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The Florida Forest Steward

A Quarterly Newsletter for Florida Landowners and Resource Professionals



Volume 7, No. 1

Spring 2000



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2000 - A Forestry Milestone

The year 2000 is a much-celebrated milestone for many. I remember thinking ahead as a youngster in the 70's, "what will the world be like in the year 2000?" I recall popular futuristic images of streamlined road machines and buildings of spectacular geometric design. Some of these visions have been realized, while others have yet to be seen. I guess the flying cars will come later.

This year is a good time to reflect on the ways forestry has changed in America since its arrival in the Appalachian Mountains of North Carolina in 1898, and to think about how communication technologies have changed the way we get forestry information. This newsletter still comes to your mailbox, but now you may be using a computer to supplement your forestry library. Based on our survey last year, over half of you have Internet access and another third anticipate using the Internet in the next year or so. As many have discovered, the Internet is a great way to get forestry information. Most forestry colleges in the South are now using the Internet as an important extension tool, making most of their publications available on the World Wide Web in electronic, print-on-demand form. Simply typing in the words 'forestry' and 'Florida' in one of the popular search engines can lead you to a host of forestry related web sites for Florida.

Many of you have participated in the Master Tree Farmer 2000 program, a south-wide satellite broadcast of forestry workshops from Clemson University in South Carolina. Thanks to Dr. George Kessler of Clemson and countless others, we successfully harnessed satellite technologies to reach over 1,200 forest landowners across the south with important, fundamental forest management information. The role of these technologies in natural resource communications will continue to grow in the next decade.

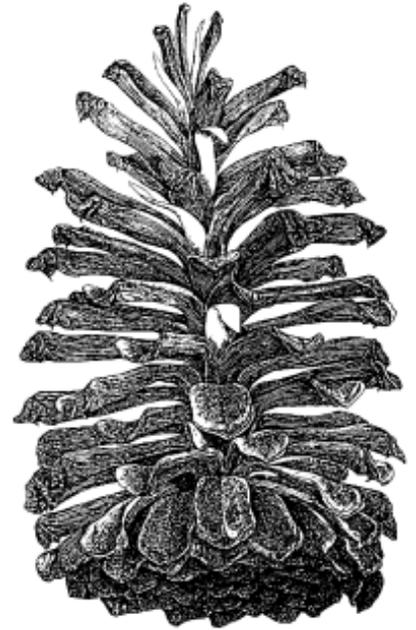
A look to the future is always complemented with a look at the past. This year's Society of American Foresters (SAF) / UF School of Forest Resources and Conservation (SFRC) Spring Symposium will do just that. As a part of SAF's centennial year, "Historical Reflections, Future Directions" will be a fascinating look at forestry's past and some up-and-coming technologies and trends that may be prevalent in the future. Please note that the dates for the Spring Symposium are May 23 and 24, 2000, at the new University of Florida Hotel and Conference Center in Gainesville.



The Longleaf Forest: Then and Now

By Rhett Johnson, co-director of The Longleaf Alliance

At the time of European settlement, the uplands of the southern coastal plain and portions of the mountains of Alabama and Georgia were blanketed by what many forest historians consider the most extensive single forest type in the history of the "New World". It is estimated that nearly 90 million acres of the South were occupied by longleaf pine, nearly 60 million of that almost pure longleaf forest. This forest was created and maintained with fire, a natural component in southern ecosystems. Lightning ignited extensive fires and early native cultures used fire as a tool to manipulate both plant and animal communities. We recognize today that the fire-maintained longleaf pine ecosystem is significantly rich in plant and animal species. Over the past 300 years, the area occupied by longleaf has declined to less than 3 million acres across its range, a loss of nearly 97 percent! The loss was due to several factors, including a massive transformation of the landscape to agricultural use, a misunderstanding of the role of fire in maintaining the system, poor understanding of or lack of interest in longleaf regeneration, and a shift in the South's forest industry from naval stores and solid wood products to pulp and paper. As the longleaf resource declined, many native plant and animal species dependent on it declined as well. Several of those species are essentially obligates of fire-maintained longleaf forests and are now protected by various state and federal laws such as the Endangered Species Act.



Interest in the retention of longleaf in the southern forest landscape began to build in the 1950's, but was limited in its effectiveness. Tens of thousands of acres were lost annually until the 1980's, when federal and state land managers began to work to retain existing longleaf and even to re-establish it on the lands they controlled. Better nursery practices, vegetation management techniques, and a better understanding of the role of fire increased the likelihood of regenerating longleaf successfully. Even and uneven-aged natural regeneration systems were successfully employed on thousands of acres across the south as well. Recognizing the increased potential for success and the burgeoning interest in the species, a small group of people interested in longleaf met in 1996 and formed The Longleaf Alliance, a non-profit organization whose focus is the retention, management, and re-establishment of longleaf pine across its former range where it

meets landowners' desires. Relying on both the ecological and economic value of longleaf as selling points, the Alliance works closely with private landowners, state and federal agencies, forest industry, natural resource consultants, researchers, and environmental groups to provide information and technical support. The group acts as a clearinghouse on longleaf matters, publishing helpful pamphlets, booklets, and research reports; coordinating and facilitating interactions between landowners, agencies, nurseries, and tree planters; conducting or participating in workshops and conferences; and conducting pertinent research on longleaf pine.

Many groups, private and public, are involved in the effort to restore longleaf to the southern forest mosaic. The focus of the Alliance has been two-fold: the re-establishment of longleaf on acreage where it once occurred; and the retention, management, and restoration of existing or newly created longleaf forests to the rich ecosystem that once existed there. The Longleaf Alliance is currently based at Auburn University's Solon Dixon Forestry Education Center in south central Alabama in the heart of the remaining longleaf resource.

For information on longleaf and the Alliance, write to the Longleaf Alliance at Rt. 7, Box 131, Andalusia, AL 36420, call 334-222-7779, visit their web site at www.forestry.auburn.edu/la/, or e-mail either hains@alaweb.com or johnson@forestry.auburn.edu.



Research Report: Effects of Fertilizers and Herbicides on Water Quality

Harvest reductions on public forests and increased restrictions on private lands associated with streamside management zones and ecologically sensitive areas have resulted in the need to focus intensive wood production on the remaining acreage. Increased productivity usually requires herbicide treatments and more frequent and extensive use of forest fertilizers. Growing concerns about non-point source pollution from these practices have prompted studies on the effects of these treatments on streamwater nutrient concentrations and aquatic communities. The following are summaries of some recent reports on these topics.



Fertilizers

On average, concentrations of nitrate and phosphate are about 10 times greater in streams draining agricultural lands than in those draining forests. In general, peak concentrations of nitrate-N in streamwater increase for a brief period when precipitation follows fertilization treatments, but these increases remain within acceptable limits of drinking water quality. However, the average streamwater concentrations of nitrate-N remain at much lower levels than those short-lived peaks that follow periods of rainfall. Also, streamside (or special) management zones along waterways provide buffers to reduce the brief elevated nutrient concentrations after fertilization. Relatively high concentrations of nitrate-N may also result from repeated fertilization and the use of ammonium nitrate fertilizer (rather than urea). So far there is no reported evidence of detectable effects of forest fertilization on the composition or productivity of aquatic communities. However, more detailed studies are needed, particularly with respect to those effects associated with phosphorus fertilization.

(From a Journal of Forestry (January 2000) summary of NCASI technical bulletin 782, Water Quality Effects of Forest Fertilization.)

Hexazinone Herbicides

Hexazinone is the active ingredient in Velpar™ and Pronone™ herbicides, and is very soluble in water, allowing it to potentially move with soil water from forests into adjacent aquatic communities. Actual chemical movement depends greatly on site-specific factors such as soil type, topography, and post-application rainfall.

The majority of the studies of hexazinone's potential to affect aquatic organisms have been based in the laboratory. However, USDA Forest Service scientists recently conducted a field study in the watersheds of the Alabama Piedmont to determine the herbicide's dissipation in forest ecosystems and impacts on aquatic communities. Test watersheds were treated with Velpar ULW™ (pellet) and Velpar L™ (liquid) at 3 times the prescribed rate and an untreated watershed served as a control. They found that exposure of macroinvertebrates (like mussels and snails) to hexazinone did not alter aquatic community structure; and species richness, including that of pollution-sensitive insects, did not differ significantly between the hexazinone treatment and the control. Given the rate of hexazinone application used in this study (3X prescription) and adherence to state best management practices, hexazinone is unlikely to be detrimental to these components of aquatic ecosystems.

(From NCASI Forestry Environmental Program News Vol. 12, No. 1)



Coming Soon: Spring Migrating Birds

By B. Wayne Harris, Florida Fish and Wildlife Conservation Commission

Spring is a time of rejuvenation in Florida's natural world. The sap begins to rise in trees as they prepare for the long summer, grasses sprout fresh growth, largemouth bass are bedding, and the wild turkeys are gobbling. This is one of the best seasons for those of us who enjoy the outdoors. In addition to the more notable changes of spring, many species of songbirds that spend the winter in Central and South America begin to appear here. Some species are only passing through on their way to more northern breeding areas while others will stay and raise their young. Three common species that you may encounter by sight or song when afield in the varying habitats of Florida include the yellow-billed cuckoo, great-crested flycatcher, and hooded warbler.

The yellow-billed cuckoo is a rather large songbird with a total length of about 11 inches. It has a relatively long, downward curved yellowish bill. The underside of this bird is mostly white with 4 black bands on the tail. The top of the head, back, and top of the tail are brown to chestnut colored. There is little difference between the sexes, regarding coloration. The problem with identifying cuckoos is that they are much more often heard than seen. They are easily identified by song, once you know how they sound. A typical song consists of several guttural, toneless cuck-cuck-cuck notes. Cuckoos are forest birds and tend to live in dense, understory thickets. This type of cover is particularly useful to cuckoos where scrub oaks and black cherry are the predominant trees. The zone where residual mixed hardwood stands meet 3 to 5 year old clearcuts seems to be ideal. The preferred yellow-billed cuckoo food source is tent caterpillars, found mostly in the oaks and cherries. They depend so much on these caterpillars that breeding often coincides with caterpillar outbreaks. Recently, there has been much concern over possible declines in population levels of this species.

The great-crested flycatcher is another common migrant that breeds in our area. Total length of the great-crested flycatcher is about 7 inches. This species has a rather large, conspicuous, crested head in relation to body size. The drab bill is also large and is surrounded by numerous small "whiskers", which are actually specialized feathers for funneling flying insects into the bill. The underside of this bird is yellowish to gray, the head and back are gray or brownish, and the tail is a dark rusty, chestnut color. There is little variation in coloration between males and females. The great-crested flycatcher is a bird of mixed hardwood and pine forest, parks, orchards, and forest edges. They are commonly seen perched on snags (dead standing trees), powerlines, and wire fences where they watch for insects. The main vocalization of the great-crested flycatcher is a harsh, ascending wheep.

Another migrant songbird that regularly breeds in Florida is the hooded warbler. This small but beautiful bird is only about 4 ½ inches in total length. Both the male and female are a relatively uniform yellow underneath and brown on the back. The distinguishing and striking features on the male are the bright yellow "face mask" and the jet black "hood". The song of the hooded

warbler is a sequence of loud, clear notes with an accented, slurred ending (chewy-chewy-chewy-cheeeew). Hooded warblers prefer to nest and feed in the dense understory of moist, deciduous woodlands. In Florida they have an affinity for ti-ti, gallberry, sweet pepperbush, and lyonia thickets associated with the margins of wooded streams and ponds. They feed entirely on small insects found in the understory.

Florida is blessed with a great variety of birds and other wildlife species. Some are large, some are small, some are rare, and some are plentiful. With the predominance of wildlife habitat in Florida being held by private individuals and corporations, responsible conservation and stewardship by these landowners is a must if we are to retain our diverse wildlife populations and protect our natural heritage.



The Estate Tax: A Major Conservation Obstacle

A compelling article in the last issue of *Forest Landowner* (Vol. 58, No. 6) was, in my opinion, one of the best discussions of the estate tax problem, driving home the issue for those concerned about the future of Florida's forests. "The Anti-Environment Estate Tax", by Jonathan H. Adler, examines the estate tax, or "death tax", issue from a conservation perspective, stating that the economic benefits of repealing the estate tax are extremely important, but are not the only reason for doing away with the tax. The environmental benefits of repealing the tax are loud and clear.



The "death tax" literally encourages conversion of forestland to other uses by taxing transfers of property and assets that take place at the time of death at rates up to 55% of asset value! According to the Joint Economic Committee, the average annual household income for a rural woodlot owner is less than \$50,000, yet the average woodlot has an appraised value of \$2 million or more. The estate tax leaves heirs of such properties with very few options. In order to pay the tax, they must clear the timber or sell the land, which, in most cases, is not what they or their forebears had in mind.

How can the impact of the estate tax be reduced? An obvious answer is reduce or repeal the tax altogether. This will partly be achieved over the next few years as the unified credit exemption is

increased annually from its present value of \$675,000 to \$1,000,000 in 2006 and thereafter. There are some more direct actions you can take to shelter your heirs from the brunt of the estate tax. Provisions under the federal tax law allow property owners to protect their assets by creating trusts or placing conservation easements on eligible land. These provisions can significantly reduce the taxable estate inherited by your heirs. Talk to a tax law attorney or certified public accountant in your area to explore your options. This is perhaps the most important step you can take to secure the future of your forestland for your children and grandchildren, and for the many plants and animals that depend on it for survival.



Timber Price Update

The 4th quarter 1999 Timber-Mart South report for Florida listed average stumpage prices as \$34/cord for pine pulpwood, \$93/cord for pine C-N-S, \$119/cord for pine sawtimber, and \$122/cord for pine plylogs. Prices were up for all four products compared to 3rd quarter prices. Hardwood pulpwood averaged \$12/cord, which was down slightly from the previous quarter. Stumpage prices are highly variable and the actual price for a particular timber sale can be affected by characteristics such as tract size, timber density, access, proximity to operating mills, and weather. A more complete summary of 4th quarter stumpage prices is available at your County Extension Office. To determine current prices in your area, your best source of information will be forestry consultants and timber companies that purchase timber in your area.



Long-term Trends

The following graph charts quarterly Timber Mart-South stumpage prices for three major pine log classes in northeast Florida since the beginning of 1990. Numbers on the horizontal axis indicate the year (first digit) and quarter (second digit), so 31 would indicate the first quarter of 1993. Average pulpwood prices have experienced many ups and downs, ranging from \$30/cord to over \$55/cord, but the 7-year trend has been virtually flat. Although we saw a modest increase in pulpwood prices last quarter, tree growers are still likely to encounter a relatively weak pulpwood market in some areas due to an abundance of mid-rotation plantations at or near thinning age. Both chip-n-saw and sawtimber have shown definite upward trends in average price over the

same period. According to F&W Newsletter No. 64 (Winter 1999-2000), the recent high prices for sawtimber are a result of a robust home construction industry nationwide and reductions in timber harvests on western public lands. Most forecasters predict that construction markets will remain strong through this decade, but some expect the pace to slow a bit in the near future. Despite the strong regional timber market, the persistent dry weather conditions in North Florida have improved access to many harvest sites. The greater timber supply tends to moderate stumpage prices. If the drought continues the likelihood of fires and burned timber on the market may also affect prices.

Click on the link below to see the graph - use the "Back" function to return here:

[Long-term Trends](#)



SFRC and Forest Stewardship Program Workshop Schedule (2000)

SFRC Continuing Education Schedule

March 28-29 (postponed until fall 2000): Regulatory Environment in Florida's Forests, Austin Cary Memorial Forest, Gainesville.

Contact: Dr. Alan Long, 352-846-0891

May 23-24: SAF/SFRC Spring Symposium, "Historical Reflections, Future Directions", University of Florida Hotel and Conference Center, Gainesville.

Contact: Cindy Love, 352-846-0849

Summer: Introduction to GIS and GPS Applications, Austin Cary Memorial Forest, Gainesville.

Summer: Forest Pest Management, Austin Cary Memorial Forest, Gainesville.

June 26-30: The Wildland-Urban Interface (Urban Forestry Institute), Daytona Beach.

Contact: Eliana Kampf Binelli, 352-846-0886

September 28: Forest Tree and Plant Identification, western Panhandle.

October 17-18: Biotechnology and Genetic Engineering for Foresters, Austin Cary Memorial Forest, Gainesville.

November 14-15: Improving Public Relations (Getting the Message to the Public), Austin Cary

Memorial Forest, Gainesville.

January 2001: Environmental Impacts of Forestry Practices, Austin Cary Memorial Forest, Gainesville.

Forest Stewardship Workshop Schedule

April 25, 27: Herbicide Uses in Forestry, Jackson and St Johns Counties.
Contact: Chris Demers, 352-846-2375

May 5, 12: Stewardship Property Tours, northeast Florida.
Contact: Chris Demers, 352-846-2375

July 11, 13: TimberMarket/Investment
Opportunities, Bay & Lafayette
Counties.
Contact: Chris Demers, 352-846-2375

