

WHEELER NATIONAL WILDLIFE REFUGE
Decatur, Alabama

ANNUAL NARRATIVE REPORT
Calendar Year 1980

NATIONAL WILDLIFE REFUGE SYSTEM
Fish and Wildlife Service
U.S. DEPARTMENT OF INTERIOR

Staff Photo



1. Richard M. Bays Asst. Mgr., GS-11, PFT (EOD 7/1/63)
2. Jane A. Rowe..... Park Aid, GS-2, 700 TI (EOD 1/18/80)
3. James D. Ammons..... Maint. Worker, WG-6, PS (EOD 12/17/79)
4. Virgil V. McWilliams Tractor Opr., WG-6, PFT (EOD 8/28/72)
5. Harvie L. Fowler..... Adm. Asst., GS-9, PFT (EOD 5/15/61)
6. William C. Davis..... Bio. Tech., GS-7, PFT (EOD 9/1/70)
7. James H. Blackwood Auto. Mech., WG-10, PFT (EOD 11/7/51)
8. Melinda Marsh..... Outdoor Rec. Pl., GS-7, PS (EOD 5/4/80)
9. Carolyn R. Garrett..... Outdoor Rec. Pl., GS-5, PPT (EOD 10/9/79)
10. James L. Derden..... Soil Cons., GS-11, PFT (EOD 7/1/63)
11. Thomas Z. Atkeson..... Ref. Mgr., GS-12, PFT (EOD 6/14/39)
12. Geraldine L. Sutherland... YACC Corpsmember (EOD 12/2/80)
13. Emmett N. Waldrep..... Bio. Tech., GS-7, PFT (11/11/51)
(Not Pictured)

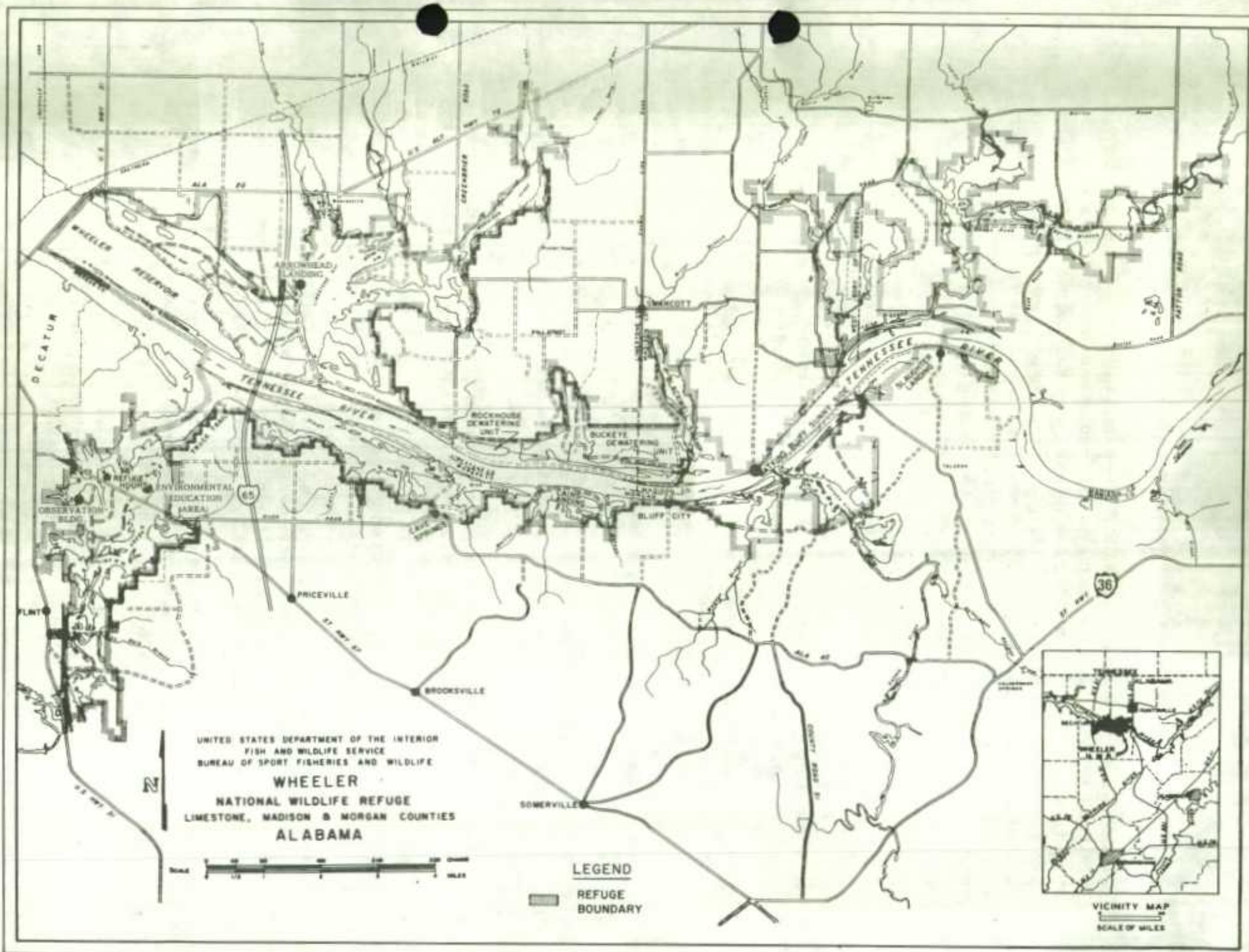
Review and Approvals

John Z. Atkeson REFUGE MANAGER
 Submitted by _____ Date _____

Ray Lybeck 3-19-81
 Area Office _____ Date _____

Wheeler National Wildlife Refuge

Regional Office _____ Date _____



UNITED STATES DEPARTMENT OF THE INTERIOR
 FISH AND WILDLIFE SERVICE
 BUREAU OF SPORT FISHERIES AND WILDLIFE

WHEELER
NATIONAL WILDLIFE REFUGE
 LIMESTONE, MADISON & MORGAN COUNTIES
 ALABAMA

LEGEND
 REFUGE BOUNDARY



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I. GENERAL

A. Introduction

Covering approximately 34,500 acres of land and water, the middle third of Wheeler Reservoir, one of TVA's multipurpose impoundments. The refuge was established in July, 1938, largely as an experiment to determine whether power reservoirs could be made attractive to waterfowl. It is an overlay refuge with the land originally purchased by TVA, although fee simple title to all land above the 560 foot contour has since been transferred to the Service. The primary objective of the refuge is the provision of wintering area for migrant waterfowl. At its western end, part of the refuge lies within the city limits of Decatur, population 45,000, and its eastern end touches the city limits of Huntsville, population 160,000. Parts of the refuge lie within three counties, Morgan, Madison and Limestone.

B. Climatic and Habitat Conditions

1. Climatic Conditions

January and February were reasonably mild with temperatures never dropping below the midteens. There were frequent and heavy rains and some flurries of snow and sleet, though none that remained on the ground for more than a few hours. The coldest weather of the year, 6 degrees, came in early March with a snow that gave complete cover for a day or two. Rains continued heavy and were often of cloudburst proportions. A river flood began the third week of March, ebbed somewhat, then rose again and continued into April. Dry weather began in mid-April and continued to mid-May, though there were heavy rains in late May that filled the dewatered units and slowed the pump down there. Drought began in early June and, though relieved by several showers, actually continued in effect throughout the remainder of the year. Local crop damage was serious, though weather proved ideal for construction projects and field work. Despite drought throughout the summer and early fall, rain for the year was approximately 15 inches above normal, due to the heavy precipitation of winter and spring. Summer temperatures were unusually hot reaching 103 degrees in July. The fall and early winter were generally mild and dry with only occasional showers, no snow fall and December temperatures never dropping lower than 15 degrees.

2. Habitat Conditions

As was the case last year, TVA held water levels high well into November, so eliminating any mudflat vegetation that would furnish grazing for geese. The extremely dry summer held down production of wild millet, smart weeds, and similar vegetations. However, the fall mast crop was at least average.

C. Land Acquisition

There were no land changes during the year.

D. System Status

1. Objectives

The refuge receives funding under four major resource programs; Migratory Birds, Mammals and Non-Migratory Birds, Interpretation and Recreation and Expenses for Sales. Migratory Bird enhancement is the primary objective and receives the highest priority in funding.

Current waterfowl maintenance amounts to approximately 8,300,000 use days. Under a NFIO situation waterfowl maintenance would decline to 3,000,000 use days or less due to a sharply reduced farming program and inadequate protection. Use days for other migratory birds would be expected to decline from 3,000,000 plus yearly to 1,000,000 or less. NO
funding
increase
option

The refuge has only occasional bald eagles and ospreys passing through each year with no local nesting. Current output for endangered and threatened species is 1,500,000 use days and is accounted for mainly by a colony of gray bats in the Cave Springs Cave. In 1977 this colony numbered 19,000, down from 170,000 in the early sixties. This decline is due almost wholly to human disturbance. With continued protection this colony will hopefully build back to its former numbers, but may be doomed otherwise.

Interpretation and Recreation is of considerable importance since this refuge is centered in a highly populated area and receives approximately 500,000 visits yearly. Trails, tour routes, exhibits and demonstrations, and other refuge programs have amounted to approximately 40,000 activity hours per year. The Wildlife Interpretive Center built with BLHP funds and opened to the public since November 2, will contribute significantly to reaching I&R objectives. With a NFIO, this building could not continue to operate.

The Mammals and Non-Migratory Birds program receives less funds than do other programs. However, public hunts, field trials and similar programs would suffer and many would have to be eliminated under a NFIO situation. I&R

The Expenses for Sales program would not suffer unless funds became inadequate for salary and the small amount spent for equipment and supplies.

Objectives were set in the fall of 1972 and are checked annually for possible updating. Some changes have been made and a complete revision was made in 1977. As usual, money and manpower limitations have been the limiting factor in reaching objectives. The BLHP program has done much toward bringing this refuge closer to objectives.

2. Funding

The following resume shows funding from FY 77 thru FY 81:

WILDLIFE RESOURCES:	<u>FY 77</u>	<u>FY 78</u>	<u>FY 79</u>
Migratory Birds	\$174,000	\$166,700	\$172,000
Mammals and Non-Migratory Birds	59,000	20,000	22,000
Interpretation and Recreation	59,000	31,000	58,000
Expenses for Sales	<u>26,000</u> 218	<u>27,000</u> 244	<u>27,000</u> 279

WILDLIFE RESOURCES:	<u>FY 80</u>	<u>FY 81</u>
Migratory Birds	\$193,000	\$186,000
Mammals and Non-Migratory Birds	31,000	30,000
Interpretation and Recreation	78,000	129,000
Expenses for Sales	<u>7,000</u> 309	<u>8,000</u> 323

II. CONSTRUCTION AND MAINTENANCE

A. Construction

The following major construction projects were completed during the year.

1. The Wildlife Interpretive Center, almost complete during 1979, was finally completed, a terminal inspection held and the building turned over to the refuge on January 17, 1980.



The new Interpretive Center was landscaped by forced account. Photo shows refuge employees and YCC enrollees planting Bermuda on open lawn areas.



The center was dedicated November 2. Photo shows Deputy Director Robert Cook et al and part of audience.

A number of deficiencies had surfaced, especially in the plumbing and in the heating and air-conditioning systems, but all these were covered by the contractor's warranty. Hopefully, by the end of the year, all had been corrected. Sewage pumps were finally procured by late winter and installed and the sewage hookup completed. All paving was completed and approved. Partly by purchase, partly by transfer, enough good furniture was procured to furnish the building. Exhibits posed a greater problem, but, by late October, all were in place. The building was formally dedicated November 2, and has been functioning since with gratifyingly-heavy public use.

2. The dry weather of the summer and early fall permitted rapid progress with the reconstruction of the refuge headquarters. In the way of new construction, the old shop-garage building was demolished and removed by forced account.



The old shop-garage building, in the way of construction, was demolished by forced account.

By the end of summer, all buildings had been completed and were in use, except the office, and the move into this was made in early October.



New office building.



New warehouse building.



New parking garage.



New oil house and fueling facility.



New shop.

All buildings have functioned well since. However, there remains the problem of disposing of the old office, oil house, barn and service buildings.

B. Maintenance

Major acquisitions of the year included purchases of a 2½ ton stake-dump GMC truck, 2 Dodge ½ ton trucks, a ½ ton Chevrolet LUV pick-up, flag poles for both the WIC and Headquarters, a base radio and radio tower for headquarters, new furniture for the WIC and office, procured partly by purchase, partly by transfer from the Department of Education, a Billy Goat rubbish pickup unit, a riding lawn mower, a steam cleaner unit, a roto tiller, a lawn edger and two Dodge panel trucks procured for YCC use by transfer from the Marshall Space Flight Center. A reel type lawn mower was obtained by transfer from the Tupelo Fish Hatchery. These acquisitions were balanced by the disposition of 2 Dodge and 1 Ford ½ ton trucks, through exchange sales, a D7 bulldozer through exchange sale, a DI Dodge crew cab truck transferred to White River NWR, a large diesel storage tank transferred to the states of Alabama and Georgia after the close of the YCC program.

BLHP funds in the amount of \$45,000 were transferred to TVA to replace one of the badly worn dewatering pumps at Whiteside and for repairs and improvements to the pumps, both at Whiteside and at Rockhouse Landing. Using steel plates procured for military excess, the bridges at Dinsmore Slough and McClosky Branch were floored. All six of the

major refuge bridges are now of all-steel construction. Two steel transmission towers, abandoned by TVA and donated to the refuge, were stock-piled for future use. The trim of the two residences was repainted and interior repairs made to residence one.



All refuge bridges are now all-steel construction. Photo shows employees steel-flooring Dinsmore Slough Bridge.

As usual, the eroding river banks required attention and 79 tons of rip-rap stone were purchased and used for this. Several long stretches of the boundary were reposted and repainted. Considerable time was spent improving and replacing refuge gates and major wooden signs. Much time was spent removing beaver dams in order to keep road culverts and dewatered ditches functioning. As usual, all roads were graded several times, culverts cleaned, many lines of new culverts laid and 2,466 tons of crushed stone was purchased and used to reinforce weak spots. Waterways, shelves and road edges were mowed, though mowing was reduced, due to a strict diesel fuel quota.



As usual, much time was spent undoing beaver work. Photo shows YCC enrollees removing beaver dams from ditches in dewatered units.

C. Wildfires

No doubt due to the overwet spring, there were no wildfires and even though the summer and fall were unusually dry, no fires occurred.

III. HABITAT MANAGEMENT

A. Croplands

The fact that dewatered units were overfilled by May rains, caused a late pump-down and much acreage that is normally rowcropped could only be planted to broadcast stands of millet. The dry weather that began in May and continued virtually throughout the remainder of the year caused a general reduction in yields, especially where the all-important corn crop was concerned. Overall, 39 cooperators kept 5,552 acres in various forms of agricultural production. There was a slight drought, production dropped over 50% below the 1979 figure. Grain sorghum acreage increased by approximately 60% and, more drought resistant, production almost doubled. Soybean acreage declined about 20% and production, badly drought damaged, dropped over 40%. The wheat acreage increased almost 70% and production almost doubled. The millet acreage increased about 250%, due to the

fact that much of the White Springs Unit could not be rowcropped, and there was a corresponding increase in production. In all, the refuge produced 113,868 bushels of grain and seed, a decline of 31% below 1979 production. Of this total, and counting the gleanings from harvested crops, about 45,000 bushels were left in the field for wildlife use, a drop of over 22% below the 1979 total. Refuge employees and machinery planted 310 acres of millet in locations not covered by cooperators, then planted an additional 223 acres of green goose forage in early fall. In the fall of 1980, the good green acreage available for goose forage totaled 1,362 acres, supplemented by about 525 acres of old fescue sod, etc. that would provide some grazing. This is a gratifying increase of about 18% in good forage acreage compared with the 1979 figure.



Drought dropped refuge crop production 31% below the 1979 figures. Photo shows drought-stricken corn.

B. Grasslands

Again, reflecting the trend toward increase rowcropping there was a drop in both hay and pasture acreage compared with 1979 totals. In 1980, only 118 acres were kept in hay, 338 acres in pasture. The summer and fall drought affected both. Only 125 tons of hay were harvested and pasture supported only 1,165 AUM's. As usual, there were no cash hay or pasture rentals, and the total acreage was incorporated in cooperative farming agreements.

C. Wetlands

Although dewatered units were gravity drained in early spring, they were overflowed by the May rains and the pump-down, beginning in May, was necessarily slow. In the White Springs Units, total drainage was too late for much of the area to be rowcropped and this was sown to millet by forced account.

Beavers continue to be a major problem in these dewatered units and much time was spent clearing dams from the drainage ditches. With YACC almost non-existent and the YCC program much reduced, little progress was made with willow control.

D. Forestlands

No timber products were harvested during the year. A total of 6,000 genetically-superior loblolly pine and 500 each of redbud, white oak, cork oak, and catalpa seedlings were purchased from the State Nursery and planted by refuge employees in late January and in February on several otherwise unused open locations.

IV. WILDLIFE

A. Endangered and/or Threatened Species

Considerable political pressure led to the top level decision that an effort would be made to remove the 50 young alligators stocked on Wheeler in 1979, although this was balanced by considerable local sentiment for them to be left alone. During the dark phase of the moon in early June and again in July, several Service employees with previous alligator catching experience visited Wheeler and a concerted effort was made to locate and catch the alligators at night. Only two were actually caught and returned to Louisiana. Intermittent sightings were reported by fishermen throughout the summer and early fall, but there were no complaints nor problems.

There was an increase in bald eagle sightings during the year. Three sightings in January and one in March involved both mature and immature birds and represented at least two individuals. There were a number of sightings through the fall and these reached a peak on December 20, when two mature birds and two immatures were noted. There were three golden eagle sightings in January, though all may have involved the same individual. Sightings resumed in December and are known to have involved at least two individuals.

There were no peregrine falcon sightings until fall, but there have been six sightings during October, November and December, two of these involving pairs.

The Cave Springs Cave remained closed throughout the year. There were three arrest and convictions for trespass entries. A check on the gray bat colony in June by Fred Bagley, Environmental Section, Area 3 Office, indicated that the colony had dropped from last year's 23,000 to only 12,000. Casting about for explanations for such a drop, we doubt that disturbance has been a real factor. It is known that this colony is suffering losses from Endrin poisoning and this may be an explanation. A more likely one

is that gray bats have begun using several other caves in the general locality, caves where none were found a few years ago, so relocation may be the explanation.



The Cave Springs Cave bat colony declined sharply. Photo shows Fred Bagley checking extent of Guana pile.

B. Migratory Birds

1. Waterfowl

A single whistling swan was noted on January 3, three others on January 15, but there were no sightings throughout the remainder of the year.

The first air count of the year, January 2, showed only 23,500 Canada and 1,500 snow geese. Numbers declined steadily after this. As usual, several dozen geese, mainly cripples, remained through the warm weather months, but there was no known nesting. The first fall arrivals were later than in 1979 and did not appear until the third week of September. The first air count of the fall, October 21, showed 13,300 Canada and 540 snow geese. Numbers increased rapidly through November, but slacked in December. The last air count of the year, December 16, showed 25,500 Canada and 1,800 snow geese. In short, the fall count dropped behind that of 1979 by 1,700 birds, a disturbing trend. Only 73 Canada and 4 snow geese were banded during the year.

The January 2 air count showed 42,000 total ducks, but numbers began to drop steadily after that. Summer duck use was relatively normal. A February check showed 501 wood duck nest boxes present and in good condition for use. A fall check showed that 53.6%, a drop below the 61% of 1979, had been used during the year by ducks. A total of 145 young wood ducks were banded in late summer.

Fall duck arrivals were on schedule and the highest count of the fall came on December 16 when 37,00 were tallied. This was disappointingly below the peak of 43,000 in the fall of 1979. In addition to the wood ducks noted above, 1980 banding included 922 mallards and 397 black ducks.

2. Marsh and Water Birds

A number of immature white ibises were present throughout the summer, and a single glossy ibis was noted several times in the fall. A single white pelican spent a few days on the refuge in mid-fall. A single sandhill crane a first record for this refuge, was noted on December 4 and again on December 28. As usual, all heron and egret numbers continued low, almost certainly due to the DDT situation here, but there were slight and encouraging increases. Double crested comorants continued making a slow comeback. Rail numbers continued low.

3. Shorebirds, Gulls, Terns & Allied Species

Again, Auburn graduate students investigating woodcocks found little nesting, compared with the 1978 high and general numbers low. Snipe were common and seemed increasing. Other shorebird numbers seemed average nor were changes noted among gulls or terns.

4. Raptors

Again, barred owls, red shouldered hawks, coopers hawks and sharp-shinned hawks, turkey and black vultures seem slowly increasing. No changes were noted among other raptors.

5. Other Migratory Birds

Morning dove numbers, up slightly in 1979, dropped again in 1980, and the general trend here has been downward for the past decade or more. No changes were noted among the many species of song and insectivorous birds, except that both house finches and tree sparrows are steadily becoming more numerous locally. The black bird group continue to be a winter problem with hundreds of thousands roosting in Decatur suburbs and with the refuge receiving frequent appeals for help.

C. Mammal, Non-Migratory Birds & Others

1. Game Animals

Deer continued a slow but steady increase. Raccoon, opossum and beaver numbers continue high. Squirrel and rabbit numbers remain low. Coyotes continue to increase.

2. Other Mammals

Nothing new was noted among other mammal life.

3. Resident Birds

The dry situation throughout the summer brought good nesting conditions and some increase in quail numbers. Wild turkeys have increased on Redstone Arsenal parts of the refuge. A small flock continues in the Penny Bottoms and several turkeys were sighted for the first time in the Cains Landing locality.

4. Other Animal Life

Other than the alligators already mentioned, no changes were noted among refuge reptiles, amphibians or other animal life during the year.

V. INTERPRETATION AND RECREATION

A. Information and Interpretation

1. On Refuge

Carolyn Garrett continued as the only I & R employee until Melinda Marsh was hired as Outdoor Recreation Planner, GS-7, early in the year pending receipt of her Masters Degree from Vanderbilt University. She did a two week tour of duty during the first half of May, was placed on leave without pay until graduation, then reported for permanent duty August 25 and has continued since. Jane Rowe was given a Park Aid GS-2 700 hour appointment on January 18, but was used only intermittently until the opening of the Interpretive Center November 2, but has been used full time since. Coop student Rebecca Palmer was assigned to Wheeler in August and was used primarily on I & R duty until she completed her tour on December 22. Mrs. Garrett was reclassified to Outdoor Recreation Planner, GS-5, in July, 24 hours weekly and later raised to 32 hours weekly. She visited Okefenokee NWR in late July to study the I & R program there. Public Use Specialist, Law Enforcement, George Brown resigned in August to return to school and his place has not been refilled. Presently, appointments for three Park Aids, GS-2, are pending.

Wheeler's public use continued heavy and reached 585,200 annual visits, probably due largely to the completion of the new Interpretive Center. This center was opened November 2 on a Wednesday through Sunday, 10:00AM to 5:00PM schedule with the Waterfowl Observation Building opened concurrently. Although the Center was only open for two months during 1980, visits totaled 13,459. The Observation Building, open only on weekends and holidays from January 1 through the end of February but reopened on a five day weekly basis beginning November 2, tallied 12,908 visits, over double the 1979 figure. The headquarters nature trail was abandoned, since it conflicted with the new headquarters arrangement. However, improvements were made to the new Interpretive Center Trail, Environmental Trail and the Dancy Bottoms Trail and

use continued heavy. Good use was also given the Beaver Dam Peninsula Platform. There were 11 coon dog field trials held on the refuge, as opposed to only 4 in 1979. There were 4 public hunts held during the year, with the fall deer hunt expanded to 46 days. By prearrangement, 231 groups visited the refuge during the year and totaled 7,888 individuals, almost doubling last years figures. To sum up, although public use had been declining in recent years, due probably to high gasoline prices, there was a sharp upward surge this year, almost certainly due to the completion of the new Interpretive Center and the addition of I & R personnel.



The new center brought a flood of visiting groups and individuals. Photo show students examining swan exhibit.



Photo shows visitors viewing waterfowl from Observation Building. Compared with 1979 use, 1980 use for this building more than doubled.

2. Off Refuge

Wheeler personnel gave 26 off-site programs during the year to school, church, elder citizens, retired citizens, garden clubs, civic clubs, and sportsman groups. These normally included slide or film showings and talks covering a wide range of conservation subjects. In addition, employees attended 18 off-site meetings that did not involve I & R.

B. Recreation

1. Wildlife Oriented

Fishing continued the single heaviest use. However, the four public hunts plus tally-ho fox hunting and the numerous coon dog field trials attracted many. Wheeler has become a Mecca for bird watchers and is visited regularly and heavily by these, many from out of state. The cold weather waterfowl concentration always attracts much attention. Photography has become popular and a photographic blind was constructed near the edge of the display pool and is used regularly on a reservation basis.

2. Non-Wildlife Oriented

[The show of spring blooms and autumn colors attracted many.] Located as it is, near large centers of population, Wheeler is subject to

Wildlands oriented

heavy use by those who seem merely anxious to get outdoors. Hiking, bicycling, jogging, pleasure boating, canoeing, etc. all have their participant. During the warm weather months, there is heavy swimming, water skiing, picnicking and pleasure boat use. Crowds, at some of the more popular locations sometimes become a warm weather weekend problem. The loss of the Public Use Specialist, LE, will be felt, for personnel of this type are needed to contribute to visitor safety and reduce the wide variety of misuses that occur.

C. Enforcement

The usual pattern of keeping out a constant dawn to dark, 7 day week patrol was continued throughout the heavy waterfowl-use period. Public Use Specialist, LE, George Brown continued his year around surveillance of the refuge until his resignation in late summer. With good working relations with the Alabama Department of Conservation And Natural Resources, much help was received from the 6 State Conservation Officers assigned locally. Though there is no locally assigned Special Agent, Agents Keith McCartney and J.L. Wright visited Wheeler occasionally and gave much needed help on special problems. In all, about two dozen cases were made on the refuge during the year involving a wide variety of abuses ranging from firearms possession and hunting to trespass cave entry, trespass timber cutting, off-road vehicle use and corn theft from refuge fields.

VI. OTHER ITEMS

A. Field Investigations

Though there were no direct investigations by refuge employees, the refuge did cooperate with the following:

1. The continued study, conducted by Dr. James Fleming, Patuxent Research Center, concerning the DDT situation here.
2. The continued woodcock nesting and distribution survey conducted by personnel of Auburn University.
3. The continued use of a test well by the US Geological Survey to monitor ground water levels.

B. Cooperative Programs

With its area jointly administered by the U.S. Fish and Wildlife Service, TVA, Department of Defense and the National Aeronautics and Space Agency, the refuge office continued its close cooperation with all as well as with the Alabama Game and Fish Division. Space was provided for meetings of the North Alabama Waterfowl Association and cooperation was given Audobon Society Chapters of both Alabama and Tennessee as well as other bird study groups where field trips were concerned. Cooperation was given both the Lurleen Wallace Development

Center and the North Alabama Regional Hospital, both State Institutions for the mentally retarded, by providing day camp space and special fishing opportunities. Space for field problems was provided local National Guard Units. Boy Scouts were provided space for numerous campouts and other activities. Several Wheeler members are active in local church work and church groups were provided day camp space, campouts, hayrides, cookouts and other opportunities. With the new center, there was much cooperation with local high schools and colleges concerning environmental learning sessions. Under a cooperative agreement, the refuge continued to provide gravel pit use to the Limestone County Commission. With a policy of always preserving any good wildlife specimens, found dead on the area, numerous specimens were provided local colleges and universities. Help was given local scouts for merit badge projects and eagle scout requirements and to numerous students with material for term papers on conservation subjects.

C. Items of Interest

The year began with 5 YACC enrollees, but, with a freeze on recruiting, numbers gradually dwindled until the last was terminated August 22. The program remained inactive until authorization was received in mid November to recruit a single enrollee. This enrollee, Geraldine Sutherland, began duty December 1 and continued to the end of the year. It is she who has typed this report. Work for enrollees throughout the year centered mainly around the forced account landscaping of the new Interpretive Center, aid with the conduct of this center and, later, clerical help given the refuge office.

A 15 enrollee, coed, nonresidential YCC program with three staff members was authorized and began June 7 and continued through August 1. Work involved rubbish cleanup, improvements to roads and trails, grass sodding and other landscape work at the new center, beaver dam removal, etc. It was an excellent program with much worth while work accomplished and no problems.

Biological Technician Emmett Waldrep suffered a severe heart attack November 30 and continued on sick leave the remainder of the year. Emmett is sorely missed, for he has a rare talent for both office and field work and is one of the mainstays of the Wheeler program.

Tractor Operator Virgil McWilliams was hospitalized July 4 for a triple bypass operation but returned to limited duty in October and has continued since.

This report was prepared in the main by the manager, although the System Status section was prepared by Assistant Manager, R.M. Bays and Administrative Assistant, H.L. Fowler. All photographs are by R.M. Bays.

Again, refuge employees located a number of stolen autos and half ton trucks, usually striped and burned, on the refuge. Local law enforcement officials were always notified promptly and the vehicles removed.

D. Safety

There was not a single lost time accident during the year and no accidents involving vehicles. The summer YCC program was completed without a single accident, even a minor one. Regular monthly safety meetings were held, usually including safety slide or film showings. All pertinent safety gear is on hand.

BLOWING WIND CAVE NATIONAL WILDLIFE REFUGE
Decatur, Alabama

ANNUAL NARRATIVE REPORT
Calendar Year 1980

NATIONAL WILDLIFE REFUGE SYSTEM
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U. S. DEPARTMENT OF THE INTERIOR

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VI. OTHER ITEMS AND SAFETY

I. GENERAL

A. Introduction

Established in 1978, the Blowing Wind Cave National Wildlife Refuge consists of 264 acres of hillside located in Jackson County, Alabama, about 7 miles west of the county seat and small city of Scottsboro. It lies just above the Sauty Creek embayment of TVA's Guntersville Reservoir. Approximately half its boundary is contiguous with that of the Sauty Creek State Waterfowl Refuge. Its salient feature is a huge cave with entrances at two levels. This houses what is said to be the largest summer gray bat concentration east of the Mississippi River, plus much smaller numbers of hibernating Indiana bats, both endangered species.

B. Climatic and Habitat Conditions

The winter and early spring were over wet, though reasonably mild, except for near zero temperatures and a heavy snow fall in early March. Beginning in June, weather was unusually dry for the remainder of the year, with only occasional showers. The summer was unseasonably hot with temperatures sometimes topping the 100 degree mark, but fall and early winter were mild.

Habitat conditions have not changed. Utilizing the services of the nearby Scottsboro YACC Camp, the open area was planted to a variety of tree seedlings and much cleanup was done, eliminating the bulk of the rubbish and old material piled on the site.

C. Land Acquisitions

There were no changes during the year. The former owner was awarded a high figure by Federal Court and this hopefully ends this litigation.

D. System Status

1. Objectives

This newly created refuge receives funding only under the Endangered Species program since its sole function is to protect a colony of gray bats which now numbers approximately 285,000 individuals. Human disturbance in past years has greatly reduced the population of this colony and changed it from a maternity to a bachelor colony. By closing the cave's entrances to human activity this colony should once again return to maternity status and hopefully attain its former population of 500,000.

Other possible endangered species may include a green pitcher plant. At this point no other objectives have been planned for this refuge.

2. Funding

FY-1979

No funding advice was allotted to this station this year. Although \$1,630 in salaries were redistributed from Wheeler's program to the Area Office. The Regional Office expended \$1,050 for two signs. A contract was awarded in the amount of \$15,000 to erect two steel barricades for the two entrances.

FY-1980

Three thousand dollars of Endangered Species funds were allocated for travel, maintenance, etc.

FY-1981

Again, \$3,000 Endangered Species funds were allocated.

II. CONSTRUCTION AND MAINTENANCE

A. Construction

A large entrance sign, previously ordered from Prison Industries, was received in January. Refuge employees bolted metal posts to this and erected it at the entrance to the tract. Later, an attractive stone base was built around it by enrollees of the Scottsboro YACC Camp.



Erected by refuge employees, the rock base was constructed by enrollees of TVA's Scottsboro YACC Camp.

A blacktopped deadend road enters the tract from US Highway 72. Permission was obtained from the Jackson County Commission, from TVA and from the Alabama Game and Fish Division to place a locked gate across this. The gate was constructed and installed by enrollees of the Scottsboro YACC Camp. Closing this road has brought no complaints and has stopped rubbish dumping, drinking parties and other undesirable activities on this tract.

B. Maintenance

Trips were made to the tract by refuge personnel early in the year and vandalism to the cave entrance barricades was repaired. However, the installation of the road gate mentioned above seems to have solved this problem. Much good maintenance work was done by the Scottsboro YACC Camp by cleaning up enormous amounts of rubbish and discarded material dumped on the tract.

C. Wildfires

None Occurred.

III. HABITAT MANAGEMENT

There is no cropland, grassland or wetland on the tract. The small open area present was planted to wooded species by the Scottsboro YACC Camp. The woodland acreage was unchanged.

IV. WILDLIFE

A. Endangered and/or Threatened Species



Photo shows twilight gray bat exodus from lower cave mouth.

The gray bat situation was checked in June by Fred Bagley, Endangered Species, Area-3 Office. He again estimated numbers at approximately 285,000, unchanged from 1979. Other than a few wintering Indiana bats, estimated at about 200, no other endangered species are known to occur. Some big-eared bats are present, but these are not of the race presently considered endangered.

B. Other Wildlife

Other than rabbits, gray squirrels, non-game birds, a few fur bearers and some reptiles and amphibians, no other wildlife occurs on this small tract and no changes were noted among these.

V. INTERPRETATION AND RECREATION

A. Interpretation and Recreation

During summer months, there are some late afternoon visitors who come to watch the twilight exodus of the bats from the cave mouths. The closure of the road leading into the tract does not seriously interfere with this, since it is only a short walk, about 100 yards, to the lower cave mouth. There were no other recreational activities.

B. Enforcement

Early in the year, J.O. Carter, who had occupied the log house on the site, suffered a stroke and he and his family vacated the house permanently. Arrangements were made for Randal McCann, Director of the Scottsboro YACC Camp, to occupy the dwelling. His presence and the gating off of



This interesting log dwelling is said to date back about a century.

the road leading into the site have evidently solved the problem of trespass intrusions, vandalism, rubbish dumping, etc., for there have been none since. Arrangements were made with the Alabama Game and Fish Division to have hunting on the tract incorporated with the hunting permitted on the adjoining Sauty Creek State Waterfowl Refuge. While the Blowing Wind tract can offer only limited squirrel hunting, possibly some rabbit hunting, this arrangement is working well.

VI. OTHER ITEMS AND SAFETY

Nothing of interest.

WATERCRESS DARTER NATIONAL WILDLIFE REFUGE
Decatur, Alabama

ANNUAL NARRATIVE REPORT
Calendar Year 1980

NATIONAL WILDLIFE REFUGE SYSTEM
Fish and Wildlife Service
U.S. DEPARTMENT OF THE INTERIOR

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VI. OTHER ITEMS AND SAFETY

I. GENERAL

A. Introduction

This 7.1 acre tract was evidently acquired in 1980 and Wheeler NWR was notified in November 1980 that it had been placed under its administration and protection. It consists of Thomas Spring, about a half acre in extent, and is surrounded by brush and scattered trees. It lies in Jefferson County, Alabama, on the outskirts of the City of Bessemer. The spring holds an undetermined number of watercress darters, an endangered species, the entire worldwide population said to be found in only three springs throughout this same general area. The perpetuation of this endangered species is the justification for the acquisition and management of this tract.



Thomas Spring, the home of the watercress darters - we hope.

B. Climatic and Habitat Conditions

The climate is typical of northern Alabama. 1980 saw extremely heavy spring rains, but little rain fall during the remainder of the year. Winter temperatures were generally mild until early March when there was intense cold, about 5 degrees. Summer temperatures were hot, reaching the 100 degree mark in July, though fall and winter temperatures were mild.

C. Land Acquisitions

The status is unknown, although it is assumed title to this tract was completed in early 1980.

D. System Status

1. Objectives

It is understood that about two dozen grass carp were placed in this spring by the former owner. These have virtually cleared away all cover vegetation, so exposing the darters to predation by bass. The situation is critical and the grass carp should be removed immediately. The construction of a small dam below the present spring to create a second pool is desirable.

2. Funding

No funds were allocated in FY-1981. However, by inference, a portion of the \$3,000 of Endangered Species funds allocated to Blowing Wind NWR could be diverted to this tract.

II. CONSTRUCTION AND MAINTENANCE

There was neither construction nor maintenance during 1980. Once grass carp are removed, there must be an assessment of the darter population and, if breeding numbers are not present, brood stock must be transferred there from one of the two springs where they are still present. If the spring fails to revegetate, watercress must be planted there. The construction of a small dam to impound a second pool is desirable.

The tract shows indications that it has burned over during past years. However, this evidently did no harm to the darter population. It is probable that arrangements can be made with the Bessemer Fire Department to suppress any wildfires that occur, since the location is suburban.

III. HABITAT MANAGEMENT

No cropland or grassland are present. Management should be centered around the spring, the removal of grass carp and predatory fish and the repopulation and revegetation of the spring, if this proves necessary.

IV. WILDLIFE

A. Endangered and/or Threatened Species

Watercress darter are the only endangered species present.

B. Other Wildlife

Upland wildlife is limited to various non-game birds and occasional rabbits.

V. INTERPRETATION AND RECREATION

A. Interpretation and Recreation

With the location suburban, it seems probable that the best course is to say little about the occurrence of an endangered species. To

draw public attention to this spring could further jeopardize the darters.

B. Enforcement

No problems have occurred to date. Contacts were made with Charles Brassfield, an Audobon Chapter member who lives nearby, and he agreed to inspect the area several times weekly and to call Wheeler NWR, if there are problems. It may prove necessary to surround the spring with a cyclone fence, though this should not be done, unless the situation changes.

VI. OTHER ITEMS AND SAFETY

Nothing of interest.