The Longleaf Alliance: A Regional Longleaf Pine Recovery Effort

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Longleaf pine was once the dominate forest over nearly 70% of Alabama ranging from just south of the Tennessee Valley to the Gulf Coast. Today longleaf represents less than 3% of Alabama's forest acreage. However, a dramatic recovery of this most important southern ecosystem is underway with interest and support at an all time high among landowners, agencies, and conservation groups. Longleaf has many attributes desirable to landowners. From a timber point of view, longleaf pine is superior to other southern pines in the production of high value wood products. Its growth form, with typically high form classes and straight boles, results in the production of a high percentage of poles, pilings and high quality logs. Its wood is denser and heavier than that of other pines, an important factor when most wood products are sold on a weight basis today. Longleaf is resistant to many diseases, insects, and other damaging agents common to other southern pines, reducing investment risk. It is seldom damaged by fusiform rust, a serious pathogen in slash and loblolly pine; resists attack by southern pine beetles, and is very tolerant of fire throughout most of its life cycle. Its open stands are conducive to a diverse ground cover plant community providing habitat to a multitude of insects, birds and animals. With so many attributes, why then has the longleaf forest been systematically harvested and then regenerated to other species? The reasons for its precipitous decline are many and are rooted in the history of the South.

For much of the past five millennia longleaf pine was the dominant tree species on the southern uplands ranging from southeast Virginia down the Atlantic Coast and across the Gulf Coast to East Texas. Landscape-scale fires that swept across most sites every 3-5 years maintained this prehistoric longleaf forest, eliminating other less fire-tolerant species. These frequent fires not only resulted in longleaf dominating the upland sites but also produced fire dependent animal and ground cover plant communities considered to be among the most biodiverse of all forest systems. European explorers described these forests as open, park-like stands with grassy ground cover containing little or no hardwood. Early lumbermen prized longleaf in the production of high value wood products because of its straightness and superior wood properties as compared to other southern pines. The initial extraction of longleaf was slow because only timber adjacent to waterways was accessible for harvesting until the development of steam power. Harvesting of the interior uplands peaked in the early 20th century when railroad logging was able to reach the remaining large tracts. When much of the longleaf timber was depleted in the 1920's, mills closed, lumbermen moved on and few were concerned with regenerating the southern forest when vast tracts of virgin timber lay waiting in the West. The human influence on the longleaf forest was exacerbated by the fire prevention effort instituted during the first half of the 20th century led by the familiar Smoky Bear. This campaign was designed to stamp out this "destructive" force at all costs. Fire prevention allowed many fire intolerant hardwood and herbaceous species to invade and dominate sites once home to various longleaf ecosystems. The development of the pulp and paper industry during the 1950's and 1960's began the South's most significant economic revival since the Civil War. Unfortunately for the longleaf ecosystem, the emphasis of this industry was - and is - on wood fiber production. Although longleaf growth rates are competitive with those of other southern pine species on most sites over periods of 30 years or more, the best return on forest investment for companies whose product requires only fiber comes from highly productive short rotation plantations, a kind of silviculture for which longleaf is not well suited.

The major hindrance to longleaf establishment in the minds of many is that longleaf is more difficult to regenerate than loblolly or slash pine. Natural regeneration efforts can be hampered by longleaf's sporadic seed production. Seedling planting must be done to exact specifications because the grass stage seedling has no stem. Weedy competition can retard growth, resulting in seedlings remaining in the grass stage for several years. Fortunately, through current technology, these regeneration problems have been, for the most part, overcome enabling landowners to regularly and successfully establish vigorously growing longleaf stands.

Although fast growing species like loblolly and slash pine are ideal for the pulp and paper industry, many nonindustrial private forest landowners prefer longleaf pine forests for their valuable timber and associated ecosystem, one that is both aesthetically pleasing and conducive to a diverse plant and animal community. Unfortunately many of these landowners have been unable to readily obtain information and advice on longleaf management.
The Longleaf Alliance was established in 1996 with the express purpose of coordinating efforts to restore longleaf and its accompanying ecosystem on lands where they are compatible with the objectives of the landowner. This initiative resulted from the recognition that interest in the longleaf ecosystem and the tree itself was growing rapidly. Ecologists, foresters, wildlife biologists, landowners and land managers were searching for information or for an outlet to distribute what they had learned. A growing body of anecdotal information, personal experience, and scientific data was being passed on fitfully and many publics were not being reached. The Longleaf Alliance was formed in an attempt to serve as a clearinghouse for information on longleaf and longleaf forests for the general public.

The Longleaf Alliance is based at Auburn University's Solon Dixon Forestry Education Center in southern Alabama in the heart of the largest longleaf concentration left in the country. It is a nonprofit collaborative effort incorporating a broad community of similar interests in the longleaf forest

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system. Its structure is simple, its goals direct -the establishment of a functional longleaf forest ecosystem to the extent feasible in today's southern forest environment.

Recognizing and emphasizing the importance of both the economic and ecological value of the longleaf forest broadens the appeal of the Alliance and gives it credibility with both the scientific and private communities. Members include researchers, outreach providers, landowners and managers, tree nurseries, state and federal natural-resource agencies, forestry and wildlife consultants, forest industries, and forestry service providers. Because the vast majority of forestland acreage in the Southeast is privately owned, the Alliance has directed significant effort to the management and re-establishment of longleaf forests on private lands. This has been done by conducting numerous workshops focused on establishment and management techniques, responding to numerous daily specific inquiries and producing timely publications pertinent to longleaf issues. The effort and the organization are regional in scope, and the Alliance presently has nearly 700 members from every state in the longleaf region. As a benefit to members, the Alliance maintains and constantly updates databases on current longleaf related research, longleaf seedling nurseries, forestry and wildlife consultants with longleaf expertise, and pertinent research and demonstration sites. The Alliance has held two regional meetings with each attracting large enthusiastic audiences. The first was held in Mobile, Alabama in 1996 and was attended by over 250 longleaf fans and the second, held in Charleston in November of 1998, attracted 400 attendees. Numerous publications including conference proceedings, a landowner's guide to management of longleaf forests, research notes, newsletters and other pertinent resources are available at a nominal cost.

The Longleaf Alliance is funded through donations, memberships, and grants. Further information on the Alliance is available by writing The Longleaf Alliance, Rt. 7, Box 131, Andalusia, Alabama 36420, telephone 334-222-7779, fax 334-222-7779, and email addresses dxnctr.alaweb.com, gjerstad@forestry.auburn.edu, or hainds@alaweb.com