



**UNITED STATES DEPARTMENT OF  
AGRICULTURE  
FOREST SERVICE, F. A. Silcox, Chief**

**SOUTHERN REGION  
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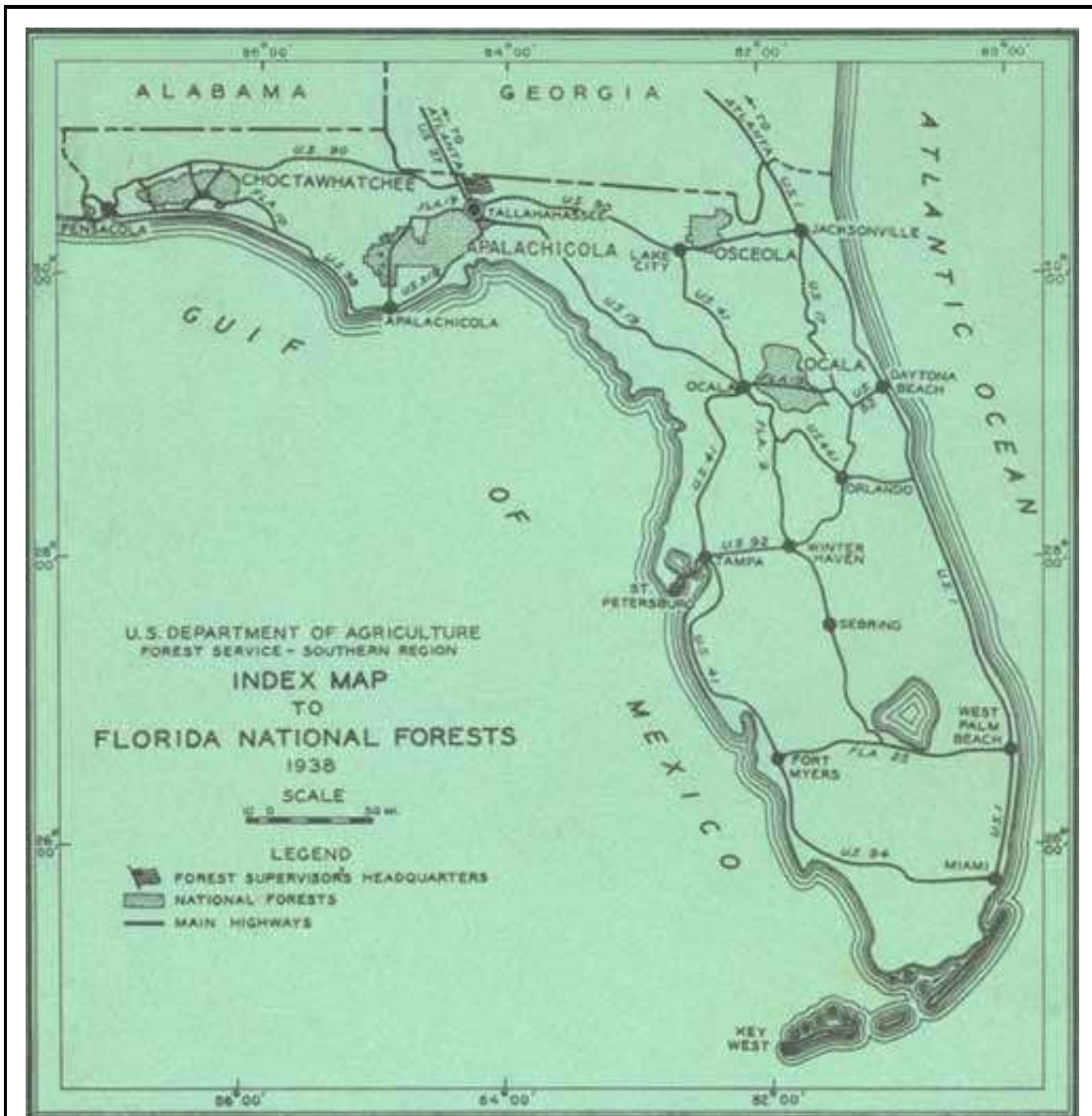


**UNITED STATES  
GOVERNMENT PRINTING OFFICE  
WASHINGTON: 1939**

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INDEX MAP TO FLORIDA NATIONAL FORESTS

## ***EARLY DAYS IN FLORIDA'S HISTORY***

FLORIDA'S storied past is a drama of many civilizations written over a period of four centuries. It is made up of many chapters contributed by the Indian, the Spaniard, the Frenchman, the Englishman, and the American. Here was founded the first settlement on this continent to be colonized permanently by the white race. Spain had built a mansion for her Governor at St. Augustine 20 years before the Pilgrim Fathers set foot upon Plymouth Rock.

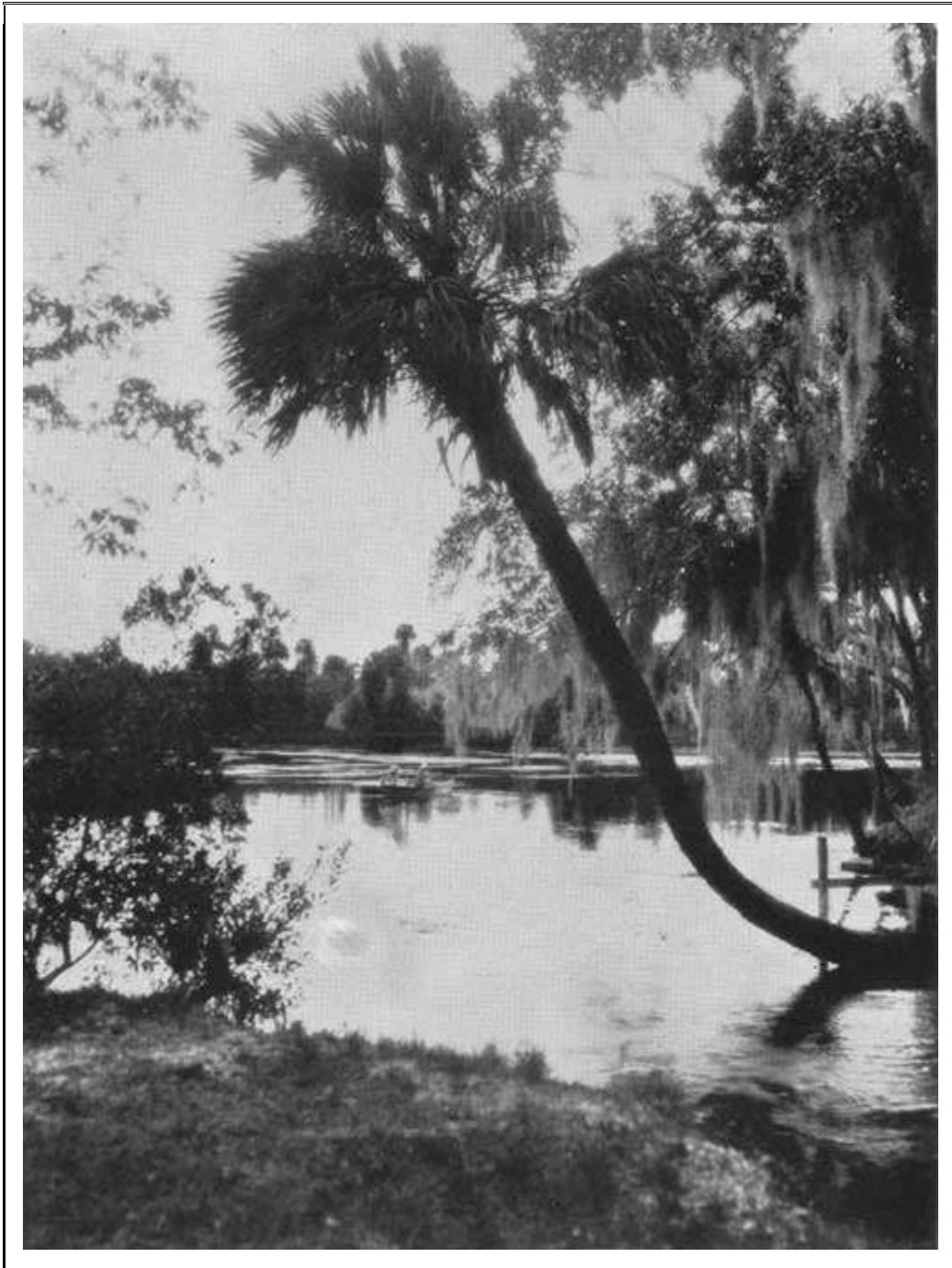


The discovery of Florida in itself was one of the most romantic episodes in a colorful era of world history. The account of the courtly old Governor of Puerto Rico, Juan Ponce de Leon, and his band of cavaliers searching for the legendary waters which would restore youth to those who bathed in them reflects the adventurous spirit of the age. Although Ponce de Leon and his followers sought in vain for the Fountain of Youth, their journey was justified. They called the country Florida either because of its discovery at the time of the Floral Feast (Pascua Florida) or because of the abundance of flowers in the new land. At the time of its discovery Florida was believed to be rich in gold, and there were fabulous accounts of rivers glittering with diamonds.

Florida's memories are many colored, for every manner of man has walked through the pages of her history. Cavaliers and grandees in Spanish galleons sought bullion and gold. Pirates and freebooters sacked and plundered with oaths and bloodshed. Black-robed priests marched up and down in mission gardens reciting their breviaries. Here the peaceful tones of the angelus bell rang out, while the roll of cannon was heard, and the black flag flew with the French and Spanish flags on Florida's coast. These pages of early history show the daring exploits of steel-clad cavaliers and the no less valiant and chivalrous deeds of savage chieftains.

Peril and strife and hardship have passed, and the succeeding centuries have seen the creation and growth of a new empire from the unbroken forests Ponce de Leon discovered in 1513. Man has pushed back the forests, but they have resisted even the

fury of war and the white man's greed. The million and a half acres of national-forest lands in Florida have been part of the background of four centuries of colorful history. Moss-hung trees, now centuries old and with branches which trail the ground, stood sentinel here in the years when Nature reigned supreme before the white man came. They have survived the era of discovery, the adventures of immigration, the pressure of exploitation, and the demands of industrialism.



WATER CLEAR AS CRYSTAL FLOWS QUIETLY UNDER CABBAGE PALMETTOS  
AND MOSS-HUNG LIVE OAKS NEAR SILVER SPRINGS F—352899



THE PRIMITIVE METHOD OF LOGGING IS A FAR CRY FROM THE PRESENT DAY  
METHODS F—226287



CYPRESS LOGS BEING REMOVED FROM LOGGING TRAIN AT MILL F—352932

## EXPLOITATION OF TIMBER RESOURCES

When early explorers reached Florida, the great forests seemed rich and inexhaustible, and were a factor in bringing white men to settle this country. Along the ocean's shore line, from the southern end, where the mangrove forests stood at the water's edge and held back the sea, to the northernmost part of the State, was a solid wall of trees. In 1539 DeSoto wrote: "And trees grow in the fields without planting and dressing them, and are as big and rancke as though they grew in gardens digged and watered." Such descriptions of limitless forests excited the interest of those European countries where forests had been reduced to the minimum.

The Indians and early explorers left the virgin forests practically untouched, but with the coming of the settlers, exploitation began. Wooden vessels and sailing ships found great need for pitch and tar as well as timber from the piney woods. Ships loaded with forest products began to leave Florida for far ports of the world.

Improvements in machinery and establishment of large mills brought the lumber industry of the United States to full headway about the middle of the last century. As the first cut of pine in the more thickly settled coast regions and the timber in the Lake States began to be exhausted, the lumber industry moved south and the forests in the pine belt were cut over with little thought for the future. Exploitation of Florida's

forests increased at a rapid rate with the establishment of railroads and the improvement of seaports. The market for naval stores and other products created by the World War accelerated the rate of forest destruction. Fires were allowed to run through the cut-over areas, thereby destroying the seedlings and Nature's only chance for reestablishing the forests.

After the World War, renewed activity and increased land values created a "boom." Great road building and construction programs brought another unusual drain on Florida's natural resources, so that now most of the 22,000,000 acres of forest land in Florida have been cut over or culled. The virgin forests of today are mostly in the swamps, and under improved economic conditions these are rapidly being harvested.

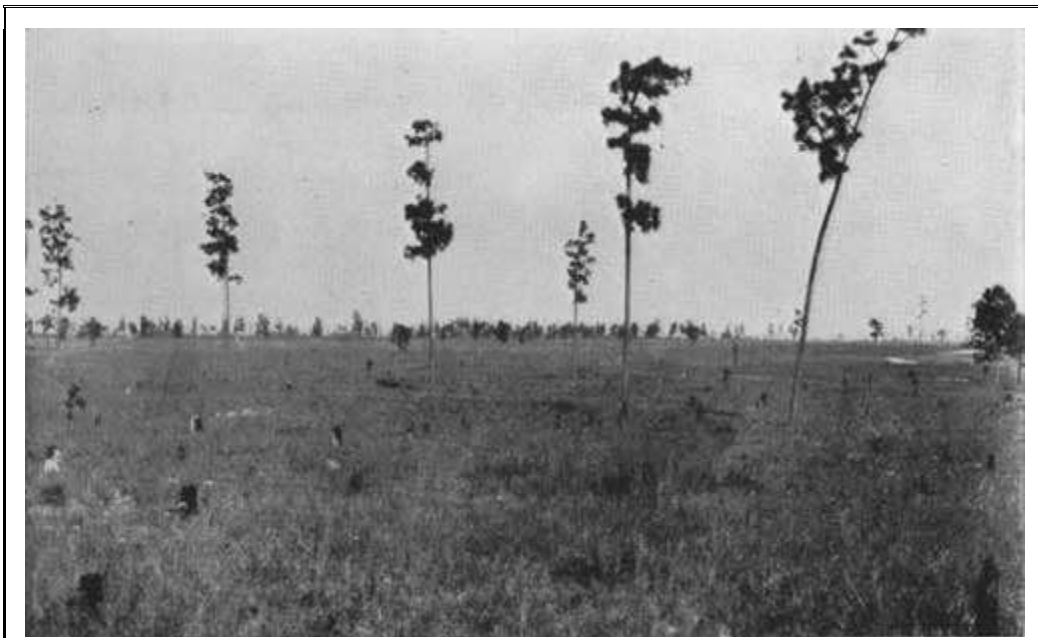


## ***LANDS IN NATIONAL FORESTS***

Since Florida was the only Southern State east of the Mississippi River that had any large tracts of public domain when the national-forest system was established, it was the first State in the Southeast to have a national forest.

From the public domain lands, President Theodore Roosevelt in November 1908 proclaimed the western division, the Choctawhatchee National Forest, and the eastern division, the Ocala National Forest. During the administration of President Taft in 1911, these areas were combined under the designation of the Florida National Forest. Even though these areas belonged to the public domain, they had not been immune to the lumbermen's ax or to the carelessly tossed match. Wasteful cutting and unrestrained burning had exacted their toll; and when the areas were placed under the administration of the United States Forest Service, they contained large tracts of privately owned cut-over lands, justly called "idle acres."

The insistent demand of far-sighted conservationists brought about the passage of the Clarke-McNary Act in 1924, which amended the Weeks' law of 1911 and authorized the Government to acquire and put under administration as demonstration areas lands that were most valuable for producing timber. Under this authorization, the Forest Service bought waste land and began a system of development and restoration to redeem it.



THE RESULTS OF NEGLIGENT HARVESTING FOLLOWED BY REPEATED FIRES  
F—250492



RESULTS OBTAINED WHEN ADEQUATE SEED TREES ARE LEFT AND FIRE PROTECTION PROVIDED F—313001

A demonstration forest large enough to insure economical administration was needed in the South Atlantic and Gulf coast region. The Forest Service, therefore, established a purchase unit in northeast Florida in 1929, which was proclaimed the Osceola National Forest by President Hoover in 1931. Another area was selected for the same purpose in 1933, near the Gulf coast of Florida. It was proclaimed the Apalachicola National Forest by President Franklin D. Roosevelt in 1936. The present net area owned by Uncle Sam in the four Florida national forests is approximately 1,600,000 acres. Since these forests are widely separated and lack definite relation to each other, they are described separately in following pages of this booklet.

The national forests are the property of the people of the United States, and the United States Forest Service officials are the guardians and managers of this property. It is the policy of the Forest Service to look beyond the production of timber and wood products as the forests' reason for existence. Every effort is made to perpetuate the forest resources and to coordinate their uses so that the management of none shall interfere with another. In administering these Federal areas, the first concern of the Forest Service is how they can be best managed to fit most usefully into our national economy; how they can be used to supply jobs for surplus labor, and how they can provide outdoor recreation and form the background of permanent community life.

When a national forest is acquired, detailed surveys are made to determine the amount of lumber and other timber products that are on it, the quality of the timber, and the rate of growth. This information is compiled and used to formulate a definite plan for management of the forest, and for development of each particular area for the purpose it can best serve. A protection and improvement system is planned and inaugurated. Roads, firebreaks, and telephone lines are constructed, and lookout towers and guard stations are built where they will be most valuable. The actual work of putting the management plan into effect is then started. This may consist of planting cut-over areas, thinning and improving timber stands, conducting timber sales, developing recreation areas, and improving wildlife conditions.

### BENEFITS TO LOCAL COMMUNITIES

When forest products on the national forests are ready for sale, they are appraised, advertised, and sold to the highest bidder. Money received for these forest products is paid to the Treasurer of the United States. Out of every dollar received, 25 cents is returned to the counties in which the forest lies in lieu of taxes, to be used for schools and roads. In addition, the Forest Service is obligated to spend an additional 10 percent of these receipts for the improvement of roads in the forest. Total net receipts from the four Florida national forests for the fiscal year 1937 were \$99,104.17. This return to the counties was approximately 10-1/2 cents per acre, an amount which exceeds the tax rate for land in these counties. The net income for the Osceola National Forest during this period was \$64,900, of which the forest counties received \$16,225. The returns from the Osceola were larger than on any of the other three Florida forests because it contains the largest amount of merchantable timber and has more accessible markets. Florida national forests are assuming their proper place in the communities in which they are located. They not only are affording direct revenue to the counties, but are furnishing work to local communities. For instance, there are approximately 500 families in and adjacent to the Osceola forest which are obtaining their livelihood by harvesting national forest timber for naval stores, saw timber, and other products.

*FORESTS ARE JOBS TREES MEAN  
TRADE  
PROTECT THEM*

## WORKING PINES FOR NAVAL STORES

FOR decades yellow pine, cypress, and hardwood timber, and naval stores from Florida's forests have poured a golden stream into the channels of the world's commerce. In north Florida every county and nearly every town and hamlet has its turpentine orchards and stills. This area lies within that region of the Southeast which contains three-fourths of the naval stores industry in the United States and produces approximately 85 percent of all the gum naval stores used in this country, and over half of the world's supply.



The first naval stores sale on a national forest was made on the Choctawhatchee National Forest in 1910. Since then better practices and more efficient management of lands for naval stores production have been developed on the national forests and elsewhere, especially on the Osceola National Forest.

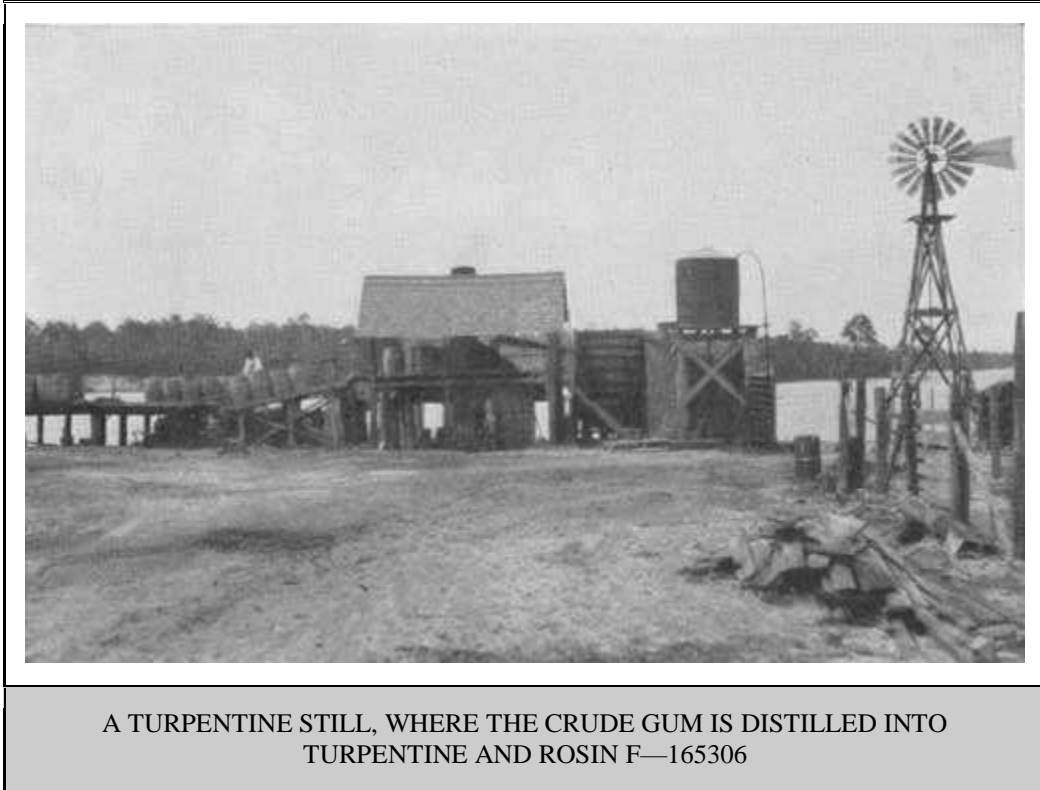
Naval stores are produced from slash (*Pinus caribaea*) and longleaf (*Pinus palustris*) pines. When these trees are wounded or chipped, they exude a resinous gum to aid in healing the scar and to prevent insect attack. Man has taken advantage of this and systematically chips the trees and collects the gum by means of cups and gutters. Each week, except during the winter months, a V-shaped streak, not more than five-eighths inch deep and one-half inch high, is cut on the upper side of the "face," which is the scarred area covering one-third of the circumference of the tree. Every 2 to 4 weeks the gum which has flowed into the cup is collected and taken to a still. This collecting process is called "dipping." At the still, the gum is distilled into turpentine and rosin. Turpentine is used in the manufacture of paints, varnishes, shoe polish, leather dressing, oils, greases, linoleum, oilcloth, roofing, and the like. Rosin is used in the manufacture of paper, size, soap, paints, varnishes, chemicals and pharmaceuticals, matches, etc.



A TYPICAL STAND OF FLORIDA SLASH PINE F—165381



COLLECTING GUM TO BE TAKEN TO A TURPENTINE STILL F—165320



In the early days the resinous gum was cooked into pitch and used in the building and repair of ships, and the traditional name of "naval stores" has never been lost.

The longleaf and slash pines are referred to as dual-purpose trees, because after being "worked out" for naval stores they may be cut into sawlogs, poles, pulpwood, and other forest products. Even after longleaf pine has been dead a long time it is still valuable. The rich stumps and knots are converted into turpentine, rosin, and wallboard by the steam solvent process. Destructive distillation processes produce wood turpentine, pine oils, pine tar, wood acetate, and charcoal.

### PRODUCING TIMBER AS A CROP

On national forests the Government manages timber as a crop and the land is made to produce a steady, permanent income. The Forest Service believes that the future of any region depends in a large part upon the way its forest lands are managed. Timber, like other crops, can be made to yield regularly when managed in accord with known sciences and methods, and forest lands may be so handled that they will always contribute to the permanent support of their fair share of the country's population.



DIPPING RESIN INTO BARRELS FOR COOLING AND SHIPMENT TO THE RESIN  
YARD F—226771



SELECTIVE CUTTING ASSURES A CONTINUOUS SUPPLY OF TIMBER FOR  
WOOD-USING INDUSTRIES. PULPWOOD CUTTINGS CAN BE COMBINED WITH  
THE GROWING OF PRODUCTS OF A HIGHER VALUE F—351086

On the Florida national forests, as on all national forests, when timber is mature and ready to cut, or when it should come out in thinnings, it is sold. In fact, the timber is handled just as the farmer handles his crops. It is harvested when ripe—the only difference is that it takes much longer to grow pulpwood, sawlogs, or trees suitable for turpentine than it does to grow a crop of corn or cotton.

Good forestry practice on private lands calls for a similar common-sense policy of handling timber, instead of regarding it as a mine. Forest lands properly managed should provide a permanent and constant supply of timber, based upon the productive capacity of the soil. Such management involves protection from fire and protection against the old "cut-out-and get-out" policy, which has reduced the country's forest wealth to a mere remnant and left a toll of millions of acres of unproductive wasteland. It uses such methods of cutting as will damage young growth as little as possible. It insures future crops either by leaving sufficient growing stock, or seed trees, or by planting where it is necessary to do so.

"Sustained yield management" is the term which foresters apply to this plan of managing timber. Under this method, in Florida forests, no more than the current growth of timber will be cut over a given period. The forests are exactly like money in the bank. The wise owner will consider his timberlands as a capital investment and the annual growth will represent the yearly interest on this investment. When annual growth replaces annual harvest, the forest capital is not depleted. But, in trees as in money, if one uses more than the interest income, he dips into the deposit and reduces its earning power.

## RECREATION USE AND DEVELOPMENT

The multiple-use administration of the national forests aims to protect, to improve, and to put to work their renewable resources in a way which will yield the greatest good to the public as a whole. One of the purposes of such administration is to provide millions of Americans with places in which to spend some of their leisure.

The national forests include some of the finest scenic areas in the country and offer exceptional recreation opportunities. The recreation resources, like the timber resources, are conserved and managed so as to yield a return in usefulness. Human welfare is the basic aim of conservation, and recognizing the vital relation of health and efficiency to proper outdoor recreation, the Forest Service considers the development of recreation opportunities a major objective of its program.





A SCENE AT JUNIPER SPRINGS, THE OUTSTANDING RECREATION DEVELOPMENT ON THE FLORIDA NATIONAL FORESTS F—370106

Each year sees an enormous increase in the number of persons using the national forests for summer vacations, week-ends, and holiday trips. Forest Service figures show that in 1937 more than 30,000,000 persons used the national forests of the country for picnicking, camping, motoring, horseback riding, and hiking, primarily to enjoy scenery and the cool forest environment.

In Florida, the trek to the forests is year long. Some of the most beautiful spots in the State are in the national forests where every type of forest and swampland is represented, from the low timbered flatwoods, the deep jungle-like swamps, and the broad expanses of grasslands in the Osceola and the Apalachicola units, to the rolling sandy oak-covered bluffs of the Choctawhatchee, and the gigantic flattened pine-clad dunes and the hammock-bordered springs and ponds of the Ocala. Juniper Springs recreation area on the Ocala Forest, which is the outstanding development on the Florida forests, had more than 36,000 Visitors during the first year after its establishment. These visitors came from 48 States, Canada, Alaska, other territories, and foreign countries, even from such distant points as Finland, Korea, India, and Australia.

In this scenic region, the Forest Service has developed many picnic areas and campgrounds with fireplaces for broiling steak and making coffee. There are playground facilities for children and parking spaces for automobiles, water that is safe for drinking, and plenty of sturdy picnic tables and benches. The roads and trails, which the Forest Service has constructed with the aid of the C. C. C. as a means of protecting and administering the forests, make the recreation areas easily accessible to visitors. The program of recreation development on the four Florida national forests calls for the construction of 93 areas over a long-time program covering the next 20 years. These will include hunting and fishing camps, organization camps, picnic grounds, and areas for tent and trailer camping. It is the aim to keep recreation in national forests simple and democratic.

The presence in the national forests of tremendous numbers of visitors creates potential hazards to health and property. Many campers in the woods mean many campfires, and the hazards to timber from this and other incidental menaces are obvious. This problem is one of the reasons why the United States Forest Service has provided designated camping spots with fireplaces and stoves for campfires. It has sought to induce voluntary concentration of visitors where hazards of health and property are reduced to a minimum by the provision of adequate facilities for sanitation and care with fire. In the use of the recreation facilities the only conditions imposed upon the users are that they abide by camping regulations posted in each area.

## WILDLIFE AND ITS MANAGEMENT

The national forests are the home of a large part of the wildlife in the United States and furnish one of its major refuges. Wildlife, both fish and game, is a forest resource of outstanding aesthetic and economic value, and its conservation receives full consideration, along with timber and other resources, as an objective of forest management. It is both renewable and recreational, and has a distinct place in national forest planning, which follows the principle of multiple-use. This term simply means the integrated development of all national-forest resources, according to the relative importance of each resource.

Florida, with a coast line of 472 miles on the Atlantic side and 674 miles on the Gulf, its thousands of lakes and rivers, and its huge expanse of woodlands, is potentially a sportsman's paradise. Continued ravages of fire previous to Federal and State fire-protection measures, the wasteful destruction of game animals, and the lack of regulation or planning in the past have caused the supply of game to be seriously depleted, but work is under way to improve fish and game conditions.



ONE OF THE MANY STREAMS INVITING THE FISHERMAN F—165333



IN THE DEPTHS OF THE Ocala GAME REFUGE F—300808

Wildlife in the Florida national forests is gradually being built up by the Forest Service, which plans to stock these areas to their carrying capacity. This will

necessitate protection and closure of some areas for a limited period. Under protection and with a good food supply, animals multiply rapidly, and the problem arises as to how to maintain a natural balance between the game and the forage upon which it lives. Management must make the adjustments necessary to protect both game and forage. The logical way to do this is to permit hunting on a planned scale. This the Forest Service does in cooperation with the United States Biological Survey and the State game departments, by opening adequately restocked areas to regulated hunting long enough to take the annual yield.

The Southern Regional office of the Forest Service, in cooperation with the States, has devised a system of stable wildlife management with an ultimate goal of wildlife utilization. It consists of an agreement between the game department of the State concerned and the United States Forest Service. Such an agreement has recently been entered into by the Forest Service and the Florida Commission of Game and Fresh Water Fish, which marks the beginning of a program of wildlife restoration and management on the national forests in Florida. Under this agreement the supply of game will be increased, public hunting grounds will be developed and maintained, streams will be restocked with fish, and the areas will serve as experimental demonstrations in game management. This will assure the citizens of Florida a renewable yield of wildlife and the recreational enjoyments of hunting and fishing.

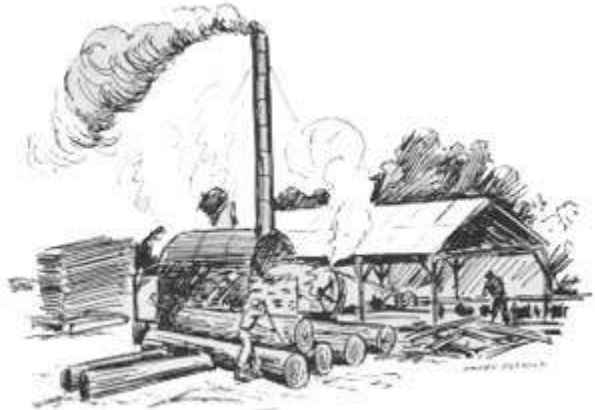
The wildlife species to be developed on the forests are white-tailed deer, black bear, squirrel, other fur bearers, and turkey, and such fish as large-mouthed black bass and other warm-water species indigenous to the lakes. Control of predatory animal and fish species, such as bobcat and garfish, will be important phases of the management plan.

Hunting and fishing within the forests' limits is governed by State laws, and hunting, fishing, and trapping is allowed in the Federal game refuges only under special conditions. These refuges were selected principally because they contain various species of game and are especially adapted to scientific management. It is planned that the overflow from the areas will eventually restock the surrounding territory, thus assuring a continuous supply of game for sportsmen. The refuges will also be a source of interest and pleasure to persons who derive their enjoyment from observing the wild animals in their natural habitat and who do their shooting with cameras.

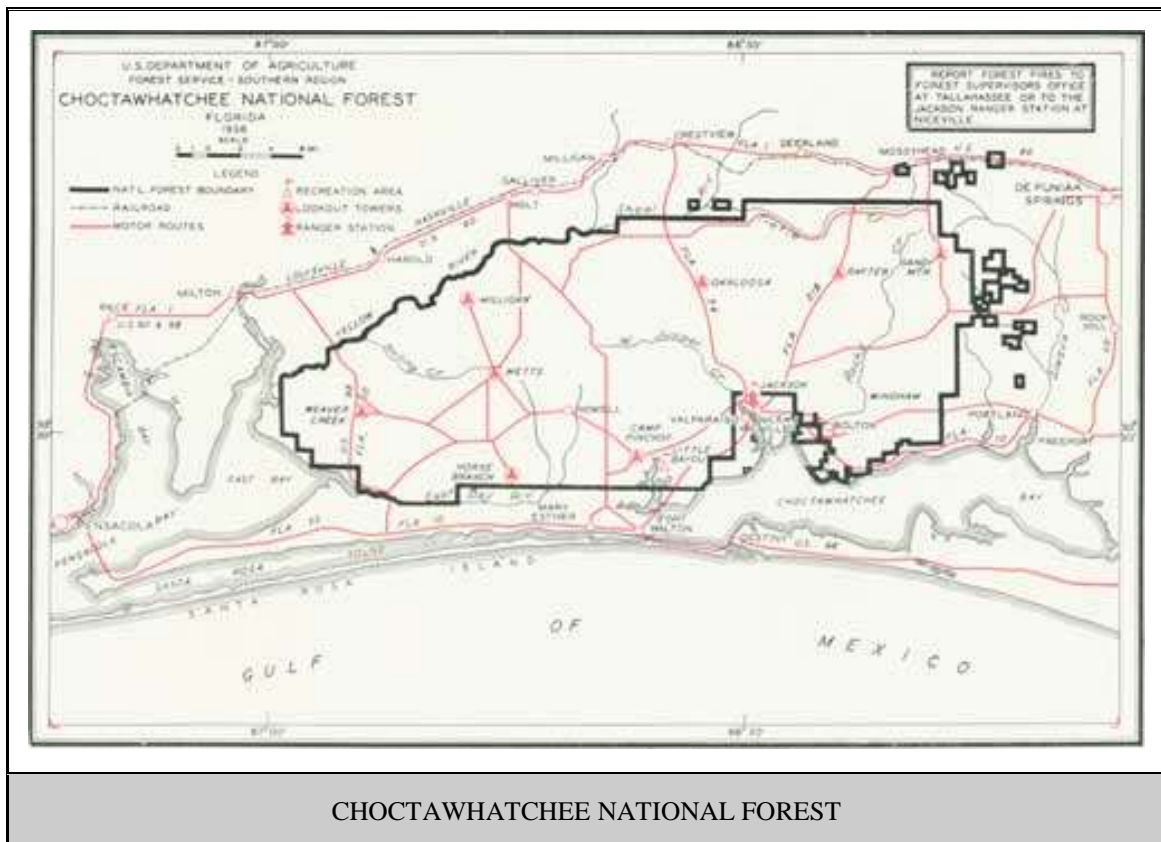
*IF YOU DON'T KNOW ASK THE FOREST  
RANGER*

## *Choctawhatchee National Forest*

FROM the Indians, who occupied this region before the white man appeared, comes the sonorous name of the forest—Choctawhatchee (Choc-taw-hat-chie). It is a Creek Indian word which means "River of the Chatot," a small tribe sometimes confused with the Choctaws.



The Choctawhatchee National Forest, with a gross area of 368,048 acres, lies in the extreme western part of Florida between DeFuniak Springs and Pensacola, and includes portions of Walton, Okaloosa, and Santa Rosa Counties. The southern boundary extends to Choctawhatchee Bay and is within a few miles of the Gulf coast. The Yellow River is the northern boundary of the forest. The "Old Spanish Trail," U S 90 from Jacksonville to New Orleans, and the Louisville & Nashville Railroad run east and west a few miles north of the forest. The Gulf Coastal Highway 319—98 passes between the forest and the Gulf. Florida Highways 54, 218, and 10 cross the forest. The district ranger's headquarters are at Niceville.



The forest is predominantly ridge type, with longleaf pine as the dominant tree, and turkey oak as an understory. The soil supporting this type is an extremely porous, sterile sand so that the growth rate of the timber is very slow. It will, however, produce high-grade saw timber on a long rotation. That portion of the longleaf pine type on the better sites will be managed for naval stores, and the first cups will be hung when the trees are 10 inches in diameter. Thinning for pulpwood will furnish intermediate crops and the final crops will be saw timber and pulpwood. An area of sand-pine type occurs in the southeastern part of the forest. Hardwoods, cypress, and cedar grow in the stream bottoms and swamps. Many of the swamps are dense, impenetrable titi thickets. Mountain laurel, an Appalachian Mountain shrub, on Rocky Creek is of botanical interest.

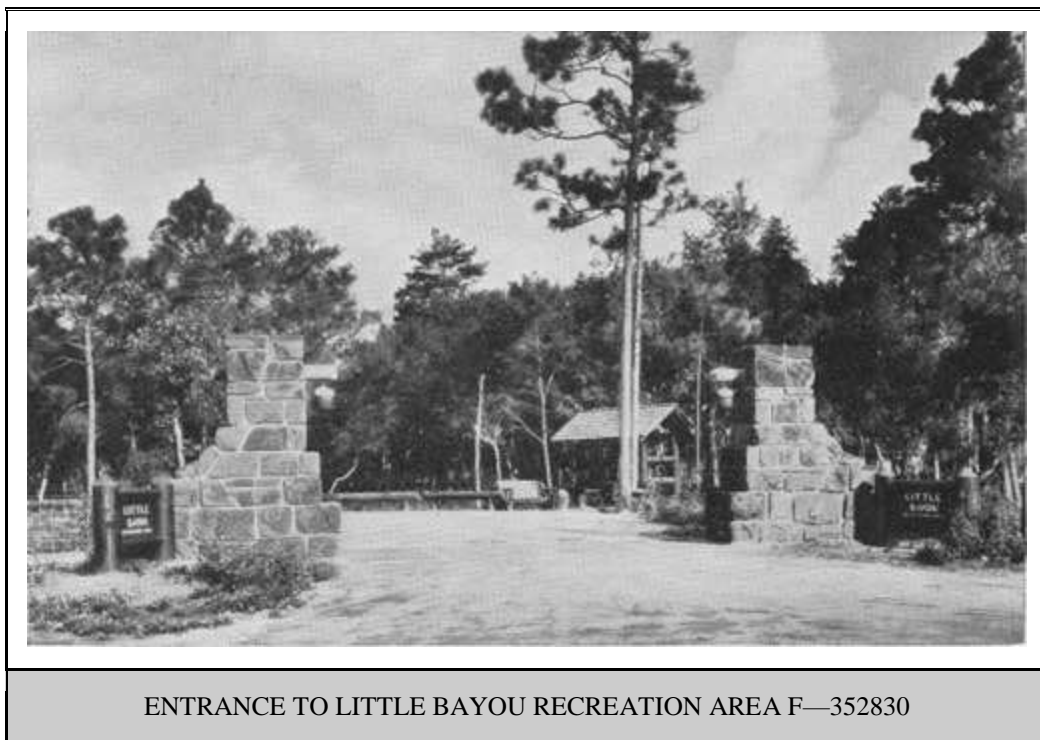
Experimental work is being conducted on the reestablishment of longleaf pine on the oak ridges. With the aid of C. C. C. crews, much timber-stand-improvement work has been done. Turkey oaks, which are of little or no commercial value, are removed where longleaf saplings are overtopped or subjected to mechanical injury. The first improved naval stores practices known to the industry, many of which are in use today, were developed on the Choctawhatchee National Forest, under Forest Service supervision.



VIRGIN LONGLEAF PINE. THE CHOCTAWHATCHEE NATIONAL FOREST CONTAINS ONE OF THE FEW REMNANTS OF THE ORIGINAL STANDS OF VIRGIN LONGLEAF PINE IN THE UNITED STATES F—266764

Since its establishment, this national forest has supported naval stores operations varying from 200,000 to 500,000 cups annually, depending on the economic condition of the industry. After naval stores values are exhausted, the trees are sold for saw timber. This forest has been under intensive management for nearly 30 years, and has an annual sustained yield of more than 4,000,000 feet of saw timber.

The first timber preserve established by the United States Government and the first commercial forestry project in the United States were located on Santa Rosa Island. Sea power in 1828 meant wooden ships, and President John Quincy Adams foresaw that the maintenance of a strong United States Navy depended upon a permanent supply of proper timber. Live oak was the wood par excellence for the framework of ships, so a reconnaissance was made of the live oak supply along the coasts of Georgia, Florida, Louisiana and the Carolinas. The depleted conditions reported prompted President Adams to initiate a project for the growing of this species. He withdrew from the public domain 30,000 acres of land on Santa Rosa Island across the bay from the new Pensacola Naval Station, and in December 1828, live oak acorns were planted on the area. The following year about 76,000 young trees were growing in a flourishing condition. Some of the timber from this plantation, which was cut during the Civil War and stored under water for preservation in Commodore's Pond at the Navy Yard, was removed and used in the reconstruction of the *Constitution*, better known as *Old Ironsides*, one of the most famous of the United States Navy's early fighting ships.



ENTRANCE TO LITTLE BAYOU RECREATION AREA F—352830

The Choctawhatchee area is rich in Indian, Spanish, pirate, and Andrew Jackson history. Old Indian mounds are numerous, and almost every stream or cove is featured in some historic Indian or Spanish legend. On the shores of Choctawhatchee Bay, Indian Chief Sam Storrie greeted the first white settlers to the State. The Old Military Road, or Jackson Trail, crosses the eastern portion of the forest. This road was built by Gen. Andrew Jackson's army which marched through west Florida in 1818 subduing the Spaniards and hostile Indians who had been armed by the English and were harassing Alabama and Georgia. Over this same road in 1837 was established the first United States mail route through west Florida from Tallahassee to Pensacola.

While Spain, France, and Great Britain strove for control of the territory of which the Choctawhatchee Forest is a part, the swashbuckling pirates preyed on the commerce of the Gulf of Mexico. These live-oak and pine-bordered bayous were their haven from British and Spanish men-of-war. Here they beached their ships and scraped and caulked the hulls. Tradition tells of buried treasure and the sunken galleons of these freebooters of the sea. Old "pieces of eight" and Spanish doubloons found on Santa Rosa Island have brought parties of diligent searchers to this region in the quest for buried treasure.

## RECREATION

The scenic attractions of Choctawhatchee Bay and its indentations and contiguous territory have won high praise, and the irregular water line, as well as the heavily wooded shores, are well known for their beauty and recreation possibilities. Just west of Valparaiso and Fort Walton on the wooded shore of one of these indentations along Florida Highway 10 is the Little Bayou recreation area developed by the Forest Service. Because of its high banks and sheltered waters, Little Bayou for many years has been used as a haven by boats of all kinds during tropical storms. Boating, bathing, picnicking, and salt-water fishing are possible at Little Bayou all the year round. Fishing and swimming may be enjoyed from the white sand beach, boats, or the diving platform which has been constructed from the beach into the waters of the bayou. A bathhouse has been provided with dressing room, toilet, and showers. Swings, see-saws, and sand boxes have been made available for children. There are tables, open fireplaces for cooking, shelters, benches, campfire circles, rustic shelters, incinerators, and other sanitary facilities.

A golf course and several beach and summer resort hotel developments are located on the shores of Choctawhatchee Bay. Forest Service facilities and the beautiful scenic views of the forest are added attractions.



## HUNTING AND FISHING

The Choctawhatchee Forest supports a large herd of deer, some wild turkeys, and numerous small game, such as red foxes, squirrels, and quail. In cooperation with the State Commission of Game and Fresh Water Fish, a game preserve was established on the southwest side of the forest in 1925, and when present plans are carried out, hunting and fishing on this forest will be one of the major forms of recreation. To meet the present demand, plans are now formulated for the construction of improved hunting and fishing camps, the first of which will probably be constructed along Lightwood Knot Creek.

Fresh-water fishing is furnished by numerous streams, the most important being Yellow River on the north and west boundaries, and East Bay River, Juniper Creek, and Rocky Creek in the southern portion of the forest. Fishing for salt-water trout, Spanish mackerel, mullet, red fish, flounder, and many other varieties of food and game fish in the bayous and inlets of Choctawhatchee Bay is very popular. Niceville is the base of commercial fishing operations in the Gulf which furnish fish to the inland cities of the North.

*REPORT FOREST FIRES PROMPTLY*

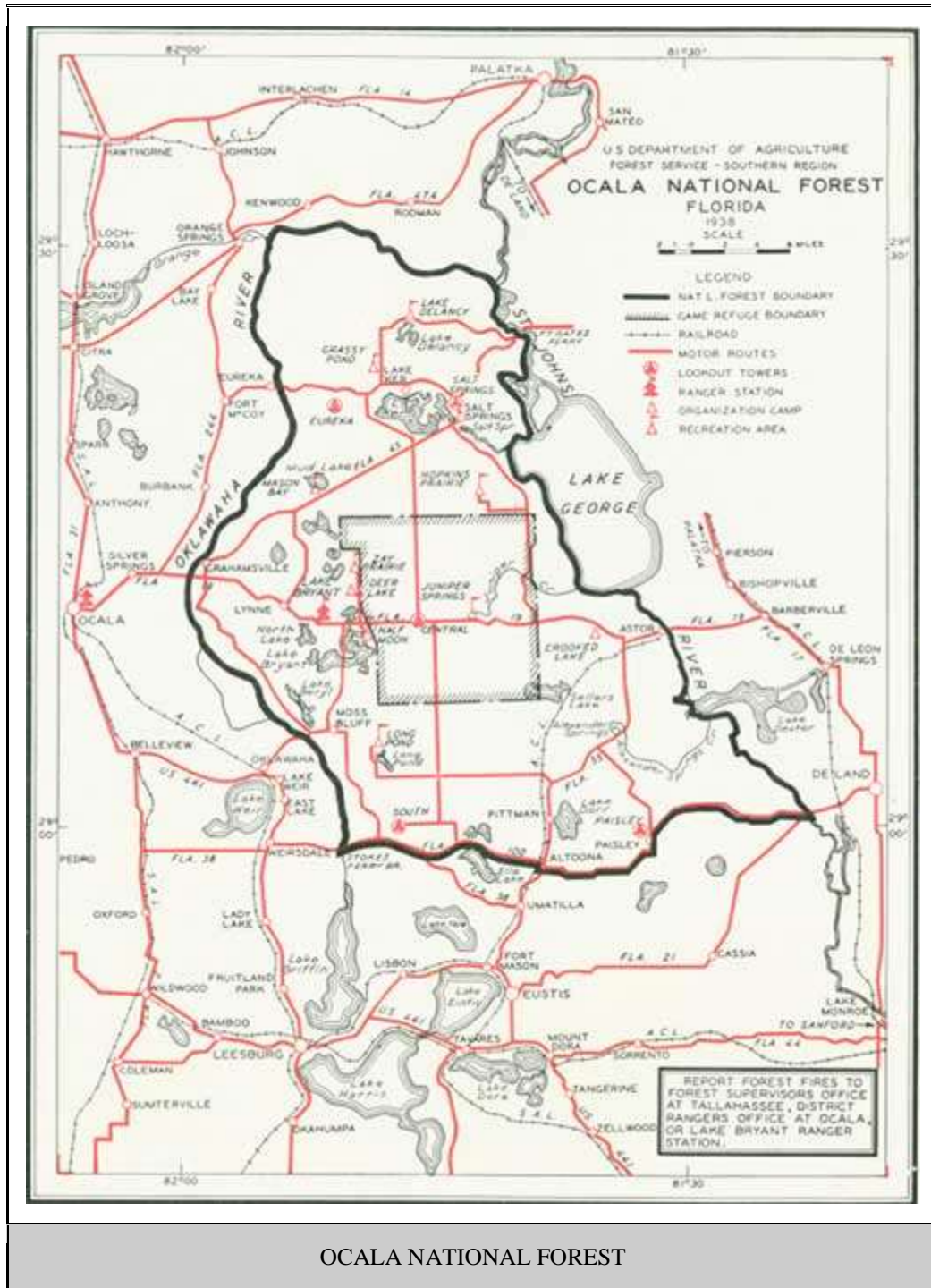
## *Ocala National Forest*

THE Ocala National Forest has a gross area of 441,925 acres and is the most southern of the four national forests in Florida, being the only one within the peninsular portion of the State. It lies between the cities of Ocala and Daytona Beach. The name "Ocala" is derived from "Ocali," the name of the Seminole Indian chief who dwelt in this vicinity. Its boundaries extend to the Ocklawaha River on the west and north, to Lake George and the St. Johns River on the east, and to State Highway 100 on the south.

The headquarters of the district ranger are in the Post Office Building in Ocala, the Marion County seat. Most of the forest lies in Marion County, but the eastern edge lies within Lake and Putnam Counties. It is of historical interest that about 1539 DeSoto discovered an Indian village of 600 huts at the present site of Ocala.

The soil under practically the entire forest is a deep, coarse, porous sand. Drainage is subsurface, and rain is absorbed by the soil as rapidly as it falls. Small areas along Juniper Creek are drained by surface streams but these are exceptional.





Prairies are an interesting feature of the Ocala topography. They are slight depressions, which are treeless except for the fringe of slash pine. These prairies are covered with herbaceous plants with sedge predominating and contain intermittent ponds which have no surface inlets or outlets. A few of the ponds may dry up at certain seasons but most of them contain deep holes of water throughout the year, which invariably support a growth of yellow water lilies or spatterdocks.

The Ocala National Forest contains the largest existing area of sand pine (*Pinus clausa*) in the world. It is sometimes called "scrub pine," and the area is known locally as the "Big Scrub." Sand pine is similar morphologically and silvically to the Virginia pine of the Middle Atlantic States, the Jack pine of the Lake States, and the lodgepole pine of the Rocky Mountains. It grows in dense even-aged stands and is relatively short-lived.



SAND PINE, OF WHICH THE LARGEST EXISTING AREA IN THE WORLD IS ON THE OCALA NATIONAL FOREST F—225047

Other important timber trees which grow on the better soils of the forest are longleaf, slash, loblolly, and pond pines, cypress, and numerous hardwoods. Along some of the wet bottoms, pine is mixed with the stately cabbage palm, forming a semitropical setting along the streams and bottoms.

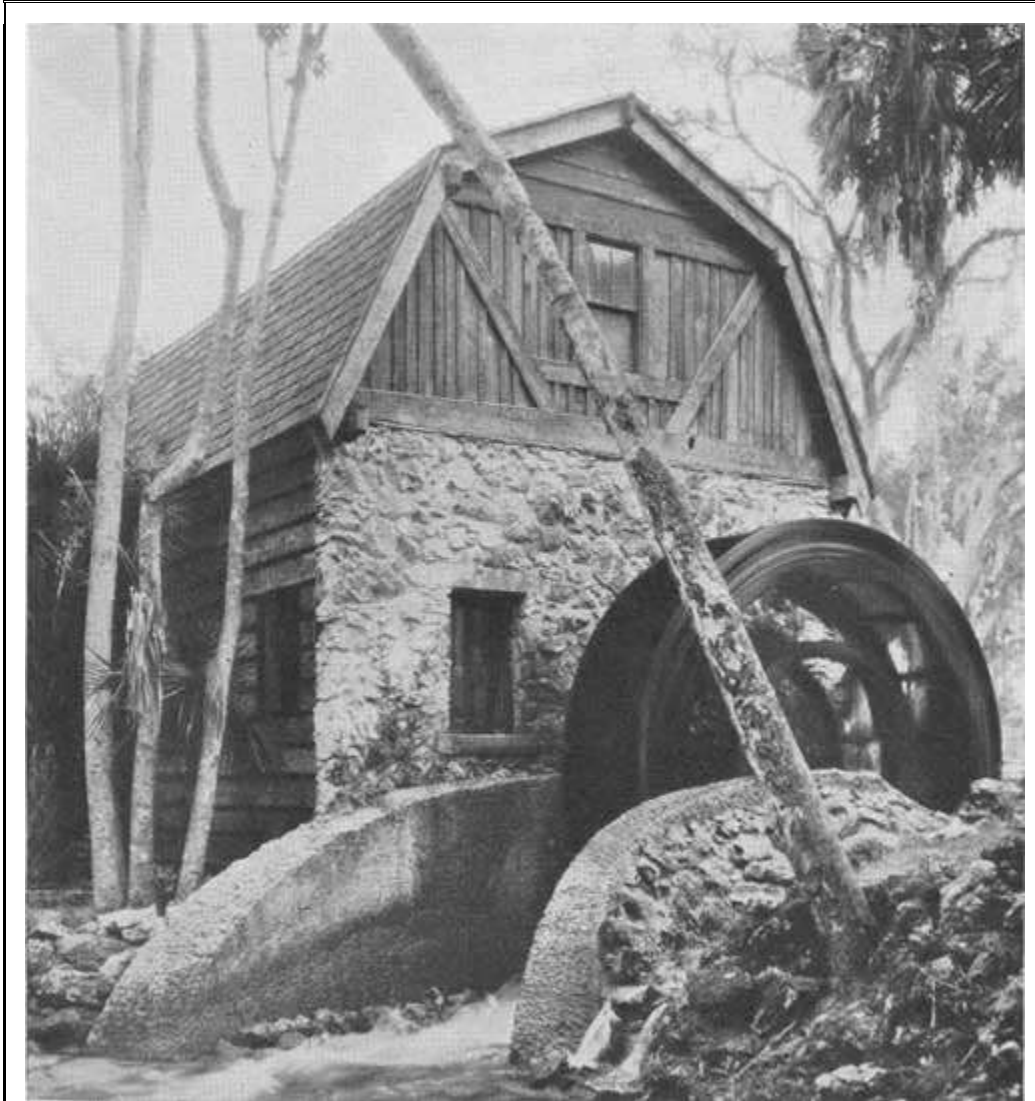
The Ocala stand of sand pine is something more than 400,000 cords, and will be managed primarily for pulpwood. Present indications are that for the next 20 years the forest will maintain a cut of approximately 25,000 cords per year, after which the yield will increase considerably.

This pulpwood will be important in supplying the mills located at Fernandina and Jacksonville, since the wood can be transported by water from the forest to both mills.

The highest price the Forest Service has ever received for pine saw timber was paid on the Ocala National Forest. Because of the unusual quality of the timber and its accessibility, it demands premium prices. The forest is believed to have the highest producing naval stores timber in the longleaf-slash pine group. By the recent acquisition of more than 50,000 acres of second-growth longleaf and slash pine, it is estimated that the forest will support annual naval stores operations of 200,000 cups on a sustained-yield basis.



PICNIC SHELTER AT JUNIPER SPRINGS F—370107



AN ATTRACTIVE FEATURE OF THE JUNIPER SPRINGS AREA IS THE OLD-FASHIONED MILL WHEEL WHICH FURNISHES ELECTRICITY FOR THE PICNIC AND TRAILER CAMP AREA F—352913

## RECREATION

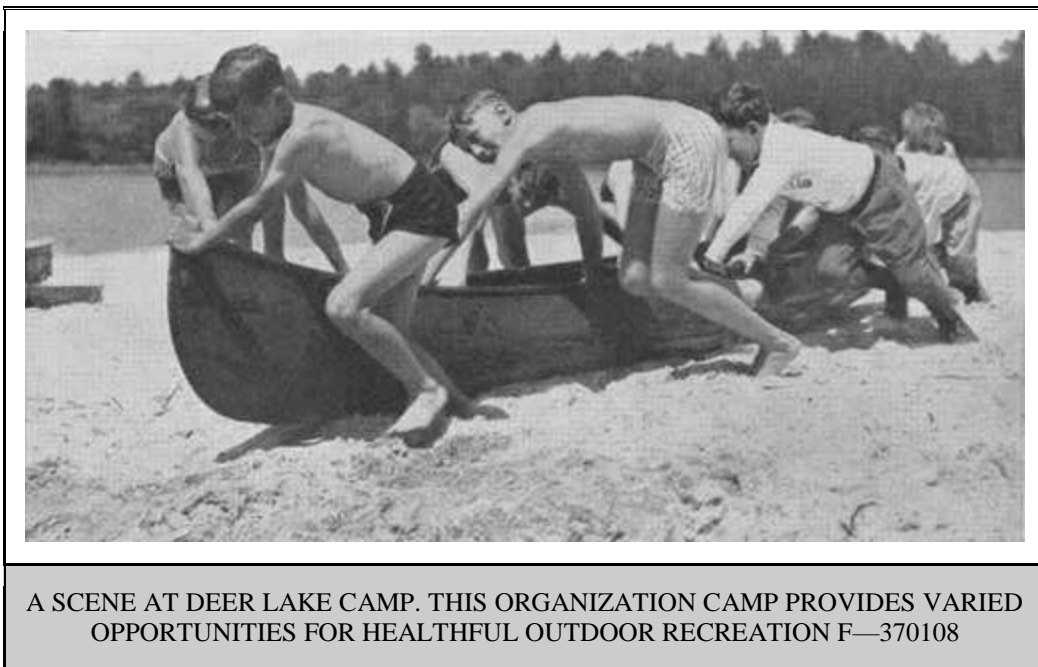
The numerous clear lakes and natural springs of the Ocala, its semitropical scenery, and its excellent hunting and fishing make it an ideal spot for a vacation.

The area which is now the Ocala National Forest has been famous since the days of the red man for its many beautiful springs. In addition to the nationally famous Silver Springs, 5 miles east of Ocala, there are a number of other clear-water springs in the rolling, pine-clad expanses of the "Big Scrub." Surrounded by a massive luxuriant

growth of tall pine, oak, and palmetto, and a deep cool cover of shrubs and low palms, these spots are gems of shadowy, tropical beauty.

Other springs which are of scenic and historical interest and which are adapted to recreation are Sweetwater Spring, Alexander Spring, Salt Springs, and Silver Glen Springs. The latter two are on private land, but are adjacent to the Ocala National Forest.

JUNIPER SPRINGS RECREATION AREA is in the scrub just 1,000 feet north of Florida Highway 19. 30 miles east of the city of Ocala and 44 miles west of Daytona Beach, and within an hour's drive of De Land, Eustis, and Palatka. This development provides healthful outdoor recreation of many types and is considered by authorities as one of the outstanding recreation areas in the national forests of the Southeast.



The entrance to this area is marked by a pylon and guarded by a pair of massive portals of Ocala limestone. Improvements and structures in rustic style have been provided for picnicking and swimming; adequate parking space and a trailer loop for trailer camping are available. The area is a natural botanical garden of native trees, shrubs, and wild flowers, and a "nature trail" meanders through the semitropical forest along Juniper Creek.

The spring, encased as it is in a setting of Ocala field stone executed in various styles of masonry, naturalistic riprap and boulder arrangements, is an unusually beautiful natural wonder with its deep "boil" and several minor springs yielding daily 6,000,000 gallons of clear, sparkling water at a temperature of 72° the year round. The water has

been impounded by a dam to form an oval swimming pool, and the head of water is used to turn an old-fashioned mill wheel.

Another recreation use of the forest is summer camps or organization camps. A former C. C. C. camp on Crooked Lake on the eastern side of the forest has been turned over to the State 4—H club. At Deer Lake on the western side of the forest one of the largest organization camps in the State is being constructed by the Forest Service. Contributions have been made by Marion County and the city of Ocala. It offers an opportunity for recreation for such groups as Boy Scouts, 4—H clubs, Girl Scouts, Y. M. C. A., Y. W. C. A., Rotary, Kiwanis, Lions, and Exchange clubs, farm and church organizations at a moderate rental charge, which covers the upkeep cost. The plain but comfortable buildings on the shores of the lake include a large recreation or assembly hall, a lavatory building, and director's cabin. Each of 14 squad huts, with built-in bunks equipped with mattresses, will accommodate 10 persons.

The lake provides swimming and there is a sand beach for sun bathing. Bass and bream provide sport and food for anglers. Facilities have been developed for baseball, volleyball, basketball, and tennis. In addition, there are a trapeze, shuffleboard, and a council ring.

Complete information concerning the camp may be secured from the district ranger, Ocala National Forest, Ocala, Fla.

## HUNTING AND FISHING

The numerous high islands and the bordering fringes of dense swamp and deep hammock make the Ocala National Forest an outstanding game area. Because of the dense growth of the sand pine, deer survived here long after they were exterminated in the surrounding country, and the white-tail deer is the important game animal. To improve hunting on the forest, the Ocala National Game Refuge was established by Presidential proclamation in 1930. It now includes 79,000 acres. In cooperation with the State Commission of Game and Fresh Water Fish, a wildlife management area of 296,400 acres has been established on the Ocala. Hunting will be restricted within this area in an effort to build up the wildlife resources to the carrying capacity.

The sand-pine areas are an outpost of such decimated animal species as the Florida black bear, Florida wolf, and Florida panther, better known in the West as mountain lion. At the present time, camping is largely incidental to deer hunting. Fourteen campgrounds have been constructed for hunters, and are open to the public the year round.



A delightful fishing trip on the Oklawaha River may be taken by boat, rented either at Dalks Bluff on the Daytona Highway or at Eureka. The trip may be extended by using an outboard motor into a 2- or 3-day jaunt down the Oklawaha River, then up the St. Johns River, through Lake George and on to the Daytona Highway at Astor. This entails camping overnight at one of the landings along the rivers, but the trip fully justifies the time required. Black bass and jackfish are among those in the stream. The beauty of the swamp vegetation and glimpses of marsh birds, numerous turtles, and an occasional alligator will add considerable interest to the trip.



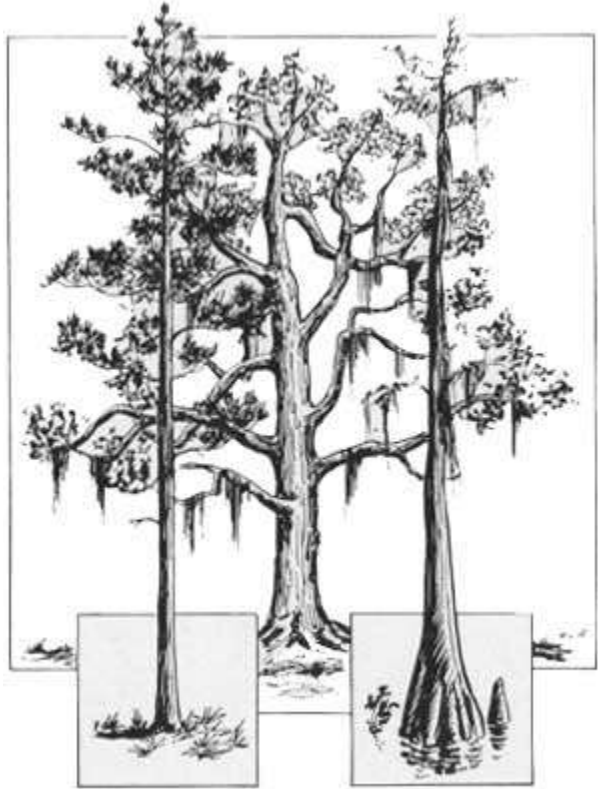
THE OKLAWAHA RIVER, ONE OF FLORIDA'S MOST BEAUTIFUL STREAMS  
F—314524

Lake George, on the east side of the forest, is the second largest lake in the State. In early June the mats of water hyacinth along its borders present a lovely spectacle. Lake Kerr is the largest lake within the forest and has been developed to a small extent privately. Other lakes within the forest are Lake Bryant, Milldam Lake, and Half-Moon Lake, all of which interconnect; also Lake Jumper, Mud Lake, Lake Delancy, Wildcat Lake, Sellers Lake, and numerous smaller lakes. Fifteen minor lakes, including Farles Prairie and 10 small ponds on the Ocala, are closed to fishing to permit study and restocking. All other lakes within the forest are open to fishing under the State laws and can be reached by car, which makes it possible to take a boat to any of them.

*PRESERVE NATURAL BEAUTY  
HELP PREVENT FIRES*

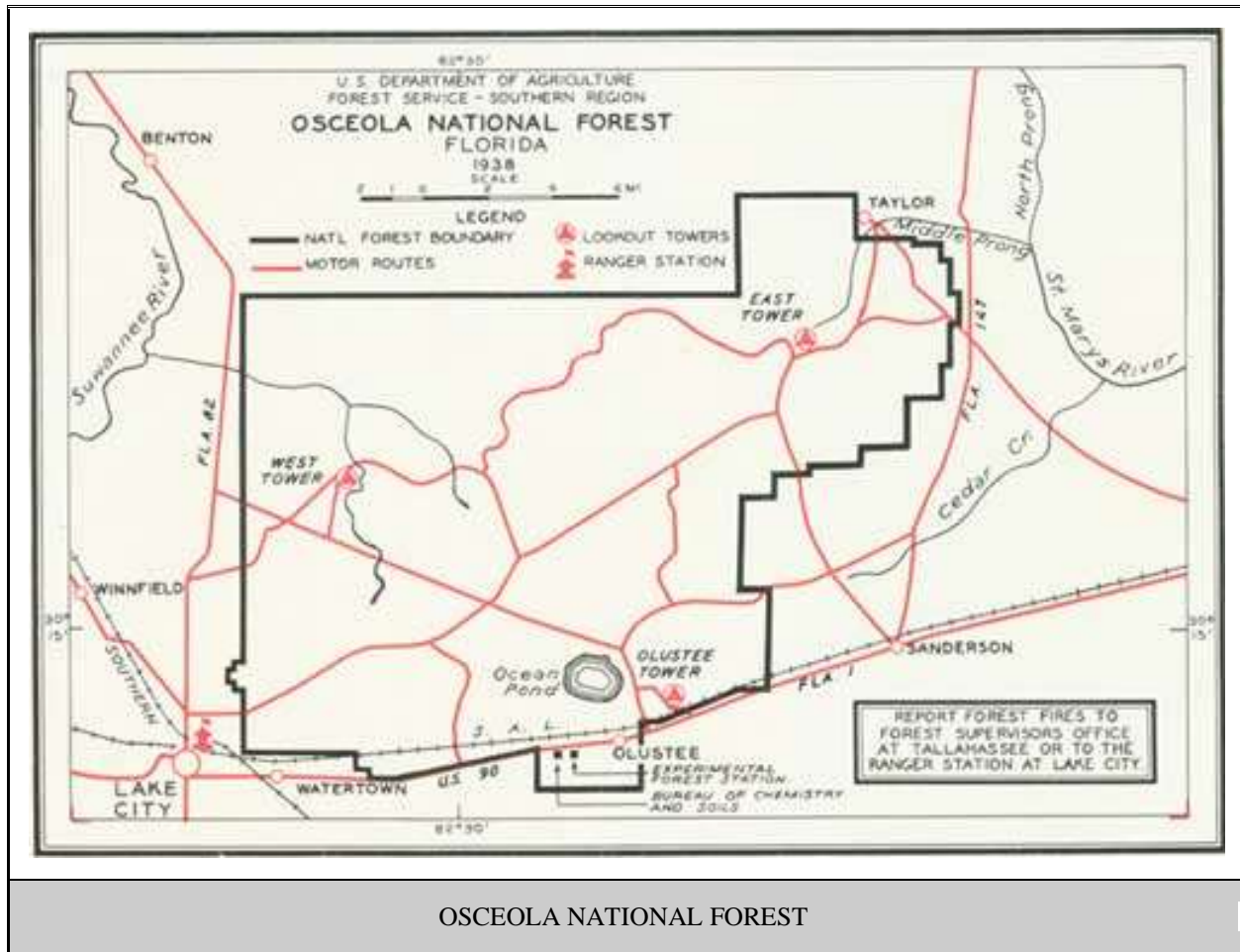
## *Osceola National Forest*

THE Osceola National Forest, with a gross area of 161,813 acres, is located in northeastern Florida in Columbia and Baker Counties, 12 miles south of the Georgia line. The Suwannee River, made famous by song and story, flows within 2 miles of its western boundary and the St. Mary's River within the same distance of its eastern boundary. The "Old Spanish Trail," U S 90, and the Seaboard Air Line Railroad run along the southern boundary. Lake City, the county seat of Columbia Count and headquarters for the district ranger, has a population of 5,000 and is located only 2 miles from the southwest corner of the forest.



The forest was named for Osceola, the daring and intellectual Seminole chief whose capture and imprisonment in Fort Marion at St. Augustine is a tragic story in Florida's history.

The entire forest is extremely flat, and the area is dotted with numerous small ponds and swamps where the soil is covered with water varying in depth from a few inches to several feet. Longleaf and slash pine grow on the higher areas, and with adequate protection from fire the pine reproduction has become well established. Slash pine and cypress predominate in the shallow swamps, and hardwood and cypress on the muck soil in the deep swamps. In the larger swamps are virgin stands of cypress.



The Osceola National Forest is managed primarily for naval stores and saw timber. After the trees have been worked out for turpentine, the larger trees are taken as saw timber and poles, the small trees and tops are sold as pulpwood and the turpented butts as fuel wood. Cypress in the large swamps is being cut as saw timber, and much of the cypress in the ponds is being taken out as cross ties.



FOREST SERVICE ROADS HAVE MADE THESE AREAS ACCESSIBLE TO MOTOR TRAVEL AND FOR MARKETING PRODUCTS F—352971

The forest was established primarily as a naval stores demonstration area to show that proper forest management could be practiced economically and effectively in the naval stores belt. Because the area favors intensive management, research, and demonstration, many permanent improvements have been constructed. The most important of these are located near Olustee, 12 miles east of Lake City. Three miles east of the town is the Olustee guard station. Here the key fire-lookout tower and a modern equipment depot and machine shop are located, also a complete modern seed extractory which furnishes pine seed for national forest nurseries elsewhere.

At Olustee is located the naval stores branch of the Southern Forest Experiment Station and the naval stores laboratory of the Bureau of Chemistry and Soils. The Southern Forest Experiment Station manages 3,000 acres of the Osceola National Forest as an experimental and demonstrational area, and conducts large-scale experiments on the management of southern pines for naval stores. The naval stores station of the Bureau of Chemistry and Soils conducts studies to determine the most efficient methods of harvesting raw gum and distilling and refining turpentine and rosin. Many of the theories that are worked out in an experimental way by these agencies are practiced in a commercial way on the Osceola Forest. Activities here are of great importance to the entire industry and many prominent naval stores operators visit the forest and laboratories to get first-hand information on the latest

developments in their field. Since the establishment of the Osceola Forest in 1931, it has produced revenue in excess of a quarter of a million dollars, and has increased its annual cuppage of naval stores and its sale of pulpwood, saw timber, and other forest products. It is not only on a sustained-yield basis, but also is increasing its inventory of merchantable forest products.

## RECREATION

Because of its low, swampy topography, this forest has very limited recreation resources. The only attractive area for recreation use lies along the shores of Ocean Pond, a lake of open water, 1-1/2 miles in diameter, which offers good possibilities for fishing, boating, and swimming. Osceola Lodge has been constructed on the north shore of the lake and is used by forest school students, Boy Scout troops, and similar organizations. Improved picnic areas are planned on the south and west shores.

## HUNTING AND FISHING

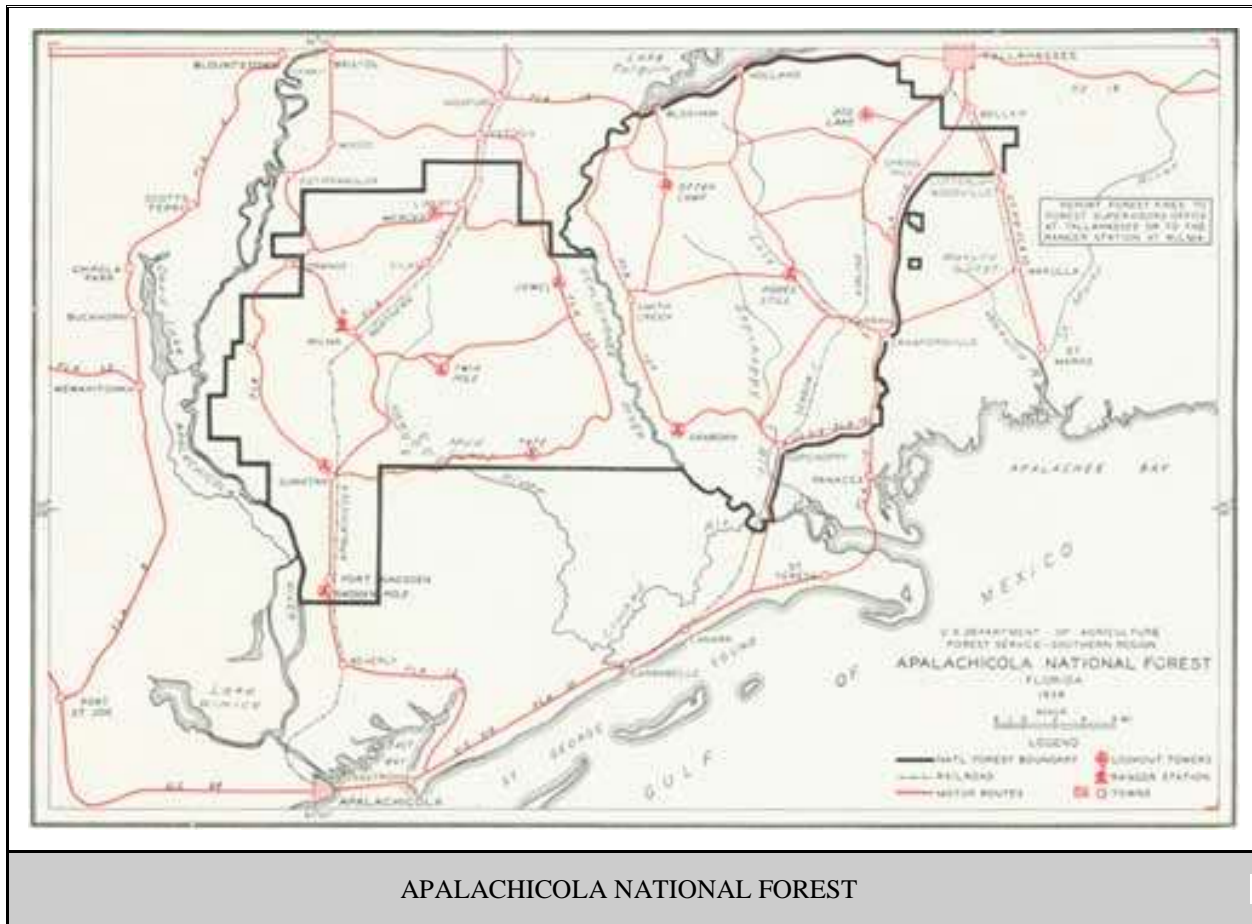
In cooperation with the State Commission of Game and Fresh Water Fish, a wildlife management area of 107,000 acres has been established within the Osceola. This area will be closed to hunting until it has been satisfactorily restocked with deer and other species of wildlife. When the population of these animals has been built up sufficiently, they will be placed under scientific management. Fishing, except for bream in the small streams scattered through the forest, is limited to Ocean Pond. The Forest Service plans to remove the garfish from this lake and stock it with game fish.

## *Apalachicola National Forest*

THE Apalachicola National Forest is located southwest of Tallahassee, the State capital, and extends from within a few miles of Tallahassee to the Apalachicola River. State Highway 19 is the northeast boundary of the forest and State Road 110 and U S 319 bound the forest on the east side. The forest is divided into two parts by the Ochlockonee River. The Wilma district, with a gross



acreage of 306,395 acres, lies west of the river, mostly within Liberty County with the southwest tip extending into Franklin County. Wilma is the headquarters of the ranger in charge of this district. The Wakulla district, with a gross acreage of 325,850 acres, lies east of the river, within Leon and Wakulla Counties. Tallahassee is the headquarters of the district ranger. The Wakulla district was added to the Apalachicola by Presidential proclamation on June 21, 1938. Prior to this proclamation the area had been administered as the Wakulla project by the Farm Security Administration. Four towers have been constructed on the Wakulla district, on areas developed as subsistence units with the necessary buildings to make each a self-contained habitation. The district contains a typical work center of warehouse, garage, shops, and water system.



APALACHICOLA NATIONAL FOREST

When the Apalachicola unit came under the control of the Forest Service, it was one of the last backwoods areas of north Florida, but an intensive C. C. C. program has transformed it. A network of graded roads has made the extensive resources accessible for utilization and made it possible to get men and equipment in quickly in case of forest fires. The forest was established primarily to stabilize a decadent community, which had depended almost entirely upon the timber resources.

Timber on the Apalachicola National Forest will be managed for saw timber as the final crop. Intermediate crops will be pulpwood, naval stores, cross ties, and fuel wood. The present annual yield of pulpwood is estimated at 13,000 cords. This yield is expected to increase materially as soon as the wrecked remnants of former naval stores and logging operations are removed and new second growth comes into merchantability. Some two or three small naval stores operations are dependent on this forest as a source of timber. Because of the close utilization of resources in the past, however, these operations must be conducted on a small scale.





SCENE ON THE APALACHICOLA RIVER NEAR FORT GADSDEN F—352676

This forest is topographically similar to the Osceola, being flat and wet with numerous ponds and swamps. Longleaf and slash pine grow and reproduce well on the higher grounds of the flatwoods. Cypress and hardwoods grow in the ponds, and southern white cedar grows along the stream bottom. Northwest of Vilas is a higher, dry area of ridge type—longleaf pine with turkey oak as an understory.

The swamp and overflow lands along the Apalachicola River are extremely interesting botanically. Here, as a result of seed and silt carried down and deposited by the river, are trees whose natural habitat is far to the north of this latitude. Trees, such as beech, ash, elm, and yellow poplar, which are more characteristic of the Southern Appalachians than of Florida, make up a large part of the bottom-land hardwood stands. Along the limestone bluffs and ravines of the Apalachicola River north of the forest the rare Florida yew, *Taxus floridana*, and stinking cedar, *Tumion taxifolium*, formerly, and still, designated as *Torreya taxifolia*, occur. To preserve these interesting forms, the State has set aside an area as the Torreya State Park.



PLANS ARE BEING MADE TO IMPROVE THE FISHING ON THE FLORIDA  
NATIONAL FORESTS F—313087

The remains of Fort Gadsden on the Apalachicola River are located within the forest. This fort was built by the English in 1812 and destroyed by the United States in 1816. It was rebuilt by General Jackson in 1818 and used during the Seminole wars. Since then most of the materials have been salvaged in building the town of Colinton.

The topography of the Apalachicola Forest is low and swampy, and suitable natural beauty spots adaptable for development as picnic areas are rare, except on the Wakulla district. Simmons Lodge, an abandoned structure, acquired with the tract of the same name is the site of a proposed organizational camp. Construction of a dam will provide swimming facilities at this point. Dog Lake is a potential recreation area.

Fishing is an important recreation use in this area. On the three streams and their tributaries which drain the forest are many miles of fishing waters. Opportunities for hunting are limited because the area is largely shot out, only a few deer, bears, and turkeys remaining. A game-breeding ground, with an area of 49,978 acres, was established by the State Commission of Game and Fresh Water Fish on November 10, 1937. This refuge, which was closed to hunting and trapping for a 5-year period, lies in a portion of the district known as Simmons pasture.

Under the cooperative agreement recently entered into by the United States Forest Service and the State of Florida, a restocking and development program is planned, which promises to restore an abundance of wildlife in this forest.

## ***FLORIDA'S FORESTS AND THE FUTURE***

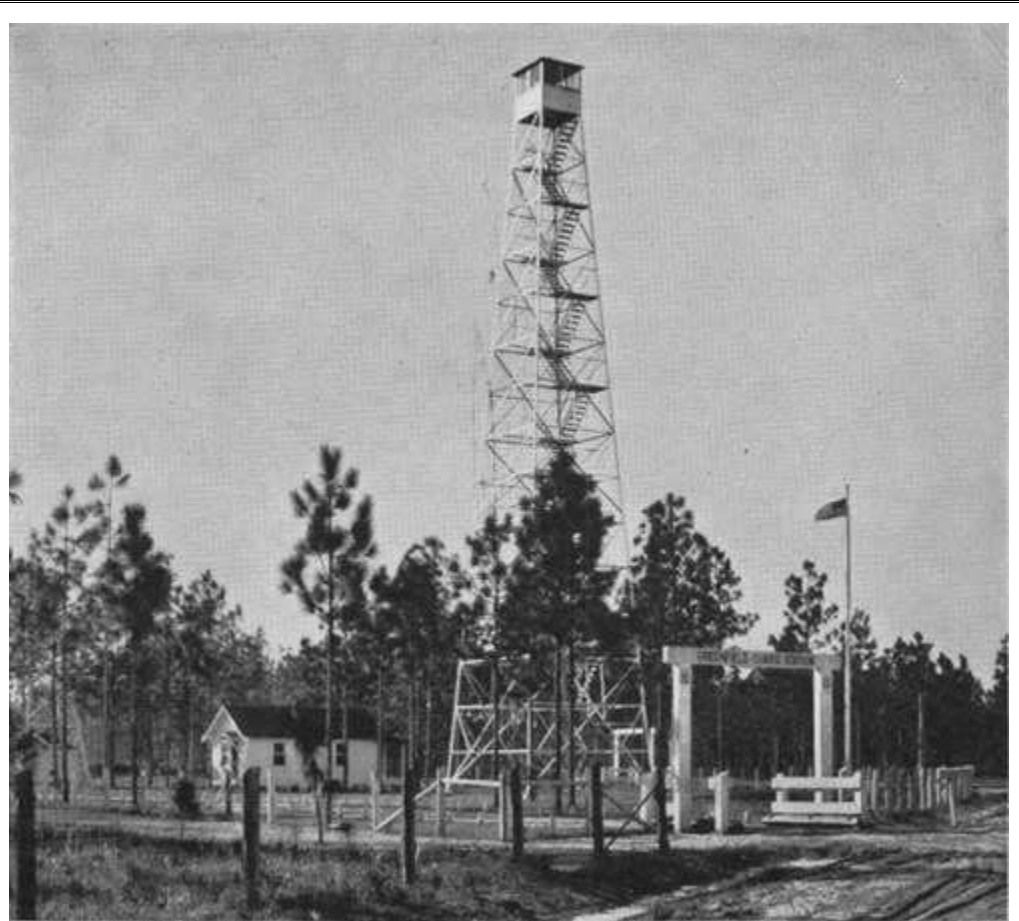
HUMAN welfare is the basic aim of conservation, and forests are vital tools in the service of mankind. The United States Forest Service as a large landowner in Florida is obliged to manage its lands so that the forest resources will be converted into direct benefits to society and exert greater beneficial influences upon the economic structure of the State.



The Florida national forests are destined to play an increasingly important part in the future economic life of the State. They are a testing ground where multiple-use management of their resources will help to solve the problem of how forest lands may bring increased stability of employment, sounder communities, and improved standards of living.

Florida has large forested areas, a long and favorable growing season, fast-growing tree species that lend themselves readily to forest management, excellent markets, and good transportation facilities. The State's longleaf and slash pine forests have been the mainstay of naval stores production for the last 30 years. Now they serve as the raw material for the manufacture of pulp. In the early days of Florida men died in the mad search for hidden treasure, and now science and industry have discovered the real treasure in Florida's forest trees. Plants engaged in the manufacture of kraft paper, boxes, and paper pulp are moving to the South because of the abundant supply of pine trees which make good pulpwood material by the time they are 20 to 25 years old. It pays to raise this timber as a crop, and the Forest Service is using the national forests as demonstration plots to show that scientific forestry and methods of conservation pay profits. When industry and private owners realize this, the shift in timber from a mining to a cropping system of utilization will have made a real start.

Since the private timber owner's interest in forestry is principally from the standpoint of cost and profit, an attempt has been made on the national forests to get the costs down to a commercial basis so that private owners can look over these areas and do their own figuring. It is believed that this will have a far-reaching effect in putting under proper forest management the 22,000,000 acres of wooded land in the State.



TOWERS ARE AN IMPORTANT PART OF THE FIRE DETECTION SYSTEM  
F—131444

## THE MENACE OF FIRES

Uncontrolled fires are the greatest problem facing forest conservation in the South, and one of the major jobs in the administration of the national forests is the prevention and suppression of fires. One bad fire may destroy the forest crops for a century.

The forest wealth of the Nation is being destroyed through fire alone at the rate of about \$50,000,000 a year. The cost of fighting fires, erosion, floods, and the destruction of wildlife must also be considered in figuring fire losses. Without successful fire protection, forestry cannot restore the American heritage of timberlands, nor can these lands fulfill their role in the control of floods, the maintenance of water supplies, and outdoor recreation.

The United States Forest Service is making every effort to bring the newest scientific developments into forest-fire control in the national forests, and to coordinate the

results of experience and fire-control research to effect the desired fire-control objectives. In the preparation of fire plans, prevention has been given special emphasis. Specific plans as to lookout points to be manned, placement of special fire crews, and use of emergency patrols are now based on fire-danger conditions as indicated by wind, humidity, visibility, and rainfall measurements. Fire improvements consist largely of the fire-tower system, telephone lines, radio equipment used in communication, and roads which make the forest accessible. The fire-control organization is primarily headed by the district rangers, aided by a corps of lookout men who detect the fires and report them to the dispatcher, who in turn sends a fire-fighting crew to the fire area.

In the highly inflammable ground cover of Florida forests one spark may expand to a devastating conflagration at almost any season of the year. In no State are the resources of the forests more essential to the continued prosperity of a people than in Florida. The basic materials necessary for supporting the lumber, naval stores, and wood-using industries are far too valuable to be allowed to go up in smoke.

State and Federal foresters and other agencies have organized to secure adequate forest-fire control. Because of this effort, almost 5 million acres of forest land in Florida are now under organized fire protection. But 17-1/4 million acres of privately owned lands in the State are without such protection. One of the first needs is for the State and private owners to bring this huge area under protection, so that it may begin growing a new timber crop. Adequate protection for the total forested area of 22 million acres depends upon the wholehearted cooperation of every citizen in Florida, who, as a property owner and taxpayer, should be vitally concerned.

Much of the progress in fire protection in Florida during the past few years has been made possible by the Civilian Conservation Corps. Under direction of experienced forest officers C. C. C. enrollees have constructed hundreds of miles of roads and trails. They have built towers and put in thousands of man-hours watching for telltale wisps of smoke from these same towers. They have strung thousands of miles of telephone lines over which to send the news of fire outbreaks.



A FOREST SCENE IN OSCEOLA NATIONAL FOREST, IN 1932, BEFORE THE FOREST WAS PLACED UNDER PROTECTION F—266904



THE SAME SPOT EXACTLY 5 YEARS LATER, THE RESULT OF ORGANIZED FIRE PROTECTION F—345196

It is estimated that 25 percent of forest fires on the national forests are caused by smokers—persons who go into the woods for camping, hunting, and recreation. A carelessly discarded burning match, cigar butt, or glowing pipe heel may in a few moments be converted into a disastrous forest fire which, before sufficient man power or equipment can be brought to the scene, results in a desolate, blackened wilderness of smoking ruins.

There are more than a million and a half acres of land in the gross area of the four national forests of Florida. This huge empire is owned by you and your neighbors and the rest of the public, and if protected from fire, can be made to fulfill the highest objectives of forestry. Florida's magnificent forests, of which the lands now in the national forests were a part, withstood the greediness of rival nations and the fury of war, but they cannot with stand uncontrolled fire. When you are in the woods, render a real public service by care with fire. Extinguish lighted matches, cigars and cigarettes, and pipe heels. Do your part in helping to keep fire away from the forests. Cooperate with the forest rangers by reporting small fires promptly. If you discover a forest fire and are unable to extinguish it, report it at the nearest supervisor or ranger station, to State Forest Service rangers, county agents, sheriffs, telephone operators, or any others who are organized to handle such reports.

The headquarters of the forest supervisor for the Florida National Forests are at Tallahassee, and ranger stations and fireguard headquarters are located at the following points:

APALACHICOLA	TALLAHASSEE.
	WILMA.
CHOCTAWHATCHEE	NICEVILLE.
	HOLLY.
OCALA	OCALA.
	LYNNE.
OSCEOLA	LAKE CITY.
	SANDERSON.

All the forest officers will gladly give visitors information concerning the resources and attractions of the forests. Additional information is also available at the Forest Service Regional Office, Atlanta, Ga.



## TREES AND FLOWERS

THE name "Florida," given to this peninsula by Ponce de Leon in 1513, was most appropriate. At all seasons some plants are in bloom and during most of the year there are myriads of flowers. A few of the most interesting and conspicuous plants to be found on Florida national forests are given in the following list. They are grouped under the forest on which they are most common, but are not necessarily limited to that area.

### CHOCTAWHATCHEE

CONRADINA (*Conradina puberula*), a small shrub of the mint family with grayish foliage and pale blue flowers which blossom in the spring.



SCARLET FALSE-BASIL (*Clinopodium coccineum*) is another shrub of the mint family characterized by its straggly form and scarlet flowers which are produced yearlong.

FLORIDA GOLDENWEED (*Aplopappus pauciflosculus*, syn., *Chrysoma pauciflosculosa*). This peculiar evergreen shrub, closely related to goldenrod occurs in sandy soil.

FRINGETREE (*Chionanthus virginica*) occurs scattered over the dry pine-oak ridges and is very conspicuous when in flower, becoming a mass of lacy white blossoms,

RED-STAR ANISE (*Illicium floridanum*) is an attractive broad-leaved evergreen shrub of the magnolia family occurring along streams and in hammocks. It bears rather small, dark red, pendulous, ill-scented flowers.

KALMIA OR MOUNTAIN LAUREL (*Kalmia latifolia*) so common in the Appalachian highlands appears in limited areas through west Florida, including the Choctawatchee National Forest.

FLOWERING DOGWOOD (*Cornus florida*), another common shrub or small tree of the northeastern United States, also occurs in Florida, being found in hammocks and rich woods, often along streams.

MEADOWBEAUTY (*Rhexia alifanus*) is a large species of this attractive genus of perennial herbs bearing purple flowers about 1 inch long. It grows in moist pineland clearings and along the margins of ponds. There are several other species of meadowbeauty, which are characteristic of Florida flora.

## OCALA

FLAG PAWPAW (*Asimina obavata*, syn., *Pityothamnus obavatus*), a relative of the common pawpaw; differs in certain botanical characteristics; is usually a low shrub, smaller and with somewhat leathery leaves; grows in the dry sandy soil of the scrub. The large, white flowers are pendulous.

COONTIE (*Zamia integrifolia*) is found in the scrub. This very interesting plant has thick evergreen, fernlike leaves and fruiting cones resembling ears of corn about 6 inches long. This genus is among the most primitive living seed plants and the only genus of this ancient group of plants native to the United States. Coontie was used by the Seminoles and early Florida aborigines as food. The starchy underground stem was the main source of flour. It is the source of "Florida arrowroot."

SANDHEATH (*Ceratiola ericoides*), locally but erroneously known as rosemary, is a shrub which also grows in the scrub, or dry pinelands, and on sand hills, often in very acid soil. The plant has a heathlike or sprucelike aspect, the attractive dark evergreen leaves are very narrow, revolute, and needle-like.

AMERICAN BEAUTYBERRY (*Callicarpa americana*), frequently known as French mulberry, occurs in the hammocks and is quite conspicuous in autumn when the whorled clusters of pinkish violet berries ripen.

HERB CORALBEAN OR CARDINALSPEAR (*Erythrina herbacea*) is an herbaceous legume which grows in pinelands and hammocks and bears terminal racemes of bright scarlet flowers.

TARFLOWER (*Befaria racemosa*) is an evergreen shrub of the flatwoods and pond margins; very common on the Osceola National Forest. It is an attractive plant when in flower and is an outlier of a genus typically Mexican-South American.

GARBERIA (*Garberia fruticosa*) is a member of the thistle or composite family and grows in the scrub. It is a much-branched evergreen shrub which bears rose-purple flowers in November.

RED BUCKEYE (*Aesculus pavia*), a shrub or small tree having palmately compound leaves and bearing handsome panicles of red flowers, common in Florida and along the Gulf coast, is found in the hammock at Bill's Branch on the shore of Lake George.

CAROLINA-JESSAMINE, also known as YELLOW JESSAMINE (*Gelsemium sempervirens*), is an evergreen vine growing generally throughout the State in hammocks, swamps, and along streams, and is one of Florida's most attractive plants. It blossoms abundantly in late winter and early spring: the flowers are large, deep yellow, and very fragrant.

PRICKLYPEARS (*Opuntia* spp.). Numerous species of this genus of cacti occur throughout Florida. They are often found in old abandoned fields and attain a height of several feet. Most species are doubly armed, bearing spines which arise from clusters of bristles. The flowers are very attractive, white or yellow in color.

WATERLILIES, of which AMERICAN WATERLILY (*Castalia odorata*) and (*C. minor*) are examples, are attractive water plants common in shallow ponds and ditches.

WATER-HYACINTH (*Piaropus crassipes*) is the most showy, especially when massed, of Florida's water plants. It is free-floating and carried by water currents or driven about by the wind. The delicate pinkish or bluish purple flowers are borne in spikes.

This is but a beginning of a list of Florida plants. Members of the heath family are numerous. Aquatic and marsh plants are many. The cabbage palmetto (*Sabal palmetto*) and scrub palmettos—saw palmetto (*Serenoa repens*) and dwarf palmetto (*Sabal minor*)—are widespread in different associations throughout Florida. There are also several species of holly, cherry laurel, wild olive, air-plants (*Tillandsia*), and numerous orchids and herbaceous plants.

### *Federal, State, and Private Cooperation*

THE work of the United States Forest Service in Florida does not stop with the management of the national forests. Under the Clarke-McNary Law, it is authorized to cooperate with States in fire control on private and State timberlands, and in the production and distribution of forest planting stock to farmers. This cooperation is extended through the Florida Forest Service, and the contacts with the landowners are made by the State officers.

In cooperation with the State forester, the Forest Service also assists industrial timberland operators in developing management methods and plans. Similar assistance is also extended in the field of farm forestry.

The forest experiment stations conduct research to determine better and more economical methods of growing timber. The results of the investigations of the forest experiment stations are applied on the national forests, and are also made available to the State forest service and other agencies, and to private timber owners.