

Population estimates
Keweenaw National Wildlife Refuge

BIOLOGICAL REPORT
JULY - DECEMBER
1968

I. WILDLIFE POPULATIONS

Following prescribed inventory routes from Camp Cornelia to Buzzard Roost and Gannet Lakes, and from Jones Island boat dock to Big Water, counts of waterfowl and wading birds were made, once in August, once in September and bi-weekly thereafter through December. Population estimates for the refuge were based upon these counts.

1000 birds.

Water levels were lower this period than they have been for the past twelve years. In late summer and early fall the prairies were dry except in the canal, the water courses, the boat runs, the lakes and 'gator holes. There was a slight increase in water levels in the late fall and the prairies were shallowly flooded. This condition was probably attractive to waterfowl and most wading birds.

A. Wading Birds

Common Egrets. These birds were quite common through the late summer but not as numerous as in the previous year. Estimates for August to October ranged from approximately 1000 to 1500 on the refuge. With the coming of cold weather the population declined. The estimate for late December was 340 birds.

Snowy Egrets. Snowy egrets are uncommon on the refuge during the nesting season. Usually they leave in the fall but this year a few have stayed into the winter. They may be seen occasionally in Chesser and Grand Prairies. Three were reported on the Christmas Bird Count this year.

Cattle Egrets. These birds nested on the refuge this year. There were an estimated 300 on the refuge in June. None were reported after September 1.

Great Blue Heron. These birds are less gregarious than most herons. They are quite common on the refuge and well distributed over the prairies, along the water courses and around the lakes. Most of these birds stay through the winter. There was an estimated 700 of these birds on the refuge in early December. This figure exceeds the late summer estimates and it may be that part of our winter population is made up of migrants.

Little Blue Heron. This species is the most abundant heron on

this refuge. Population estimates ranged from a high of 2660 in early November to 160 in late November.

Green Herons. This bird is more solitary than most other herons and is usually seen singly. During the nesting season there were an estimated 200 using the refuge. Most of them leave in the fall but a few stay through the winter.

Louisiana Heron. These are the least common of the herons on Okefenokee Refuge. A few of these birds were seen all through the summer so it is assumed that they nest here.

White Ibis. This is the most abundant wading bird on Okefenokee. In the spring there were an estimated 10,000 of these birds using the refuge. They continued to be quite numerous through early fall. By late December their numbers had declined to an estimated 1000 birds.

Wood Ibis. Wood ibises were observed on the refuge from as early as March 14 and through the summer to early November. The Craven's Hammock rookery was not visited this year but it is assumed that these birds nested there again this year.

Sandhill Crane. Apparently the summer resident population of cranes (*Grus Canadensis pratensis*) is about the same as it has been for the past several years. There was an estimated 220 cranes using the refuge this summer. The crane population this winter, which is doubtless the resident birds supplemented by migrant Greater Sandhill Cranes (*Grus Canadensis tabida*), is the greatest in recent years. The estimated population, based upon the December 24 count, was 3960 birds. This is probably the greatest crane population on the refuge since the winter of 1956-57. It may be significant that the water levels both of these years were low with the ground level of the prairies slightly emerged or only shallowly flooded. This condition may be attractive to the migrant cranes which ordinarily would have gone further south to the prairies in Florida.

The following tabulation shows the number of cranes seen on regular trips through Chesser and Grand Prairies for the past eight years:

	1960	1961	1962	1963	1964	1965	1966	1967	1968
Early Sept.	-	5	-	-	3	8	-	-	-
Late Sept.	-	4	2	9	6	-	-	15	17
Early Oct.	-	9	10	9	-	8	7	17	17
Late Oct.	1	-	-	-	7	27	12	20	48
Early Nov.	19	16	6	-	4	14	12	20	32
Late Nov.	18	-	16	-	11	12	12	25	35
Early Dec.	22	12	11	15	8	22	15	18	101
Late Dec.	8	10	54	6	8	19	12	24	147

B. Waterfowl.

1. Populations. The wood duck population the past summer was comparable to that of recent years. There was an estimated 1000 using the refuge through the late summer.

Waterfowl population was low in early fall but in December there was a sharp increase. Duck estimates in October and early November ranged from 700 to 3200 birds. The December peak estimate was 20,880 ducks which is the highest estimate on Okafenokee since 1964. The peak estimates in December were mallards 11,440, black ducks 600, wood ducks 5060, green-winged teals 6000 and ringnecks 2740. The late November census had an estimated 10,160 unidentified ducks.

2. Food Conditions. Food conditions in the late fall and early winter are probably more favorable for ducks than usual. The prairies were dry or nearly dry through the summer which favored such plants as beakrush and Carex. The fall rains have resulted in a light rise in water levels and much of the prairies is shallowly flooded. This has probably been attractive to ducks which may account for the increased population.

C. Turkeys.

The only turkey observations reported this year were on the east side of the swamp. Turkeys were reported on Cowhouse Island and in the vicinity of Camp Cornelia. A hen with a brood of nearly grown young was reported near Camp Cornelia.

D. Other Birds.

1. Anhingas. These birds are fairly common. They are frequently seen along Sweeney Canal, the larger water courses and the lakes in the swamp. There are probably between 200 and 300 in the swamp.
2. Swallow-tailed Kite. These beautiful birds are still with us as summer residents. They were observed several times in the vicinity of the Pocket during the past year. Seemingly, two or three pairs of these birds is the capacity of the swamp. For years it appears that they have been extremely rare and yet they seem to hang on. It is strange why they do not either increase or disappear.
3. Snipes. The low water conditions in the prairies have been attractive to snipes. Prior to the slight rise in water levels, snipes were numerous in the prairies this year.

- E. Deer. The deer population is in good shape. Deer are common all around the periphery of the swamp and also on the islands in the swamp.

A deer hunt was held December 2-7 on the Waycross State Forest which is adjacent to the north end of the refuge. Only 11 deer were taken. This poor hunting success should not be attributed to a scarcity of deer in that area. The weather was generally rainy during the period. Also, most of the participants were inexperienced in still hunting. The hunt was further complicated by a misunderstanding between the law enforcement officers of whether the hunters should turn in their hunting licenses at the checking station or carry them with them. The trouble resulting from this caused many hunters to abandon the hunt.

- F. Raccoons. These animals are abundant. On any trip across the prairies, a person may expect to see several. With these animals being so numerous, it is questionable what the hatching success for sandhill cranes will be. It seems unlikely that any crane nest would go undiscovered by them.

- G. Otters. Otters were seen frequently on the refuge this year. Probably the low water conditions have concentrated them along the water courses so that they would be more likely to be seen. The low water conditions are probably favorable to otters, because it makes their prey more vulnerable.

John Holt, Concessioner at the Suwannee Canal Recreation Area reported a very interesting observation. He saw an otter catch a young alligator about 18" long. The old 'gator gave chase and Mr. Holt did too but the otter got away with his catch. This raises a question: Are otters a limiting factor to the alligator population?

- H. Alligators. Alligators are numerous and the low water conditions have made their numbers more conspicuous because they are seen quite frequently along the water courses. Probably the low water conditions have favored the alligators thus far because it has caused their prey to be more concentrated.

A 10'10" specimen was removed from Billy's Lake and was mounted. It will be placed on display at the Interpretive Center at Suwannee Canal Recreation Area. This is a fine specimen and it will be of much interest to visitors.

- I. Bears. Bears are very rare but there are still a few left. Bear signs have been seen all around the periphery of the swamp and in the swamp. A bear (or bears) smashed most of the predator guards on the wood duck nesting boxes in Chesser and Grand Prairies.

The condition of the bear population is probably the most critical of any swamp animal. Bears have always received little or no protection off of the refuge. The hunters' usual excuse is that they are

killing bears to protect bee yards. Even though the violator owns no bees, his excuse of killing bears to protect bees is accepted.

Actually a bear can and sometimes does cause costly damage to apiaries. Some beekeepers have electric fences around their bee yards but too often they are flimsy and not well made and the claim that bears will break in regardless of the electric fence is probably valid. That the beekeepers would want to protect their apiaries by killing or even exterminating the bears is not hard to understand.

One very vicious practice here has been that of poisoning the bears with strychnine impregnated honey.

It is our impression that most of the beekeepers are primarily concerned with protecting their apiaries. Most of them are not hunters. The greatest offenders are those who do not own bees. They just want to go bear hunting and the use the claim of bee yard protection as an excuse. If some cheap practical way of keeping bears out of apiaries could be devised, it is believed that most of the problem could be met. It seems that exploring the possibilities of developing a bear repellent is worth looking into.

There is also the possibility of getting the cooperation of the pulp companies, which own most of the land around the swamp, to have certain specified requirements for electric fences around the bee yards before granting a permit to use their land for beekeeping. Perhaps the beekeepers could be subsidized for their electric fences. In any case, if the bears are to be saved, it is vital that something be done soon.

II. WOOD DUCK NESTING BOXES

In 1966 there were 262 wood duck boxes made available for nesting in Chesser, Grand, Mizell and Buck Lake Prairies. These boxes were checked for use in 1967 and the findings were reported. The boxes were checked again in December, 1968. Of the original 262 boxes, four were missing, or could not be found. Of the remaining 258 boxes, two had been torn down by bears. There is something about creosoted lumber that causes bears to want to gnaw and claw it. Many of the creosoted poles that the duck boxes were mounted on in Chesser and Grand Prairies had been damaged by a bear or bears. The two poles which were destroyed had been gnawed completely in two. Also the bears seemed to have considered it their urgence duty to smash the metal predator guards. Nearly all of the predator guards in Chesser and Grand Prairies have been bent up by bears.

The use made of our boxes by wood ducks this past year was very poor. Only 9 had been nested in by wood ducks. Of the remaining ones, 19 had been used by Carolina wrens, 3 by crested flycatchers, 3 by screech owls (questionable), 4 by unidentified birds and one by a bat.

The poor nesting use by wood ducks can be attributed, at least in part, to the low water conditions during the past nesting season. The prairies were dry to nearly dry. It may be significant that 7 of the nine boxes used by wood ducks were near Suwannee Canal or Suwannee Canal cut-off which had water all year.

One hundred new boxes have been erected this winter in Chase and Territory Prairies. Water conditions are generally better in these prairies and it is believed that these boxes will have better use during dry periods than those in Chesser and Grand Prairies.

III. WATERFOWL TRAPPING AND BANDING

This has been Okefenokee's most successful year for duck banding. During the period January 1 to March 4, a total of 535 ducks were banded. Operations were resumed in September and between then and December 31, 644 more ducks were banded.

Of the 1179 ducks banded, 931 were wood ducks. A breakdown by months of the species banded is shown in the following table:

Waterfowl Banded at Okefenokee in 1968

	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.
Wood Duck	170	128	4	154	293	160	22
Mallard	45	31	3				
Black Duck	3	3				3	
Green-winged							
Teal	12	53	6				11
Ringneck	8	44	22				
Lesser Scaup	1	1					
Pintail		1					
Blue-winged							
Teal					1		
Totals	239	261	35	154	294	163	33

These birds were trapped in four walk-in traps, one located at each end of Suwannee River Sill, one in Chesser Prairie and one in Sapp Prairie. The following table shows the species and numbers trapped at each of the sites. The two traps at the sill are listed as one locality.

Ducks Trapped at Trap Sites

SPECIES	SILL	SAPP PRAIRIE	CHESSER PRAIRIE
Wood Duck	422	384	125
Mallard	0	1	78
Black Duck	0	0	6
Green-winged Teal	3	5	77
Blue-winged Teal	0	0	1
Pintail	0	0	1
Ringneck	0	8	66
Scaup	0	2	0
Totals	425	400	354

We credit the success of this operation to the use of the large walk-in traps and to pre-baiting. The trap sites are baited regularly whether there is any trapping done or not. The trap sites were baited all through the summer when there was no trapping.

It is interesting and perhaps significant that repeats were invariably caught in the same trap that they were originally taken. Even the repeats caught in the two traps at each end of the sill were always taken in the same trap. This might suggest that where the feeding is good, wood ducks do not wander far.

IV. PLANT SUCCESSION FOLLOWING FLOODING BY THE SUWANNEE RIVER SILL

No transects were checked this year. Rechecks of the Pocket and Mack's Island transects are scheduled for the summer of 1969.

V. PLANT SUCCESSION FOLLOWING THE 1954-55 FIRES

No transects were checked this year. A recheck of the Soldier Camp Island and Suwannee Canal transects are scheduled in 1969.

VI. PUBLIC RELATIONS

November 27-29, Dr. Peter Lardner and class of 17 ecology students from Dickinson College, Pennsylvania were conducted on trips to Minnie's Lake, Big Water, Billy's Island and Chesser Prairie.

December 14 a group of specialists in wildlife diseases associated with the College of Veterinary Medicine, University of Georgia, were conducted on a trip to Chesser and Grand Prairies and out Suwannee Canal. The group consisted of Dr. Frank A. Hayes, Dr. Katherine Prestwood, Dr. D. P. Kistner, Mr. Larry Andrews, Mr. John Bishop and Mr. Jim Smith, all of the University of Georgia, and Dr. Roy C. Anderson, University of Guelph, Ontario, and Dr. John Dunsmoor, Senior Research Scientist, Division of Wildlife Research, C.S. I.R.O., Canberra, Australia.

VII. PERSONNEL

Biologist Leonard O. Walker received a promotion and was transferred to the Patuxent Wildlife Research Center where he is State Supervisor in Maryland- District of Columbia in the Division of Wildlife Services. Mr. Walker assumed his new duties June 24.

Mr. Walker was succeeded by Eugene Cypert, who had formerly been biologist on this refuge and who for the past four years has been Mississippi Valley Biologist stationed at Samburg, Tennessee. Mr. Cypert reassumed his Okefenokee duties November 22.

January 20, 1969

Eugene Cypert
Wildlife Biologist