

THE STEPHEN F. AUSTIN EXPERIMENTAL FOREST

by Carey C. Russell, Ronald E. Thill, and David L. Kulhavy

On December 14, 1944, the Seventy-Eighth United States Congress passed a bill that authorized the transfer of 2,560 acres in Nacogdoches County, Texas, to the research branch of the United States Forest Service (USFS). This land became the Stephen F. Austin Experimental Forest (SFAEF) on September 19, 1945.¹ One of eighty-one federal experimental forests and ranges nationally, it is the only one of its kind in Texas. Located seven miles west of Nacogdoches, three quarters of the Forest consists of bottomland hardwood forests along the Angelina River and the remainder of mixed pine and hardwood uplands.

The Forest is becoming increasingly recognized as a regional recreational destination and educational laboratory, but in past decades it was principally a site for forest research. Topics of primary study have evolved with shifts in need, legislation, and public interest in forestlands. Research during the forest's first fifteen years emphasized silvicultural studies for the improvement of southern pine species through the control of hardwood species. Beginning in 1961, scientists overseeing the forest at the Forest Service's Wildlife Habitat and Silviculture Lab (WHS�) in Nacogdoches reoriented research toward the study of wildlife habitat and nutrition, with an emphasis on white-tailed deer. In subsequent years research expanded to nongame wildlife, including threatened, sensitive, and endangered species. The history of the Stephen F. Austin Experimental Forest reveals how closely East Texans have always been to the natural resources, especially the forests, of the region.

Due to the physical barriers posed by the dense forests of East Texas, railways arrived later and commerce developed more slowly than in other areas of the state. Even after the Civil War and Reconstruction, settlement was scattered and isolated. During most of this period the region's economy stagnated and provided only limited opportunities to its citizens. Not until the 1880s, when entrepreneur Paul Bremond, a New York native and Galveston transplant, established the Houston, East and West Texas Railroad (HE&WT) was the region able to take advantage of its abundant natural resources, especially timber, and generate capital for further enterprises. Started in Houston in 1875, the HE&WT bisected the forest lands of East Texas through Corrigan, Livingston, Lufkin, Nacogdoches, and ultimately to Logansport and Shreveport, Louisiana. The rail line was completed in 1886, and soon thereafter the forests of East Texas assumed a more prominent place in the economy of the region.²

Forests attracted considerable attention throughout the country at this time, but most of it focused on the timberlands in the West. Even as the East

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Texas lumber industry boomed, concerns about dwindling forest resources dominated national policy debates. The 1890s were watershed years for the development of forest conservation in America. Two laws passed during this decade, the Forest Reserve Act of 1891 and the Forest Management Act of 1897, laid the foundations for the National Forest System. Since the passage of the Forest Reserve Act the federal government and the USFS have played integral roles in managing and conserving timberlands. The original western national forests were set aside to ameliorate a predicted timber famine and protect watersheds after 1900. They were carved out of public domain and cost the federal government nothing save lost sales revenue. But the Forest Reserve Act only allowed presidents to designate land within the federal domain as forest reserves. Over fifteen years presidents Benjamin Harrison (1889-1893), Grover Cleveland (1893-1897), William McKinley (1897-1901), and Theodore Roosevelt (1901-1909) set aside more than ninety-four million acres as forest reserves, renamed national forests in 1907.³

In 1905 Congress created the Forest Service within the U.S. Department of Agriculture to administer these lands. Gifford Pinchot, a professionally-trained forester, was appointed as the first Forest Service Chief that same year. Pinchot had been largely responsible for the Forest Reserve Act in 1891 and remained one of the nation's foremost proponents of scientific management of natural resources. Pinchot installed a system of scientific research stations in the western forests. Initially, national forests were a distinctly western phenomenon. The original thirteen colonies – and, notably, Texas – retained their public lands upon joining the United States, and most other states east of the Mississippi had long since seen their public domain sold off under various land dispersal acts during the eighteenth and nineteenth centuries. The lack of federal landholdings in these states made it impossible for the federal government to establish national forests under the Forest Reserve Act, which limited such reserves to the federal domain. So national forests outside the West were assembled primarily from private tracts of cut-over forests or abandoned farmsteads. Most were brought into the system through federal relief funds during and after the years of the Great Depression for forest rehabilitation and rural economic relief. The Stephen F. Austin Experimental Forest was created in just such a fashion.

In 1910, Guy Arthur Blount and his wife, Lois Foster Blount, purchased and consolidated several small tracts of private land west of Nacogdoches. Originally surveyed and claimed by B.M. Hall, J.L. Pettyjohn, B.F. Whitaker, L. Tubbe, and J.I. Acosta, these parcels of mixed pines and hardwoods – both along the Angelina River as well as the upland tracts – were close enough to the HE&WT tracks to make it likely that the mature forests had been cleared during the early years of the timber boom. By the time the Blounts acquired the acreage the upland portion had been planted in cotton, and the consolidated holdings became known as the Blount Farm.

Guy Blount appears to have been a civic-minded individual as concerned about the economic well-being of East Texas as with his own. Over the years he served as a director of Commercial National Bank, director of the Nacog-

doches Grocery Company, president of the Nacogdoches Chamber of Commerce, and founded the Sabine-Neches Conservation District. Discussions pertaining to watershed protection and timber and soil conservation early in the 1900s could not have escaped such a public-minded citizen and business leader. Blount certainly would not have ignored the growing concern about, and need for, resource conservation. In fact, from early manhood, Blount expressed an interest in protecting the soil and timber resources regionally and throughout the state. On his own land in Nacogdoches County he practiced the best conservation methods known at the time and "never tired of showing his fellow citizens and neighbors how his conservation practices had paid dividends."⁴ Exactly what his practices were, and to what degree he utilized them, remains unknown; nonetheless, he appears to have been a thoughtful land steward, legitimately concerned with soil conservation for a man of his time.

In 1934, with the cotton market collapsed and economic depression entrenched throughout the nation, Blount sold his land for \$60,000 to the State of Texas to provide small farm units for relief applicants.⁵ Typically, the state purchased such lands to reduce the oversupply of cotton and to rehabilitate soil exhausted by one-crop farming. Remaining under state ownership for only five years, the land was transferred to the federal government in 1939. As the Nacogdoches Farm Project of the Farm Security Administration under the U.S. Department of Agriculture's War Food Administration, it became the site of a National Youth Administration (NYA) camp dedicated primarily to teaching young men dairy farming. Often confused with the Civilian Conservation Corps of the same period, the NYA (established June 26, 1935), was a New Deal agency founded to improve the vocational skills of younger boys and girls not reached by the CCC. NYA camps offered enrollees a six-month residency and experiential education in improved agricultural techniques.⁶ The only remaining evidence of the NYA camp is the cement foundation of a dairy barn which sits under the Butler Building near the forest Headhouse.

With the onset of war in 1941, the federal government liquidated many of its New Deal-era assets. Among these were the NYA facilities on the tract west of Nacogdoches by now commonly referred to as "the old Blount farm." Shortly thereafter the land itself was offered for sale, but failed to attract a buyer. In 1944, the land was transferred by act of Congress to Forest Service management as the Stephen F. Austin Experimental Forest, part of the Angelina National Forest.

The catalyst for this transfer was the small teachers' college located in Nacogdoches. From its inception, Texas' only current federal experimental forest was closely linked to Stephen F. Austin State Teachers College (renamed Stephen F. Austin State University in 1969, and for simplicity referred to here as SFA). Founded in 1923, SFA was established by the Texas legislature to improve economic and educational conditions in Deep East Texas. Texas Senators W. Edgar Thomason, Nat Patton, and Eugene H. Blount were instrumental in making Nacogdoches the site of the college, overcoming challenges from regional competitors such as Tyler, Longview, and Lufkin.⁷ Over the following two decades, the college became an important teacher training school.⁸

Dr. Paul L. Boynton, a professor of psychology at the George Peabody College in Nashville, Tennessee, became the second president of Stephen F. Austin State Teachers College in 1942. Boynton soon realized that in East Texas economic growth was closely linked to the development of forest-related industries. Boynton believed that the college, if able to acquire adequate facilities and an experienced faculty, could become the leading forest conservation and agricultural training center in Texas. The determination of Boynton and local lumberman Lacy Hunt, both of whom lobbied the U.S. Congress to establish the experimental forest in 1944, made it possible for SFA to expand its role in East Texas and become the site of Texas' first school of forestry.⁹

Almost immediately, Boynton and Hunt discovered a potential obstacle. Texas A&M University officials believed that their institution was better suited to launch a forestry program. Texas A&M was already a university of considerable size with strong academic credentials and an established record of agricultural research and instruction.¹⁰ Boynton and Hunt, however, claimed that SFA had immediate access to an essential resource that Texas A&M did not – nearby forests. The Angelina, Sabine, and Davy Crockett National Forests were all convenient to Nacogdoches, but they were all far enough from SFA to render them inaccessible for instruction within a single class period. Knowing that the state legislature would approve funding for only one department of forestry, Boynton realized that obtaining access to a forest near the college would greatly increase SFA's chances.

SFA had purchased numerous supplies and structures from the old Blount farm property when the NYA had abandoned it in 1941, including two buildings that were transported to campus and used for student housing.¹¹ This transaction certainly made Boynton aware of the property's status when it was offered for sale early in 1943, and he knew that it would be an ideal location for the forest he needed to buttress his claim to a forestry program. But with no end of the war in sight, Boynton also knew that the college would not receive a state appropriation to purchase the Blount farm for itself. The war years were especially hard on education; total enrollment at SFA fell to 348 students in 1943. Nonetheless, finding means to secure access to dedicated forestland was exactly what was needed to triumph over Texas A&M's bid for a department of forestry.

Fortuitously, the U.S. Forest Service had increased its presence in the region since the establishment of the Texas National Forests in 1936. Since the arrival of New Deal relief programs in the 1930s, many Texans had become accustomed to partnering with federal agencies to overcome economic challenges. Boynton did just that, using the Forest Service to secure a forest for his envisioned program. Along with Lacy Hunt, he traveled to Washington, D.C., in 1943 to lobby Congress to transfer the old Blount farm from the Farm Security Administration to the Forest Service. The two men were aided in their efforts by State Representative Jewell Helpinstill, State Senator Ben Ramsey, U.S. Representative Lindley Beckworth, and U.S. Senator Thomas T. Connally, well placed as a member of the Senate Committee on Agriculture,

Nutrition and Forestry.¹² After much persuasion, Congress passed House Resolution 5551 transferring the land in 1944. The bill specifically directed the Forest Service to cooperate with SFA in forestry experimentation, which its sponsors found to be in the general interest of rural rehabilitation.¹³

Typically, experimental forests and other research areas were established by an internal Forest Service Chief proclamation and removed by the same process, according to agency demands and budget limitations. The SFAEF was the only one created by congressional mandate, and was thus immune from internal agency issues. The experimental forest was the product of intense effort by Boynton, Hunt, and their supporters, but lacked support or input from Forest Service personnel who would ultimately be held responsible for its management. This end-run around traditional practices may have generated some resentment, as official Forest Service records lists the SFAEF as existing only since 1961, which was the date that the USFS Wildlife Habitat and Silviculture Lab was established.¹⁴ The recorded 1961 date may be a defiant gesture on the part of Forest Service loyalists, among whom the SFAEF has never found favor. In the early 1980s Forest Service officials went so far as to try and dissolve the SFAEF before being reminded that such a thing was not possible without congressional consent.¹⁵

The creation of the SFAEF swayed the Texas legislature. On the evening of July 14, 1944, at a meeting of the Texas Forestry Association in Marshall, Boynton and Hunt announced that Nacogdoches and SFA would like to host the following year's meeting, thereby making public their intentions to establish a department of forestry. The State Board of Control had already endorsed Boynton's request, assuring legislative approval: the announcement was simply an attempt to secure the support and cooperation of local forest industries operators. With a rebounding postwar enrollment of 1,000 students and access to a new experimental forest laboratory, SFA held the first classes in its newly created Department of Forestry in the spring semester of 1946.¹⁶

Forest Service research actually began in East Texas prior to the SFAEF, and has been conducted on other forest tracts in the region. In 1939, 2,200 acres of the Sam Houston National Forest, near Huntsville, Texas, were set aside as the San Jacinto Experimental Forest. The East Texas Branch, established in 1945 and located in Nacogdoches, was the first USFS research office in Texas, and some of its earliest studies were conducted on the San Jacinto Forest. In 1961, Forest Service Chief E.P. Cliff designated the E.L. Kurth Experimental Forest, a 1,200-acre forest tract located five miles south of Nacogdoches. Known as the "Kurth Tract," the Forest Service had leased it since 1947 from the Angelina Lumber Company.¹⁷

In the early years, experimental forests such as these were dominated by silvicultural research in successful establishment, growth, yield, measurement, regeneration, and improvement of regional commercial timber species. This was especially true of those located in eastern states – over half of the experimental forests nationwide. The heavily fragmented national forests in the eastern United States number fifty and consist of 24.5 million acres, or

thirteen percent of the total 191 million acres in the National Forest System. The seemingly disproportionate distribution of experimental forests in the East was justified by the research necessary to reforest and rehabilitate eastern national forests purchased out of cut-over forest or abandoned farm land. In stark contrast to popular images of forests, many of the first eastern national forests established in the 1930s were conspicuously lacking trees.¹⁸

For its first fifteen years, the SFAEF followed the usual pattern. Research was dedicated to silviculture and intended to accomplish four principle objectives: understand the best methods for controlling hardwood species to favor pine; determine quality and quantity of runoff within a forested watershed; examine the drought resistance of pine seedlings; and prescribe insect control, especially the southern pine beetle (*Dendroctonus frontalis*).¹⁹ In essence, the original mandate for the SFAEF was to promote research that improved methods of growing loblolly and shortleaf pine (*Pinus taeda*, *P. echinata*).

In 1949 the East Texas Branch set aside forty acres as a demonstration forest where local landowners could be taught how to manage profitably small parcels of land for timber production. Forestry professionals had expressed concern that the greatest risk of forest and soil depletion existed on private forestlands, which still constituted the greatest acreage of timberland, although in smaller, more fragmented parcels than national forests. Therefore, instruction of private landowners was an essential part of the USFS conservation program. This particular project was titled the Farm Forest 40, and was not exclusive to the SFAEF. Farm Forest 40 tracts sprang up on many experimental forests during this time. The size of the units was significant, as it represented the average size of privately held forests whose owners would directly benefit from the program. The forty acres contained numerous small plots with different silvicultural systems, including small clear-cuts; however, the principle treatment consisted of smaller group-selection cuts.

Late in the 1950s regional supervisors at the USFS Southern Forest Experiment Station headquarters decided that the Farm Forest 40 program was not being utilized sufficiently by local landowners. The instructional tracts were not justifying their costs and, ultimately, not promoting the research objectives of forests, and so were terminated.²⁰ At the same time clear cutting became more popular, and site preparation methods to improve pine regeneration, as well as programs funding research in other silvicultural systems, were dropped by the USFS. Selection studies conducted on the San Jacinto Experimental Forest since 1938 and the Kurth Tract were abandoned and these two experimental forests were decommissioned. On the SFAEF, however, another federal agency, the Soil Conservation Service (SCS), now the Natural Resource Conservation Service (NRCS), was still interested and committed to conservation education for private landowners and asked that the Farm Forest 40 demonstration forest remain intact. Dr. Laurence C. Walker, the newly appointed dean of SFA's Department of Forestry, agreed, and his department assumed management responsibilities for the small tract for a few more years.

Several years earlier Forest Service employee and acclaimed author of A

Sand County Almanac, Aldo Leopold, had taken a special interest in the wildlife communities of the southwest. Leopold was convinced that foresters should not manage forests exclusively for their timber resources but also to benefit the wildlife that inhabited the timberlands.²¹ Leopold's observations of the quantity of browse species in relation to deer and wolf populations, outlined in his landmark text *Game Management* (1933), caught the attention of USFS officials. Widespread support for such management philosophies eventually elevated game management to prominence in American forestry. The USFS Southern Forest Experiment Station underwent a general reorganization to reflect these shifting concerns, with local work units assigned to specific research topics. Notable among these changes was the Nacogdoches center's transformation from a silvicultural research unit to one devoted to studies of forest wildlife habitat.

During the 1960s research projects focused on understanding the relationship between southern silviculture practices on loblolly pine stands and white-tailed deer habitat. The work unit assigned to the forest was officially renamed the Wildlife Habitat and Silviculture Laboratory (WHSL) and Lowell K. Halls served as Project Leader. In May 1964, two deer pens were built on the SFAEF as part of a cooperative study between the USFS and Texas Parks and Wildlife (TPW), with TPW providing the materials and construction expertise. The twelve-foot-tall perimeter fences were built by inmates from the state penitentiary in Huntsville. Through an arrangement with the Penal Co-op Program, TPW paid travel costs and incidentals for the men on the job site; over the years this cooperative program was responsible for other land improvements on the SFAEF, particularly fencing, until halting abruptly in the 1960s.²²

TPW employees Charlie Boyd and Dan Lay were actively involved in the project's design and implementation. The objective was to measure the response of understory vegetation and white-tailed deer nutrition to overstory silvicultural treatments. The northern pen enclosed mostly loblolly and shortleaf pines; hardwood species were controlled by girdling, but were not physically removed. Conversely, the southern pen surrounded stands containing seventy-five percent pine species and twenty-five percent hardwoods (*Quercus*, *Carya*, *Ulmus*, and *Acer*).²³

Since deer in East Texas remained scarce, white-tailed deer from western Louisiana were tranquilized, trapped, and released into the pens in the fall of 1964. Each pen was stocked with approximately ten does and five bucks. By the project's end, participating scientists generally accepted that, while the content of the deer browse may have differed between the two pens, available nutrients and subsequent deer populations were not significantly affected.

Legislatively, the decades of the 1960s and 1970s were a period of prolific lawmaking inspired by a burgeoning environmental movement. The Multiple Use Sustained Yield Act (1960), the Wilderness Act (1964), the Clean Air Acts (1965 and 1970), the National Environmental Policy Act (1969), the Endangered Species Act (1973), the Forest Management Act (1976), and the Clean Water Act (1977), all had far-reaching implications for the management

of national forests. From its establishment in 1945 until the mid-1970s, the SFAEF served as the primary research site for most of the early foresters of the East Texas Branch. Likewise, much of the early "game" research conducted by Lowell Halls and others took place on the experimental forest. By the mid-1980s, the Nacogdoches Lab's research was focused increasingly on threatened, endangered, and sensitive species, few of which inhabited the SFAEF. Consequently, with the exception of several important wildlife studies conducted by Dan Saenz, Craig Rudolph, and Dick Conner, most WHSL research gradually shifted to private timber company lands and other national forest units in Texas, Arkansas, and Louisiana. In addition, the Unit's research on the impacts of alternative silvicultural systems on wildlife required well-structured, uneven-aged stands, none of which existed on the SFAEF because of past management practices. The SFAEF did, however, remain an important research site for many graduate students and faculty members from the Biology Department and the College of Forestry at SFA. And in keeping with Dr. Boynton's original intentions, the SFAEF also remained a favorite field-trip site for SFA classes.

Unit scientists sought to minimize harvesting on the SFAEF during the 1970s and 1980s to have an older, relatively unmanaged reference area – a rare resource in East Texas – to compare with the millions of acres of more intensively managed public and private lands nearby. However, as southern pine beetles destroyed vast areas of East Texas in the 1980s, Project Leader Ron Thill was directed by Assistant Station Director Stanley J. Barras to develop a plan to thin the upland pine and pine-hardwood stands on the SFAEF to reduce their risk of beetle infestations, several of which had occurred by 1986. Thill assigned L. Christopher Miller, a WHSL biologist and recent forestry graduate from SFA, the task of developing this plan. Miller's plan (1990), delineated seventeen "management units" and called for thinning seven of them; nine other units were to be harvested using even or uneven-aged silvicultural methods.³⁹ This harvesting was completed in 1992. Management Unit 1, consisting of approximately 1,481 acres of mature, bottomland hardwood forest, was not included in this timber sale. A second round of harvesting scheduled for 1997 was postponed because of a federal court-ordered injunction that curtailed many activities on the National Forests and Grasslands in Texas until late in 2001. The harvesting plan developed in 1997 is currently being reviewed and may be implemented in 2003 or 2004.

Since 1987 the SFAEF also has been home to the Natural Resource Conservation Service's East Texas Plant Materials Center. The center was established to develop improved plant materials for livestock forage and wildlife habitat enhancement, as well as a host of other conservation purposes. Under a cooperative arrangement with the WHSL, the center can utilize up to seventy acres of the SFAEF to plant and test various plant materials. One of only three such facilities in Texas, the Plant Materials Center is unique in that its charter called for a board of directors, including one representative each from the College of Forestry and the Agriculture Department at SFA, the WHSL, and the Deep East Texas and Northeast Texas Associations of Soil and

Water Conservation Districts, that has considerable oversight authority. Following Director James A. Stevens' move to Arkansas in 1987, F. Melvin Adams took over and oversaw the construction of Plant Materials Center facilities at the SFAEF, including a seed processing building in 1991, a new office building in 1994, and several additional buildings for storage of farm implements. Following Adams' retirement in 1999, Stevens once again became director of the center.

Also beginning in 1987 and lasting for approximately five years, a ten-acre site within the SFAEF served as an intensive research site for the Forest Response Program of the National Acid Precipitation Assessment Program, a multidisciplinary effort involving six federal agencies (including the USFS) and numerous colleges and universities.²⁵ Richard Flagler, Texas Agricultural Experiment Station, Department of Forest Sciences, Texas A&M University, supervised research at this facility, which was known as the East Texas Intensive Research Site. Flagler oversaw the construction of a well, several buildings, a greenhouse, and approximately twenty-five large, open-top growth chambers to study the effects of ozone and acid rain on the development of one-to-four-year-old shortleaf pine seedlings. The U.S. Environmental Protection Agency, the USFS, and the National Council of the Paper Industry for Air and Stream Improvement funded this study.

As WHSL research moved off the SFAEF, opportunities for education expanded. In 1992, with the development of sixteen silvicultural demonstration areas and an expanding Forest Service emphasis on conservation education, WHSL Project Leader Ron Thill developed a plan to establish an interpretive trail system at the SFAEF. By 1994 Thill had secured nearly \$26,000 in federal funding, and through a cooperative agreement with Dr. Paul H. Risk, director of the Center for Resource Communication and Interpretation in the Arthur Temple College of Forestry at SFA, the College of Forestry contributed \$16,000. Risk assigned trail design and construction responsibilities to M. Steve Kirkindall, a doctoral candidate. Kirkindall's original design, consisting of a natural-surface trail approximately three-and-one-half miles in length, was revised to make the trail the first USFS project in Texas that complied with the Americans with Disabilities Act of 1990. Forest Supervisor Alan G. Newman approved the revised design narrative on July 12, 1994, and trail construction began that fall.²⁶

The primary feature of the trail system was the soil-cement-surfaced, universally accessible, 0.9-mile Jack Creek Loop. A second trail, the 1.5-mile-long Management Loop, was a natural-surface companion trail where demonstrations of a broad array of forestry and wildlife management practices could be conducted. The Management Loop was completed first and was opened unofficially for public use during the fiftieth anniversary of the SFAEF on October 19, 1995.

The SFA Interpretive Trail System, as it is now called, has been a partnership involving several diverse entities. Funding, resources, and personnel were obtained from the USFS Southern Research Station, Region 8 of the National

Forest System, the National Forest and Grasslands in Texas, the SFA College of Forestry through Dean R. Scott Beasley, the Center for Resource Communication and Interpretation, the WHSL, and the Texas Forest Service. Melvin Adams and Jim Stevens of the East Texas Plant Materials Center provided equipment during initial trail construction as well as subsequent trail improvement projects. Several Boy Scouts worked on Eagle Scout projects on the trail. On one occasion, Kirkindall utilized the Nacogdoches County jail inmate work crew and AmeriCorp students from Austin to clear the trail. During construction, Kirkindall employed fifteen SFA students to construct trails, benches, and bridges. A plaque commemorating the dedicated efforts of Kirkindall and these students – the “Trail Dawgs” – was presented to Dean R. Scott Beasley at the dedication ceremony on October 18, 1997, and now hangs in the Arthur Temple College of Forestry award display case.²⁷ Kirkindall’s involvement in designing and constructing these trails also led to his dissertation project on planning, design, and construction principles for universally accessible recreational trails.²⁸

The Jack Creek Loop was completed in September 1997 and the entire system was opened for public use officially on October 18, 1997.²⁹ Both trails remain works in progress. Kirkindall and Thill obtained a \$40,000 cost-share, trail-improvement grant from the Texas Parks and Wildlife Department on October 18, 1999, which allowed them to finish the parking lot, develop a picnic area, and install drinking fountains, signs, and an information kiosk. They also built additional picnic tables and benches, constructed a fifty-foot bridge, and added a half-mile of trail to the Management Loop. Raymond E. Brown, a temporary wildlife biologist with the WHSL, wrote the Environmental and Biological Assessments for these improvements and worked with the Angelina National Forest to secure necessary project approvals.³⁰ WHSL employees J. Howard Williamson, Rodney A. Buford, Ron Thill, and several SFA forestry students assisted Kirkindall with trail improvements during 2001 and 2002 under the TPW grant, as well as with periodic maintenance tasks.

With the prospect of increased public use of the SFAEF and its interpretive trail system, administrators became concerned about potential vandalism and theft. To guard against potential problems, Thill secured \$3,000 in 1998 to develop accommodations for a resident trail host for the Forest at the site of a former experimental forest residence first occupied by forest technician Bill Duke and later by Frank Manchaca. In exchange for use of this site and free utilities, the trail host provided security and assisted with various trail-related tasks. Howard Williamson, Rodney Buford, and Ray Brown cleared the site with the assistance of the jail inmate work crew.

In April 2000 Thill and Kirkindall obtained \$20,000 from a USFS conservation education initiative (“Million for Millennium”) to promote the trail and develop conservation education activities using the SFA Interpretive Trail System. These funds are used to employ several forest recreation majors, including Crystal Tischler and Katherine Crippens, from SFA’s Arthur Temple College of Forestry, as conservation education interns. USFS construction funds were obtained in 2002 to build accessible toilets for the trail. Demonstra-

tions along the Management Loop will soon feature forest and wildlife management practices including even- and uneven-aged regeneration systems, forest cultural practices (thinning, prescribed burning at different frequencies and seasons, fertilization, and competition control), integrated pest management practices, restoration of a longleaf pine-bluestem community, wildlife food plantings, and practices designed to benefit cavity nesting species.

The SFAEF has hosted many conservation education activities, including state Woodland Clinics, regional and state Wildlife Clinics, and special events for people with disabilities. The fifth annual Forest Awareness Day Event, a cooperative outing sponsored by the Texas Forest Service, the Extension Service, and the WHSL that targets fifth-grade students throughout Nacogdoches County, drew more than 525 students over four days in April 2001. Planning is underway for an International Migratory Bird Day sponsored by the WHSL, the Pineywoods Audubon Society, and TPW on April 27, 2002; this event will include bird conservation exhibits and demonstrations, as well as guided tours of the Forest and the adjacent Alazan Bayou Wildlife Management Area, which is managed by TPW. During its short existence, the trail system already has won several awards, including the Southern Research Station/Region 8 Conservation Education Award in 1998 and the Texas Trails Network Excellence in Innovative Design Award in 1999.³¹

As public attitudes about forests and scientific understanding of forest ecosystems have changed in America, so have the research priorities at the SFAEF. From pine improvement to wildlife habitat to non-game habitat to conservation education, even a cursory examination of the research conducted at the SFAEF over the past fifty-seven years reveals an agency sensitive to evolving ideas about public land management. As popular understanding of forest landscapes increases, so does public expectations of forestry professionals. National Forest System administration is complicated by multiple, often conflicting, desires that impact a mosaic of ecosystems for which scientific knowledge is incomplete. Thus, the research branch of the Forest Service remains a vital component in acquiring the scientific knowledge necessary to make difficult decisions, identify future challenges, and apply best management practices. The SFAEF and WHSL have participated for more than half a century in research that continues to increase understanding of the forest ecosystems and wildlife habitat of the southeastern United States. Present and future development of the Stephen F. Austin Interpretive Trail will increase the SFAEF's importance as a unique destination for outdoor recreation and an irreplaceable tool in conservation education in East Texas.

NOTES

³¹Seventy-Eighth Congress. *Congressional Record*. United States Senate. "Transfer of Certain Land in Nacogdoches County, Texas." December 14, 1944. p. 9444; *Congressional Record*. United States House of Representatives. "Transferring Land in Nacogdoches County, Texas to the United States Forest Service." December 4, 1944. p. 8770.

³²Robert S. Maxwell, *Whistle in the Piney Woods: Paul Bremond and the Houston, East & West Texas Railway* (Denton, 1998), p. 5.

³Harold K. Steen, *The U.S. Forest Service: A History* (Seattle, 1976), pp. 26-40. Steen has made some of the most notable contributions to United States Forest Service history. His work includes *The U.S. Forest Service: A History* (Seattle, 1976), and as editor, *The Origins of the National Forests*, (Durham, 1992).

⁴James O. Strickland, "The Blount Saga: An Historical Account of an Old East Texas Family" (MA thesis, Stephen F. Austin State University, 1949), p. 63.

⁵Deed, G.A. Blount & Wife to Texas Rural Communities Inc., Nacogdoches County Country House, Nacogdoches, Texas, October 2, 1934; Myrna Johnson, "Stephen F. Austin Experimental Forest Celebrates 50th Anniversary," *History Line* (Spring 1998), pp. 47-49.

⁶Betty Lindley, *A New Deal for Youth: The Story of the National Youth Administration* (New York, 1938), p. 32.

⁷Betty H. Craddock, *The Golden Years* (Waco, 1973), pp. 87-88.

⁸*The Pine Log*, Stephen F. Austin State University, vol. 23, no. 18, March 30, 1945, p. 1; "Woods Ideal Location for Forestry School" *Dallas Morning News*, August 24, 1947, p. 8.

⁹*The Pine Log*, vol. 23, no. 18, March 30, 1945, p. 1.

¹⁰Personal interview with Mrs. Paul Boynton conducted by Jay Reeves, November 2, 1974.

¹¹*The Pine Log*, vol. 21, no. 20, June 26, 1943, p. 1.

¹²"Forestry Program at SFA Grew Out of Strong Need" *The Daily Sentinel*, Nacogdoches, Texas, January 31, 1967, sec.2, p. 2.

¹³*Congressional Record*, United States House of Representatives, "Transferring Land in Nacogdoches, Texas to the United States Forest Service," p. 8772.

¹⁴R.E. Buckman, "Experimental Forests of the U.S. Forest Service," *FRDA Report* (January, 1993) p. 26.

¹⁵Personal interview with Dr. Laurence C. Walker conducted by Hallie Loetz and Philip W. Erwin, March 31, 1995.

¹⁶*The Pine Log*, vol. 25, no. 2, September 28, 1946, p. 1; "Nacogdoches Bids for 1945 Texas Forestry Meeting," *Marshall News Messenger*, July 14, 1944.

¹⁷Unpublished USFS Wildlife Habitat & Silviculture Laboratory records, Nacogdoches, Texas.

¹⁸Robert S. Maxwell and James W. Martin, *A Short History of Forest Conservation in Texas, 1880-1940*, Stephen F. Austin State University, School of Forestry Bulletin (Nacogdoches, 1970), p. 4.

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²⁰Interview with Lowell K. Halls, John Stransky, and William Duke: Steen, *The U.S. Forest Service: A History*, p. 281.

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²²Personal interview with Charles E. Boyd conducted by Carey Russell, April 11, 1999.

²³Lowell K. Halls and Charles E. Boyd, *Influence of Managed Pine Stands and Mixed Pine/hardwood Stands on Well Being of Deer*, USDA Forest Service, Southern Forest Experiment Station Paper SO-183, p. 18; interview with Charles E. Boyd.

²⁴L. Christopher Miller. "Decision Notice and Finding of No Significant Impact and Environmental Assessment for the Timber Sale on the Stephen F. Austin Experimental Forest," 1990, on file at the Wildlife Habitat and Silviculture Lab, Nacogdoches.

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³⁰Ray Brown and Doug Born, "Environmental Assessment for Stephen F. Austin Interpretive Trail Improvements," January 2000, USDA Forest Service report on file at the Wildlife Habitat and Silviculture Lab, Nacogdoches; Raymond Brown, "Biological Evaluation #01-2000-01 Stephen F. Austin Interpretive Trail Improvements," Compartment 112, January 2000, USDA Forest Service report on file at the Wildlife Habitat and Silviculture Lab, Nacogdoches.

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