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# REPORT TO THE GENERAL ASSEMBLY 1941-1942



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DEPARTMENT OF  
NATURAL RESOURCES



**REPORT  
TO THE GENERAL  
ASSEMBLY  
1941-1942**



GEORGIA  
DEPARTMENT OF  
NATURAL RESOURCES





Department of Natural Resources  
State Capitol  
Atlanta

January 1, 1943.

Hon. Eugene Talmadge  
Governor of Georgia  
Atlanta, Georgia

Dear Sir:

In accordance with the Acts of the General Assembly of the State of Georgia of 1937 (page 268, section 8), I am pleased to render to you herewith the report to be submitted to the General Assembly, showing the nature and progress of the Department.

Respectfully yours,  
ZACK D. CRAVEY,  
Commissioner.



DEPARTMENT OF NATURAL RESOURCES

ZACK D. CRAVEY, Commissioner

DIVISION OF MINES, MINING AND GEOLOGY . GARLAND PEYTON, Director  
DIVISION OF STATE PARKS AND MONUMENTS . . . R. F. BURCH, Director  
DIVISION OF FORESTRY . . . . . WALTER DYAL, Director  
DIVISION OF WILDLIFE . . . . . ZACK D. CRAVEY, Acting Director

\* \* \* \*

Statement of the Commissioner

This report is prepared with the thought it may give an insight, at least to some extent, into the varied scope of the activities of our Department and in some measure reflect the program of each Division.

I believe that public attention has been focused on the value of our natural resources by the war. Conservation in many fields is a household word during these days and many people who previously had little interest in or understanding of our work have become exceedingly conservation-minded.

In our efforts we have received cooperation from men and women in all walks of life and in every part of Georgia. They share our belief that forestry and mineral resources must be developed and utilized but not wastefully exploited; that parks must be maintained and administered as a recreational facility for our people; and that wildlife must be considered a crop to be harvested wisely and with due regard for future generations.

We are always glad to have the sentiment of the people in planning our programs. All constructive criticism is welcome.

Sportsmen's organizations, 4-H Clubs, civic groups, schools, County Agricultural Agents, representatives of the U. S. Forest and Fish and Wildlife Services, the U. S. Geological Survey, the National Parks Service, and others deserve and have our sincere thanks for their splendid cooperation.

Without interfering with the regular routine of their duties, our staff members, especially those in the field, have aided in the defense work necessitated by the war. In fact, the activities of each Division of the Department has been geared into the nation's war effort.

ZACK D. CRAVEY,  
Commissioner.

## Educational Program

The education of our people in the value of our natural resources, their conservation and proper use, is one of the most important phases of the work of the Department of Natural Resources. In order to further this program four mediums have been used: motion pictures, news releases, the official magazine OUTDOOR GEORGIA, and addresses both in person and over the radio.

During the two year period, six motion pictures were made. In each instance, considerable money was saved the State by the use of regular staff members for direction, preparation of the scripts and narration, and technical advice. One thirty-minute technicolor picture, "Seeing Georgia," shows some of the work of each of the Divisions. This is a 16mm. film for use in schools and colleges as well as for civic and sportsmen's organizations. It is shown by a member of the staff and generally accompanied by a short talk.

In addition, five short moving pictures were made. Two of these concerned the work of the Division of Wildlife, "The Bob White Quail" and "Let's Stop Pollution!"; one was for the Division of Mines, "Georgia Minerals Go to War"; one for the Division of State Parks, "Enchantment of State Parks"; and the other for the Division of Forestry, "Progressive Georgia Forestry". These were issued in both 16mm and 35mm. The larger size, of course, is for use in commercial theaters, and appreciation is herewith expressed for the excellent cooperation the exhibitors have shown in presenting these shorts. More than 100 showings were made in public schools also.

The newspapers of the State have shown a great interest in conservation. They have carried special articles in the Sunday editions as well as the weekly conservation release to all papers, both weekly and daily. In addition they have given us very fine cooperation on spot news stories.

The official publication of the Department, OUTDOOR GEORGIA, has been particularly useful in the dissemination of information. This magazine, well illustrated and containing a wealth of information regarding the work of the Department, was voted in 1941 the best official state publication in the country by the State Educational Directors in informal session. The style and content of OUTDOOR GEORGIA were reorganized in the beginning of 1941, so as to include the work of each of the four Divisions, and emphasis was placed on informative and scientific articles rather than casual hunting and fishing stories. This policy has been very successful and the excellence of the editorial and pictorial aspects of the publication have received widespread recognition.

The Department has been fortunate in having a weekly fifteen-minute radio program through the cooperation of Radio Station WATL in Atlanta. On this program various staff members of each Division appeared as well as technical experts from cooperating Federal agencies, sportsmen and other conservationists. This program has proven extremely popular. In addition, a special broadcast approximately once a month was made over WSB in Atlanta.



Addresses by the Commissioner and members of the Staff of the four Divisions were made to schools and colleges, sportsmen's organizations, Boy and Girl Scouts, 4-H and FFA Clubs, civic groups and American Legion Posts.

During 1941 and the first half of 1942, numbers of exhibits on conservation were furnished county and state fairs as well as the Southeastern Fair at Atlanta. Also, special meetings such as the 4-H Club session at Camp Wahsega were provided with exhibits of live birds and animals. Due to the tire shortage, this service has had to be discontinued temporarily.

Magazines and publications all over the country were furnished with articles and pictures on the natural resources of Georgia, and information and pictures were supplied to several authors in the compilation of textbooks.

A number of publications were issued, including a "Directory and Description of Exhibits of the Museum of Natural Resources", "Construction and Management of Fish Ponds", "The Common Snakes of Georgia", "How to Plant Tree Seedlings", and "Handbook on Forest Fire Fighting". Also, a poster entitled "Sabotage", issued by the Army with special reference to forest fires, has been reprinted and distributed by the Department.

Requests both in person and by letter for general information about the natural resources of Georgia for school children, librarians, sportsmen, timberland owners, mining operators and other interested individuals were answered with pamphlets where possible and by letter when more specific information was required.

The Museum of the Department, which is considered one of the finest in the country, received a noteworthy addition in the form of the African collection of former Congressman Bryant T. Castellow of Georgia. Also, other exhibits were reorganized, rearranged and refurbished.

## DIVISION OF MINES, MINING AND GEOLOGY

by

GARLAND PEYTON, Director

The operation of the Division of Mines, Mining and Geology during the years 1941 and 1942 has been conducted with a view to maintaining at all times the strictest economy deemed consistent with rendering the greatest possible service to the citizens of the State. During the past year, in addition to our regular peace-time activities, the Division has devoted special attention to activities which would assist in furthering the war effort. These extra curricula activities have included research for development and evaluation of critical and strategic minerals, consultation services to Federal agencies such as the Army and Navy in connection with water supplies for new Army camps, sewage disposal, advice on the suitability of certain areas for camp sites, such as landing fields, etc. In addition to the foregoing, the Director of the Division of Mines, Mining and Geology and his secretary have functioned as Emergency Coordinator of Mines for Georgia under the War Production Board. This has entailed a considerable amount of extra work in an effort to provide operating mines with proper priorities in order that they might be assured of obtaining necessary supplies and equipment to prevent interruption in production.

The personnel of the Division has been composed of the following groups or classifications: regular technical staff, regular office staff, special part-time employees, U. S. Geological Survey personnel participating in cooperative Water Resources Investigation, and W.P.A. personnel assigned to the Division.

The Division of Mines in cooperation with the W.P.A., has conducted a State-wide Mineral Survey during the first 18 months of the two calendar years 1941 and 1942. Under this arrangement the W. P. A. furnished labor and technical supervision, including certain office personnel, for the purpose of conducting field exploratory work in a number of counties in Georgia. It was the original intention to continue this project until all of the commercial mineral resources of the State had been investigated on a county-by-county basis. Following the declaration of war in December, 1941, it was deemed necessary to discontinue a very large percentage of W.P.A. expenditure. This resulted in closing down all field work in connection with the mineral survey as of June 30, 1942. We were permitted, however, to retain four workers for the purpose of compiling records and results of the project. Unfortunately, the suspension of this project leaves us with more than 2,000 samples on hand which had not been analyzed and which it will not be possible to analyze under our present arrangement for some time to come.

At one time in 1941, 450 workers were employed on this project in 12 counties at different localities in Georgia. While accomplishments by this project were not all that could have been desired in some instances, it was possible to accumulate data which has been most helpful recently in connection with the production of strategic war minerals. It is desired to invite attention at this time to the problem with which we are now faced, since all W.P.A. personnel has been disallowed us. During the past two years W. P. A. technical personnel has performed many of the duties which normally would have had to be paid for by the division. With this personnel no longer available, we are faced with the need for increased regular personnel, in order that we may not only continue to render our normal services to the public but also care for the increased demands which are placed on us by the war activity. This suggests the desirability of increasing the appropriation to the Division of Mines sufficiently to make possible at least a reasonable number of additional staff workers.

#### DIVISIONAL ACTIVITIES

Special emphasis has been placed on field projects which appear to offer the greatest opportunity for developing and producing strategic and critical minerals so much needed in connection with the war effort. Among the minerals which have been investigated in this connection are asbestos, bauxite, chromite, copper, corundum, coal, graphite, iron ores, kyanite, limestones, magnesium minerals, manganese, mica, petroleum and natural gas, pyrite, rock wool, sericite, talc, and vermiculite. Of this list coal, bauxite, copper, chromite, corundum, graphite, iron ores, manganese ores, and mica are considered of critical or strategic importance in connection with the prosecution of the war.

Probably our most noteworthy accomplishment on war minerals is the enormous increase which has taken place in the production of iron ores and manganiferous iron ores. We are now shipping at the rate of a million tons of iron ore per year, whereas before this emergency our shipments were only a few hundred tons.

At our suggestion, the T.V.A. conducted research and developed a commercial process for beneficiating our medium grade manganese ores, which will result in consistently producing a manganese concentrate equal in grade and acceptability to any manganese ores from any source. Effort is now being made to arrange for the construction of a plant of this type in the Cartersville district.

#### U. S. BUREAU OF MINES COOPERATION

Through the interest created by our field work in connection with war minerals in Georgia, the U. S. Bureau of Mines has established a district

office at Gainesville, Georgia. They have a staff of engineers and geologists supervising and conducting a number of projects on strategic minerals in various sections of the State. They have three projects on bauxite, two of which are located in the vicinity of Americus, and one project in the vicinity of Rome. Also, they are conducting exploratory work on chromite in Troup County with the expectation of continuing this type work on the same mineral in Columbia County. This Federal agency also has been investigating, during the past few months, deposits of corundum, asbestos, copper, beryl, and kyanite. Just recently, following a conference in the Cartersville district, we have received notice that a rather extensive field investigation will be made with a view to determining the reserves of manganese ore in that district. We are pleased to announce that all of these investigations are discovering and blocking out worth while deposits of strategic minerals, the existence of which heretofore has been unknown.

#### U. S. GEOLOGICAL SURVEY COOPERATION

The U. S. Geological Survey has cooperated by assigning geologists from their staff to map areas in which bauxite should be investigated, to outline possible manganese areas, and to prepare a special report for the War Production Board on strategic mica. Unfortunately, the policy of the U. S. Geological Survey is not to make available reports of this type to this agency until such reports are published for general distribution. This renders such work and reports of little value to us or to others outside the War Production Board who are interested in aiding the war effort by producing war minerals in Georgia.

#### T. V. A. COOPERATION

In contrast with this attitude, the T. V. A. has been most cooperative in investigating Georgia mineral deposits and in conducting research designed to work out new processes for their beneficiation. As pointed out elsewhere, the T. V. A. has worked out a process for beneficiating manganese in the Cartersville district and we have published this report. No doubt it will be quite valuable in connection with our efforts to convince the War Production Board that manganese should be mined in Georgia.

For two months past the Assistant State Geologist and geologists from the T. V. A. staff have been conducting field investigations of all mica deposits in Georgia. It is expected that this investigation will be completed in about one month. The data obtained in this manner will prove most valuable in determining just what localities and which mines offer the greatest possibilities as sources of high-grade strategic mica. In this way such information will not only speed up the output of good mica but will con-

serve time and money by eliminating those properties which do not justify further expenditure.

#### WATER RESOURCES SURVEY

The cooperative water resources investigation conducted on a matching dollar basis by personnel of the U. S. Geological Survey has continued to function without interruption and without any reduction in appropriation. The \$15,000 appropriated by the State of Georgia not only has been matched by a like amount of Federal funds through the U. S. Geological Survey, but in addition \$33,636 of Federal funds have been spent by other Federal agencies because of the existence of this arrangement in Georgia. The existence of this cooperative survey has made possible the rendering of valuable service to the war effort by being in position to give specific data and pertinent information to the Army, Navy and the War Production Board in connection with the location of war industries, Army and Navy camp sites, and similar installations.

**SURFACE WATER INVESTIGATIONS** During the years 1941 and 1942 the scope of the water resources investigation was expanded in a number of ways. The number of gaging stations in operation in the State increased from 81 to 102. Stations equipped with water stage recorders increased from 60 to 84. The change in conditions brought about by the war has made it desirable to start a survey of the water resources of small watersheds in the Piedmont region of the State. In this survey 10 emergency gaging stations were established and low water discharge measurements were made at more than 100 additional points in the region. The data so obtained, while not taking the place of gaging station records, will show the dependable yield of any stream in the region.

**GROUND WATER INVESTIGATION.** Investigation of the ground water resources has spread from the limited region of the Coastal counties to include a large part of the Coastal Plain. In addition to the study of artesian waters, data is now being collected on the shallow well resources and on the fluctuations of the ground water levels. This information will be of direct benefit to the varied agricultural and municipal interests which were predominantly served by the former program. The technical staff of the Ground Water Division has been expanded by the assignment of a geologist who will occupy office space in our own division offices. The need for a geologist in this assignment has long been felt. He will be in position not only to render valuable services to the citizens of Georgia who are faced with problems of water supply but in addition will relieve our own staff of many calls in this connection which in the past have required our personal attention.



QUALITY OF WATER INVESTIGATION. The analysis of the chemical quality of public water supplies in towns in Georgia having a population of 2500 or more was completed and an excellent report published, giving this information. The industrial quality of water from streams in the Piedmont region is now being investigated. Already more than 75 samples have been collected from different streams for chemical analysis.

#### DIVISION LABORATORY

During the years 1941 and 1942 the research and analytical work of the Division laboratory has been somewhat hampered, due to the successive resignations of three different chemists, and the need in each instance of breaking in a new man to replace the person resigned. In spite of this handicap, 1800 samples have been received in our laboratory and prepared for analysis. Of these samples 124 fire assays for gold have been made, 188 physical determinations have been made, and 2099 qualitative and quantitative chemical analyses have been made. Had this service been paid for at rates usually charged by commercial laboratories, it would have cost a total of \$16,000. In other words, the citizens and the mineral industries of the State have received laboratory services free of charge to the extent of \$16,000.

In addition to the samples listed above, there are on hand an additional 2000 samples which were taken in the course of our W.P.A. field survey but which we have been unable to make analyses of as yet, due to the sudden discontinuance of the W.P.A. project and the consequent cutting off of laboratory assistants. These will be handled as rapidly as possible in addition to our regular routine services.

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Everything considered, the Division of Mines, Mining and Geology is rendering the greatest amount of service with the smallest staff in recent years. All indications point to the fact that Georgia's mineral production will not only exceed all previous years during 1942, but will have to its credit a very worth while contribution to the war effort in the form of strategic minerals.

## DIVISION OF WILDLIFE

BY

ZACK D. CRAVEY, ACTING DIRECTOR

The program of the Division of Wildlife during the past two years has made commendable progress. In each of its phases—propagation, education and law enforcement—the work has gone forward steadily and smoothly. The benefits to the people from a longtime view always received as much or more consideration than the immediate benefits.

### FISH MANAGEMENT

The propagation and distribution of fish constitute an important part of the Division's program. Streams and lakes all over Georgia have been surveyed to determine suitability and many depleted waters have been stocked with the proper number and species of fish. During 1941, 1,788,000 fish of all species were stocked and during 1942 approximately 1,906,000 fish were placed in Georgia waters.

The State maintains pondfish hatcheries at Fitzgerald, Richmond Hill, and Millen for the production of black bass, bream, and perch, and a hatchery at Summerville for the production of mountain trout and small-mouth bass as well as croppie and strawberry bream. In addition to the output from these hatcheries, through the cooperation of the U. S. Fish and Wildlife Service, distribution was available from the Federal hatcheries at Warm Springs, Lake Park and Cohutta.

Before the entry of the United States into the war, fish distribution was handled by the Division by truck from the hatcheries. However, due to shortage of tires during recent months, it has been necessary to curtail this somewhat. Inasmuch as the law directs that first consideration be given the stocking of public waters, this type of distribution is still handled by hatchery trucks and personnel. The private pond owners had to come to the hatcheries for their fish, but the public has been very cooperative in this matter and the results are most satisfactory.

The operation of the hatcheries has been reorganized to make it more efficient, effective and economical. Construction of additional hatcheries near Social Circle and Oglethorpe was progressing rapidly when the war emergency developed, but this condition has somewhat retarded the completion of these projects.

Information and encouragement was given farmers and landowners desiring to build fish ponds. Plans for the construction of model dams were furnished in many instances.

In detail the improvements on hatcheries are as follows:

#### BOWENS MILL FISH HATCHERY

FITZGERALD, GEORGIA

1941—Residence and garage repaired and re-roofed at an approximate cost of \$300.00.

1942—Drilled 6" well 674 feet deep at cost of \$1,999.00. This well flows 125 gallons per minute. This well was necessary to give sufficient water supply to lakes due to continual drouth in 1941, also essential for use in residence. The well is located 135 feet from residence and water has been connected with compressor at cost of \$225.00. Use of the old surface well has been discontinued. The old well was in close proximity to cess pool and dangerous. The new well is one of the finest in the state.

#### SUMMERSVILLE FISH HATCHERY

SUMMERSVILLE, GEORGIA

1941—Repaired and rebuilt 18 fish troughs in hatchery. Rebuilt concrete water filter on flume line from spring to hatchery. Renewed 60 feet wooden water flume line. Material cost approximately \$150.00 and extra labor was \$150.00. Two new connecting concrete drain kettles were built to pond, costing approximately \$25.00 for material. No extra labor was needed.

#### RICHMOND HILL HATCHERY

RICHMOND HILL, GEORGIA

The drainage from the lakes was improved. Brood stock was found to be depleted in January, 1941, so sufficient brood stock was procured to put the hatchery in operation.

#### MAGNOLIA SPRINGS HATCHERY

MILLEN, GEORGIA

1942—Repaired dams No. 1 and No. 2.

#### MIONA SPRINGS HATCHERY

OGLETHORPE, GEORGIA

1942—This hatchery is incomplete, having been started this year. The existing 4" flowing well has been re-cased. One 6" well has been drilled 402 feet deep at a total cost of \$1,468.00. A road has been graded through the property. With the dirt excavated from the road bed a dam has been constructed making a ten acre fish pond. Nine smaller ponds for rearing and brood ponds have been built. This was done at a cost of \$1,000.00 to the Division through the use of county chaingang labor.

#### PROPOSED HATCHERY

WALTON COUNTY

This hatchery is under construction in Walton County near Social Circle, the work having been started in 1941 by convict labor.

The water supply for this hatchery is from four flowing springs on the



land. This land is approximately 26 acres and was donated by Mrs. J. T. Peters and Mr. C. A. Crowley. The tract was covered by heavy timber and swamps. Approximately 15 acres has been cleared and almost completely stumped by convict labor. The timber removed reverted to the original owners. Approximately 20 acres have been drained around the springs. A road has been built. All of the above work was done by convict labor. Drain pipe, lumber and other materials cost the Division approximately \$300.00.

This location is one of the best for a hatchery in the entire state. There are no other fish hatcheries located in the northeastern part of Georgia and this hatchery will serve a larger section than any other hatchery.

Some of the finest trout waters in the Southeast are found in the Chattahoochee National Forest in North Georgia. During the past two years, several hundred people have enjoyed the regulated fishing in the Management Area streams of the Forest, where an extensive restocking program has been in progress for several years. This fishing is done on a special permit basis, the revenue being equally divided between the Forest Service and the Wildlife Division.

The open season on these intensively stocked streams has proved extremely popular and it is anticipated that it will be continued if war-time conditions permit.

## GAME MANAGEMENT

Georgia is known throughout the United States for the excellence of its quail shooting. During normal times, people from Maine to California come during the autumn and winter months for this justly famous sport. While the turkey, dove, deer and fox as well as numbers of other species have their advocates, quail is the most popular game in our State.

In order to restock shot-out areas and increase the interest of the people in the conservation of this important game bird, the Division maintains the State Game Farm near Doraville for the propagation and distribution of quail. Also, a sub-station is operated near Dalton, Georgia, in cooperation with the North Georgia Game and Fish Protective Association.

In 1941, 40,000 eggs and 4,000 day-old birds were distributed to 4-H, FFA and sportsmen's organization members, as well as qualified individuals. The eggs were placed under bantam hens and hatched. Report forms were distributed to the recipients of the eggs but the returns from these forms were incomplete.

A number of difficulties arose in connection with this system. Some of the eggs did not hatch well. Other settings were lost as the bantam hens

refused to set at the proper time. In some instances when the little birds were hatched out they lived only a short time as some of the bantam hens were too large to brood them. On the whole, the results were good but it was considered advisable to change the system in order to increase the number of birds actually released in the field.

Therefore, in 1942, distribution was confined to day-old and adult birds entirely. Electric brooders, thermostatically controlled, were used. No kerosene burners were allowed. In a few instances where the participants had no electricity, four-weeks old birds were sent to them to be placed in pens and held the remainder of the period. The birds were released, generally under the supervision of the local Wildlife Ranger, at the age of seven or eight weeks. Report forms were sent out this year also and the results were extremely satisfactory.

During 1942, 7,992 day-old birds, 1350 eight to ten weeks old birds, and 2880 adult birds were distributed. Three Army reservations, Moody Field, Camp Stewart and Robbins Field, instituted projects through the cooperation of the Division and excellent results were reported.

There were 104 participants in the electric brooder program, and 170 brooders were used. The highest number raised was 80%. Three projects had this percentage—two Army camps and one boy.

Numerous repairs and improvements were made to the buildings at the Game Farm and a corral for deer was constructed. This area is large enough to allow the deer adequate privacy to encourage them to breed.

Farmers and other landowners were instructed and encouraged in the planting of wildlife borders as well as food patches.

As a demonstration of the harvesting of the wildlife crop, managed hunts were held on Federal lands through the cooperation of the U. S. Forest Service and the U. S. Fish and Wildlife Service. These were eminently successful and if war emergency conditions permit, it is thought advisable to continue them.

#### PREDATOR CONTROL

During the 1941-42 trapping season, the services of an agent trapper were secured on a cooperative basis with the Fish and Wildlife Service, each agency paying half of the salary and expenses. This trapper rendered a great service to the landowners in particular, instructing them on methods for trapping predatory animals which continually harass domestic birds and animals as well as game birds and animals. He also assisted the rangers on the Game Management Areas of the Chattahoochee National Forest in the control of predators. Also, instructions were given trappers as to the best

methods of preparing their pelts for market and up to date methods of trapping.

When Congress failed to appropriate the necessary funds for the Fish and Wildlife Service to match the State funds after July 1, 1942, the services of this trapper had to be discontinued.

#### RABIES CONTROL

During recent months two serious rabies epizootics have occurred in Georgia, principally among foxes. The first of these started in Dade County and soon spread to the adjacent counties. The other recently broke out in Putnam County. Both these counties petitioned the Division, along with the Department of Agriculture and the Department of Public Health, to place a quarantine on their respective counties. After a thorough investigation, this was done by these agencies, and human lives, as well as the lives of valuable livestock and hunting dogs, were endangered no longer than necessary.

We are glad to report the epizootic in Dade County seems to be under control at the present time, and in Putnam County the necessary steps have been taken to eradicate it as quickly as possible.

#### LAW ENFORCEMENT

While many people think of the law enforcement officers of the Wildlife Division as persons whose sole duty is to enforce the game and fish laws, it is really much more than that. A man appointed Wildlife Ranger in any section must qualify as a man of all work because of the unusual and often unexpected nature of his duties.

Due primarily to the limited amount of funds available in this Division, it has not been possible to have as large a field force as perhaps was needed. However, a satisfactory number of qualified men have been kept on duty to patrol the fields and streams of this State reasonably well. The territory of an individual Ranger runs anywhere from one to three counties depending on the size of the county and the amount of game and fish there. In addition to the enforcement of laws, these rangers frequently are required to assist in the distribution of fish and quail. Also, they aid in the trapping of predatory animals, such as fox and wildcats, and of bear and deer which are transferred to other sections of the state for restocking purposes.

Especially since war was declared have our Rangers been actively cooperating with local Sheriffs and Police Departments in general law enforcement, and have in return received unusual assistance in the apprehension of game law violators.

Since the territory of each Ranger is so large, it would be impossible for him to patrol it efficiently if he did not have help. In practically every instance, he has asked for and received valuable assistance from landowners, farmers, hunters and other persons interested in wildlife.

Our Rangers were frequently called on to put on radio programs and they responded wholeheartedly on every occasion. Also, they have been invited to make talks to local civic, sportsmen's and conservation organizations as well as a number of public schools. The work they have done in this connection to acquaint the public with the operations and aims of the Division has helped to bring about a much better understanding than had previously existed between the public and the Division.

During the period September 1, 1939 to August 31, 1940, there were 1746 cases made for violation of the game and fish laws, and during this same period there were 601 convictions. From January 15, 1941 to December 31, 1942, there were 727 cases made and 354 convictions for violation of the game and fish laws.

During the first period the percentage of convictions was 34 and during the latter period the percentage was 48.7 conviction. There was a total of \$6,149.62 in fines paid the courts during the two year period ending December 31, 1942.

It will be noted that during the second period, not nearly so many cases were made but there was a much higher percentage of conviction. This is due to very few frivolous cases being made after January, 1941. Courts will not cooperate with a Division that makes cases against little boys for minor infractions, and we are convinced they are right in not doing so. Then, too, our rangers were instructed not to make a case unless they had sufficient evidence to convict. The high percentage of convictions in the second period indicates that the men have used good judgment in making cases, and also that they are getting good cooperation from the courts as well as the people. The Rangers are getting much better cooperation from the courts in most instances than they received in former years.

It is the purpose of our law enforcement program to acquaint the public with conservation methods and educate the people in the value of our game and fish resources as well as enforce the existing laws.

Our Rangers during the past two years have cooperated actively with the County Agricultural Agents, the Rangers of the U. S. Forest Service, and the Game Agents of the U. S. Fish and Wildlife Service. They were particularly helpful in assisting the Forest Service during the serious fires in the Chattahoochee National Forest in the spring of 1942.

Immediately on the outbreak of war, the Commissioner instructed all

Wildlife Rangers to cooperate in any and every way possible in defense work, with the result that an efficient adjunct to civil and military authorities is available in the personnel of the Wildlife Division.

#### COASTAL FISHERIES

The purpose of the office of Coastal Fisheries at Brunswick, Georgia, is the conservation of oysters, shrimps, shad and other commercial salt water fishes, the collection of licenses and taxes, and the enforcement of laws and regulations concerning them.

During the closed season, no shrimp fishing is allowed in the sounds and all rivers and creeks are closed at all times to this type of fishing. The Division patrols these waters to prevent violations as far as possible and to prosecute for violations.

During the open season for the taking of oysters, the Division supervises the replanting of a percentage of the shell on marsh land belonging to the State.

The Division also patrols those areas which have been designated by the Health Department as polluted to see that no oysters are gathered from these areas.

Much progress has been made in law enforcement and prevention of violations, especially since the purchase of a high-speed boat which enabled the Division to patrol the area properly and to cope with violators. The cooperation of the Department of Health and the Department of Agriculture has been of great assistance in this work.

After a thorough and scientific study of coastal fisheries with special emphasis on the rapid depletion of our oyster beds, a practical and economical plan was adopted to rehabilitate these beds by replanting oysters from the polluted areas near Brunswick and Savannah, thus making natural hatcheries of this waste area to restore and develop this great natural resources. Due to the national emergency, coastal defense and scarcity of labor, it was not possible to complete this important work. This should be done as soon as the war emergency has passed.



## DIVISION OF STATE PARKS

BY

R. F. BURCH, DIRECTOR

As we all know, the maintenance of morale, both civilian and military, is of prime importance during the war emergency. Facilities for wholesome recreation must be made available to all the people and it is here that the State Parks are invaluable. They provide fishing, boating, swimming, picnicking, hiking and other sports as well as inn and cabin accommodations for week-ends or longer. These may be reserved for Boy and Girl Scouts, 4-H Clubs, sportsmen's organizations, civic groups or family parties.

Early in 1941, the Division of State Parks was working in cooperation with the National Park Service and the CCC. At that time, there were four CCC camps that were actively engaged in State Park work in Georgia. These were: Pine Mountain State Park, Chipley; Fort Mountain State Park, Chatsworth; Kolomoki Mounds State Park, Blakely; Magnolia Spring State Park, Millen; and Cloudland Canyon State Park, Trenton. All of these were full strength camps, with the exception of Cloudland Canyon which was a side-camp of Magnolia Spring camp and later of the Fort Mountain camp. A very comprehensive program was in progress at each of these areas at this time, but was soon to be curtailed and later discontinued, in so far as aid from the CCC was concerned.

The first of these CCC camps was abandoned in June of 1941 and by April of 1942, none were left. This, of course, was directly due to the entry of this country into the war. Consequently, it was necessary to discontinue the major construction work as called for in the existing Master Plans for each of these areas. In most cases, however, work had progressed sufficiently to allow us to complete work already started, and thus place most of the areas in a usable condition.

This report is for the purpose of giving a general idea of the work accomplished in each of our major State Park areas within the last two years. Each area has been adequately maintained and numerous minor improvements made that are not shown below. Only the more important work is listed here.

### PINE MOUNTAIN STATE PARK CHIPLEY, GEORGIA

The improvements on this Park consisted of the following: construction of swimming pool and bath house of native field stone (CCC and State cooperation); construction of parking area and picnic shelter in vicinity of swimming pool (CCC with State cooperation); landscaping of parking area, bath house, etc. (CCC with State cooperation); planting of approximately 10,000 slash pine seedlings furnished by the State (CCC labor); installation of chlorinating system for swimming pool (State); erection of over-head power line from Valley to Tavern, to supplement underground system that was inadequate (State); painting and completion of interior of bath house (State); conversion of screened porch at Tavern into private dining room (State); and repair of plumbing and heating plant at Tavern (State).

The Tavern at this Park has been operated for the past two seasons by a manager on a percentage basis, under direct supervision of the Division of State Parks. The swimming pool was opened to the public in June of 1942 and operated by a manager on a percentage basis. The State employed a full-time Park Superintendent who was in charge of the Park and the operation of all other facilities.

Estimates show that during 1941, approximately 75,000 persons visited this Park. Records indicate only a slight decrease for 1942 which is considered excellent in view of tire and gasoline rationing.

VOGEL STATE PARK  
BLAIRSVILLE, GEORGIA

For the 1941 and the 1942 seasons, Vogel Park was leased by the Division to the Holmes Brothers. This Division has had direct supervision over the activities at the park. It has proved extremely popular, particularly for vacationing family parties.

INDIAN SPRINGS STATE PARK  
INDIAN SPRINGS, GEORGIA

The improvements during the past two years consisted of the following: renovation and painting of caretaker's house; erection of new entrance signs and directional signs throughout the park; and remodeling of all picnic tables.

A full time superintendent is in charge of maintenance and the operation of the park. He is employed by the State on a salary basis.

Attendance records show an average 50,000 persons visiting this park each year.

MIONA SPRINGS STATE PARK  
OGLETHORPE, GEORGIA

During 1942, work was started on the development of this park, in cooperation with the Division of Wildlife. Besides recreational facilities, a fish hatchery will be developed within the park boundary. Work on rearing ponds is nearing completion. These ponds are fed by a deep well which was completed and financed by this Division in the summer of 1942.

FORT MOUNTAIN STATE PARK  
CHATSWORTH, GEORGIA

The improvements during 1941 and 1942 consisted of the following: completion of dam for 30 acre lake at day use area (CC with State cooperation); construction of helps quarters at service area (CCC with State cooperation); construction of a 100 car parking area at day use area (CCC with State cooperation); construction of 2 miles of foot trails around shore of lake (CCC with State cooperation); and moving and planting of approximately 1000 trees and shrubs in park area (CCC and State cooperation).

This park is not officially open to the public (except the picnic area) but the State employs a full-time caretaker to maintain it.

MAGNOLIA SPRING STATE PARK  
MILLEN, GEORGIA

The improvements at this park during the two year period were as follows: completion of bath house and swimming pool (CCC with State cooperation), and construction of parking area in vicinity of pool (CCC with State cooperation).

In 1941, the park was rented by the State to an individual for maintenance and operation. In 1942, it was operated by a civic organization.

KOLOMOKI MOUNDS STATE PARK  
BLAKELY, GEORGIA

Construction and archaeological investigation work were done at this park with CCC in cooperation with the State Division. Upon abandonment of the CCC camp on June 29, 1941, a full-time caretaker was employed by the State.

CHEHAW STATE PARK  
ALBANY, GEORGIA

The improvements at this park during 1941 and 1942 were as follows: improvements of picnic grounds; installation of rest room facilities in park buildings; and installation of lights in park buildings.

A full-time park superintendent is employed by the State. He is responsible for the maintenance and operation of the park.

Approximately 15,000 persons visited the park in 1941 and over 25,000 during 1942. This is the largest number of visitors since the development of this park.

LITTLE OCMULGEE STATE PARK  
MCRAE, GEORGIA

The improvements at this park during the two year period were as follows: completion of dam and lake at park (CCC with State cooperation); raising of dam 18" in 1941 by the State after abandonment of CCC camp; erection of flood lights at bathing beach (State); repair of asphalt tile floor at club house (State); repair of all doors and screens at club house (State); re-roofing club house (State); construction of boat lock from shore into lake for fishing boats (State); construction of four over-night cabins on lake shore (State); furnishing four over-night cabins (State); and planting of approximately 10,000 slash pines on park area.

A full-time park superintendent is employed by the State, who is responsible for the maintenance and operation of the park.

Records show that for the past two years approximately 20,000 persons have visited this park annually.

LAURA S. WALKER STATE PARK  
WAYCROSS, GEORGIA

Improvements on this park during 1941 and 1942 included: planting of



100 Mimosa trees donated to the State by Mr. W. T. Anderson of Macon, and purchase of culinary equipment at cost of \$1,000.00, including dishes, stoves, booths, etc. (State).

This park was operated and maintained by a park superintendent employed by the State.

It is estimated that approximately 40,000 persons have visited this park annually during the last two years.

OKEFENOKEE SWAMP STATE PARK  
WAYCROSS, GEORGIA

At this park a large entrance sign was constructed. The park is operated by the superintendent in charge of Laura S. Walker State Park on a percentage basis.

The average attendance for the last two years has been approximately 7,000.

JEFFERSON DAVIS MEMORIAL STATE PARK  
IRWINVILLE, GEORGIA

The improvements on this park during the two year period consisted of the following: installation of light fixtures for entire museum building; installation of asphalt tile flooring; preparation of complete landscape plans for the entire area—cooperating with the ULC and various Garden Clubs; furnishing of entire building; installation of venetian blinds for assembly hall in museum building; planting of twenty plants around museum building, and acquisition of many relics of the War Between the States for display in the museum cases.

A full-time caretaker is employed by the State. He is responsible for the maintenance and operation of the park. The average attendance for 1941 was approximately 9,000. For 1942, it was approximately 4,000.

FORT KING GEORGE STATE PARK  
DARIEN, GEORGIA

The improvements at this park during 1941 and 1942 included the following: erection of 16 Historical Markers on the park area and reclamation work in cooperation with the WPA.

The State employs a full-time caretaker who is responsible for the maintenance of the area.

ALEXANDER H. STEPHENS STATE PARK  
CRAWFORDVILLE, GEORGIA

The improvements on this park during the two year period were as follows: addition of men's and women's rest rooms just outside Stephens' home; construction of pavilion adjacent to bath house at lake area for dancing; addition of numerous relics and pieces of furniture which have been added to the already fine collection in Stephens' home; construction of two tennis courts in the vicinity of the swimming pool; painting of fence

around home of Alexander Stephens; and painting (partial) and repair of exterior of home.

The State employs a full-time superintendent and a full-time hostess at the park. The visitors to the museum have averaged well over 10,000 annually for both 1941 and 1942. Many more than this have enjoyed the recreational facilities of the park.

CLOUDLAND CANYON STATE PARK  
TRENTON, GEORGIA

With the aid of the CCC (side-camp) much was accomplished in beginning the development of this park. Roads, trails and a parking area were completed before the abandonment of the camp. This area is large and is rich in scenic beauty and doubtless will some day be developed into one of Georgia's outstanding State Parks.

SANTO DOMINGO STATE PARK  
BRUNSWICK, GEORGIA

This park was completed prior to 1941 but during the last two years, repairs have been made to the buildings, water systems, and the like. A caretaker has been on constant duty at the park to maintain and operate the area for public use.

NEWLY ACQUIRED AREAS

Two areas were acquired during the two year period, Santa Maria Mission and Fort Yargo. For the former early in 1942, 100 acres were acquired in addition to the existing 800 acre tract. The newly acquired area included the site of the old mission ruins. For the latter, recently approximately 2,000 acres have been acquired near Winder, Georgia, for the development of a State Park. On this area is the site of old Fort Yargo. Plans are already under way for the beginning of this development.

\* \* \*

In addition to this, much other important work has been carried on in each park. Roads, trails, buildings, etc., were maintained. Every effort has been made to cooperate with the War Department in placing each area or part of each area at their disposal. The parks have been used by Service Men for maneuvers, bivouacs, etc. The swimming pools have been used by them for Red Cross Life-saving courses, etc.

It has been the policy of this Division each year to take every precaution for fire prevention. Fire-breaks have been plowed wherever needed and the result has been noticeable in that little, if any, timber has been lost by fire. In most cases, the construction of these firebreaks was effected through the cooperation of the county commissioners in each vicinity.

HISTORICAL SITES AND MONUMENTS

The program for erecting historical markers commemorating historic sites and events was begun in 1940 and continued in 1941 and part of 1942.

The W. P. A. Writers Project cooperated in this work until May of 1942.

Prior to January of 1941, 43 markers had been erected. From January, 1941, until May of 1942, 87 markers were erected. The sites for these were selected all over the State and have created considerable interest from state and out-of-state tourists. Since abandonment of the W. P. A. project, 5 marble markers have been erected at various points of interest.

The Foundry Department of Georgia Tech and the State Highway Department Shop at East Point have contributed invaluable assistance in the construction, transportation and erection of these markers.

Work is in progress on material for the future publication of a Guide Manual to the markers which will be an interesting and educational booklet for all tourists.

To date, approximately 130 markers are in existence all over the State.

It was through the cooperation of the Prison and Parole Commission that we were able to use convict labor on many of the parks where construction and other work requiring labor was accomplished. Without this valuable assistance, the major portion of this work could not have been done.

## DIVISION OF FORESTRY

BY

WALTER DYAL, DIRECTOR

In spite of disturbances caused by the war, the Division of Forestry has made progress during the past two years. Satisfactory progress has been made in forest fire control in organized areas. In 1941-42, the percentage of protected lands burned over reached an all-time low.

Satisfactory progress has also been made distributing tree seedlings grown at the State's two tree nurseries at Albany and Flowery Branch. For four consecutive years, Georgia has held the record for distributing more tree seedlings to farmers than any other state.

Aid to farmers in managing and marketing their timber has been greatly increased by the employment of farm foresters. This has been made possible with funds appropriated under the Norris-Doxey Act of Congress. The Division of Forestry has been able to match Federal funds and employ four new foresters to help farmers market their timber at a time when the war is making heavy demands. In addition, this Division is cooperating in supporting farm foresters working at Butler and Pearson.

While farm-forestry projects are directed by the Division of Forestry, the United States Forest Service, the Agricultural Extension Service, and in one instance, the Soil Conservation Service, are cooperating.

To comply with military requirement, special funds have been provided from Federal sources to control forest fires in what are designated as "Critical Military Areas" of Georgia. These areas involve a considerable part of the forested lands of the State. The State Forester has been designated as Coordinator of the agencies participating in this undertaking. Assistance is to be given by the Office of Civilian Defense through its local Forest Fire Fighters Units, in the control of forest fires.

The State organization with its fire-control equipment is to be employed in these critical military areas, and with the additional personnel and facilities, intensive fire control is to be prosecuted.

The war has made some inroads on the personnel of the Division of Forestry, and hindered to some extent the development of the Division's plans, but no serious impairment of the service has thus far occurred.

The cooperative forestry education project carried on with the Division of Vocational Education, to which 500 rural high schools are eligible, has been slowed down somewhat by the drafting of these schools to the work of training war workers. While forestry remains in the course of study, less attention, for the time, is given to the demonstration school forests in which foresters of this Division give supervision and direction.

It has been the purpose of the Division to make use of all opportunities for cooperating with Federal and State agencies to further the interests of forestry in Georgia. Pleasant relationships have been maintained with the United States Forest Service through its regional office in Atlanta from which much assistance has been received. Cooperative relationships with the Agricultural Extension Service, the Soil Conservation Service and the Division of Vocational Education, have also been helpful.

Citizens' forestry and forest product organizations have been assisted as far as possible. The only regret is that there are not enough foresters and means for rendering larger assistance.

As for the future, Georgia's great, and potentially greater, forest resources deserve increased State aid. The income from Georgia's forests has been a close second to the income from agriculture. Inroads of war on the forest resources of the State will markedly reduce our future forest output making it imperative that every effort be made to conserve and develop our forests. For their protection, greater effort should be made to establish an adequate system of fire control to save an annual fire loss of approximately five million dollars.

It is equally apparent that a vast acreage of idle farm lands should be devoted to growing tree crops—the only crops for which much of this land is suited.

Furthermore, it is important to build up the productivity of war-depleted forests with the assistance of trained farm foresters.

All this constitutes a job of large proportions, calling for adequate State appropriations and all the possible Federal funds that can be made available to the State.

#### FOREST FIRE CONTROL

Heavy losses from forest fires are suffered each year in Georgia in spite of progress being made in their control. Approximately 6,400,000 acres are under organized fire protection. This includes about 1,400,000 acres recently added around military areas. The annual loss to the State directly and indirectly caused by fire is estimated at \$5,000,000.

The fact that organized fire protection is effective has been clearly demonstrated during the fiscal year of 1941-42, when the area burned over in protected areas was slightly less than 2 per cent of the whole.

Half of the money spent on forest fire control comes from Federal sources through provisions of the Clark-McNary Act of Congress. Without this aid the fire losses would have been at least twice greater.

No forestry problem in Georgia is greater than that of fire control and nothing can annul all other efforts in forest improvement more than forest fire. Therefore, forest fire control stand as a fundamental problem to be solved, for which there must be more men and equipment than available funds will now permit.

Operations of 33 forest fire protection units in Georgia covering 4,935,967 acres showed for the year July 31, 1941-June 30, 1942, 97,846.86 acres burned over by 3162 fires. The area burned over was only 1.93 per cent of the whole. This is the best record on organized areas that the State has experienced.

The record shows that the average area burned by each fire was only 30.95 acres, evidencing that the organizations controlling the fires were alert and quick to do the work of suppression.

Incendiarism is credited with a number of fires. It is not easy to make out cases against incendiaries but citizens have made cases against 47 for the year of July 1, 1941, to June 30, 1942.



## FOREST FIRE ORGANIZATIONS

Two types of organizations have been set up in Georgia for forest fire control. The older is a voluntary cooperative organization of adjoining land-owners called the Timber Protective Organization. Nine of these covering 1,934,444 acres, have been in effective operation for several years.

Sixteen counties have availed themselves of provisions made by a constitutional amendment, to levy county taxes and carry on forest fire protection as county units. The counties are Appling, Bartow, Bibb, Brantley, Brooks, Bryan, Burke, Camden, Floyd, Glynn, Jenkins, Montgomery, Pickens, Polk, Taylor, Treutlen and Wilkes.

Other counties have made applications for county unit systems for fire protection but funds have not yet been made available to establish these new units.

## MILITARY REQUIREMENTS IN FIRE PROTECTION

Forest fires in military and surrounding forest areas, designated "Critical Military Areas," are rated as a hinderance to war efforts, and must be controlled.

Pursuant of this requirement, Congress set up funds to help intensify fire protection measures in these areas. The responsibility for intensifying efforts in these areas falls upon the State Division of Forestry where private landowners are involved and upon the U. S. Forest Service where national forests are concerned.

The State is undertaking its part of the task by adding to the facilities of existing fire protective organizations where they are already established in the critical military areas, and by setting up similar organizations where they are not already established in such areas.

The organizations are manned by rangers, dispatchers, towermen, patrolmen and fire fighters. Forest fire detection towers already established, or may be erected, will serve for locating fires. From these the towermen report by telephone to rangers who with patrolmen will call out fire fighting crews and proceed to attack the fire.

In southeast Georgia a short wave radio broadcasting station is used, reaching men in the forest with trucks equipped with radios. Fire fighting equipment consist of fire trucks, hand pumps, swatters and various farm tools.

Close cooperation with military agencies is maintained. The Army looks after fires within the military reservations while forest agencies take care of surrounding areas.

## OCD AID

The Office of Civilian Defense has been enlisted to assist in forest fire protection in critical military areas, and to do this end it is to organize local Forest Fire Fighters Units. These are to be trained in methods of forest fire fighting and be ready at the call of the head of the county unit, to suppress fires.

The State Forester is the State Coordinator of the cooperating agencies, while one of the Assistant Directors of the Division of Forestry is in charge of the State fire control operations.

# PROTECTION AREAS AND ACREAGE

June 30, 1942

<i>Name</i>	<i>Acreage</i>
<b>T. P. O.'s</b>	
Bartow.....	178,769
Charlton.....	185,372
Cherokee.....	193,755
Coastal.....	114,595
Consolidated.....	436,919
Ellijay.....	44,796
Ogeechee.....	218,347
Suwannee.....	317,305
Wayne.....	300,000
<b>Sub Total</b>	<b>1,989,858</b>
<b>COUNTY UNITS</b>	
Appling.....	264,838
Brantley.....	230,376
Bryan.....	241,363
Bibb.....	67,420
Brooks.....	179,248
Burke.....	212,115
Camden.....	389,242
CFLUA.....	37,771
Floyd.....	212,896
Glynn.....	258,767
Jenkins.....	109,592
Montgomery.....	73,244
Pickens.....	127,360
Polk.....	126,834
Taylor.....	117,964
Treutlen.....	74,262
Wilkes.....	222,817
<b>Sub Total</b>	<b>2,946,119</b>
<b>MILITARY UNITS</b>	
Moody Field.....	135,000
Coastal Patrol.....	357,814
Camp Stewart.....	360,000
Camp Gordon.....	290,000
Fort Benning.....	260,000
<b>Sub Total</b>	<b>1,402,814</b>
<b>GRAND TOTAL</b>	<b>6,338,791</b>

\* \* \* \*

### REFORESTATION

The Division of Forestry has been able to establish a record of four consecutive years for distributing more forest planting stock to farmers for reforestation than any other state. More than 116,000 acres of land have been planted to trees from seedlings grown at the state tree nurseries.

The State has two tree nurseries, the Herty Nursery located at Albany, established in 1932, and the Flowery Branch Nursery at Flowery Branch, established in 1938. Both nurseries are fully equipped with over-head sprinkling systems, cultivating, lifting and packing equipment. The ingenuity of the Assistant Director in charge of nurseries and his force, in designating and developing nursery equipment has attracted wide attention and adoption by other nurseries.

By reason of labor-saving equipment and efficient management, the production cost of seedlings had been kept at a minimum and the savings are passed on in low-selling cost to landowners.

The land area of the Herty Nursery at Albany is 65 acres, and that of the Flowery Branch is 82½ acres. Only a part of the land has thus far been used, but as the demand warrants, production can be greatly increased.

Other counties have made applications for county unit systems for fire protection but funds have not yet been made available to establish these new units.

#### MILITARY REQUIREMENTS IN FIRE PROTECTION

Forest fires in military and surrounding forest areas, designated "Critical Military Areas," are rated as a hinderance to war efforts, and must be controlled.

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The organizations are manned by rangers, dispatchers, towermen, patrolmen and fire fighters. Forest fire detection towers already established, or may be erected, will serve for locating fires. From these the towermen report by telephone to rangers who wish patrolmen will call out fire fighting crews and proceed to attack the fire.

Lands for these nurseries have been provided without cost. The land for the Albany Nursery was donated by Dougherty County, and the city of Albany. The land for Flowery Branch Nursery was donated by Hall County, and the city of Flowery Branch. Both show generous public spirit.

The demand for planting stock in the order of the tree species purchased, has been for Slash pine, Loblolly pine, Longleaf pine, Shortleaf pine, Black Locust and Black Walnut. Slash and Longleaf are, of course, in greatest demand in the naval stores belt.

The survival of planted seedlings depends largely on how the seedlings are cared for and the method of planting. To aid in proper handling and planting, a folder accompanies all shipments fully illustrating and explaining each step to take. In addition, representatives of the Division conduct planting demonstrations when called upon.

To further assist the farmers, the Division of Forestry has a number of planting dibbles to loan for a period of a week.

Apparently, it is true in Georgia as reported elsewhere, that the war is sidetracking tree planting at present in favor of food production, yet the war's depletion of the forests ought to be stimulating greater than usual interest in tree planting. Labor shortage is not an explanation of less planting, for tree planting occurs at a time of the year when work on the farm is slack, and furthermore, tree planting requires comparatively little labor.



It is obviously a responsibility of forestry interests to renew and maintain interest of landowners in reforestation in Georgia.

A record of nursery production and distribution for the season of 1941-1942 is as follows:

#### RECORD FOR SEASON 1941-1942

Herty Nursery—Slash Pine.....	5,219,085
Herty Nursery—Longleaf Pine.....	233,000
Flowery Branch Nursery—Loblolly.....	1,749,010
Flowery Branch Nursery—Shortleaf Pine.....	47,500
Flowery Branch Nursery—Black Walnut.....	20,150
Flowery Branch Nursery—Black Locust.....	124,200
Flowery Branch Nursery—Slash Pine.....	505,950
Total.....	7,948,895

The planting season begins in November, and continues into the spring of the following year. The record for the season of 1942-43 is, therefore, not complete. Distribution for the 1942 part of the current season is:

#### PRODUCTION CROP YEAR RECORDS:

1940.....	12,143,670
1939.....	20,931,481
1938.....	14,077,898

#### FOREST MANAGEMENT

Service to private landowners in forest management, including harvest and marketing, has been increased during the biennium.

This has been made possible by use of funds received under the Norris-Doxey Act of Congress, for which the Division of Forestry has qualified by setting up equivalent funds.

It is possible to set up seven new farm forestry projects and to carry on two others already in operation. Only four of the seven new projects have been put into operation, but as soon as qualified foresters are obtained, at least three more will be established.

A farm forestry project is in operation in Butler, Georgia. The State Division of Forestry and the Soil Conservation Service are cooperating. This project has done outstanding work by demonstrating that weed trees such as scrub oaks, can be converted profitably into charcoal by the landowner using a single unit kiln. More of these kilns have been set up and are now in operation.

Not only has the Butler project opened the way to the profitable use of timber for which hitherto there has been no market, but it has pointed the way whereby thinning and weed trees can be profitably removed to improve forests and increase the returns therefrom.

A Forest Farming project which the Division of Forestry and the U. S. Forest Service are cooperating, has been in operation since February 15, 1940, and has proven very helpful to many timberland owners, especially those who have sought assistance in marketing their timber, a number of whom have been helped to harvest their timber so as to keep the forest in condition for sustained yields.

At this time, when the war is making heavy demands on forests, and the temptation is to cut trees without regard to the future productivity of the forests, not only the farm foresters, but the district foresters can be of great assistance in promoting sustained yields for the future and making possible the largest returns to the timberland owner.

Constant calls are being made for assistance in forest management, indicating a growing public interest in conserving forests and developing their fullest value. It is, therefore, gratifying that the Division of Forestry has been able to respond to these calls more than ever before.

An assistant director, who supervises forest management, has set up the farm forestry projects and aids in supervising their operations.

#### EDUCATIONAL PROGRAM

A cooperative project in vocational forestry education has existed between the Division of Forestry and the Division of Vocational Education for 14 years in which students in rural high schools having teachers of vocational agriculture, operate demonstration school forests. Representatives of the Division of Forestry have established these schools and outlined the jobs to be done to make the area highly productive. Teaching material has also been provided.

This program has been lessened in intensity by the demands made upon these schools to train war workers, but forestry is taught as a regular part of the school course, and in keeping with the job method of teaching, some practice of forestry is continued. Such heavy inroads on the teaching force has been made by the war, that the 500 eligible schools do not all have teachers of vocational agriculture.

#### DISTRICT FORESTERS WORK

The Division of Forestry continues to employ four district foresters with headquarters at Gainesville, Macon, Albany and Baxley, Georgia.

These district foresters are each undertaking to render service to large groups of counties. They are directing forest fire control organizations, assisting in forest management and marketing, rendering service to schools carrying on forestry programs and cooperating with various organizations and agencies interested in developing the forest resources of the State.

#### STATE FORESTS

The Coastal Flatwood Area in Ware County consisting of 37,771 acres was formerly a resettlement project of the Federal Government that was transferred to the State of Georgia and is now operated by the Division of Forestry. It is under forest management and is a source of income through permits for camping, grazing, the sale of turpentine rights and timber. It promises to increase in volume and annual income as the forest is developed.

The State also has a demonstration forest of 1,000 acres near Baxley, Georgia. On this forest a district forester has headquarters. The forest is under protection and management. While the annual income is small at present, the annual rate of tree growth indicates excellent returns in the future.

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For a financial report of the Department of Natural Resources attention is respectfully called to the State Auditor's reports.

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