

ALABAMA WATERFOWL SURVEY

ANNUAL REPORT, 2016-2017

SETH MADDOX, STUDY LEADER

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Federal Aid Project

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ALABAMA DIVISION OF WILDLIFE AND FRESHWATER
FISHERIES

WILDLIFE RESTORATION PROGRAM

Grant Number W-35, Study 1

2016-2017 ANNUAL WATERFOWL REPORT

STATE: Alabama

Grant Number: W-35

Time Period: July 1, 2016-June 30, 2017

GRANT TYPE: Surveys and Inventories

GRANT TITLE: Statewide Wildlife Research and Surveys

STUDY I: WATERFOWL RESEARCH AND SURVEYS

Study Objective: To determine waterfowl population characteristics and harvest information needed to plan management of ducks and geese in Alabama.

Job I-A. Title: Cooperative Waterfowl Banding

Job Objective: To band waterfowl in accordance with assigned quotas.

Activity: Wood ducks were banded during the summer of 2016 at the following locations in Alabama:

- Near Decatur in Limestone County
- Near Huntsville in Madison County
- Near Parish in Walker County
- Near Hazel Green in Madison County
- Near Florence in Lauderdale County
- Near Guin in Marion County
- Near Fayette in Fayette County
- Near Stevenson in Jackson County
- Near Hollywood in Jackson County
- Near Ohatchee in Calhoun County
- Near Scottsboro in Jackson County
- Near Goodwater in Coosa County
- Near Opelika in Lee County
- Near Eufaula in Barbour County
- Near Opp in Covington County
- Near Loxley in Baldwin County
- Near Silas in Choctaw County

A total of 875 wood ducks were banded this year with most birds being collected in Jackson County. The banding quota recommended for our agency in the Banding Needs document is 499. The classification of birds banded during the 2016 banding season is outlined in Table 1.

Table 1. Number of Wood Ducks Banded by Sex and Age During the 2016 Banding Season.

<u>Age</u>	<u>Sex</u>	<u>Number</u>
AHY	M	142
AHY	F	160
HY	M	278
HY	F	282
U	U	13

Remarks: Efforts to trap and band wood ducks were repeated in similar locations as past years. Banders in many areas had difficulties on trap sites due to high levels of disturbance due to feral hogs, squirrels, raccoons, and coyotes keeping the wood ducks from the bait site. Widespread drought during the summer was also a major issue for some banding locations. Ducks feeding at bait sites but not entering the confusion traps was also cited as a primary issue at several sites. Other banders reported inability to attract ducks to bait sites for unknown reasons.

Recommendations: This project will incorporate additional banding sites in order to continue to meet the quota set for our agency. Additionally, different trapping methods such as floating traps, rocket nets, cannon nets, above-water platform traps, electric fenced trapping areas, whoosh nets, and traps partially submerged in water will be investigated.

Specific training for proper use of rocket nets and cannon nets has been completed. Volunteer assistance from local DU Chapters and student interns will be utilized to increase man hour efforts across the state.

Job I-B. Title: Survey of Waterfowl Hunting Activity

Job I-B. Objective: To monitor waterfowl harvest trends and hunter activity on the major waterfowl wintering areas within Alabama.

Activity: Waterfowl hunter bag checks were made at the checking stations on the Tennessee River public hunting areas, private duck hunting properties and in the Mobile Delta at selected times during the waterfowl season. Information regarding the hunter bag checks conducted during the past 10 years is summarized in Table 2.

Table 2: Duck Hunting Activity Comparison for the Tennessee River and Mobile Bay/Delta Areas for the Past 10 Years.

Hunting Season	Tennessee River		Mobile Bay & Delta	
	Average Hours/Trip	Average Ducks/Trip	Average Hours/Trip	Average Ducks/Trip
16-17	3.6	1.9	4.0	0.9
15-16	3.5	1.2	2.9	0.7
14-15	3.5	1.2	3.1	1.2
13-14	3.8	1.2	2.4	1.2
12-13	3.7	0.9	3.0	2.1
11-12	3.2	1.8	3.3	2.1
10-11	3.3	1.6	3.6	1.5
09-10	3.6	1.8	3.3	1.3
08-09	3.8	1.3	3.1	1.6
07-08	4.1	1.0	2.9	1.2

The composition of the Alabama duck harvest by species for 2016-2017 is contained in Table 3. Historical duck hunting activity in the Tennessee River and Mobile Bay and Delta is summarized in Table 4. The composition of the Alabama duck hunting harvest by percent for 1980s, 1990s, 2000s, 2010s is contained in Tables 5, 6, 7, and 8 for Tennessee Valley and 9, 10, 11 and 12 for Mobile Delta.

Table 3. Percentage of Ducks by Species in the Alabama Hunter Bag Checks Conducted During the 2016-2017 Season on the Tennessee River and Mobile Bay and Delta.

	Tennessee River	Mobile Bay and Delta
	%	%
Mallard	20.3	3.5
Black Duck	0.7	0.0
Gadwall	32.6	53.8
Wigeon	3.4	3.2
GW Teal	15.3	8.5
Pintail	2.4	4.1
Canvasback	0.4	1.2
Scaup	0.4	2.3
Ringneck	16.5	0.0
Wood Duck	3.3	2.6
Goldeneye	0.0	2.0
Bufflehead	0.1	2.6
Merganser	0.3	0.3
BW Teal	0.2	1.5
Shoveler	3.3	7.9
Ruddy Duck	0.0	0.6
Redhead	0.8	4.7
Mottled Duck	0.0	1.2
Other	0.0	0.0

Table 4. Historical Duck Hunting Activity Comparison for the Tennessee River and Mobile Bay and Delta Areas.

Decade of the 2010's	Tennessee River		Mobile Bay and Delta	
Season	Average Trip Hours	Average Harvest/Trip	Average Trip Hours	Average Harvest/Trip
16-17	3.6	1.9	4.0	0.9
15-16	3.5	1.2	2.9	0.7
14-15	3.5	1.2	3.1	1.2
13-14	3.8	1.2	2.4	1.2
12-13	3.7	0.9	3.0	2.1
11-12	3.2	1.8	3.3	2.1
10-11	3.3	1.6	3.6	1.5
Low Value for Decade	3.2	0.9	2.4	0.9
High Value for Decade	3.8	1.9	4.0	2.1
Average	3.5	1.4	3.2	1.4
Decade of the 2000's	Tennessee River		Mobile Bay and Delta	
Season	Average Trip Hours	Average Harvest/Trip	Average Trip Hours	Average Harvest/Trip
09-10	3.6	1.8	3.3	1.3
08-09	3.9	1.1	2.7	1.6
07-08	4.1	1.0	2.9	1.0
06-07	3.7	0.6	3.2	0.9
05-06	4.5	1.6	3.8	1.9
04-05	3.1	1.6	3.4	1.0
03-04	3.1	2.3	2.7	1.4
02-03	4.1	1.0	3.2	0.9
01-02	4.0	0.9	3.2	1.8
00-01	5.2	1.3	3.3	1.4
Low Value for Decade	3.1	0.6	2.7	0.9
High Value for Decade	5.2	2.3	3.8	1.9
Average	4.0	1.3	3.3	1.3
Decade of the 1990's	Tennessee River		Mobile Bay and Delta	
Season	Average Trip Hours	Average Harvest/Trip	Average Trip Hours	Average Harvest/Trip
99-00	4.4	0.9	3.4	2.0
98-99	4.9	1.3	3.3	2.0
97-98	4.7	1.0	3.4	1.9
96-97	5.7	1.0	3.6	2.0
95-96	5.6	1.2	3.4	1.9
94-95	5.0	1.1	3.8	1.5
93-94	4.8	0.8	3.8	1.5
92-93	4.6	0.8	3.9	1.7
91-92	4.6	0.6	3.8	1.5
90-91	4.6	0.8	4.1	1.6
Low Value for Decade	4.4	0.6	3.3	1.5
High Value for Decade	5.7	1.3	4.1	2.0
Average	4.9	0.9	3.6	1.8

Table 4 Continued. Historical Duck Hunting Activity Comparison for the Tennessee River and Mobile Bay and Delta Areas

Decade of the 1980's	Tennessee River		Mobile Bay and Delta	
	Average Trip Hours	Average Harvest/Trip	Average Trip Hours	Average Harvest/Trip
89-90	4.8	1.1	3.5	1.8
88-89	4.9	.6	2.8	1.5
87-88	4.8	.8	3.6	2.0
86-87	4.7	.6	4.4	1.1
85-86	4.7	.7	3.8	2.4
84-85	4.5	.7	4.8	3.5
83-84	5.0	1.0	3.6	1.4
82-83	4.9	.6	4.0	2.7
81-82	4.5	.6	4.0	3.0
80-81	4.8	.6		1.6
Low Value for Decade	4.5	.6	2.8	1.1
High Value for Decade	5.0	1.1	4.8	3.5
Average	4.8	.7	3.8	2.1

Table 5. Percentage of Ducks by Species in the Alabama Hunter Bag Checks Conducted During the Decade of the 2010's on the Tennessee River.

Season	19-20	18-19	17-18	16-17	15-16	14-15	13-14	12-13	11-12	10-11	6 Yr. Avg
# hunters checked				2438	3742	3399	4059	3482	747	1054	2747
# ducks checked				5150	4519	4067	4767	3025	1346	1707	3239
Mallard				20.3	29.0	12.0	16.8	11.5	6.4	17.7	15.5
Black Duck				0.7	2.0	0.4	1.0	0.4	0.2	0.9	0.8
Gadwall				32.6	32.0	37.6	44.3	32.4	42.6	46.8	39.3
Wigeon				3.4	1.0	1.3	1.6	1.5	0.7	1.5	1.3
GW Teal				15.3	6.0	10.3	3.6	3.3	2.5	2.5	4.7
Pintail				2.4	0.8	0.5	1.6	0.7	0.4	0.6	0.8
Canvasback				0.4	1.0	1.3	1.8	0.6	0.5	2.1	1.3
Scaup				0.4	1.0	0.7	0.3	3.5	1.8	1.1	1.4
Ringneck				16.5	10.0	16.3	13.0	19.0	26.5	10.6	15.9
Wood Duck				3.3	8.0	9.3	7.1	18.1	14.0	8.6	10.9
Goldeneye				0.0	0.0	0.1	0.2	0.3	0.1	0.3	0.2
Bufflehead				0.1	0.4	0.4	0.5	0.5	1.1	1.5	0.7
Merganser				0.3	0.3	0.8	0.4	1.5	0.4	2.0	0.9
BW Teal				0.2	0.1	2.1	0.2	1.1	0.3	0.3	0.7
Shoveler				3.3	2.0	3.0	3.1	3.7	2.4	3.2	2.9
Ruddy Duck				0.0	0.2	0.2	0.4	0.5	0.0	0.2	0.3
Redhead				0.8	7.0	3.7	4.1	1.4	0.0	0.1	2.7
Mottled Duck				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oldsquaw				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 6. Percentage of Ducks by Species in the Alabama Hunter Bag Checks Conducted During the Decade of the 2000's on the Tennessee River.

Season	09-10	08-09	07-08	06-07	05-06	04-05	03-04	02-03	01-02	00-01	10 Yr. Avg
# hunters checked	1870	1677	1732	1526	2256	1786	830	1232	1817	1314	1537
# ducks checked	3366	1844	1915	936	2734	2887	1868	1195	1611	1763	1856
Mallard	21.5	25.3	9.2	19.0	22.4	13.8	8.6	30.0	32.4	48.2	23.0
Black Duck	1.9	2.0	0.6	1.8	1.1	0.9	1.0	2.4	2.5	2.6	1.6
Gadwall	29.9	23.5	40.8	29.5	25.5	34.1	32.2	14.1	19.1	25.4	27.6
Wigeon	1.5	2.4	1.9	1.5	1.9	5.1	1.6	1.0	2.3	1.9	2.2
GW Teal	5.2	7.0	2.9	5.2	8.0	6.0	1.2	15.5	7.0	8.6	6.8
Pintail	1.1	4.4	0.3	1.5	1.5	2.1	0.6	0.4	1.1	1.7	1.2
Canvasback	1.1	0.0	2.9	0.8	0.1	0.0	0.3	0.0	0.0	0.4	0.6
Scaup	2.5	0.3	0.8	0.5	2.9	3.3	12.6	0.8	1.1	1.4	2.9
Ringneck	25.3	9.2	26.1	29.9	14.0	8.5	28.9	17.1	8.3	3.7	17.1
Wood Duck	4.8	16.2	4.6	4.6	14.0	14.0	2.8	16.2	19.9	2.4	9.8
Goldeneye	0.9	0.9	0.1	1.1	0.6	0.2	0.3	0.0	0.3	0.0	0.3
Bufflehead	1.5	2.0	0.0	1.2	1.2	1.4	1.0	0.4	1.2	0.8	0.9
Merganser	2.0	1.4	1.2	2.4	0.5	2.6	2.9	0.2	1.2	1.0	1.5
BW Teal	0.0	1.0	2.5	0.0	0.7	0.1	2.0	0.4	0.2	0.2	0.8
Shoveler	0.0	2.9	3.9	0.0	3.5	7.1	3.5	1.4	2.5	1.5	2.9
Ruddy Duck	0.0	0.1	0.1	0.0	0.6	0.1	0.0	0.0	0.2	0.1	0.1
Redhead	0.8	1.4	0.6	0.2	1.5	0.7	0.4	0.1	0.7	0.1	0.5
Mottled Duck	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oldsquaw	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 7. Percentage of Ducks by Species in the Alabama Hunter Bag Checks Conducted During the Decade of the 1990's on the Tennessee River.

Season	99-00	98-99	97-98	96-97	95-96	94-95	93-94	92-93	91-92	90-91	10 Yr. Avg
# hunters checked	1144	1833	1648								
# ducks checked	1015	2392	1725								
Mallard	24.3	38.4	21.0	35.3	30.8	35.7	51.9	31.7	43.0	28.4	34.1
Black Duck	1.7	2.8	1.0	1.3	2.2	2.4	4.8	3.8	7.6	2.1	3.0
Gadwall	23.4	12.5	16.7	16.4	23.2	20.4	13.8	16.8	12.7	17.7	17.4
Wigeon	2.3	2.1	3.1	2.0	2.5	3.1	0.9	6.6	3.7	4.5	3.1
GW Teal	15.8	15.8	9.0	5.1	8.4	7.4	6.6	3.9	5.2	8.9	8.6
Pintail	1.2	2.7	5.3	1.9	1.5	3.5	1.7	3.2	0.8	1.3	2.3
Canvasback	0.2	0.5	0.3	0.1	0.8	0.1	0.0	0.0	0.0	0.1	0.2
Scaup	3.6	2.8	3.8	1.2	1.4	0.7	1.1	4.2	0.5	1.5	2.1
Ringneck	6.9	10.4	15.1	13.4	6.9	9.5	5.3	15.6	3.0	9.2	9.5
Wood Duck	7.7	4.6	13.5	15.8	11.6	9.1	5.9	6.5	15.5	11.3	10.2
Goldeneye	1.2	1.1	1.5	1.4	1.9	1.0	1.1	0.9	2.1	3.0	1.5
Bufflehead	3.2	1.4	1.5	1.0	3.6	0.9	1.2	2.0	2.3	3.9	2.1
Merganser	1.5	2.3	2.0	1.8	1.6	2.2	1.8	3.1	2.6	3.5	2.2
BW Teal	0.4	0.1	1.3	0.4	0.6	0.3	0.0	0.0	0.0	0.0	0.3
Shoveler	5.5	3.8	4.3	2.2	2.2	3.4	3.9	1.7	0.8	4.1	3.2
Ruddy Duck	0.6	0.2	0.7	0.9	0.2	0.1	0.0	0.0	0.0	0.5	0.3
Redhead	0.5	0.4	0.6	0.5	0.2	0.2	0.0	0.0	0.1	0.0	0.3
Mottled Duck	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oldsquaw	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 8. Percentage of Ducks by Species in the Alabama Hunter Bag Checks Conducted During the Decade of the 1980's on the Tennessee River.

Season	89-90	88-89	87-88	86-87	85-86	84-85	83-84	82-83	81-82	80-81	10 Yr. Avg
Mallard	32.7	40.8	23.4	41.1	28.7	41.7	64.5	44.4	32.0	34.3	38.4
Black Duck	4.6	4.1	2.0	2.7	4.4	3.8	5.6	4.7	2.0	4.6	3.9
Gadwall	10.1	3.9	7.2	2.8	4.6	4.0	4.4	5.9	4.1	7.9	5.5
Wigeon	5.0	3.0	5.9	3.4	7.4	9.0	7.5	4.5	6.5	9.3	6.2
GW Teal	5.3	15.8	22.8	18.2	13.1	2.5	3.4	2.5	3.9	4.8	9.2
Pintail	2.1	4.0	5.8	1.5	5.8	2.3	1.8	2.5	5.1	8.5	3.9
Canvasback	0.0	0.8	0.4	0.1	0.7	1.3	0.7	0.7	1.1	1.6	0.7
Scaup	4.8	5.6	4.1	3.1	5.6	3.1	1.3	3.7	1.3	0.6	3.3
Ringneck	10.1	8.1	12	14.4	16.4	19.4	5.5	7.8	17.9	13.2	12.5
Wood Duck	9.8	1.3	2.4	2.9	5.6	8.3	1.6	17.3	17.9	9.5	7.7
Goldeneye	3.5	2.5	2.4	1.2	1.5	1.1	0.5	1.9	2.3	0.9	1.8
Bufflehead	1.0	3.2	1.3	2.8	1.3	0.6	0.1	0.5	3.5	2.7	1.7
Merganser	0.7	3.3	4.7	3.0	0.9	0.6	0.4	0.8	1.4	0.5	1.6
BW Teal	0.0	0.1	0.4	1.8	0.4	0.5	0.1	0.1	0.3	0.0	0.4
Shoveler	9.5	2.7	4.2	0.3	2.3	0.9	1.8	1.8	0.5	1.1	2.5
Ruddy Duck	0.6	0.7	0.7	0.3	0.7	0.5	0.1	0.1	0.0	0.2	0.4
Redhead	0.2	0.0	0.1	0.6	0.7	0.3	0.8	0.8	0.1	0.2	0.4
Mottled Duck	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oldsquaw	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0

Table 9. Percentage of Ducks by Species in the Alabama Hunter Bag Checks Conducted During the Decade of the 2010's in the Mobile Bay and Delta.

Season	19-20	18-19	17-18	16-17	15-16	14-15	13-14	12-13	11-12	10-11	5 Yr. Avg
# hunters checked					404	396	365	276	297	205	308
# ducks checked					342	471	444	571	632	307	485
Mallard					3.5	1.1	1.3	0.5	0.5	2.0	1.1
Black Duck					0.0	0.2	0.2	0.0	0.0	0.0	0.1
Gadwall					53.8	17.8	21.1	22.9	29.4	40.2	26.3
Wigeon					3.2	0.6	2.5	0.9	1.9	0.0	1.2
GW Teal					8.5	13.2	6.1	2.4	12.7	2.6	7.4
Pintail					4.1	0.2	3.4	0.2	0.3	0.0	0.8
Canvasback					1.2	2.3	2.0	0.0	0.3	0.0	0.9
Scaup					2.3	6.1	8.8	53.5	6.3	13.1	17.6
Ringneck					0.0	0.0	0.8	0.0	0.3	0.9	0.4
Wood Duck					2.6	5.7	13.9	2.3	2.1	33.6	11.5
Goldeneye					2.0	0.0	0.0	0.2	0.0	2.0	0.4
Bufflehead					2.6	4.4	6.8	2.1	7.9	0.0	4.2
Merganser					0.3	1.5	0.7	0.0	0.6	1.3	0.8
BW Teal					1.5	3.2	2.7	1.6	0.9	0.3	1.7
Shoveler					7.9	17.8	16.2	5.8	19.5	2.0	12.3
Ruddy Duck					0.6	1.7	2.7	0.5	2.7	0.0	1.5
Redhead					4.7	3.8	9.7	6.7	13.9	0.0	6.8
Mottled Duck					1.2	0.0	1.1	0.4	0.6	2.0	0.8
Oldsquaw					0.0	0.2	0.0	0.0	0.0	0.0	0.0

Table 10. Percentage of Ducks by Species in the Alabama Hunter Bag Checks Conducted During the Decade of the 2000's in the Mobile Bay and Delta.

Season	09-10	08-09	07-08	06-07	05-06	04-05	03-04	02-03	01-02	00-01	10 Yr. Avg
# hunters checked	211	239	153	289	387	348	300	408	368	178	325
# ducks checked	338	331	252	260	741	344	415	402	676	243	440
Mallard	1.0	0.3	1.0	0.7	0.6	0.3	1.0	2.4	0.3	5.9	1.5
Black Duck	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gadwall	52.8	50.8	43.5	48.5	62.1	59.2	37.8	36.2	49.9	21.8	44.9
Wigeon	3.1	3.1	3.0	1.2	0.9	0.6	2.7	0.5	0.9	3.7	1.7
GW Teal	3.7	3.7	10.3	20.0	14.9	3.2	11.8	13.7	10.1	30.5	14.3
Pintail	0.0	0.0	0.0	0.3	1.5	0.0	0.0	0.0	1.9	1.6	0.7
Canvasback	0.0	0.0	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.8	0.2
Scaup	12.5	13.3	10.3	6.2	5.0	6.4	5.8	25.3	18.0	8.2	10.7
Ringneck	0.0	0.3	4.0	0.7	3.1	5.2	6.3	3.0	4.6	6.6	4.2
Wood Duck	7.3	7.3	8.6	4.2	2.6	11.9	17.3	3.2	1.8	8.6	7.3
Goldeneye	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bufflehead	2.4	3.1	4.7	0.0	0.7	4.1	2.4	5.2	6.2	4.1	3.4
Merganser	2.3	2.3	0.8	0.7	0.3	0.3	0.7	0.2	0.3	0.0	0.4
BW Teal	8.8	8.8	1.7	2.7	0.7	1.5	1.9	0.0	1.8	2.5	1.6
Shoveler	5.9	5.9	1.3	4.2	4.9	3.5	5.1	2.7	0.7	2.0	3.1
Ruddy Duck	0.0	0.0	0.0	0.0	0.3	0.9	0.5	1.2	0.6	0.4	0.6
Redhead	0.0	0.3	8.2	6.9	0.9	0.6	5.3	0.5	2.2	0.4	3.1
Mottled Duck	0.2	0.1	2.2	3.0	1.5	2.3	1.4	5.9	0.7	2.9	2.5
Oldsquaw	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 11. Percentage of Ducks by Species in the Alabama Hunter Bag Checks Conducted During the Decade of the 1990's in the Mobile Bay and Delta.

Season	99-00	98-99	97-98	96-97	95-96	94-95	93-94	92-93	91-92	90-91	10 Yr. Avg
# hunters checked	287	201	213								
# ducks checked	565	413	411								
Mallard	3.6	0.5	0.7	3.6	5.2	5.0	7.8	3.9	6.1	10.0	4.6
Black Duck	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.4	3.9	0.5
Gadwall	35.5	19.9	4.6	8.1	6.0	4.6	2.3	4.8	2.4	2.2	9.0
Wigeon	4.1	3.7	1.9	1.1	1.8	7.4	2.0	3.3	0.8	3.1	2.9
GW Teal	28.4	48.2	25.0	15.5	35.0	32.2	34.6	32.7	32.7	27.9	31.2
Pintail	1.6	1.0	1.2	1.3	3.4	2.0	3.8	1.5	2.9	5.2	2.4
Canvasback	1.5	1.7	1.2	1.7	1.1	0.0	0.0	0.0	0.0	0.4	0.8
Scaup	7.5	9.7	17.0	25	4.3	5.8	4.9	19.8	5.7	3.1	10.3
Ringneck	2.3	2.9	14.0	9.2	7.6	7.0	2.6	1.8	8.2	11.8	6.7
Wood Duck	1.8	0.5	1.0	1.4	0.0	3.3	0.0	0.0	0.4	1.3	1.0
Goldeneye	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bufflehead	4.1	2.7	1.4	1.6	1.5	0.0	0.8	3.0	0.0	0.0	1.4
Merganser	1.8	0.5	0.7	0.9	0.2	0.8	1.1	0.6	0.0	0.0	0.7
BW Teal	0.6	3.7	15.0	16.1	11.5	17.0	13.8	17.2	22.0	23.1	14.0
Shoveler	3.8	1.7	10.0	5.2	14.4	2.9	10.5	6.9	9.0	3.5	6.8
Ruddy Duck	1.6	0.3	0.2	1.2	1.1	2.9	2.0	0.0	0.8	2.2	1.2
Redhead	0.7	2.5	1.0	2.6	2.4	3.3	1.7	0.0	0.4	2.2	1.7
Mottled Duck	1.1	1.0	2.9	6.1	4.5	5.8	11.9	4.5	8.2	0.0	4.6
Oldsquaw	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 12. Percentage of Ducks by Species in the Alabama Hunter Bag Checks Conducted During the Decade of the 1980's in the Mobile Bay and Delta.

Season	89-90	88-89	87-88	86-87	85-86	84-85	83-84	82-83	81-82	80-81	10 Yr. Avg
Mallard	6.1	14.5	11.8	0.8	0.0	0.9	3.8	8.4	5.1	3.0	5.4
Black Duck	1.7	2.4	0.4	2.7	1.6	0.6	0.3	0.0	0.3	0.0	1.0
Gadwall	5.8	20.8	13.2	15.6	1.6	1.9	6.2	8.1	3.5	14.6	9.1
Wigeon	4.7	6.8	3.2	3.1	0.0	0.3	3.5	4.1	2.7	12.9	4.1
GW Teal	35.3	29.5	29.3	7.0	1.6	20.1	33.2	38.2	41.7	24.6	26.1
Pintail	6.1	3.4	2.0	1.6	0.0	1.3	2.2	2.5	2.9	3.9	2.6
Canvasback	0.0	0.0	0.0	0.1	0.0	0.3	2.5	0.7	0.2	0.0	0.4
Scaup	3.1	5.8	6.9	14.8	88.5	27.9	4.4	0.0	25.3	3.0	18.0
Ringneck	4.2	2.9	5.1	9.4	0.0	3.8	4.9	1.0	1.4	4.5	3.7
Wood Duck	0.6	3.9	1.4	0.0	0.0	8.3	.5	0.3	1.1	3.7	2.0
Goldeneye	0.6	2.5	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.3
Bufflehead	0.6	1.0	1.6	7.8	0.0	0.6	0.3	0.5	0.6	0.0	1.3
Merganser	1.1	2.4	1.0	1.6	0.0	0.6	1.4	0.0	0.3	0.0	.8
BW Teal	24.4	4.8	7.5	9.4	1.6	30.1	17.4	13.5	6.7	7.7	12.3
Shoveler	2.2	1.4	11.4	7.0	0.0	5.3	9.0	5.7	3.0	7.9	5.3
Ruddy Duck	1.9	0.5	0.8	10.2	1.6	4.4	8.5	2.7	4.3	13.9	4.9
Redhead	1.1	0.0	3.5	11.7	3.3	1.6	1.9	0.5	0.8	0.7	2.5
Mottled Duck	0.6	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Oldsquaw	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0

One coot was taken in the Mobile Delta for each 6.6 hunting trips. The Tennessee Valley averaged only one coot taken for each 36.9 hunting trips. The low harvest numbers for coot is not indicative of their availability but illustrates they are not a desirable species for most hunters in Alabama.

The Gulf Coast of Alabama traditionally receives only sparse and sporadic use by geese. This year there were only 18 reports of Canada goose harvest. There was also 3 reported snow goose harvested in the Mobile Bay and Delta.

The goose population of the Tennessee Valley contains two distinct segments, resident Canada geese and migrant Canada geese from the Southern James Bay area of Canada. In recent years the resident geese have expanded their numbers to the point of becoming a nuisance in some areas. In the past Alabama has incorporated an early season to improve management of resident geese. Beginning in 2016 the Canada Goose season was expanded in the Mississippi Flyway, to allow 107 days of open season with a 5 bird bag limit in September and a 3 bird bag limit the remainder of the season. This allows hunters more opportunity in the field and the harvest can serve as a tool to contain a goose population explosion. The 2016 Canada Goose season was 90 days in Alabama split into 3 segments. The first segment was held September 1 – September 30. Success during this season continues to depend on resident giant Canada geese populations and increasing hunter participation. Bag checks reflected harvest success estimates during this first segment to be 2.4 geese harvested per hunter trip; however, these data are biased considering only a handful of private properties were included in the data set. No Canada geese were reported during the second split of regular Canada goose season, November 25th – November 26th. The third split of the Canada goose season ran from December 3rd – January 29th and resulted in 9 Canada geese recorded in the harvest checks. Goose harvest during the regular season increased slightly as compared to the 2015-16 season. In recent years, migrant Canada goose numbers, most of which winter at Wheeler NWR, were at levels well below historical averages. The small, but presently stable, group of Snow geese that winter in Alabama congregates at Wheeler Refuge where there is no open hunting season. Most goose hunting opportunity is presently in the form of hunting resident Canada geese, which by their nature are harvested more frequently during early segments of the regular seasons. These seasons are currently growing slowly in popularity and are providing the most substantial portion of the goose harvest in Alabama. Even though earlier seasons were implemented early in the population growth stage of resident Canada geese in the state, it is unclear if the harvest is serving successfully as a control measure, and remains small by flyway standards. These “resident” season harvests are not normally subjected to the more drastic harvest swings sometimes associated with weather related migrations of “interiors”. Therefore, harvest will not tend to vary greatly from year to year. Harvest of geese in Alabama is expected to continue to track the growth and availability of resident goose harvest opportunity within the state. Table 13 is a comparison of hunter activity measured in the number of trips to harvest one Canada goose at times outside and concurrent with the duck season.

Table 13. Comparison of Number of Hunter Trips to Harvest One Canada Goose in Tennessee Valley.

Dates	Geese/Trip
9/1-9/30/16	2.4
11/25-26/2016	N/A
12/5/15-1/31/16	1 goose/ 271 trips

Recommendations: This project furnishes vital data that is used in developing recommendation on waterfowl season and bag limits for next year. It is recommended that this project continue.

Job I-C. Title: Inventory of Wintering Waterfowl

Job I-C. Objective: To determine periods and variations of distribution or abundance of waterfowl on major waterfowl wintering areas within Alabama.

Activity: Two annual aerial waterfowl inventories were flown on the Tennessee River, Mobile Bay and Delta as in previous years. The first of the surveys is termed the pre-season inventory and the second is conducted in cooperation with the U.S. Fish and Wildlife Service’s mid-winter inventory. The results for the complete Tennessee River and the Mobile Bay and Delta inventories are represented in the tables below. The pre-season and mid-winter inventories are compared to historical data in Tables 16 and 18 for the Tennessee River and 17 and 19 for the Mobile area.

The water level on the Tennessee River is presented as average number of feet above normal winter pool level. Normal winter pool represents 157,750 acres. The reservoir areas of the Tennessee River change with fluctuations in water elevation. These are presented in Tables 14 and 15. The Mobile Bay and Delta survey covers about 57,600 acres and requires around two hours to survey. The Bay and Delta are tidally influenced; however, the water acreage varies very little under normal tidal conditions.

The 2016 pre-season surveys were up 28% in the Tennessee Valley (northern) region and up347% in the Mobile Delta (southern) versus the 2015 survey. Goose numbers surveyed for both regions numbered 842, which was an increase of 61% as compared to 2015.

The 2017 Mid-winter counts reflected a decrease in duck numbers by 64% in the Tennessee Valley and a decrease by 35% in the Mobile Bay and Delta versus the 2016 survey. Compared to the 10 year averages, 2016 mid-winter duck survey numbers were down 73% in the Tennessee Valley and down 55% in the Delta. Mid-Winter goose numbers decreased by 83% in the Tennessee Valley compared to 2016 and were down 86% below the last 10 year average. In the Mobile Bay and Delta, mid-winter goose numbers remained very low, and decreased by 8% as compared to the 10 year average.

USFWS personnel reported that the migrant Canada goose numbers continue to decline in general and reported 512 geese were observed during the midwinter waterfowl survey. This number is slightly below the number (580) observed during the midwinter survey in 2016, but is well below the historical average. Snow goose numbers were reported at 3,502 birds, well above the 720 observed in 2016, although the annual variation in snow goose numbers seems to correlate with population fluctuations. Greater white front geese numbers were reported at 725, which is well above the reported number (320) in 2016. Duck numbers at Wheeler were reported at 54,221 during the midwinter survey and an increase from the 44,459 reported during the 2016 midwinter survey.

Table 14. Data from Inventories of the Tennessee River and Mobile Bay and Delta for the 2015-2016 Hunting Seasons

Tennessee River		Winter Pool = 157,750 acres			Summer Pool = 196,900 acres			
Date	Temperature	Water Level	Ducks Seen	% Change from Previous Flight	Geese Seen	% Change from Previous Flight	Coots Seen	% Change from Previous Flight
11/21-22/1	46 to 50	0.4	34,299	28%	842	61%	55,010	44%
01/04-05/16	36 to 43	0.4	20,692	-64%	376	-83%	35,830	112%

Mobile Bay and Delta		Winter Pool = 57,600 acres			Summer Pool = 57,600 acres			
Date	Temperature	Water Level	Ducks Seen	% Change from Previous Flight	Geese Seen	% Change from Previous Flight	Coots Seen	% Change from Previous Flight
11/18/15	71	normal	2,771	347%	0	N/A	2,805	360%
01/03/16	68	normal	1,106	-35%	34	127%	1,770	138%

The Tennessee River inventory is composed of four segments which correspond to the four reservoirs located within the state. The area of Wheeler Reservoir east of U.S. highway 31 which encompasses approximately 21,000 acres is in the inventory but is not included in the area of the reservoir in Table 15.

Table 15. Data from Inventories of the 4 Reservoirs Comprising the Alabama portion of the Tennessee River during the 2016-2017 Hunting Season.

Guntersville Reservoir							
Winter Pool = 593.0 MSL 62,000 acres				Summer Pool = 595.4 MSL 70,200 acres			
Date	Approximate Survey Time	Air Temp.	Approximate Reservoir Elevation	Approximate Reservoir Acres	Number of Ducks	Number of Geese	Number of Coots
11/22/16	120 min.	46	594.61	67,916	22,103	230	38,260
01/05/16	120 min.	36	593.86	65,747	17,088	134	27,575

Wheeler Reservoir							
Winter Pool = 550.0 MSL 45,450 acres				Summer Pool = 556.0 MSL 67,070 acres			
Date	Approximate Survey Time	Air Temp.	Approximate Reservoir Elevation	Approximate Reservoir Acres	Number of Ducks	Number of Geese	Number of Coots
11/21/15	45 min.	50	551.71	51,612*	3,793	160	4,330
01/04/16	45 min.	43	552.99	56,224*	157	15	380

*Note: The acreage shown is for the entire reservoir, the inventory area is about 21,000 acres less.

Wilson Reservoir							
Winter Pool = 504.7 MSL 15,000 acres				Summer Pool = 507.7 MSL 15,600 acres			
Date	Approximate Survey Time	Air Temp.	Approximate Reservoir Elevation	Approximate Reservoir Acres	Number of Ducks	Number of Geese	Number of Coots
11/21/15	30 min	50	506.82	15,424	200	37	270
01/04/16	30 min	43	505.24	15,108	43	27	145

Pickwick Reservoir							
Winter Pool = 408.0 MSL 37,000 acres				Summer Pool = 414.0 MSL 42,700 acres			
Date	Approximate Survey Time	Air Temp.	Approximate Reservoir Elevation	Approximate Reservoir Acres	Number of Ducks	Number of Geese	Number of Coots
11/21/15	60 min	50	409.57	38,492	8,203	415	12,150
01/04/16	60 min	43	408.7	37,665	3,404	200	7,730

Table 16. Historical Data from Alabama Pre-season Inventories of the Tennessee River.

Decade of the 2010's							
Date	Season	# of Ducks	% Change from Previous Season	# of Geese	% Change from Previous Season	# of Coots	% Change from Previous Season
11/21-22/16	2016-17	34,299	28%	842	61%	55,010	44%
11/20/15	2015-16	26,862	-40%	523	9%	38,258	-25%
11/24/14	2014-15	44,396	33%	478	-20%	50,703	24%
11/24/13	2013-14	33,325	11%	601	24%	40,752	-29%
11/19/12	2012-13	29,925	-6%	495	14%	57,762	10%
11/20/11	2011-12	32,030	39%	433	-49%	52,223	23%
11/22/10	2010-11	23,020	-38%	855	45%	42,425	-16%
Low Value for Decade		23,020		433		38,258	
High Value for Decade		44,396		855		57,762	
Average for 2010s		31,980		604		48,133	
Decade of the 2000's							
Date	Season	# of Ducks	% Change from Previous Season	# of Geese	% Change from Previous Season	# of Coots	% Change from Previous Season
11/23/09	2009-10	37,422	.04%	588	99%	76,260	11%
11/25/08	2008-09	37,250	-24%	296	-60%	68,588	-29%
11/20/07	2007-08	48,744	275%	748	279%	96,728	252%
11/21/06	2006-07	17,722	-47%	268	-70%	38,259	70%
11/22/05	2005-06	33,681	261%	910	139%	22,445	-16%
11/20/04	2004-05	9,316	-59%	380	-28%	26,718	-47%
11/23/03	2003-04	22,546	-11%	529	-12%	50,002	4%
11/22/02	2002-03	25,212	7%	600	20%	48,088	-23%
11/18/01	2001-02	23,545	-26%	502	-50%	62,116	83%
12/05/00	2000-01	31,786	47%	1,003	-3%	33,919	-2%
Low Value for Decade		9,316		380		22,445	
High Value for Decade		48,744		1,003		96,728	
Average for 2000s		23,401		599		40,221	
Decade of the 1990's							
Date	Season	# of Ducks	% Change from Previous Season	# of Geese	% Change from Previous Season	# of Coots	% Change from Previous Season
12/07/99	99-00	21,636	-26%	1,036	-4%	34,738	-18%
12/08/98	98-99	29,126	5%	1,075	5%	42,196	3%
11/17/97	97-98	27,853	3%	1,025	66%	40,809	29%
11/29/96	96-97	27,011	-20%	619	-32%	31,740	41%
11/29/95	95-96	33,681	77%	910	22%	22,445	33%
12/02/94	94-95	19,041	-54%	745	-44%	16,886	-36%
12/16/93	93-94	41,678	12%	1,331	37%	26,328	-29%
12/14/92	92-93	37,330	26%	975	-29%	37,120	36%
	91-92	29,634	75%	1,370	116%	27,330	13%
	90-91	16,904	7%	633	1%	24,235	27%
Low Value for Decade		16,904		745		16,886	
High Value for Decade		41,678		1,370		42,196	
Average for 1990's		28,389		972		30,383	

Table 16 Continued. Historical Data from Alabama Pre-season Inventories of the Tennessee River.

Decade of the 1980's							
Date	Season	# of Ducks	% Change from Previous Season	# of Geese	% Change from Previous Season	# of Coots	% Change from Previous Season
12/05/89	89-90	15,859	-30%	628	-65%	19080	-2%
	88-89	22,776	-10%	1781	134%	19494	-17%
12/03/87	87-88	25,397	23%	762	N/A	23594	-4%
	86-87	20,700	31%	N/A	N/A	24500	25%
12/03/85	85-86	15,836	-10%	1728	49%	19655	71%
11/29/84	84-85	17,544	40%	1163	37%	11491	-32%
11/29/83	83-84	12,500	51%	850	95%	16800	38%
11/30/82	82-83	8,299	-38%	435	-66%	12206	8%
	81-82	13,406	-6%	1271	24%	11265	102%
11/25/80	80-81	14,322		1028		5563	
Low Value for Decade		8,299		435		5,563	
High Value for Decade		25,397		1,781		24,500	
Average for 1980's		16,664		965		16,365	

Table 17. Historical Number of Waterfowl Seen During Pre-season Inventories of the Mobile Bay and Delta.

Decade of the 2010s							
Date	Season	Ducks	% Change from Previous Season	Geese	% Change from Previous Season	Coots	% Change from Previous Season
11/18/16	2016-17	2,771	347%	0	N/A	2,805	360%
11/19/15	2015-16	620	-74%	0	N/A	610	-81%
11/25/14	2014-15	2,414	124%	0	N/A	3,235	-67%
11/25/13	2013-14	1,080	-54%	0	N/A	9,880	1%
11/20/12	2012-13	2,365	-22%	2	-80%	9,780	-10%
11/21/11	2011-12	3,047	169%	10	N/A	10,875	247%
11/23/10	2010-11	1,132	-7%	0	N/A	3,132	152%
Low Value for Decade		620		0		610	
High Value for Decade		3,047		10		10,875	
Average for 2010s		1,918		2		5,760	
Decade of the 2000s							
Date	Season	Ducks	% Change from Previous Season	Geese	% Change from Previous Season	Coots	% Change from Previous Season
11/23/09	2009-10	1,211	-48%	0		1,239	196%
11/24/08	2008-09	2,356	62%	0		418	-61%
11/19/07	2007-08	1,453	20%	0		1,065	42%
11/20/06	2006-07	1,166	-34%	0		1,850	83%
11/21/05	2005-06	1,790	49%	0		1,007	-55%
11/22/04	2004-05	1,200	-58%	0		2,253	-40%
11/25/03	2003-04	2,889	19%	0		3,781	127%
11/24/02	2002-03	2,421	-40%	0		1,664	-51%
11/20/01	2001-02	4,054	-6%	0		3,390	-59%
12/04/00	2000-01	4,331	-64%	0		8,214	-76%
Low Value for Decade		1,166		0		1,007	
High Value for Decade		4,331		0		8,214	
Average for 2000s		2,550		0		3,165	

Table 17 continued. Historical Number of Waterfowl Seen During Pre-season Inventories of the Mobile Bay and Delta.

Decade of the 1990s							
Date	Season	Ducks	% Change from Previous Season	Geese	% Change from Previous Season	Coots	% Change from Previous Season
12/08/99	99-00	12,088	94%	0		34,152	349%
12/10/98	98-99	6,241	39%	0		7,613	-76%
11/10/97	97-98	4,485	53%	0		31,090	245%
11/12/96	96-97	2,931	54%	0		9,008	-5%
11/13/95	95-96	1,908	71%	0		9,446	48%
11/14/94	94-95	1,116	-33%	0		6,398	34%
11/17/93	93-94	1,654	-75%	0		4,779	-40%
11/17/92	92-93	6,498	32%	0		7,916	-55%
11/22/91	91-92	4,908	29%	0		17,572	314%
11/13/90	90-91	3,802	-2%	0		4,245	-19%
Low Value for Decade		1,116		0		4,245	
High Value for Decade		12,088		0		34,152	
Average for 1990s		4,563		0		13,222	
Decade of the 1980s							
Date	Season	Ducks	% Change from Previous Season	Geese	% Change from Previous Season	Coots	% Change from Previous Season
11/13/89	89-90	3,888	99%	0		5,215	63%
	88-89	1,955	-44%	0		3,200	-40%
	87-88	3,475	190%	0		5,295	-50%
	86-87	1,200	-54%	0		10,600	64%
	85-86	2,610	-65%	10		6,480	20%
	84-85	7,400	63%	0		5,420	-71%
	83-84	4,530	-42%	0		19,000	86%
	82-83	7,785	1%	6		10,200	-10%
	81-82	7,710	-10%	0		11,330	-54%
	80-81	8,560		0		24,475	
Low Value for Decade		1,200		0		3,200	
High Value for Decade		8,560		10		24,475	
Average for 1980s		4,911		2		10,122	

Table 18. Historical Number of Waterfowl Seen During Mid-winter Inventories of the Tennessee River.

Decade of the 2010s							
Date	Season	Ducks	% Change from Previous Season	Geese	% Change from Previous Season	Coots	% Change from Previous Season
1/4&5/17	2016-17	20,692	-64%	376	-83%	35,830	112%
1/4&5/16	2015-16	56,804	-26%	2,046	15%	16,842	-46%
1/5/15	2014-15	77,074	-2%	1,779	-60%	31,228	-10%
1/8/14	2013-14	78,525	-13%	4,433	-7%	34,819	8%
1/7/13	2012-13	90,252	18%	4,775	310%	32,377	-16%
1/4/12	2011-12	76,505	5%	1,163	-69%	38,610	-16%
1/4/11	2010-11	72,800	33%	3,707	38%	45,872	68%
Low Value for Decade		20,692		376		16,842	
High Value for Decade		90,252		4,775		45,872	
Average for 2010s		67,522		2,611		33,654	

Table 18 Continued. Historical Number of Waterfowl Seen During Mid-winter Inventories of the Tennessee River.

Decade of the 2000s							
Date	Season	Ducks	% Change from Previous Season	Geese	% Change from Previous Season	Coots	% Change from Previous Season
1/5/10	2009-10	54,866	16.2%	2,677	15.8%	27,269	8.2%
1/6/09	2008-09	47,228	17.7%	2,312	600%	25,213	8.2%
1/7/08	2007-08	40,113	179%	329	-69%	95,307	600%
1/7/07	2006-07	14,384	-50%	1,075	33%	13,500	-69%
1/5/06	2005-06	29,016	25%	811	147%	43,893	11%
1/3/05	2004-05	23,282	-25%	328	21%	39,460	-16%
1/7/04	2003-04	31,035	8%	271	-37%	47,188	5%
1/7/03	2002-03	28,781	19%	427	-56%	44,992	59%
1/8/01	2001-02	24,277	-40%	975	-4%	28,327	-28%
1/3/01	2000-01	40,182	52%	1,020	12%	39,092	-3%
Low Value for Decade		14,384		271		13,500	
High Value for Decade		40,182		1,075		47,188	
Average for 2000s		27,280		701		36,636	
Decade of the 1990s							
Date	Season	Ducks	% Change from Previous Season	Geese	% Change from Previous Season	Coots	% Change from Previous Season
1/4/00	99-00	26,397	-30%	910	-17%	40,502	4%
1/05/99	98-99	37,670	24%	1,101	-32%	38,929	-3%
1/10/98	97-98	30,296	111%	1,608	50%	39,966	196%
1/7/97	96-97	14,384	-45%	1,075	-4%	13,500	-43%
	95-96	26,116	11%	1,123	20%	23,543	35%
	94-95	23,479	-29%	934	-18%	17,428	-44%
	93-94	33,078	11%	1,138	32%	31,023	-7%
	92-93	29,906	-14%	865	37%	33,275	3%
	91-92	34,777	85%	632	11%	32,280	21%
	90-91	18,823	34%	567	-75%	26,692	26%
Low Value for Decade		14,384		567		13,500	
High Value for Decade		37,670		1,608		40,502	
Average for 1990s		27,493		995		29,714	
Decade of the 1980s							
Date	Season	Ducks	% Change from Previous Season	Geese	% Change from Previous Season	Coots	% Change from Previous Season
	89-90	14,088	-20%	2,274	70%	21,155	-24%
	88-89	17,588	5%	1,336	73%	27,763	6%
	87-88	16,818	11%	773	N/A	26,278	10%
	86-87	15,100	17%	N/A	N/A	23,800	158%
	85-86	12,925	34%	3,188	288%	9,232	-25%
	84-85	9,620	-41%	822	-54%	12,385	13%
	83-84	16,200	19%	1,800	82%	11,000	-26%
1/4/83	82-83	13,589	-39%	991	-6%	14,931	26%
1/5/82	81-82	22,159	-13%	1,053	-28%	11,887	-4%
	80-81	25,426		1,470		12,333	
Low Value for Decade		9,620		822		9,232	
High Value for Decade		25,426		3,188		27,773	
Average for 1980s		16,351		1,523		17,076	

Table 19. Historical Number of Waterfowl Seen During Mid-winter Inventories of the Mobile Bay and Delta.

Decade of the 2010s							
Date	Season	Ducks	% Change from Previous Season	Geese	% Change from Previous Season	Coots	% Change from Previous Season
1/3/17	2016-17	1,106	-35%	34	127%	1,770	138%
1/6/16	2015-16	1,705	-54%	15	-69%	745	-73%
1/6/15	2014-15	3,692	231%	48	-34%	5,250	293%
1/7/14	2013-14	1,114	-71%	72	63%	1,335	-73%
1/8/13	2012-13	3,790	37%	45	21%	4,889	6%
1/3/12	2011-12	2,757	61%	37	362%	4,607	36%
1/4/11	2010-11	1,710	-13%	8	100%	3,400	49%
Low Value for Decade		1,106		8		745	
High Value for Decade		3,790		72		5,250	
Average for 2010s		2,268		37		3,142	
Decade of the 2000s							
Date	Season	Ducks	% Change from Previous Season	Geese	% Change from Previous Season	Coots	% Change from Previous Season
1/05/10	2009-10	1,970	411%	4		2286	
1/06/09	2008-09	385	-312%	0		0	
1/08/08	2007-08	3,709	356%	0		2,286	-10%
1/9/07	2006-07	814	36%	0		2,532	325%
1/6/06	2005-06	599	-52%	0		596	-80%
1/4/05	2004-05	1,259	13%	0		3,017	10%
1/8/04	2003-04	1,118	98%	0		2,751	134%
1/8/03	2002-03	562	-80%	0		1,175	-65%
1/8/02	2001-02	2,779	-35%	0		3,390	0%
1/3/01	2000-01	4,331	-28%	0		3,395	-68%
Low Value for Decade		562		0		596	
High Value for Decade		4,331		0		3,395	
Average for 2000s		1637		0		2,408	
Decade of the 1990s							
Date	Season	Ducks	% Change from Previous Season	Geese	% Change from Previous Season	Coots	% Change from Previous Season
1/05/00	99-00	6,046	-25%	0		10,657	-35%
1/07/99	98-99	8,017	167%	0		16,409	175%
1/08/98	97-98	3,000	-38%	0		5,969	-36%
1/09/97	96-97	4,832	-4%	8		9,372	8%
1/05/96	95-96	5,054	99%	0		8,718	-46%
	94-95	2,538	12%	9		16,018	131%
	93-94	2,262	35%	4		6,930	135%
	92-93	1,673	-63%	0		2,954	-36%
	91-92	4,496	-63%	0		4,631	-20%
	90-91	12,229	-18%	0		5,816	-12%
Low Value for Decade		1,673		0		2,954	
High Value for Decade		12,229		9		16,409	
Average for 1990s		5,015		2		8,747	

Table 19 Continued. Historical Number of Waterfowl Seen During Mid-winter Inventories of the Mobile Bay and Delta.

Decade of the 1980s							
Date	Season	Ducks	% Change from Previous Season	Geese	% Change from Previous Season	Coots	% Change from Previous Season
	89-90	14,916	22%	0		6,605	50%
	88-89	12,258	209%	0		4,400	161%
	87-88	3,972	5%	0		1,685	-65%
	86-87	3,800	-55%	0		4,800	-61%
	85-86	8,367	61%	85		12,365	56%
	84-85	5,188	-44%	0		7,910	-36%
	83-84	9,300	9%	0		12,300	19%
	82-83	8,550	8%	0		10,325	-27%
	81-82	7,895	-42%	0		14,200	-15%
	80-81	13,500				16,700	
Low Value for Decade		3,800		0		1,685	
High Value for Decade		14,916		85		16,700	
Average for 1980s		8,775		9		9,129	

Recommendations: This project furnishes vital data that is used in developing recommendation on waterfowl season and bag limits for next year. It is recommended that this project continue.