

REVIEW AND APPROVALS

***PIEDMONT and BOND SWAMP
NATIONAL WILDLIFE REFUGES***
Round Oak, Georgia

ANNUAL NARRATIVE REPORT

Calendar Year 2001

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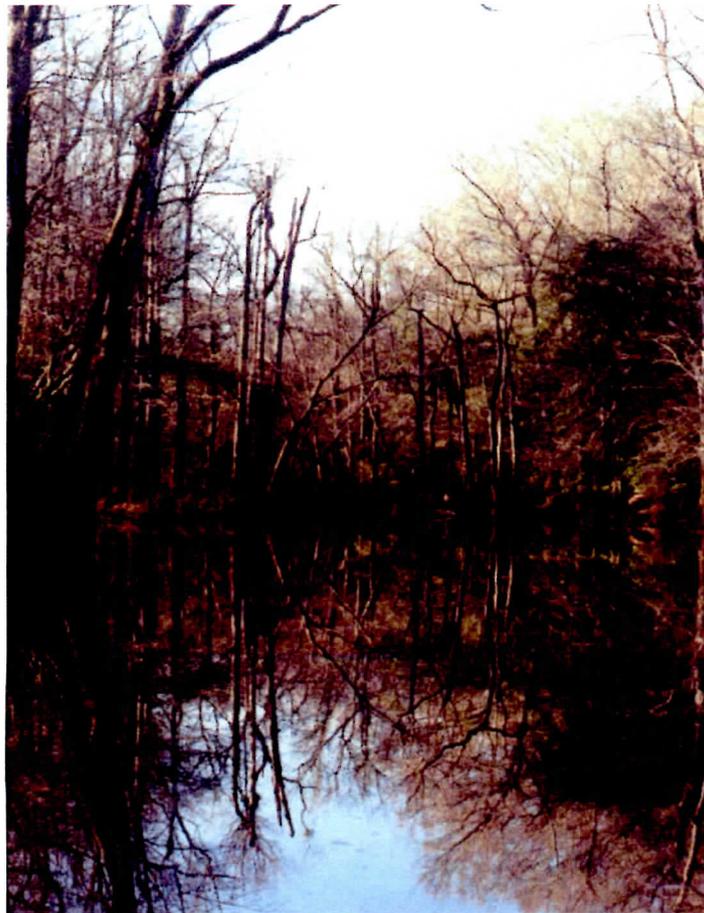
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**Feedback
Information Packet**
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Stone Creek at Bond Swamp NWR, December 2001

i. INTRODUCTION

Due to its limited staff, management, and budget, the narrative for Bond Swamp National Wildlife Refuge will be combined with that of Piedmont NWR.

Piedmont National Wildlife Refuge, located in Jones and Jasper Counties in Central Georgia, is 25 miles north of Macon on the east side of the Ocmulgee River. The refuge is typical of the Piedmont Plateau Physiographic Region with rolling hills interspersed with small, clear streams. Elevations range from 360 feet above sea level along Falling Creek and Caney Creek to 640 feet in Compartment 25 near headquarters.

Native American occupation of the area traces back thousands of years and ranges from nomadic hunters to cultures depending primarily on farming. The area was settled in 1806 through land lotteries, with most of the land cleared for farming by 1820. Cotton became the primary crop. By 1840, Jones County was the most populous county in Georgia, and had a booming economy. In the mid-1860's, General William T. Sherman's "March to the Sea" and post-Civil War Reconstruction decimated local economies. Cotton farming continued after the war with increasing loss of fertility and decreasing crop yields. Severe erosion took place, with most topsoil washing away. The Great Depression coupled with the effects of boll weevils brought about abandonment of most area crop lands. The Resettlement Administration purchased the area in the mid 1930's to retire the land from agriculture.

Piedmont Refuge was established on January 18, 1939 for the purpose of serving as a refuge for birds and other wildlife. The land was worn out, with several major species of wildlife having disappeared from the area. Initial refuge activities included erosion control through the use of check dams and conservation plantings, limited tree planting, and introduction of wildlife species including white-tailed deer, wild turkey, beaver and wood ducks. Since 1939, through the process of management to control ecological succession, the refuge has again become forested and supports diverse wildlife populations.

Today the refuge is covered with a pine/hardwood forest that supports the endangered red-cockaded woodpecker and associated wildlife, upland and bottomland hardwoods, small impoundments, beaver ponds and clear flowing streams. The refuge is managed for its original purpose and for the objectives of the Fish and Wildlife Service's National Wildlife Refuge System. Management is carried out for endangered species, migratory birds, native wildlife, environmental education and wildlife-oriented recreation.

Bond Swamp National Wildlife Refuge, established on October 16, 1989, is located approximately seven miles southeast of Macon, Georgia in Bibb, Twiggs and Houston Counties, and currently contains 6,500 acres. In 1999, the acquisition boundary was expanded to 18,000 acres. The refuge is situated along the fall line separating the Piedmont from the Coastal Plain, and is comprised primarily of wetlands and bottomland hardwood forest. A strip of uplands and two large limestone bluffs border the wetlands. The refuge contains a unique diversity of habitat types ranging from upland mixed hardwood/pine ridges to bottomland hardwoods and swamp forests interspersed with creeks, beaver swamps, and oxbow lakes. These habitats support resident wood ducks, wintering waterfowl, nesting bald eagles, nesting colonies of wading birds, songbirds (including neotropical migrants), black bears, alligators, white-tailed deer, and river otters.

There is great public interest in the refuge, and 1999 saw its first public use in addition to the hiring of an assistant manager for the refuge. In October 2000, Bond Swamp opened to general public use. Currently, the refuge is involved with the local Ocmulgee Heritage Greenway effort which encompasses Bond Swamp Refuge. The Service is working through partnerships with other federal and state agencies, local municipalities, conservation groups and concerned citizens in this effort. This Greenway effort will provide resources to help protect this valuable system while providing public recreation and education. The primary reason for Bond Swamp's acquisition and inclusion into the National Wildlife Refuge System was to protect and enhance the area's unique and rich natural resources.

Both the Piedmont and Bond Swamp Refuges are located in the U.S. Fish and Wildlife Service's Altamaha Ecosystem.



Bondview Road at Bond Swamp NWR, March 2001

ii. HIGHLIGHTS

Piedmont NWR

- 39 volunteers contributed 926 hours to help make the eleventh annual disabled hunt a success. (sections 8a, 9b)
- Important research continues on the refuge. (section 1b)
- 2001 was a great year for the YCC crew. (Section 9b)
- 1,923 acres were burned in 2001 as part of prescribed burning efforts (section 3f).
- It was another banner year for the red-cockaded woodpeckers (RCW). For the second year in a row, we observed 39 active clusters. (Section 4)
- The annual big game hunts for deer and turkey were very successful (section 8a).
- The 36th annual Piedmont Breeding Bird Survey identified a total of 56 different species and 576 individuals. (section 1a)
- The Christmas bird count was conducted for the 30th straight year. (section 1a)
- Refuge staff were involved in several major exhibits representing the Service. (section 8b)
- Cooperative efforts and partnerships contributed to another successful year. (section 5)

Bond Swamp NWR

- The bald eagle nest was again active and successful in 2001, with the hatching of one eaglet.
- The Bond Swamp hunts were again successful and received a great deal of statewide interest.
- Much needed gravel was spread in three of the most highly used parking areas at the Swamp. The gravel was purchased through TEA-21, a Federal Highways Grant.

iii. CLIMATE DATA

Piedmont and Bond Swamp are located near the geographic center of Georgia and do not normally experience climatic extremes. Temperatures (°F) usually range from the low teens in the winter to 100 degrees in the summer. Precipitation during the year averages 44 inches, with an average 246 day growing season. Snow normally occurs once or twice in January or February, but typically does not accumulate to any significant amounts. Late summer and early autumn are generally dry periods, with the wet season beginning in November. Rain occurs during the winter with the passage of weekly cold fronts, while spring and summer rains usually come in the form of thunderstorms.

This year was dry and warm, and constituted a fourth consecutive year of drought for Georgia. Annual rainfall totals were nearly six inches below normal for the area. October and November were especially dry times with less than an inch of rain falling.

The year's highest temperature of 95 °F occurred on July 9th, July 11th and August 24th. The year's coldest day was January 3rd, when the mercury dipped to 10 °F. The following table summarizes the year's weather:

Piedmont NWR Recorded Rainfall and Temperatures - 2001

<u>Month</u>	<u>Avg. High °F</u>	<u>Avg. Low °F</u>	<u>Avg. Monthly °F</u>	<u>Range (°F)</u>	<u>Rainfall (inches)</u>
January	55.6	29.1	42.3	10-69	3.19
February	64.0	39.3	51.7	24-78	2.31
March	63.1	39.7	51.4	27-76	9.75
April	76.6	50.9	63.8	31-90	2.73
May	83.8	56.0	69.9	46-92	1.56
June	85.2	67.3	76.3	62-90	8.84
July	89.8	69.0	79.4	61-95	4.11
August	88.7	68.8	78.8	60-95	1.20
September	82.0	59.7	70.9	41-90	3.45
October	75.4	43.7	59.6	24-85	0.19
November	74.3	41.0	57.7	25-82	0.65
December	63.5	36.6	50.1	20-79	1.15

	High Temperature	Low Temperature	Rainfall
2001	95	10	39.13"
Normal	98	17	44.65"

Temperatures - National Weather Service - Macon, GA
Rainfall - Piedmont National Wildlife Refuge

1. Monitoring and Studies

1a. Surveys and Censuses

The current animal lists for Piedmont contain over 200 species of birds, 45 mammals, 14 amphibians, and 41 reptiles.

Species lists for Bond Swamp are continuously growing as visitors and staff spend more time in the area. The refuge is thought to contain nearly 200 species of birds, more than 30 mammals, 10 amphibians, and 35 reptiles.

Significant general wildlife occurrences at Piedmont NWR in 2001 included:

-Sandhill cranes on their way to Okefenokee from Wisconsin pass over and often stop at Piedmont and Bond Swamp in early March. Return flyers come through in October and November. A number of large flocks were seen or observed both at Piedmont and Bond Swamp.

-The refuge red-cockaded woodpecker population has responded positively to management with another year of record active clusters being observed. For the second year in a row, we observed 39 active clusters. This year also boasted the highest number of nestlings at 74.

-The most numerous duck seen in the winter was the ring-necked duck, but no more than 2,000 were observed at one time on Piedmont's impoundments.

-The 584 deer checked at the refuge check station during the deer hunts were generally in good to excellent condition. The average weights were at or slightly higher than the 10 year average for all weight classes. EHD (blue tongue) was observed in a few specimens.

-The Christmas bird count was conducted for the 30th straight year. Refuge and Georgia DNR employees conducted the survey, along with knowledgeable volunteers, and 96 different species were identified.

-The 2001 Spring Gobbler counts were successful, with a count of 92 turkeys.

Year	Route A	Route B	Route C	Route D	Total
2001	35	31	14	12	92

-The 8th annual Piedmont butterfly count was conducted by knowledgeable volunteers and refuge staff in June. Butterflies are a good indicator of habitat diversity and richness. In 2001 the count total included 43 different species and 532 individuals.

Piedmont NWR
 2001 (8th Annual) NABA Piedmont/Rum Creek Butterfly Count
 June 15, 2001

Common Name	Total	Common Name	Total
Pipevine Swallowtail	9	Common Buckeye	62
Black Swallowtail	4	Red-spotted Purple	29
Eastern Tiger Swallowtail	10	Viceroy	6
Spicebush Swallowtail	5	Hackberry Emperor	6
Papilio sp.	2	Southern Pearly-eye	6
Cabbage White	20	Appalachian Brown	1
Orange Sulphur	21	Gemmed Satyr	2
Cloudless Sulphur	3	Carolina Satyr	3
Little Yellow	7	Little Wood-satyr	12
Sleepy Orange	38	Southern Cloudy-wing	4
Gray Hairstreak	2	Horace's Duskywing	11
Red Banded Hairstreak	5	Common Checkered Skipper	11
Eastern Tailed-Blue	25	Southern Skipper	1
'Summer' Spring Azure	5	Fiery Skipper	20
American Snout	2	Tawny-edged Skipper	1
Variegated Fritillary	47	Whirlabout	3
Silvery Checkerspot	7	Southern Broken-Dash	1
Pearl Crescent	83	Little Glassywing	1
Question Mark	8	Sachem	1
American Lady	30	Byssus Skipper	1
Painted Lady	1	Zabulon Skipper	2
Red Admiral	12	Eufaula Skipper	1

Total Species: 43
Total Individuals: 532

-On June 10, 2001, Jerry Amerson conducted the breeding bird survey on Piedmont for the ninth straight year. In 2001, 56 species of birds and 576 individuals were recorded.

Significant general wildlife occurrences at Bond Swamp NWR in 2001 included:

-Georgia DNR biologists observed that the Bald Eagle Nest at Bond Swamp was again successful with two active adults successfully hatching one eaglet.

-In July, refuge Staff, Georgia DNR staff and volunteers conducted the second annual Bond Swamp butterfly survey. The survey is in conjunction with the North American Butterfly Association's 4th of July counts. Forty two different species and 906 individuals were observed on the count.

**Bond Swamp NWR
2001 (2nd Annual) NABA Piedmont/Rum Creek Butterfly Count
July 13, 2001**

Common Name	Total	Common Name	Total
Pipevine Swallowtail	1	Viceroy	8
Black Swallowtail	1	Hackberry Emperor	237
Eastern Tiger Swallowtail	7	Tawny Emperor	2
Spicebush Swallowtail	5	Southern Pearly-eye	10
Papilio sp.	4	Creole Pearly-eye	4
Cabbage White	8	Carolina Satyr	7
Orange Sulphur	1	Monarch	3
Cloudless Sulphur	37	Silver-spotted Skipper	19
Sleepy Orange	37	Long-tailed Skipper	3
Harvester	2	Southern Cloudy-wing	1
Gray Hairstreak	1	Horace's Duskywing	14
Red Banded Hairstreak	11	Common Checkered Skipper	7
American Snout	141	Least Skipper	2
Gulf Fritillary	18	Southern Skipper	1
Variegated Fritillary	12	Fiery Skipper	36
Pearl Crescent	20	Whirlabout	2
Question Mark	44	Sachem	1
American Lady	5	Zabulon Skipper	1
Painted Lady	1	Dun Skipper	10
Red Admiral	123	Lace-winged Roadside Skipper	2
Common Buckeye	50	Ocala Skipper	1
Red-spotted Purple	6		

**Total Species: 42
Total Individuals: 906**

-Waterfowl roosts at Bond Swamp contained thousands of mallards, wood ducks, and assorted other species during peak population periods. The Ocmulgee River swamp is an excellent wintering area.

-Mississippi kites and willets were observed on private lands adjacent to Bond Swamp in the summer.

Point Counts

In accordance with refuge involvement in the Georgia Piedmont Natural Resources Cooperative, Refuge Staff conducted neotropical bird point counts at Piedmont and Bond Swamp Refuges (section 5e). The point count surveys were conducted by Carolyn Johnson, Greg Walmsley, and Jane Whaley. Results of the point counts were submitted to GPNRC coordinator Nathan Klaus. This was the first year the refuge conducted point counts to survey Swainson's Warblers. Jane conducted the surveys and heard four Swainson's Warblers in the nine study areas.



Swainson's Warbler

1b. Studies and Investigations

Several cooperative research projects were active during the year. These investigations are providing some important information that will help us manage our refuges better for their purposes and for Service objectives.

Study: Piedmont NR-82 - Red-Cockaded Woodpecker (41680-6)

This long term cooperative study between the Fish and Wildlife Service and the Forest Service has been investigating the population dynamics, habitat use and needs, the effects of hardwood encroachment, and other limiting factors of the red-cockaded woodpecker since 1982. In early December 1995, the refuge was informed that the Clemson research unit would not be able to continue their work from loss of funding. Since most RCW research has been in the Coastal Plain, this study has been an important effort to evaluate if the RCW can be effectively managed in the Piedmont Region. Starting with the 1996 nesting season, refuge personnel conducted all population monitoring on the refuge.

Cavity trees and RCW populations are monitored regularly during the peak field season, running from March 15 to the early part of July. Nestlings are banded with colored leg bands and cavity trees are regularly "peeped" and climbed to check for reproduction, nest competitors, abandonment, etc. Refuge staff will continue to evaluate population response to artificial nest cavity inserts. It is hoped the use of these artificial cavities will

continue to assist population expansion. More detailed information on study results can be found in the wildlife management section of this report (Section 4).

Study: Piedmont NR 98 - Adaptive Management of The RCW (41680-2)

The Georgia Co-op unit finished field work on the adaptive management study in August. We had been involved with them on this project for much of the last decade. Graduate student Todd Plummer and three technicians worked under Dr. Mike Conroy and Dr. Clint Moore, both of the University of Georgia. The completed project provided us with a digitized base map of Piedmont to aid in the monitoring of the red-cockaded woodpecker and wood thrush.

Study: Piedmont NR 99 - Reptile and Amphibian Monitoring (41680-99010)

Dr. Mike Moore of Mercer University has taken over the herp work that was started by the Georgia Co-op Unit. Mike and his students initiated field studies to determine occurrence, distribution, and population sizes of reptiles and amphibians on Piedmont Refuge. Monitoring will provide information on potential impacts of forest management strategies on herpetofaunal populations. Field work will enhance the current Adaptive Management Study on the refuge, and complement the State of Georgia Herp Atlas Project. Monitoring includes pitfall and funnel trapping, visual surveys, audio surveys, and mark-recapture techniques.

Study: Piedmont NR 90- Maintaining Red-Cockaded Woodpecker Habitat(41680-9)

Researchers from the U.S. Forest Service's Southeastern Fire Lab are in the fifth field season of a study to determine optimum treatment for understory control in RCW colonies. The use of chemical control, warm and cool season fire, mechanical control and a combination of these methods is being tested in a series of small replicated plots on the refuge and on the Hitchiti Forest in an effort to determine the best way to suppress and control understory encroachment. No test plots were burned on Piedmont 2000. This is the eighth year of a scheduled 20 year study.

Study: Piedmont NR 93 - Response of a Mature Mixed Pine-Hardwood Forest to a Tornado Disturbance

This is a scheduled 20 year study by Dr. Tim Herrington of the University of Georgia to determine vegetative response and succession in a Piedmont ecosystem to a major tornado. In this fifth year of the study, graduate students continued to concentrate on determining what factors affect the type of damage sustained by a tornado, the responses of damaged trees to the types of damage sustained, and the survival and performance of seedlings with varying resource levels. Piedmont's tornado in November 1992 virtually removed loblolly pine from its path. Research showed that smaller trees sprouted more often than larger trees, broken trees exhibited more sprouting than uprooted trees, and undisturbed trees exhibited the greatest basal area growth response, which was positively correlated with tree size. Damaged trees exhibited the greatest height growth; however, undisturbed trees possessed both greater initial crown lengths and changes in crown

lengths. Soil pits resulting from tree uprooting were colonized by early successional species, especially tulip poplar. However, because soil pits only occupied approximately 3% of the area, early successional species will be only a minor component of the recovering stand. Results from short term data indicate that regeneration was almost exclusively from advanced vegetation.

Study: FS-SRS-4104-216(2) - Herbaceous Plant Response to 2-Year Burning Cycles

This is an 8-year study being conducted by Dale Wade of the U.S. Forest Service. Plots on Piedmont and the Oconee National Forest are being sampled. Refuge Personnel burned upland pine plots on Piedmont in 1998, and were scheduled to do so again in 2000. Unfortunately, severe drought conditions brought about burning bans, and we were unable to burn all the scheduled plots in 2000. Only 10 of the 24 scheduled plots were completed. We burned the remaining 14 plots in 2001. These test plots were burned during the warm season. Application of prescribed fire at different calendar dates during the growing season is expected to promote the establishment of native grasses and provide more efficient root kill of intruding hardwoods. Wade will use data gathered from these plots to determine the effects of warm season burning on herbaceous species composition. 2001 was the fourth year of this eight-year study.

During the spring and summer seasons, as many as 20 non-refuge personnel may be working on research projects at Piedmont. These efforts provide critical information for long term refuge management. In addition to these formal studies, refuge personnel conduct approximately 20 scheduled evaluations, and as needed do special evaluations and investigations.

2 . Habitat Restoration

2a. Wetland restoration: On-refuge

No activity this year

2b. Upland restoration: On-refuge

At Piedmont, the 6.5 acre WINGS area on Georgia Power right-of-way contains a mixture of native grasses that was established in 1999. As part of its special use permit conditions, Gilbert Southern Corporation (a contractor installing fiber optics on the right-of-way) provided the refuge with a special grain drill and a large supply of native grass seed (section 6c). Refuge personnel worked with the Level 3 company, which obtained a permit to install a fiber optic line in an existing Georgia Power Right of Way. To be certain, the right of way was restored and replanted. Due to drought some of the it had to be planted three times, but we ended up with a 33,000 foot linear wildlife opening. Level 3 also provided seed for native grass restoration on the refuge. Refuge staff began expanding the native warm season grass (NWSG) restoration program in 2001. A select number of fields were sprayed with Roundup in preparation for planting in early 2002, including several acres of pastureland surrounding the Little Rock Greentree reservoir.

2c. Wetland restoration: Off-refuge

No activity this year

2d. Upland restoration: Off-refuge

No activity this year

3. Habitat Management

We have attempted to look at refuge habitats and habitat management from an ecosystem perspective for many years. The emphasis on ecosystem management is not new to us. Even though we may now look at it on a different scale and may have a different administrative or geographic management unit, we will continue working with the same principles and for the same objectives.

The purposes of Piedmont NWR are as follows:

- to serve as a refuge and breeding ground for birds and other wildlife
- for use as an inviolate sanctuary, or for any other management purpose, for migratory birds
- conservation, management, and restoration of the fish, wildlife, and plant resources and their habitats for the benefit of present and future generations of Americans.

The purposes of Bond Swamp NWR are as follows:

- the development, advancement, management, conservation, and protection of fish and wildlife resources for the benefit of the United States Fish and Wildlife Service
- the conservation of wetlands in order to maintain the public benefits they provide
- to help fulfill international obligations contained in various migratory bird treaties and conventions

Both refuges are managed for the objectives of the Fish and Wildlife Service including endangered species, migratory birds, native wildlife, environmental education, and wildlife-oriented recreation.

The key to fulfilling refuge purposes and meeting FWS objectives is working through the ecological succession process to provide the various habitat needs for refuge wildlife. Our two refuges contain a diversity of habitats associated with upland and bottomland forests that provide the needs of wildlife found in the ecosystem.

3a. Manage water levels

Piedmont's 11 man-made ponds are maintained by earthen dikes or concrete dams. Pond water levels are regularly monitored by refuge staff.

Water levels are also controlled at the Allison and Little Rock dewatering areas (section 3b).

Refuge staff does not control water levels at Bond Swamp. However, rainfall events and local hydroelectric operations at upstream Jackson Dam greatly affect the water level of the Ocmulgee River and its tributary creeks. River flooding is a common concern for public access to the refuge.

3b. Manage moist soil units

At Piedmont, the Little Rock dewatering area contains a series of four impoundments. The largest, pond 21A, serves as a children's only fishing area in the spring and summer and provides a water source for flooding the other 3 basins during the winter. All water management is by

gravity flow. The area contains a small green tree reservoir and one area where limited crops are planted for waterfowl. The Allison Lake dewatering area is drawn down yearly and managed for moist soil plants, such as wild millet.

We have flooded the impoundments at Little Rock with limited success. Corn and millet success is dependent upon the weather. Repairs are needed for one of two water control structures flowing to lower impoundments. These repairs are scheduled to be done in 2002.

Although Bond Swamp is mostly forested wetlands, we do not manage any moist soil units there. River levels determine the extent of flooding at Bond Swamp.

3c. Graze/mow/hay

Permanent open areas include 565 acres in old fields that are scattered across the refuge, 322 acres in road shoulders, and 177 acres in power line rights of way. 2001 maintenance of open areas included mowing and/or strip mowing of old fields and road shoulders to retard succession. Power lines are maintained by the power companies with rights-of-way.

Also in 2001, 35 acres were treated with Round Up and Garlon in preparation of the 2002 planting of native grasses as part of a restoration project.

3d. Farming

Crop activity on the refuges is limited to approximately 10 acres at Piedmont's Little Rock Dewatering Area for use by waterfowl and other wildlife. The crop provides food for ducks and other animals such as raccoons and deer. In 2001, maintenance staff planted 6 acres of dwarf corn and 4 acres of grain sorghum and Japanese millet.

3e. Forest cutting

The U.S. Forest Service was very helpful to us during the summer by providing us with the Latitude and Longitude coordinates for many of the southern pine beetle spots at Piedmont. Between 70 and 80 total spots were discovered on the refuge. Because it was such a busy fire season, there was no available aircraft to identify bug spots. We had to rely on the Forest Service flight and ground observations.

Three special use permits were issued to local loggers for salvage harvest of infested trees. They were issued to the Webb Brothers, Les Gordon and Willie Toles. The logging companies salvaged 124 cords of pine sawtimber and 42 cords of pine pulpwood with receipts totaling \$8,253.27. They each paid \$65/cord for sawtimber and \$15/cord for pulpwood.

No forest thinning operations were conducted in 2001. However, timber marking began in Compartment 10.

In association with the Georgia Piedmont Natural Resources Cooperative (GPNRC) effort, refuge staff worked together with coordinator Nathan Klaus to implement an adaptive management effort for the Swainson's warbler. The Swainson's warbler depends on streamside canebrakes for nesting habitat. In early 2001, refuge staff will remove trees in nine experimental plots at Piedmont. These openings (½ and 2 acres in size) will open the forest canopy and

provide canebrakes the needed sunlight to flourish. The warbler's response to this management will be determined by conducting annual point counts in the nine plot areas. Jane Whaley conducted the Swainson's surveys in conjunction with refuge point counts. For more information on GPNRC, refer to section 5e.

3f. Prescribed Burning

Prescribed burning is one of the primary management tools used to create and maintain habitat on Piedmont. The red-cockaded woodpecker is a species adapted to fire-created and fire-maintained habitat. Other species of special interest and concern such as the Bachman's Sparrow and the Prairie Warbler are dependent on this habitat.

Without fire to retard succession the RCW will soon abandon cluster sites.

At Piedmont, winter fire has been the primary fire technique used in the refuge loblolly/shortleaf forests for 40 years. Fire exclusion had been practiced for 15 years prior to the beginning of burning in 1962. We have also begun experiments with warm season fire over the past few years (section 1b). Concern for smoke management has increased the complexity of the burning program.

Research has indicated that the fire rotation in the Piedmont needs to be 3 years in order to keep the understory encroachment in RCW cluster sites under control.



Prescribed Fire moving into woods

In 2001 prescribed winter burns were conducted in Compartments 7, 8, 2, 14 and 9. A total of 1923 acres were burned during the calendar year.

Piedmont burned 33 acres during the warm season in cooperation with the U.S. Forest Service as part of an ongoing study (refer to section 1b). Fourteen plots were burned in 2001. These plots were to have been burned in 2000, but because of the drought they were not.

Openings play an important role by providing primary successional habitat needed by certain wildlife species. While there is concern for certain interior forest species, there is also concern for a number of early successional species ranging from Bachman's Sparrow to the bobwhite quail. The openings are also important for the refuge turkey population.

Most forests at Bond Swamp are bottomland hardwoods. No management, other than protection, was utilized during 2001. There is an area of pine/hardwood on the higher ground at Bond Swamp. Part of this area consists of longleaf pine, and would benefit from prescribed fire. Carl Schmidt prepared a fire management plan for Bond Swamp National Wildlife Refuge. Smoke management issues will make it difficult to implement a fire program at Bond Swamp, due to its proximity to two major highways.

3g. Control pest plants

The triploid grass carp in Piedmont's pond 11B have continued to control the pond's hydrilla problem. These fish have been in the pond since 1998.

Triploid grass carp were released into Allison Lake and Pond 2A to control an outbreak of Brazilian elodea. The outbreak was especially severe in pond 2A, where anglers found it difficult to navigate with trolling motors. A small number of carp were also released into pond 11A as a preventative measure against the hydrilla in nearby pond 11-B.

In 2001, refuge staff treated 35 selected openings at Piedmont with Roundup herbicide. This will kill non-native plants such as Johnson grass and fescue to prepare the openings for native

Grass carp released into Allison Lake
grass restoration. Planting of these areas is scheduled for 2002 (see section 2b).



4. Fish and Wildlife Management

Significant management activities were as follows:

The Red-cockaded Woodpecker

The red-cockaded woodpecker (RCW) is a resident endangered species found on Piedmont. This bird is very habitat-specific. The RCW is a fire adapted species that needs open pine stands maintained by fire. As with most endangered species, the RCW became threatened due to habitat loss. There are 5 concentrations of the birds in Georgia. Two of these are associated with military bases, two with National Wildlife Refuges, and one with private plantations in south Georgia.

Intensive management and research are required on the public lands to maintain and recover the remaining RCW populations. Present RCW management on the refuge is in accordance with the guidelines established by the Red-cockaded Woodpecker Recovery Plan and a Section 7 endangered species evaluation of our management program. Using recovery guidelines and our management plan, the refuge provides both current and future habitat for a goal of -- groups of red-cockaded woodpeckers. The refuge has a cooperative agreement with the adjoining Oconee National Forest to provide habitat and management for additional groups of RCW's.

During the 2001 nesting season, natural cavity and insert trees were climbed on a regular basis to determine RCW use, reproduction, and competition. Twenty seven nestlings were banded with colored leg bands that will enable identification both as individuals and to the groups they were born in. In 2001, the Piedmont/Hitchiti RCW population had 56 active groups. Piedmont alone had 39 active groups. Of these 39 groups, 35 groups nested, making a total of 37 nesting attempts. Fifteen artificial insert clusters were used. Southern flying squirrels' predation was

found in 3 cavities, all 3 nests and a total of 6 eggs were lost to these cavity competitors. The other three nests were lost to unknown causes. Six nests were lost total. Enlarged RCW cavities are also used by other wildlife, including fox squirrels and other bird species.

Piedmont National Wildlife Refuge RCW Reproduction 1996-2001

	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>
Active Groups	32	36	35	37	39	39
Nesting Groups	25	30	28	25	33	35
Nest Attempts	29	38	34	27	36	37
Eggs	91	104	98	99	117	115
Nestlings	49	50	48	46	68	74
# Banded	47	24	25	26	30	27
Insert Clusters Used	13	13	15	12	16	15
Adults Observed	70	65	84	99	104	80

The Robust Redhorse

Piedmont remained active in its contributions to the robust redhorse recovery effort. Since this fish is extremely rare but is not yet listed as endangered, we are working together with a number of agencies in a pre-listing recovery effort. The rare sucker has been stocked in five Piedmont ponds since 1996. These "refugial" pond populations do not actively spawn, but they alleviate immediate extinction threats, provide for broodfish growout, and serve as rearing areas for larger fish before re-introduction into natural riverine habitats.

During April and May, refuge staff was on call to transport eggs from the Oconee River spawning site to several hatcheries in Georgia and South Carolina. Unfortunately, it was a poor spawning year, and our assistance was not necessary.

Refuge personnel assisted Georgia DNR Fisheries staff in removing 202 robust redhorse from Piedmont pond 9A. They were removed in early July, prior to scheduled work on the dam at 9A. 165 of these fish survived handling, 44 were released into the Oconee River and the remainder were sent to Walton Fish Hatchery to remain as brood fish. Including the 55 Piedmont fish reintroduced in 2000, a total of 99 Piedmont-reared fish have now been stocked into the Oconee River.

A number of improvements were made to the robust redhorse management program in 2001. Funding from Ecological Services allowed the hiring of a temporary biological aide to implement an intensive feeding and monitoring program. It also provided monies to allow us to purchase a feeder with timer and construct a dock on which to place the feeder. Laurel Dowswell, from Abraham Baldwin Agricultural College, was hired as the biological aide. In addition, Laurel and Assistant Manager Greg Walmsley presented Piedmont's water quality data at the 2001 Robust Redhorse Conservation Meeting in Charleston, SC.

4a. Bird Banding

Wood ducks were trapped and banded from 4 sites on Piedmont in the summer of 2001. Only 6 birds were banded this year. However, many birds were re-trapped from previous years. This trapping activity is extremely time-consuming and with a limited staff we were not able to meet the refuge banding quota. Volunteers helped with banding and baiting.

Twenty-seven red-cockaded woodpecker nestlings were banded in late spring. The color-coded bands will be used to identify birds in monitoring activities.

4b. Disease monitoring and treatment

All deer checked in on the Piedmont and Bond Swamp gun hunts are inspected for obvious signs of disease. Two deer checked in at the Piedmont check station exhibited symptoms of epizootic hemorrhagic disease (EHD). EHD is a virus spread to deer by midge bites. Closely related to blue tongue disease in livestock, EHD can be fatal to the infected animals, but their meat remains safe for human consumption. One deer checked in at the Piedmont check station exhibited cutaneous fibroma. Though not a serious condition, the animal had large cyst-like growths on its tail and head.

We received another wildlife health alert from USGS about Avian Vascular Myelinopathy (AVM) in 2001. The disease has been exhibited in coots and bald eagles. We have paid close attention to refuge wildlife for signs of this disease, as some of the more notable coot infestations of AVM have been on nearby Lake Juliette. So far, no signs of AVM are evident on Piedmont or Bond Swamp.

We also received a USGS update on the status of West Nile Virus. Employees were told to be on the watch for sick or dead crows and blue jays, which have been known to carry the virus. The virus was expected to enter the state of Georgia in 2001.

4c. Reintroductions

Thomas Payne released an alligator into Stone Creek at Bond Swamp in July. A local DNR ranger brought the alligator to Thomas after the gator became hooked and tangled in a fisherman's line. Jane Whaley removed the hook and fishing line from the 2 foot gator. After a couple of hours of rest, the alligator was released into Stone Creek.

Officer Payne released another alligator in the month of July. This one came from a private citizen's home after becoming too big for the owner to care for.



Thomas Payne with alligator

4d. Provide nest structures

Wood Duck boxes at Piedmont were checked in the summer and early winter. Of the 99 available boxes, more than half of them were utilized by Wood Ducks (53% in 2001), and 77% of those produced successful nests. Other species including screech owls, great-crested flycatchers and snakes used 13% of the boxes. No new nest boxes were erected in 2001.

In 1992, we began using inserts (artificial cavities) to supplement the natural cavities for red-cockaded woodpeckers. This activity allows for more rapid population expansion and helps maintain a habitat corridor between the northeastern and southwestern sections of the refuge. In 2001, refuge staff maintained 24 artificial inserts. The artificial insert program continues to show signs of success, as 15 recruitment sites were used in 2001.

4e. Predator and exotic control

Triploid grass carp are still actively controlling hydrilla in Piedmont's pond 11B (section 3g).

At Piedmont, southern flying squirrels are active nest predators of the endangered red-cockaded woodpecker. Our forestry technicians regularly remove southern flying squirrels from red-cockaded woodpecker nesting cavities during the breeding season. In 2001, 108 squirrels were observed in 47 different cavities. Technicians removed 34 squirrels from 11 cavities.

The exotic feral hog population at Bond Swamp is a serious threat to refuge resources and wildlife. Hog rooting and wallowing signs are present throughout the refuge. Refuge hog hunts in January, February, September, and December have had some impact on the population, with a total harvest of 45 hogs for the year. The biggest effect of hunting pressure seems to be the driving of hogs onto adjacent private lands. Control measures beyond public hunting will likely be necessary in the future (see also section 6j).

5. Coordination Activities

Much of what we were able to accomplish during the year is through coordination activities. We have excellent working relationships with a number of government agencies and other partners.

5a. Interagency coordination

U.S. Forest Service

We continued to work under a formal cooperative agreement with the U.S. Forest Service to provide habitat, management, and research to support a viable red-cockaded woodpecker population on the combined properties of Piedmont National Wildlife Refuge, Hitchiti Experimental Forest and Oconee National Forest. We worked cooperatively on red-cockaded woodpecker research and regularly met together to share information and jointly plan our work.

A formal agreement places hunting on the Hitchiti Experimental Forest under the Piedmont hunt permit program, making the refuge responsible for biological and enforcement work associated with the hunts. Because the Oconee-Chattahoochee National Forest has only one enforcement officer, refuge officers have also been requested to assist in enforcement efforts. Refuge Officers continue to patrol Forest Service campgrounds adjacent to Piedmont's boundary, especially during refuge big game hunts.

In December, Manager Ronnie Shell attended a meeting with Chattahoochee-Oconee National Forest employees to discuss public perceptions of wildfires and prescribed burning. Dr. Bruce Schindler of Oregon State University is conducting a study on these topics, and was interested in coordinating with area fire management agencies.

Georgia Department of Natural Resources

Refuge personnel worked cooperatively with several divisions of the Georgia Department of Natural Resources (DNR) throughout the year. Refuge staff assisted with practical exercises and wildlife management training for the new ranger training class that was conducted at the nearby Georgia Public Safety Training Center. DNR assisted the refuge with law enforcement on several hunts at both refuges because of the decreased number of refuge officers available (see section 6a). DNR also used refuge facilities for meetings and workshops throughout the year.

We worked extensively with the DNR Fisheries Division on the Robust Redhorse Recovery Project. The Service and DNR are involved with many partners in the recovery effort, including: South Carolina DNR, North Carolina Wildlife Resources Commission, U.S. Forest Service, National Biological Service, University of Georgia's Daniel B. Warnell School of Forest Resources, Georgia Power, Carolina Power & Light, Duke Power, and the Georgia Wildlife Federation.

Carolyn Johnson, Thomas Payne, Ronnie Shell, and Greg Walmsley spent several days assisting DNR-WRD with training for their new LE Rangers. Refuge staff served as role players in the night practical exercises, which were conducted on Piedmont.

The DNR-WRD nongame office helps us coordinate the annual 4th of July butterfly surveys and Christmas Bird Count.

Managers Shell and Johnson participated in a focus group meeting with DNR and other conservation groups. Participants developed ideas for a state "hunters' bill of rights." Manager Shell then represented the Service in the Georgia Conservation Congress, where this and other topics were addressed.

Law Enforcement

The tragedy of September 11th will forever be ingrained in our memories. It's almost hard to imagine our world prior to that date. Some of us were directly effected by the attacks. We had family who work at the Pentagon or had family flying into the airports where the doomed flights originated. We were lucky, all our family members were safe. After that day, we were all called to be patriotic, vigilant and more aware of our surroundings. One member of our refuge was called to play a more important role in protecting this land that we love. Thomas Payne, our full time LE officer and member of the S.O.R.T. team, was called to action. The first detail would take him from his family during the Thanksgiving holidays. It involved a trip to Washington to stand guard at the Interior building. His second and longest detail was to provide protection at the Shasta dam in Redding, California. He and members of the team were on detail a total of nine weeks from October through February 2002. These LE officers missed holidays, birthdays and anniversaries to protect our natural treasures. We are very proud of Thomas and the team. We are also very proud of all our other full time officers and commissioned dual duty officers who protect and serve the public everyday. They do their duty, make the sacrifices and take the risks required.

We cooperate with the public works departments, sheriff's departments, and emergency services in Jones, Jasper, Bibb, and Twiggs Counties and monitor radio frequencies with 3 of the counties. Joint assistance ranging from road work to law enforcement was received and given during the year. A Jones County fire station is located on the refuge in Round Oak and provides structural fire protection.

The National Park Service and the Jones and Jasper County Sheriff's Departments used the refuge firing range at Piedmont for training during the year.

On a few occasions, officers with the Georgia Department of Corrections used areas on Piedmont National Wildlife Refuge for dog training exercises. We have developed a valuable working relationship with these officers.

Ronnie Shell assisted Regional Refuge Chief Steve Thompson in co-chairing a committee to draft national Law Enforcement policies.

As always, Georgia DNR was a tremendous law enforcement partner(see DNR-above).

Others

We have signed a cooperative agreement with the Macon Museum of Arts and Sciences to

provide environmental education on the Museum's Brown's Mount project and on the adjoining Bond Swamp National Wildlife Refuge. Several cooperative programs were conducted during the year.

Refuge staff provided technical assistance at the local, state, and regional level during the year. We coordinated with the Brunswick and Athens Ecological Services Offices on several projects during the year. We have an excellent cooperative working relationship with these offices.

The National Biological Service completed its final field season of adaptive management research on the refuge. We have worked with them to provide trailers for work and living space at the Pippins Lake campground, and have provided them with the use of refuge radios to help ensure the safety of researchers in the field. The 60' trailer that came from Chickamauga National Battlefield and a small travel trailer were used for summer housing by researchers. This effort has greatly facilitated research efforts and will hopefully continue to do so in the future.

For more information on coordination efforts, refer to sections 5e and 6a.

5b. Tribal coordination

No activity this year.

5c. Private land activities

Manager Shell worked with private landowners providing technical advice on waterfowl, wildlife and forest management.

In addition, Piedmont administers 12 farmers home easements in the state of Georgia. Refuge managers regularly meet with easement owners to clarify boundary line and land use issues.

5d. Oil & gas activities

No activity.

5e. Cooperative/Friends Organizations

We worked cooperatively on joint wildlife censuses and surveys with Georgia DNR and regularly consulted each other for ideas and information(section 5a).

We cooperated on several fires with the Georgia Forestry Commission and attended planning sessions at Commission headquarters. Regular communication with the local forest fire unit was also beneficial for all involved.

We worked together with the National Park Service's Ocmulgee National Monument on cooperative efforts and provided mutual assistance to each other.

We spent a good deal of time on Service ecosystem management efforts, including meeting and planning with partners. Deputy Refuge Manager Carolyn Johnson served as an Altamaha

Ecosystem Team Leader in 2001, and was active in all aspects of ecosystem team efforts. Refuge managers also attended two ecosystem team meetings in 2001. At a July meeting in Brunswick, Ecoteam members met with non-service land managers in the ecosystem area as part of an effort to educate others on the Service's ecosystem management approach. The meeting went well, as several public and private groups were represented. Ecoteam leaders want to continue to include non-service partners in the planning and management process.

Georgia is a model state for developing a Partners in Flight program for migratory neotropical birds and other land birds of special concern. We are very active and supportive partners in this effort. Through Partners in Flight, Piedmont continues its involvement with the Georgia Piedmont Natural Resources Cooperative (GPNRC). This cooperative effort involves partnerships between timber industries and state and federal lands in central Georgia for landscape level forest management.

The GPNRC consists of nine businesses and public agencies working together toward sound land stewardship on a landscape level. Together, these nine organizations voluntarily work toward the common goal of maintaining or improving plant and animal diversity in the Georgia Piedmont. We are active partners in this cooperative, and conduct migratory bird point counts at Piedmont and Bond Swamp as part of the effort. Carolyn Johnson, Greg Walmsley and Jane Whaley completed the point count surveys in 2001. The partners' collective point count data is entered into a database, and are used to help establish a baseline database for migratory bird populations in the Georgia Piedmont. Nathan Klaus, the cooperative's coordinator, has done an excellent job of networking the various partners and setting initiatives for the group. In 2001, Jane Whaley provided support for the refuge to initiate habitat management activities for the Swainson's warbler on Piedmont (see section 3e.).

We are also involved in the Ocmulgee Heritage Greenway initiative, which targets a 45 mile stretch of river running from Piedmont NWR through Macon to Bond Swamp NWR and continues south to Robins Air Force Base in Warner-Robins. Local communities have been overwhelmingly supportive with concerns primarily regarding law enforcement and safety issues. This initiative involves federal, state, and local government agencies, the Trust for Public Land, local conservation organizations, and private citizens. The partnerships will make the river and associated lands accessible for a variety of recreational uses while protecting the river's system of hydrology and bottomland hardwoods. The first phase of this project is concentrating on land acquisition from Macon south to Bond Swamp Refuge. Bond Swamp's October grand opening event also represented the first phase of the Greenway to open to the public.

Partnerships and cooperative efforts were truly a critical part of our refuge operations in 2001. We could not have been successful without them.

6. Resource Protection

6a. Law enforcement

We use a combination of proactive and preventative law enforcement to protect Piedmont and Bond Swamp Refuges, their many resources, and public visitors. Even with proactive programs, we still encounter a diversity of violations each year. With increased public use, increasing area populations and easy access to Piedmont and Bond Swamp, we now encounter as many non-wildlife violations as wildlife violations.

Piedmont and Bond Swamp have three Refuge Officers. Thomas Payne is the only full-time Refuge Officer. Manager Ronnie Shell and Deputy Manager Carolyn Johnson are both collateral duty Refuge Officers. In January 2001, Assistant Manager Greg Walmsley will be attending the Land Management Training Program at the Federal Law Enforcement Training Center.

In 2001, Refuge Officers issued 89 warnings and citations, ranging from hunting violations to DUI and disorderly conduct. A total of \$2,950 in fines were forfeited.

We also assisted with training for the Georgia DNR Basic Ranger Class. For three nights, refuge officers served as role players for training scenarios. The scenarios proved to be valuable learning experiences for both the role players and trainees.

Law enforcement at Bond Swamp National Wildlife Refuge remains a major challenge, due to limited personnel and poor access to the refuge interior. A great deal of law enforcement operations were focused on Bond Swamp this year. As a result, we witnessed a decline in violations at the swamp.

Georgia Department of Natural Resources Rangers (DNR) continue to be a valuable asset to the refuge law enforcement programs. Rangers worked with refuge officers on several occasions, and bot participated regularly in joint law enforcement details (section 5a).

We also continued to work with four counties and several state and federal agencies during the year.

6b. Wildfire preparedness

Four wildfires occurred on Piedmont National Wildlife Refuge in 2001.

1. Compartment 15: On January 26th, a small wildfire (3' x 15'), origin unknown.
2. Compartment 22: On February 5th, a small wildfire burned .1 acres of land off Juliette Road.
3. Compartment 15: On February 9th, another small wildfire burned approximately .1 acres of land off Juliette Road.
4. Compartment 5: On October 26th, another small wildfire possibly started by a hunter's cigarette burned .4 acres.

None of these wildfires caused any substantial damage to property or wildlife.

Our best form of wildfire preparedness is to use caution in our prescribed burning operations. Careful mop-ups were conducted after every burn, with burn areas being monitored for many days after each burn. Most fire equipment received maintenance work and upgrading. In addition, we acquired a new bulldozer with FY 2000 fire money (section 9b).

Most refuge staff members are certified wildland firefighters. Firefighting equipment is regularly inspected and kept in good working order. In periods of drought, such as those seen in summer of 2001, staff members keep their gear and equipment ready for quick response to possible refuge wildfires. In addition, the Georgia Forestry Commission has an office and fire tower adjacent to Piedmont, and they help keep us informed of fire danger ratings throughout the year.

6c. Manage permits and economic uses

At Piedmont, three special use permits were issued to private timber companies involved in refuge salvage logging operations. These loggers removed trees infested with southern pine beetles. One other company was allowed passage through Bond Swamp in order to gain access to harvest timber on adjacent private lands (See 3e).

Refuge Managers Shell, Johnson, and Walmsley worked with a private construction contractor, Ecological Services, the Division of Realty, and Regional Archaeologist Rick Kanaski on a permit for a proposed fiber-optic line on Piedmont. The permitting process was confusing at times because the line is set to traverse Georgia Power's existing right-of-way. This line was in existence before the refuge's establishment in 1939. The process included Section 7 consultation, NEPA compliance, a Compatibility Determination, a performance bond, and a Refuge Special Use Permit. Permit conditions included intensive rehabilitation requirements for graveling roads, erosion control measures, and supplying the refuge with native grass seed and sowing equipment (section 2b). Needless to say, the entire process required a tremendous amount of work and coordination. Work on the line began in December, and is scheduled for completion in early 2001.

Other special use permits were issued for research projects, refuge hunts, firewood collection, and other special activities on the refuge. All requests for permits are thoroughly reviewed to ensure compliance with existing laws, refuge goals and objectives and refuge compatibility.

6d. Contaminant investigation and cleanup

6e. Manage water rights

Based on discrepancies between established survey lines, markers, and plats, there remains some confusion over the exact boundary line between the property line of Mr. L.C. Phillips and Bond Swamp National Wildlife Refuge. The northeast corner of the Phillips tract lies either on or very close to Stone Creek at a stretch of the creek known as "Big Eddy". Manager Shell is currently working with U.S. Fish & Wildlife Service surveyors and reviewing historic plats and documents to determine the exact property line on or near the creek.

6f. Manage cultural resources

Regional Archaeologist Rick Kanaski conducted archaeological surveys on Piedmont NWR in 1999 before initiation of the MARSH Project construction at Little Rock. In 2001, Rick was also involved in the archaeological approval of the fiber-optic line project on Piedmont (section 6c).

There are more than 15 historic cemeteries on Piedmont NWR, and visitor interest in them continues to grow. To address the need for historical documentation of these cemeteries, Deputy Manager Carolyn Johnson and three interns from Georgia College and A. Baldwin Agricultural College worked throughout the summer to update the refuge cemetery file (see section 9b). The interns recorded detailed measurements and observations from 13 of the cemeteries, and took digital photos of grave markers and monuments. They combined this information into a large notebook, which now serves as the refuge cemetery log. The new log has already been put to good use in helping visitors find their ancestors' burial places.

Annual refuge management plans were reviewed for compliance with environmental and cultural resource mandates.

6g. Federal Facility Compliance Act

The Federal Facility Compliance Act was applied throughout the year to safely store and properly dispose of hazardous and potentially hazardous materials.

6h. Land acquisition

No land was acquired by Piedmont or Bond Swamp National Wildlife Refuges in 2001. We continue to work with the Service's Division of Realty, the Trust for Public Land and other Ocmulgee Heritage Greenway partners to work towards acquiring land from willing sellers within the 18,000 acre expansion boundary of Bond Swamp.

Three tracts totaling 1,018 acres in Bond Swamp's expansion boundary are now owned by the Georgia Department of Natural Resources (including the Brown's Mount property). The state has agreed to lease the property, to be managed as part of Bond Swamp NWR. In 2001, DNR continued to work with on the lease with State Solicitor's Office. When the lease agreement is complete, we will begin managing these tracts as part of the refuge.

6i. Wilderness and natural areas

A research natural area of 188 acres is located in Compartment 32. The area is classified as SAF-80, loblolly-shortleaf pine type.

6j. Threats and conflicts

Southern pine beetles (SPB's) are always present in southern forests. During periods of extreme weather when pine trees are under serious stress, beetle populations may expand rapidly and destroy thousands of trees. Currently, the only time and cost effective way to control the spread of SPB's is to remove infested trees before the beetles (which have bored into the trees to lay

their eggs) emerge to infest and kill more trees. Piedmont's loblolly and shortleaf pines are probably more susceptible to SPB's than others because of the poor subsoils that cover the refuge. Thus, the red-cockaded woodpecker and the older trees it needs are constantly at risk. 2001 was an active year for the southern pine beetle. Piedmont experienced between 70 and 80 infestations, most of which were small. Beetle-infested trees were removed by contract loggers. Refer to section 3e for more information on this subject.

The Georgia Environmental Protection Division (EPD) now includes Piedmont counties in Atlanta's air quality management area. This means that air quality regulations in Atlanta will now apply to us at Piedmont. Proposed warm season burning bans in this management area would threaten our management efforts for the endangered red-cockaded woodpecker and other wildlife. In January, refuge staff and our coordinating forestry agencies (GA DNR, US Forest Service, GA Forestry Commission) met with air quality regulators from the Georgia EPD. The purpose of this meeting was to educate regulators on the importance of prescribed burning, and the relatively small volume of emissions that warm season burns produce. The meeting went very well, as prescribed burns are exempt from a new warm season open burn ban.

The exotic feral hog population at Bond Swamp is a serious threat to refuge resources and wildlife. Refer to section 4e for details and control measures.

Refuge Staff, along with FWS Ecological Services, the EPA, and the U.S. Army Corps of Engineers met with the Twiggs County Commissioner, the Twiggs County Attorney, and an adjoining landowner concerning a road that the county illegally constructed through wetlands adjacent to the Bond Swamp Refuge boundary. The commissioner involved was defeated in a primary election later in the year. It will be interesting to see how this situation is mitigated.

7. Not Applicable (Alaska only)

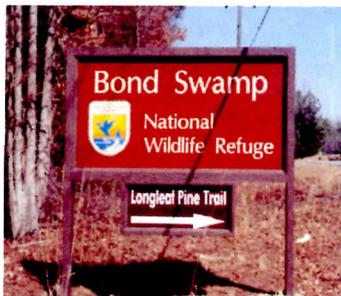
8. Public Education and Recreation

8a. Provide visitor services

Public participation is extremely important on National Wildlife Refuges. In addition to the regular public involvement and comments we get each year, we receive intense public interest and comments involving hunt fees and potential public use opportunities.

We try to ensure that all public use on the refuge is wildlife oriented and compatible for the purposes for which the refuge was established. Formal compatibility evaluations of all refuge public uses were conducted in 1994. All the uses were found to be compatible.

The Visitor Center for both refuges is located at Piedmont Refuge - 718 Juliette Road in Round Oak, Georgia, and contains a number of exhibits describing refuge wildlife and habitats.



Longleaf Pine Trail



Wayne Smith and maintenance crew putting finishing touches on sign before painting it



Brown's Mount EE Center

With this the first full year of Bond Swamp being opened to the public, visitation was on the rise. One of the goals of the refuge is to provide the public with a safe and meaningful experience. This year proved to be the 'year of the signs for Bond Swamp'. We added three new signs to our compliment and built one kiosk. Bond Swamp is an active partner involved with the Ocmulgee Heritage Greenway project, which encompasses a 45 mile stretch of river from Piedmont Refuge to Bond Swamp Refuge. In addition to land acquisition, this project is developing more outdoor recreational opportunities for the public. By working with partners, we hope to gain the necessary resources to offer more activities at Bond Swamp. (section 5e).

Hunting

As usual, public hunting was a popular activity both at Piedmont and Bond Swamp in 2001. Hunting serves as a management tool for some species, and provides good recreational opportunities for the public. 2001 was our eleventh year of participation in the hunt permit fee system. Big game hunt permits for deer, turkey, and feral hogs are issued through a quota drawing process. If one is drawn for a hunt, permits are \$12.50 each.

Beginning with the 1998 turkey season, the refuge hunt fee collection was placed in the National Recreation Fee Demonstration Program.(NRFDP). Under this program, refuges receive 80% of

their own collected fees to be used on site. Again in 2001, we administered a NRFDP questionnaire to evaluate public response to the hunts and the rec fee demonstration program. Most respondents continue to support the higher percentage of fee monies being returned to the collecting station.

Prior to the hunt seasons, refuge staff members spend a great deal of time filling hunt application requests and answering hunt questions.

Bond Swamp Hunts

This was the second year for hog only hunts in January and February at Bond Swamp. The January hunt was very successful with 23 hogs taken. The biggest pig taken was a 180 lb sow, followed closely by a 150 lb boar. In February, the number of hogs taken was smaller, only 10, but the hogs were much bigger. The two biggest hogs, one sow and a boar, weighed in at 200 lbs a piece.

It was also the second year for an archery season at Bond Swamp. The season ran from September 24 - 30, 2001. Eight deer (6 does and 2 bucks) were taken along with 4 hogs (3 boars and 1 sow). 122 hunters signed in for the hunt over the week long hunt. Johnny Smith took both the biggest deer (80 lb doe) and the biggest hog (205 lb boar).

This was the third year of the Deer / Hog hunt on December 6 - 8, 2001. Demand for this hunt was high again, since the refuge has only been open to hunting since 1999. The quota for hunters was raised from 75 to 100. Eleven deer were harvested (10 bucks, 1 doe), as well as 9 hogs (4 boars, 5 sows). Most of the deer checked in were in fair to good health. Although harvest rates were again lower than in previous years, the hunt went extremely well, and most hunters were pleased with our visitor service. For all three hunts combined, more than 800 applications were requested for the 400 quota slots.

Piedmont Hunts

Interest in the Piedmont spring turkey hunts remained high, and the quota of 1000 hunt slots was entirely filled. 48 gobblers were harvested on the five hunts, which ran weekends from late March to late April. During turkey season, some refuge roads are closed to vehicle travel to provide some hunt areas with minimal disturbance.

The Piedmont archery season resulted in a small harvest (10 deer). Two of the bigger bucks checked in were a 8 pointer weighing 104 lbs. and a 6 pointer weighing 150 lbs. This year's breakdown of bucks to does was dead even at 10 bucks and 10 does.

The Piedmont quota deer hunts were very successful with 584 deer checked in at the refuge check station. The refuge received numerous compliments from the hunters. Antler development and body weight of the deer continued to be on track with the 10 year average. Robert Ledford of Hiawassee, Georgia bagged a 15 point, 148 pound buck during the Buck Only Hunt. It was by far the biggest buck taken during this year's hunts.

Robert Ledford with a magnificent 15 pointer.



The most rewarding hunt was the eleventh annual Piedmont deer hunt for wheelchair-bound disabled hunters. Held during National Wildlife Refuge Week, the event provides an atmosphere of fun and hospitality for everyone involved. 38 hunters participated in the 2001 event, harvesting a total of 10 deer (4 bucks, 6 does). The fellowship among hunters and the chance to share with those in similar situations means as much to the hunters as the chance to kill a deer. 39 volunteers worked 926 hours during the 2-day event, assisting refuge staff in placing hunters, carrying deer back to camp, processing and collecting biological data from the deer and cooking and helping the hunters in camp. The hunters camped in the refuge campground, which is accessible to wheelchair users with the addition of concrete pads and ramps.

Notable donations for the hunt were provided by the Georgia Wildlife Federation, Coca Cola of Macon, Bowdoin's Convenience Store, and Travis Johnson, who provided a free deer mount for the winner of the hunt's "Big Buck Contest."



This year's Big Buck Contest winner was Dwayne Cook, who bagged a 157 lb. (live weight) 8 pointer.

The Piedmont winter raccoon and small game hunts were popular and caused very few problems. During the winter holiday period, Piedmont was heavily used by rabbit, squirrel, and quail hunters.

Summary of 2001 Piedmont NWR Deer Hunts

TYPE HUNT	DATES	HUNTER DAYS	HARVEST
Archery (ES)	Sept 15 - 30	350	20
Handicapped Hunt (ES)	Oct 12 - 13	76	10
Bucks Only	Oct 25 - 27	2395	172
Primitive Weapons (ES)	Nov 1 - 3	2421	139
Either Sex I	Nov 9 - 10	1548	166
Either Sex II	Nov 16 - 17	1353	77
Totals:		8143	584

Bond Swamp NWR Hog-Only Hunt Results

January 25 - 27 , 2001

Total Quota: 125 hunters Participants: 69 hunters

Hogs Harvested: 23 (19 boars, 4 sows)

Big Sow: 180 lbs. Sean LePage

Big Boar: 150 lbs. Glenn Ryan

February 15 - 17, 2001

Total Quota: 125 hunters Participants: 69 hunters

Hogs Harvested: 10 (3 boars, 7 sows)

Big Sow: 200 lbs. Hovey Smith

Big Boar: 200 lbs. Timothy Priest

Bond Swamp NWR Deer/Hog Hunt Results

December 6 - 8, 2001

Hunt Quota: 100 hunters Participants: 61 hunters
Deer Harvested: 11 (10 bucks, 1 doe) Hogs Harvested: 9 (4 boars, 5 sows)
 Big Buck: 8 pts. 125 lbs. Thomas Burdett
 Big Boar: 175 lbs. Robert Henry

2001 Piedmont Turkey Hunt Stats

Total harvest = 48 birds
Adults = 39 birds
Jakes (1yr) = 9 birds

1st hunt (March 26-28): killed 20 birds
2nd hunt (April 2-4) : killed 9 birds
3rd hunt (April 9-11) : killed 7 birds

4th hunt (April 16-18): killed 5 birds
5th hunt (April 23-25): killed 7 birds

Average adult weight = 19.5 pounds
Average adult beard length = 9.25 inches
Average adult spur length = .99 inches

Heaviest weight = 22.5 lbs
Longest beard = 11.0 inches
Longest spur = 1.5 inches

Fishing

Bond Swamp

This was the second year the refuge was open to fishing. Local interest was high, and a number of anglers turned out for opening day on March 15. Only bank fishing is allowed on sections of Stone Creek and the Ocmulgee River. Future refuge plans include the possibility of boat access for fishing at Stone Creek. The Ocmulgee River and its tributaries offer catches of many fish, including largemouth bass, channel catfish, flathead catfish and a few species of sunfish. Anglers are required to carry a Georgia fishing license. A special brochure with refuge fishing regulations is also helpful and is provided at the informational kiosk at the Stone Creek parking lot.

Piedmont

Fishing interest and pressure are surprisingly high on Piedmont's small ponds. The refuge fishing season ran from May 1 to September 30 to minimize conflict with nesting Wood Ducks, and to keep the fishing program compatible with the refuge mission. Many good catches were made with some bass over 10 pounds and catfish up to 12 pounds caught. The ponds also yield some nice catches of sunfish, especially bluegill and shellcracker.

The four ponds holding Robust Redhorse suckers (ponds 7A,9A,11A, and Pippins Lake) remain closed to fishing. Non-motorized boats are allowed only in Pond 2A and Allison Lake.

Wildlife Observation

Interest in wildlife observation increases each year. We recorded birders from across the United States and several foreign countries. Many of them come trying to find a red-cockaded woodpecker or Bachman's sparrow. In addition to birds, people drive through looking for deer, turkey, and other obvious species of wildlife.

Other Wildlife-Oriented Recreation

Many visitors enjoy a combination of observing wildlife and the quiet serenity of the woods. Areas and roads apart from the specific wildlife foot and driving trails are being used more for scenic type driving and hiking. Photography also continues to be a popular refuge use.

Camping

The only public camping allowed is during the refuge big game hunts at Piedmont's Pippins Lake Campground. Several hundred people camped for the deer and turkey hunts. The Pippins Lake campground is offered to Bond Swamp hunters as well, despite its long distance. A number of Bond Swamp hunters used the campground at the nearby Ocmulgee Wildlife Management Area.

Special use permits are also issued to scouting groups for camping at Pippins Lake. Scout groups are required to complete a volunteer service project during their stay at Piedmont. Boy Scouts of America troops 21 and 22 visited Piedmont again in 2001 and completed a number of maintenance duties (See 9b).

Off-Road Vehicling

The only off-road vehicles allowed on Piedmont are those used by wheelchair bound hunters, through a special use permit for ATV's on foot travel only roads.

ATV use at Bond Swamp is restricted to use only as a tool to retrieve game. Game retrieval with an ATV is also dependent on ground conditions. Refuge personnel and/or law enforcement must be contacted before an ATV is used on the refuge. We post road conditions at the checkstation daily during the hunts to alert hunters to road conditions and closures.

Outdoor Classrooms - Students

School and day care groups from Baldwin, Bibb, Jones, Jasper, Fulton, and Monroe Counties used Piedmont refuge throughout the school year as over 3,000 students participated in wildlife interpretive programs and environmental education activities. Most of these groups required assistance from our Ranger, Jane Whaley.

Ecology, biology, wildlife, and forestry classes from the University of Georgia, Georgia College & State University and Mercer University regularly used the refuge as an outdoor classroom. These trips were mostly led by professors with assistance from Jane.

Outdoor Classrooms - Teachers

In November, Jane Whaley attended facilitator training for GA DNR's Project Wet / Project Wild program. She will be hosting / assisting with teacher workshops in 2002.

Interpretive Foot Trails

Piedmont has 3 interpretive foot trails. Two of the trails begin at the Allison Lake parking area. The Allison Lake foot trail has an interpretive leaflet with numbered stops and runs along the lake's banks. The red-cockaded woodpecker foot trail traverses several habitat types from the parking lot to an active red-cockaded cluster approximately 1.5 miles away and returns to the parking area. The third trail is actually 2 trails that make a loop; the Pine and Creek trails. The Pine trail takes a higher elevation through pine stands and upland hardwood stands and connects with the Allison Lake trail .5 mile from the Visitor Center. The Creek trail follows a lower elevation along a tributary creek of Allison Lake. This section of the trail is .8 miles long.

As mentioned earlier, Bond Swamp's public opening included the opening of two trails at the refuge. The most notable trail is the Beaver Swamp Trail, which offers a 1.5 mile outer loop as well as a shorter .9 mile inner loop. Both loops meander along Stone Creek through forested wetlands. The Longleaf Pine Trail is Bond Swamp's other trail. Located on the east side of the refuge, it is 1.9 miles, and provides views of an upland pine/ hardwood forest, including a small stand of longleaf pine. These trails are used heavily by birders and local employees who walk during their lunch hour.

Interpretive Tour Routes

The Little Rock Wildlife Drive is a 6 mile self-guiding auto tour route that is accessed from the Round Oak-Juliette Road. The drive has 12 stops which correspond to an interpretive leaflet. More than 30,000 visitors toured the wildlife drive in 2001. Work began in 2001 to update the brochure that accompanies the drive. We hope to send an updated and revised brochure to the printers in 2002.

Other Non-Wildlife Oriented Uses

On Piedmont, we are having a noticeable increase bicycling on refuge roads open to vehicles. The refuge also receives requests for all kinds of non-wildlife oriented recreation, including horseback riding, dirt bike races, swimming, camping and so on.

At Bond Swamp, some of the landowners who live along Alfred Bond Drive are avid horseback riders. Although the refuge does not allow horseback riding, we continue to receive requests to do so. Horseback riding was deemed to be an incompatible refuge use in a 1996 Compatibility Determination. It is a constant challenge to educate local visitors about compatible refuge uses.

In February, about 75 participants from the Georgia Orienteering Club again used Piedmont Refuge for its annual orienteering meet.

"The Rocks" is a popular public use spot on Piedmont. At this location, Little Falling Creek flows through a large granite outcrop. When the creek levels are high, it produces beautiful falls and deep, clear pools. Visitors come to "The Rocks" to sunbathe, picnic, swim, and explore. Because it is a popular spot, Refuge Officers have also made a number of law enforcement cases there.

We are also seeing a growing number of visitors with interest in the cemeteries at Piedmont. Some want to know about the history of these cemeteries, while others are in search of ancestors' burial sites (see section 6f). A collection of information on our cemeteries was begun last summer

by our interns. Jane Whaley has since picked up the project and compiled information and made it accessible to the public in a notebook form. Visitors may come in a photocopy information about a specific cemetery: latitude, longitude, size, digital images, etc.

8b. Outreach

During the year we met with groups and organizations including Ocmulgee Audubon Society, Sierra Club, Georgia Wilderness Society, Wildlife Federation, sportsmen's clubs, chambers of commerce, civic groups, tourism and development groups, and others. We also met with and listened to the concerns private individuals, and received many written comments and letters. Through these contacts, the public was able to ask questions and voice input on refuge management programs and operations.

Refuge staff was actively involved in several demonstrations and exhibits in 2001. Piedmont was responsible for U.S. Fish & Wildlife Service exhibits at the annual Georgia Wildlife Federation Buck-a-Rama expositions in both Atlanta and Perry. Held in August prior to deer season, these shows were attended by nearly 190,000 people.

The Refuge also staffed exhibits at the Earth Day and Indian Festival celebrations at Ocmulgee National Monument, the annual career days at Jones Co. High School and Gray Elementary, in Gray Ga., and the Feathered Frenzy Celebration, an IMBD event, at the Museum of Arts and Sciences in Macon, GA. More than 5,000 participants viewed these exhibits.

Jane Whaley worked with Georgia Partners in Flight's Outreach & Education Working Group. The group met two times in 2001, and completed development of eight educational boxes migratory birds. One of the activity boxes was issued to Piedmont and Bond Swamp, and is now being circulated for use by local elementary school teachers.

Interpretive Programs

This was the first year that the Ranger position was filled. And what an exciting and busy year it was.

In February, Jane Whaley spoke to the Riverside Optimist Club of Macon about Bond Swamp, visited the Wimbish School in Macon to talk about animals of the Ocmulgee, and spoke with a group from Emory University about Red-cockaded woodpeckers.

In March, she attended the Cherry Blossom Festival annual luncheon and spoke to the Georgia College and State University Spring Break Camp.

April blew by! But, not before NUR Academy from Atlanta visited the refuge and enjoyed a beautiful day and a encounter with a very large black rat snake. Springdale Elementary School's entire kindergarten class visited the refuge over the course of two days. Jane also spoke about career opportunities within the FWS to the entire 4th and 5th grade classes of Gray Elementary and supervised a group from Robbins Air Force Base as they constructed two disabled hunter platforms. She represented Piedmont and Bond Swamp NWRs at an Earth Day Celebration at the Ocmulgee National Monument which reached over 2,000 people. Several other schools from

Jones and Bibb county came to Piedmont for environmental education programs.

The month of May was also a busy month for EE at Piedmont. Jasper county high school students visited the refuge and used it as an outdoor classroom. Jane represented the refuges at an IMBD celebration called "Feather Frenzy" at the Museum of Arts and Sciences in Macon. Over 400 students visited the refuge during the month. Jane and Thomas Payne, LE officer, visited the Hartley Woods Health Care Facility. This program turned out to be a very moving experience as Jane and Thomas got to hear animal and hunting stories from an older generation. This will be an annual event and a date has already been set for 2002.

Jane Whaley, Refuge Officer Thomas Payne and Georgia DNR Ranger Lee Brown presented joint agency interpretive programs on Endangered Species and CITES to several civic and school groups in the Middle Georgia area.

During the month of June, Jane conducted four programs at Macon Libraries as part of a summer reading program reaching over 100 excited youngsters. Also in June, the GA DNR used the auditorium at Piedmont to conduct hunter safety courses.

July was a flurry of activity ranging from a Butterfly count at Bond Swamp to the National Youth Sports Program's visit to the refuge. Jane also attended the Regional Public Use meeting in Charleston, S.C.

August is the season for the Buck-A-Ramas! The first weekend of August, the Buck-A-Rama is held in Atlanta at the Exposition Center. Over 110,000 people attended this four day event. A growing number of our hunters are from the Atlanta area, so we are able to answer a myriad of questions before the hunters show up for our first hunt.

We also have a cooperative agreement with the Museum of Arts and Sciences in Macon for interpretative programs on Brown's Mount and the adjoining Bond Swamp NWR.



A fun day visiting Piedmont NWR

9. Planning and Administration

9a. Comprehensive management planning

Piedmont's habitat management is carried out under comprehensive management plans. Annual management plans were prepared for forest management, fire management, water management, and openings management.

The annual fire management plan was comprehensive and time consuming to the point of being burdensome. From an administrative standpoint, the plan did not provide the expected corresponding gains in efficiency and productivity.

Refuge staff are in the early phases of a feral hog control management plan for Bond Swamp.

Both refuges have been slated to begin Comprehensive Conservation Plans (CCP's) by 2005.

9b. General administration

Personnel

Piedmont saw a number of personnel changes in 2001.

Assistant Manager Greg Walmsley completed his co-op and returned as a permanent employee.

After volunteering as an intern in 2000, Jane Whaley was hired as a Student Career Experience Program employee to fill the vacant park ranger position. In May of this year, she took over the full time position after completing her Master's degree in Biology. This position had been vacant since May 1999.

John Mason was hired as the Prescribed Fire Specialist, leaving a forestry tech position vacant that was later filled in August by Jason Kimbell.

The tractor operator position left vacant when Wayne Smith moved up to an Equipment Operator was filled by Todd Walker. Todd came to the Fish and Wildlife Service from the Georgia Forestry Commission.

Carl Schmidt was hired as Assistant Forester in April of this year. He, along with his wife Dawn, transferred to Piedmont from Aransas NWR in Texas.

Piedmont's 2001 Staff at Year's End

<u>Position Title</u>	<u>Employee Name</u>	<u>Grade</u>	<u>Appt.</u>
Refuge Manager	Ronnie Shell	GS-13	PFT
Asst. Refuge Mgr.	Carolyn Johnson	GS-12	PFT
Asst. Refuge Mgr.	Vacant	GS-09	PFT
Asst. Refuge Mgr.	Greg Walmsley	GS-05	PFT
Senior Forester	Dean Metteauer	GS-11	PFT
Asst. Forester	Carl Schmidt	GS-09	PFT
Park Ranger	Jane Whaley	GS-07	PFT
Refuge LE Officer	Thomas Payne	GS-08	PFT
Office Assistant	Patricia Jackson	GS-07	PFT
Office Auto. Clerk	Teresa Stephens	GS-03	TEMP
Prescribed Fire Spec.	John Mason	GS-07	PFT
Forestry Tech.	Jason Kimbell	GS-05	PFT
Eng. Equip. Oper.	Glenn McMichael	WG-08	PFT
Eng. Equip. Oper.	Wayne Smith	WG-08	PFT
Tractor Oper.	Todd Walker	WG-06	PFT
Bio-aide	Laurel Dowswell	GS-03	TEMP



Staff Picture, December 2001

2001 YCC Crew

YCC Enrollee	John Jackson	YCC
YCC Enrollee	Jones Nelson	YCC
YCC Enrollee	Josh Crutchfield	YCC
YCC Enrollee	Rachel Saunders	YCC

Youth Programs

The summer YCC program included four enrollees. Under the leadership of Dean Metteauer, the group processed hunt applications, posted boundary lines, worked on trail maintenance and development, did some needed litter patrol and constructed a disabled hunter platform.



2001 YCC on the disabled hunt platform they constructed.

Standing: John Jackson

Sitting (L to R): Rachael Saunders, Josh Crutchfield, and Jones Nelson

Volunteer Programs

Volunteers continue to play a vital role in our refuge programs. In 2001, they assisted with resource projects including the annual breeding bird survey, hunt check stations, the Christmas bird count, and a butterfly survey. Several scout groups also did litter pickup.

Over the summer, Piedmont rehired Laurel Dowswell from Abraham Baldwin Agricultural College. She, again, did an excellent job. Under the leadership of Carolyn Johnson, Laurel helped with many important projects including: wood duck banding, robust redhorse monitoring and assisting with the Mercer University herpetology study at Piedmont.



Laurel and Carolyn with Wood Duck hen at Pond 11 A

Boy Scout Troops 10, 21 and 22 stayed in the Pippins Lake Campground at Piedmont, and each completed service projects. Accomplishments included cleaning the campground and cemetery at Pippins Lake, visitor center cleanup, and trail maintenance and cleanup (See 8a).

The most rewarding volunteer efforts took place during the disabled deer hunt. Thirty eight wheelchair-bound deer hunters participated in the 11th annual hunt. This year, 10 deer were harvested (4 bucks, 6 does), and everyone seemed to enjoy their experience. This was made possible by the 39 volunteers who gave 926 hours of their time to make the hunt possible. Volunteers assisted refuge staff and hunters in scouting, tracking, field dressing deer, and assisting in the camping area with tents, vehicles, and food preparation. The volunteers seemed to enjoy the experience as much as the hunters.

Funding

Tight budgets and a short staff continue to leave us stretched thin in refuge management efforts for Piedmont and Bond Swamp. Assistance from regional fire and forestry money and Ecological Services were a big help in 2001.

Safety

Employee safety is our number one concern, and was emphasized in all refuge activities. All employees were encouraged to bring safety deficiencies to the attention of refuge management.

Refuge Safety Officer Carolyn Johnson conducted regular safety meetings in accordance with normal staff meetings. Employees were regularly reminded of major safety issues in refuge operations, including vehicle operation, boat operation, equipment operation, prescribed fire, wildland firefighting and law enforcement.

To address the safety issue of poor radio contact in Bond Swamp and other work areas, the refuge purchased a set of Motorola Southern Linc radios. These units have been especially

helpful for Refuge Officers in their law enforcement duties.

Training and Workshops Attended

Ronnie Shell attended the regional Project Leaders meeting in New Orleans and Aircraft Supervisor’s Training. Ronnie, Greg Walmsley, Carolyn Johnson and Patricia Jackson attended MMS training.

Refuge Officers Payne, Shell, Johnson and Walmsley attended Law Enforcement refresher training.

Jane Whaley and Wayne Smith attended New Employee Training in January in Atlanta, GA. Jane also attended several Public Use workshops: the Region 4 Public Use Workshop in Charleston, SC and the Visitor Services Workshop at NCTC in December.

Other Training Experiences in 2001

Greg Walmsley	FLETC S-130 and S-190 ROBS
Jane Whaley	S-130 and S-190 Project WET and Project WILD
John Mason	S-230 Crew Boss RX 300 Prescribed Fire Burn Boss S-390 Introduction to Fire Behavior Calculations
Thomas Payne	Defensive Tactics Instructor Training Standardized Field Sobriety Test Certification
Patricia Jackson	Administrative Workshop BTS and FFS Refresher Courses
Jason Kimbell	S-130 and S-190
Dean Metteauer	Fire Operations and Urban Interface
Carl Schmidt	Herbicides in Forestry Training Region 4 GIS Conference
Laurel Dowswell	S-130 and S-190

Construction/Rehabilitation

Engineering Equipment operators Glenn McMichael and Wayne Smith completed a number of construction projects in 2001:

As described in section 3b, a MARSH Project was completed at the Little Rock Dewatering Area, in cooperation with Ducks Unlimited. In addition to the MARSH Project, Glenn and Wayne put finishing touches on the Pippins Lake dike system (a 1999 MMS project), and replaced the failing stop log structure at Pond 11-A (see section 3a) with a new siphon system. Both Pippins Lake and pond 11-A are part of the robust redhorse recovery effort. We were able to complete the repairs “force account” with Sandy Tucker of the Athens Ecological Services Field Office providing some recovery dollars to help rent equipment and pay the cost of materials.

Other

- In February 2001, the old transport was replaced by a new model. This transport will be very helpful in moving large pieces of equipment from one refuge to the other.
- In December, the "Blue Goose" (1990 Astro Van) was retired and replaced by a 2002 Astro Van. This van is used primarily for Public Use, but is also used as a travel vehicle.
- In August 2001, Manager Ronnie Shell began working with Denver to replace our radio system. Now that a few bugs and glitches are worked out, our new Racal system is fully in place.
- A new John Deere 550H crawler tractor was purchased in December with fire money. The new dozer will be a useful piece of equipment for prescribed fire, wildfires, and refuge maintenance.
- Prior to the October Grand Opening at Bond Swamp, maintenance staff constructed a six-panel interpretive kiosk at the Stone Creek Parking Area. In addition, three refuge entrance signs were framed and put up at two locations along Georgia Highway 23.
- Refuge Revenue Sharing checks were presented to the counties in which the two refuges are located. Amounts were as follows: Jones County - \$340,879; Jasper County - \$76,446; Twiggs County - \$14,791; and Bibb County - \$10,704. Jones County was especially pleased with the payment, noting that it was twice what they expected. An article in the Jones County newspaper featured a picture of manager Ronnie Shell presenting the check to County officials.
- Rec-Fee Money was used to pay for a number of items, including upgrades and improvements to the Piedmont visitor center exhibits, a new Bond Swamp interpretive exhibit, expansion of the Stone Creek Parking Area at Bond Swamp, a new interpretive kiosk at Bond Swamp, and Bond Swamp trail maps, fishing regulations, and general brochures.

Feedback Page