate premature dehardening and predispose trees to spring freezing injury (Hennon this proceedings). Even though other disciplines, and the public at large, have now (2007) brought climate change to the forefront, silviculturists have been cognizant of how it may impact silvicultural activities for years, as noted by SESCO (1990) at the 1989 National Silviculture Workshop.

Other disciplines may disagree, but silviculture is at the center of forest management (Figure 1) (Nyland 2002). Through the years silviculture has been closely allied with timber management and the production of wood crops (Evelyn 1664, Schlich 1906, Nyland 2002). As a result, the majority of the silvicultural practices were developed and honed over the years to grow trees efficiently and rapidly. As the early speakers in the Ketchikan Workshop articulated, this objective is very relevant. However starting with the 21st century exciting and challenging times are ahead for silviculture to respond to contemporary and evolving needs of forest management. More than ever people, enjoy, cherish, and often live in the forests the Forest Service manages. As such, the protection of communities, homes, and fire fighter safety are going to be of paramount importance. Developing and maintaining wildfire resistant and resilient forests and other issues such as biodiversity, carbon credits, maintaining sense-of-place, and old-growth will challenge silviculturists to be forward looking, adaptive, relevant, and responsive in the face of climate change.

Information and Knowledge

A key goal of the National Silviculture Workshop has always been for both practicing silviculturists and research silviculturists to exchange knowledge, information, and

information needs. This approach, which furthers the development of the art and science of silviculture began in mid-1600s in England (Evelyn 1664) and continuing with Schlich (1906) in the late 1800s in England and India. Over the last 34 years, the proceedings from the Silviculture Workshops traces the evolution of silviculture within the Forest Service and evidence indicates that such approaches have influenced current silvicultural thought (Nyland 2002, Tappeiner and others 2007).

A key need within all National Forests is for information and assistance in planning processes. The National Forest Management Act requires the Forest Service to prepare Forest Plans. Presently (July 2007), the rules for completing plans are somewhat uncertain, however, forest restoration will most likely be a theme for most plans along with sustainability and the maintenance of fire adapted ecosystems (Brett this proceedings). As Forests revise their plans, a suite of vegetation models are available, but they are rarely used to their full potential (Peterson and others 2007, Brett this proceedings). Other integral parts of the planning process are science use and scientist involvement during plan preparation. For example, the Tongass is in the process of finalizing their Plan and the Pacific Northwest Research Station, in 1997 and again in 2007, has been instrumental in this planning effort. Relationships between Research and National Forest Systems can transcend more than one Forest such as the Tongass. Research can be integral in developing projects by providing site specific information and models applicable for landscape planning. For example, the Daniel Boone and Bankhead National Forests partnered with the Southern Research Station to conduct large scale landscape studies using the Forest Plan and typical NEPA processes (Schweitzer and others this proceedings). This collaboration provides both National Forest and Research personnel a better understanding of mutual procedures, information needs, and most importantly proved information and protocols which benefit both organizations. Another key collaboration of Research and National Forests Systems is for Research organizations to participate and provide assistance in monitoring activities on National Forests. Monitoring has always been a part of forest management but it is often intermittent and inconsistent. For the most part monitoring protocols developed for timber production may not be adequate or appropriate for addressing many of today's management objectives such as forest restoration or maintaining wildlife habitat.

Often these types of issues cover multiple National Forests and/or large landscapes. Moreover, it has been suggested that by developing a unified monitoring strategy applicable to many Forests, comprehensive information could be assembled and progress towards restoration objectives would more likely be recognized and applied (Yaussy and others this proceedings).

In contrast to the forests of Alaska, the forests of the southern United States have been managed (harvested) since the 1600s and by the turn of the 20th century the removal of high value pines or high grading left many of them in a depleted condition. Restoration of these degraded conditions offer insight and/or principles that are applicable to the success of restoring forests anywhere. In general, restoration activities are dependent on the silvics of the species inherent to the site, the plasticity of the species, the abilities and insight of silviculturists (both current and past), and the application of evolving and developing scientific silvicultural knowledge (Guldin this proceedings). Again, from the experiences in the South it is obvious that restoration will be easier in some forest types than it will be in others regardless of the efforts of the silviculturist.

Some have suggested that climate change is impacting the size and extent of wildfires throughout the United States and elevating the level of insect and disease caused mortality in many forests (Dale and others 2001). In response to such forest changes, silvicultural strategies for restoring forests to a state in which they are more resilient and resistant to wildfires, insect outbreaks, and disease infestations have been suggested (Stanturf and Madsen 2005). In addition, invasive species (exotics) often exacerbate the impact wildfires have and controlling the abundance and distribution of invasives is also central to many restoration strategies (Graham and others 2004). For example, the introduction of cheat grass in the western United States has displaced native species, disrupted successional pathways, and made the forest and shrub lands extremely susceptible to intense and severe wildfires (Graham and others 1999). Also, throughout the West, white pine blister rust has devastated forests once dominated by 5-needle pines (e.g., western white pine, sugar pine, white bark pine). In concert with increasing forest resilience to wildfire, integrated management of western white pine and white pine blister rust has been the focal point of many restoration strategies (Jain and others this proceedings). Another example includes work

associated with developing strategies for controlling the hemlock woolly adelgid, an introduced species, in concert with activities aimed at restoring the central Appalachian and southern New England forests (Fajvan and others this proceedings).

Often forest restoration directly or indirectly implies the changing of species composition from one susceptible to fire, insects, and diseases to one more resistant and resilient (Stanturf and Madsen 2005). Through fire exclusion, grazing, and timber harvest the changes and the need for restoration are exemplified by restoring ponderosa pine and western white pine forests in the western United States and restoring Missouri Ozark forests in the eastern United States (Jain and others this proceedings, Nelson and Studyvin this proceedings, Zhang and Ritchie this proceedings). The latter restoration effort was designed to restore forests to ones containing assemblages of native species reminiscent of historical forests. This strategy was developed in collaboration with the Nature Conservancy and it, like many other efforts, recognized the role native disturbances played in maintaining and sustaining the Ozark Forests.

Linking the stand to the landscape is often the ultimate determinant of successful forest restoration. Finney (2001) suggested that forest structures could be modified and strategically placed in the landscape to disrupt a fire's progress. Jain and others (this proceeding) demonstrated how fuel treatments, even though they were small, could accomplish this task. The fuel treatments Jain and others developed and applied initiated a silvicultural system aimed at restoring the moist forests while providing structures and compositions relevant to many contemporary forest management objectives (e.g., sense-of-place, wildlife habitat, watershed protection). Another innovative fuel treatment discussed at Ketchikan was from the Bitterroot Forest where they used fuel treatments to reduce the fire hazard in a mixed conifer forest yet maintained hiking trails through an old apple orchard that people of the Bitterroot Valley cherish (Johnson this proceedings).

Riparian areas provide habitat for a wide range of game and non-game wildlife, they reduce the amount of sediment entering the stream, shade the stream, contribute woody material that increases hydraulic and structural complexity of the stream, provide habitat for aquatic and terrestrial organisms, and are integral to properly functioning water-

sheds. A very common method of addressing riparian areas in the proximity of timber harvest is through the establishment of stream management zones (buffers). These reserve areas have ecological benefits but they also have opportunity costs that are valuable information for both decision and policy makers (LeDoux this proceedings). A key to restoring watersheds, especially after disturbance, is prompt and robust vegetative regeneration (see field trip below). For example, in Alaska, mixing red alder with conifers when regenerating the rainforests following timber harvest offers prospects for increasing biodiversity and wildlife habitat abundance. Headwater streams with plentiful riparian alder had more invertebrates and supported more downstream fish biomass compared to basins with little or no riparian alder (Deal and Russell this proceedings).

Depending on the species, fish and wildlife habitat needs can be very site specific, but often habitat needs exceed stand and forest boundaries thus requiring silvicultural treatments to be relevant at these multiple spatial scales. For example, the habitat of the northern goshawk covers large landscapes often exceeding 3,000 hectares in size necessitating silvicultural treatments to transcend many different spatial scales. Although this is often recognized, integrating silvicultural activities across large areas often makes the preparation and implementation of silvicultural prescriptions more difficult. Nevertheless there are tools available to assist silviculturists in applying treatments at the site level while insuring they are relevant within the landscape (Youtz and others this proceedings). These silvicultural protocols developed for sustaining goshawk habitat represent and are presented as an uneven-aged silvicultural system.

Uneven-aged silviculture and uneven-aged management have been topics of discussion throughout the history of the National Silviculture Workshop. Probably nowhere in the United States has uneven-aged silviculture been practiced longer than in the South. For the past 70-years, selection systems have been used on the “Good and Poor Farm Forestry Forties” on the Crossett Experimental Forest producing high quality saw timber. Information from these studies has quantified forest development and produced multiple silvicultural strategies applicable for growing and sustaining old-growth characteristics of the southern pines. More importantly, these studies provide relevant information useful for treating the dry pine systems in the remainder of the United States (Bragg and others this proceedings).

Multiple canopy layers, heterogeneous horizontal structures, and a high interspersed of vegetation cohorts from young to old, are often desirable forest attributes for meeting wildlife and other contemporary forest management objectives. Most often uneven-aged silvicultural systems are a viable option for producing and maintaining these kinds of conditions (Graham and others 2007, Jain and others this proceedings, Youtz and others this proceedings). However, the conversion from even-aged structures to uneven-aged structures especially in stands developed from plantations can be problematic. It may take several entries and several decades to develop the desired forest conditions and for understory plant communities to differentiate in response to subtle differences in microclimate and light (Anderson this proceedings, Youtz and others this proceedings).

Regeneration and the disposition of high forest cover are often the major determinants for evaluating the success of silvicultural applications. High forest cover is fundamental for determining fire relations, many wildlife needs, product production, and the over-all character of the forest. Nevertheless regeneration is requisite for the success of all silvicultural systems and the abundance, juxtaposition, and species of regeneration are highly dependent on the biophysical conditions of a site and the amount and kind of natural or management disturbance to the forest floor and high forest cover (Jain and others this proceedings). Usually, canopy gaps or canopy openings are required for the regeneration of even the most shade-tolerant species, however, following abundant acorn crops, northern red oak can regenerate and develop even in the dense shade of closed-canopied forests (Dey and Miller this proceedings). Desired species with this attribute give rise to opportunities for managing the species and mixtures containing the species using a wide variety of even-aged and uneven-aged silvicultural systems.

The success of a silvicultural system is often predicated on effective and timely intermediate treatments (e.g., cleanings, weedings, thinnings). Intermediate treatments set the structure, composition, and developmental trajectories of the forest (Nyland 2002, Graham and others 2005). For example, in southeastern Alaska, clearcutting has been the dominant regeneration method and has been very successful giving rise to plentiful young forests. These young forests provide abundant opportunities for establishing studies to determine the impact thinning has on the development

of Alaskan rainforests (Bragg and others this proceedings, McClellan this proceedings) (see field trip below). Although this work was originally initiated to quantify forest growth and yield, these studies and other wide ranging plots throughout southeastern Alaska have been invaluable for understanding ecological and pathological relations and for calibrating forest development models (Poage and McClellan this proceedings). Not only in Alaska (Tongass-wide young-growth studies) but throughout the United States, these kinds of long-term studies have provided data on forest development which can inform a multitude of forest management decisions for a wide variety of objectives (e.g., wildlife habitat, sense-of-place, fuel treatments, timber production) (Bragg and others this proceedings, McClellan this proceedings, Graham and others 2005). With these manipulations of young stands not only are residual structures and compositions produced with value but they



Figure 2. Loading the ferry in Hollis, Alaska for the return trip to Ketchikan and watching whales, eagles, and sea lions on the stern of the ferry.



Figure 3. Young western hemlock and Sitka spruce forest growing on the Maybeso Experimental located on Prince of Wales Island.

also set up the forest for future intermediate treatments which often produce commercial forest products (Lowell and others this proceedings).

Field trip to Prince of Wales Island

Field trips have always been an integral part of the National Silviculture Workshop. They provide opportunities for attendees to see, touch, and learn about forests and silvicultural activities applied in them. Because the Workshop moves around the country, different forest types are visited and many different silvicultural techniques, presentations, and forest management objectives have been encountered. For example, at the 1973 meeting the attendees viewed the Dukes Experimental Forest, American Can Company lands, and areas on the Hiawatha National Forest near Marquette, MI displaying a variety of hardwood management techniques. In addition, while enjoying breakfast on a Convair 580 airplane, the group traveled to the Vinton Furnace Experimental Forest near Columbus, OH and then on to the Kaskaskia Experimental Forest near Marion, IL thereby viewing a variety of uneven-aged treatments on each Forest. This airplane travel set the standard for field



Figure 4. Terry Fifield discussing the role and importance of Totems to Native Alaskans in Craig, Alaska.

trip transportation, nonetheless school buses, tour coaches, and city transit buses are more the norm. More than once during National Silviculture Workshop field trips buses have broken down requiring alternate transportation and delaying the start of the ever important pre-dinner information exchange. For the Ketchikan Workshop a combination of busses and a ferry were used for the overnight field trip to Prince of Wales Island (Figure 2).

Prince of Wales Island offers many examples of silvicultural treatments representing timber production in Alaska. Mike McClellan hosted the first stop on the Maybeso Experimental Forest. The Forest was established in 1956 to investigate the effects of clearcut timber harvesting on forest regeneration and development, and on the physical habitat of anadromous salmon spawning areas. The watershed was treated with the first large-scale industrial clearcutting in southeast Alaska and nearly all of the commercial forest was removed from the watershed, including the riparian zone, from 1953 through 1960. The present forest consists of even-aged, second-growth Sitka spruce and western hemlock trees. The Old Tom Research Natural Area (an

old-growth forested watershed) is located nearby and it provides an old-growth control for studies in the Maybeso. Patti Krosse hosted a tour stop displaying late successional forests similar to those occurring in the natural area. This experimental forest and the surrounding area, provides abundant research opportunities for studying succession and development of Alaskan rainforests (McClellan this proceedings, Poage and McClellan this proceedings, Deal and Russell this proceedings) (Figure 3).

A theme running through the Workshop was restoration and probably no other forest attribute exemplifies this more than stream restoration. Pink, chum, and coho salmon, Dolly Varden, steelhead, and cutthroat trout are present throughout the streams on Prince of Wales. Sheila Jacobson and KK Prussian showed the attendees the efforts being made by the Tongass National Forest throughout southeastern Alaska to restore streams modified by past timber harvesting and road construction.



Figure 5. Kirk Dolstrum hosted the Viking Mill stop on the Prince of Wales Island.

Table 2. National Silviculture Workshop award recipients. At the National Silviculture Workshop beginning in 1989 in Petersburg Alaska individuals from National Forest Systems, State and Private Forestry, and Research and Development Deputy areas of the Forest Service have been recognized for their contributions to the practice of silviculture and forest management.

National Forest Systems and State and Private Forestry			Research and Development		
Individual	Title ¹	Current status	Individual	Title ²	Current status
1989 Petersburg, Alaska					
C.R. Blompquist	R-9 Reg. Silviculturist	Retired	Wyman Schmidt	INT Res. Silviculturist	Retired
John Standwerwick	R-10 Silviculture Group Leader	Retired	David Marquis	NE Res. Silviculturist	Retired
Jerry Hamilton	R-4 Reg. Silviculturist	Retired	Nelson Loftus	WO Forest Management Research	Retired
1991 Cedar City, Utah					
David Thomas	R-5 Eldorado Silviculturist	Deceased	Dean Debell	PNW Res. Silviculturist	Retired
John "Bob" Naumann	R-1 Reg. Silviculturist	Retired	Russell Graham	INT Res. Silviculturist	RMRS
1993 Hendersonville, North Carolina					
Richard Fitzgerald	WO, Asst. Director (Forest Products) Forest Management	WO	Phil Aune	PSW Program Manager	Retired
Richard Miller	WO Geneticist	Retired	David Loftis	SE Res. Silviculturist	SRS
Walter Knapp	R-6 Reg. Silviculturist	Retired			
1995 Mescalero, New Mexico					
Dick Bassett	R-3 Reg. Silviculturist	Retired	Wayne Shepperd	RMRS Res. Silviculturist	Retired
John Fiske	R-5 Reg. Silviculturist	Retired	Bill Oliver	PSW Res. Silviculturist	Retired
Bobby Kitchens	R-8, Reg. Silviculturist	Retired			
Ralph Johnson	WO FVS Group Leader FMC, Ft. Collins	Retired			
Milo Larson	R-3 Timber Management Director	Retired			
Dennis Murphy	WO Silviculturist	Retired			
1997 Warren, Pennsylvania					
Jack Amundson	R-4 Reg. Silviculturist	Retired	Clint Carlson	RMRS Res. Silviculturist	Retired
Barry Bollenbacher	R-1 Reg. Silviculturist	R-1	Carl Edminster	RMRS Res. Silviculturist	Retired
Frank Burch	WO National Silviculturist	WO	Bob Powers	PSW Program Manager, Res. Soil Scientist, Res. Silviculturist	PSW
Ken Denton	R-6 Reg. Silviculturist	Retired	Susan Stout	NE Res. Silviculturist	NRS
Susan Gray	R-2 Reg. Silviculturist	R-2			
Mike Landram	R-5 Reg. Silviculturist	R-5			
Doug MacCleery	WO Asst. Director (Policy) Forest Management	WO			
Richard Teck	WO NRIS Project Manager, FMC, Ft. Collins	WO			

¹FMC = Washington Office Forest Management Service Center, Fort Collins, CO, Reg. = regional position, WO = Washington office.

²Intermountain (INT) and Rocky Mountain (RM) Research Stations combined to form the Rocky Mountain Research Station (RMRS) (1997), the North Central (NC) and Northeastern (NE) Research Stations combined to form the Northern Research Station (NRS) (2007), and the Southeastern (SE) and Southern (SO) Research Stations combined to form the Southern Research Station (SRS) (1995), Res. = research position, WO = Washington Office.

Table 2 cont. National Silviculture Workshop award recipients. At the National Silviculture Workshop beginning in 1989 in Petersburg Alaska individuals from National Forest Systems, State and Private Forestry, and Research and Development Deputy Areas of the Forest Service have been recognized for their contributions to the practice of silviculture and forest management.

National Forest Systems and State and Private Forestry			Research and Development		
Individual	Title ¹	Current status	Individual	Title ²	Current status
1999 Kalispell, Montana					
Peter Laird	R-1 Reforestation/Nursery Specialist	Retired	Dick Tinus	SRS Plant Physiologist	Deceased
Gary Dixon	WO, FVS Group Leader, FMC, Ft. Collins	WO	Phil McDonald	PSW Res. Silviculturist	Retired
			Gary Fiddler	PSW Forester	Retired
			Jim Chew	RMRS Forester	RMRS
2001 Hood River, Oregon					
Fred Zensen	R-6 Reforestation/Nursery Specialist	R-6	Ray Shearer	RMRS Res. Silviculturist	Retired
			Jim Jenkinson	PSW Res. Plant Physiologist	Retired
			Bob Curtis	PNW Res. Silviculturist	Retired
			Nicholas Crookston	RMRS Forester	RMRS
2003 Grandby, Colorado					
Brian Ferguson	R-4 Reg. Silviculturist	Retired	Jim Guldin	SRS Res. Silviculturist	SRS
Mary Frances Maholovich	R-1 Reg. Geneticist	R-1	Kurt Gottschalk	NE Res. Silviculturist	NRS
Monty Maldonado	WO Reforestation/ Nursery /Genetics Programs	WO	Paul Johnson	NC Res. Silviculturist	Retired
Tom Tibbs	R-8 Reg. Geneticist	Retired			
2005 Lake Tahoe, California					
William "Bill" Jones	R-9 Reg. Silviculturist	Retired	Jim Barnett	SRS Res. Silviculturist	Retired
Glenda L. Scott	R-1 Reforestation/Nursery Specialist	R-1			
Tom Landis	National Nursery Specialist, State and Private Forestry	Retired			
Jim Russell	R-10, Tongass Silviculturist	R-10			
2007 Ketchikan, Alaska					
Marlin Johnson	R-3 Forestry Asst. Director	R-3	Terrie Jain	RMRS Res. Silviculturist	RMRS
Kathy Sleavin	WO FSVeg Project Coordinator, FMC Ft. Collins	WO	Steve Shifley	NRS Res. Silviculturist	NRS
Dave Evans	R-5 Lassen Silviculturist	R-5			
Bill McArthur	R-6 Reg. Silviculturist	R-6			

¹FMC = Washington Office Forest Management Service Center, Fort Collins, CO, Reg. = regional position, WO = Washington office.

²Intermountain (INT) and Rocky Mountain (RM) Stations combined to form the Rocky Mountain Research Station (RMRS) (1997), the North Central (NC) and Northeastern (NE) Research Stations combined to form the Northern Research Station (NRS) (2007), and the Southeastern (SE) and Southern (SO) Research Stations combined to form the Southern Research Station (SRS) (1995), Res. = research position, WO = Washington Office.

Traveling throughout southeastern Alaska, and in particular on this field trip, the current and historic reverence Native Americans have for forests and their intimacy with all natural resources was very evident. Totems, their display and carving are special to Alaskan Native Americans and the Workshop attendees were shown by Jon Rowan and Terry Fifield how totems are carved and displayed (Figure 4). As stated earlier the extent and impact forest industries have in southern Alaska has changed dramatically with the closing of the pulp mills. However a limited number of saw mills do harvest forests and produce wood products (Figure 5). The Forest Service is trying to support these kinds of small and essential forest industries with the development of the 2007 Plan for the Tongass.

The town of Craig is on the opposite side (western) of Prince of Wales Island from the Inter-Island Ferry dock at Hollis therefore, the field trip members traversed the width of the Island with the evening dinner and accommodations being in Craig. A local blue grass band provided music during dinner at the Craig Community Center and the lodging in Craig was creatively arranged by the Workshop planners. No bus break downs or delays getting to dinner were encountered, allowing all to have a good time at the pre-dinner information exchange and the post dinner wrap-up late into the evening. These informal information exchanges are a key element of the Silviculture Workshops and provide quality time for all of the participants to interact, make new friends, and rekindle old associations. The three plus hour ferry and bus ride to and from Craig provided high-quality time to reflect on the field trip, the role of silviculture in forest management, and the information presented at the Workshop. In addition, Jim Baichtal described the karst geology and caves of the Tongass, Terry Fifield discussed the history of the Thorne Bay Logging Camp, and Gary Lawton described the recreational opportunities on Prince of Wales. These excellent presentations on the ferry competed with the whale, eagle, and sea lion watching occurring on the stern of the ferry (Figure 2).

Workshop Banquet

The food caterers at the Ted Ferry Civic Center did an excellent job the entire Workshop and the Halibut Oscar served at the banquet was superb. Continuing the trend of understanding the native peoples of southeastern Alaska, Terry Fifield did an excellent job of showing how the Civilian Conservation Corp restored totems in Southeast Alaska beginning in 1938 and continuing until 1954. The

Ketchikan Indian Community Intertribal Dancers sang, drummed, and danced to an appreciative audience and enticed several to join the dancers on stage.

NATIONAL SILVICULTURE AWARDS

The practice of silviculture has several aspects but most importantly its aim is to sustain forests through their establishment and tending to fulfill the management objectives of the forest landowner, and in the case of the Forest Service, for the citizens of the United States (Figure 1). Forest management is a long-term endeavor as articulated by the likes of Evelyn in the 1600s, Schlich in the 1800s, and Nyland in 2002. Because of this long-term nature of forestry it takes individuals committed to the practice of silviculture and to the forests for which they are caring. At each Workshop since 1989 in Petersburg, led by the Silviculture Group in the Washington Office, individuals showing outstanding contributions to the practice of silviculture have been acknowledged (Table 2). Six such individuals were recognized at the Workshop in Ketchikan on May 10, 2007 including Terrie Jain, Research Forester, Rocky Mountain Research Station, Moscow, ID, Steve Shifley, Research Forester, Northern Research Station, Columbia, MO, Marlin Johnson, Region 3, Assistant Director for Forestry and Forest Health, Albuquerque, NM, Kathy Sleavin, Washington Office, FS Veg Project Coordinator, Ft. Collins, CO, Dave Evans, Forest Silviculturist, Region 5, Lassen National Forest, Susanville, CA, and Bill McArthur, Region 6, Regional Silviculturist, Portland, OR. These individuals exemplify the outstanding people the Forest Service has committed to providing the greatest good, for the greatest number, for the longest time.

CONCLUSION

People, experience, knowledge, and research are essential for an organization to succeed and for the Forest Service these requisites have proved to be invaluable. The biannual National Silviculture Workshop provides a forum where individuals can share information, learn, develop relations, and further their professional and personal growth. The Ketchikan meeting was a challenge for the organizers but Region 10, Pacific Northwest Research Station, and the Tongass Forest did a superb job of hosting the Workshop. The ferry and the over-night stay in Craig were integral parts of the field trip, once again raising the bar for future

field trip successes. As with all National Workshops many new faces were evident and others were conspicuous in their absence. Nevertheless, the overlap of individuals attending past meetings, led by Dick "Fitz" Fitzgerald who was on that Convair 580 for the field trip in 1973, with new attendees this year provides continuity, learning, and institutional memory. This strong tradition will continue in 2009 when Region 4 and the Rocky Mountain Research Station host the National Silviculture Workshop.

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