ALABAMA WATERFOWL SURVEY

ANNUAL REPORT, 2014-2015

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Federal Aid Project

Funded by your purchase of hunting licenses and equipment.

ALABAMA DIVISION OF WILDLIFE AND FRESHWATER FISHERIES

WILDLIFE RESTORATION PROGRAM

Grant Number W-35, Study 1

2014-2015 ANNUAL WATERFOWL REPORT

STATE: Alabama

Grant Number: <u>W-35</u> Time Period: July 1, 2014-June 30, 2015

GRANT TYPE: Surveys and Inventories

GRANT TITLE: Statewide Wildlife Research and Surveys

STUDY I: WATERFOWL RESEARCH AND SURVEYS

<u>Study Objective</u>: 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.

<u>Activity</u>: Attempts to trap and band wood ducks were carried out during the summer of 2014 at the following locations in Alabama:

- Near Tanner in Limestone County
- Near Decatur in Morgan County
- Near Stevenson in Jackson County
- Near Hollywood in Jackson County
- Near Leighton in Colbert County
- Near Florence in Lauderdale County
- Near Guin in Marion County

- Near Marion in Perry County
- Near Demopolis in Greene County
- Near Goodwater in Coosa County
- Near Eufaula in Barbour County
- Near Townley in Walker County
- Near Midway in Barbour County
- Near Opp in Covington County

A total of 252 wood ducks were banded this year with most birds being collected in Limestone County. The banding quota recommended for our agency in the Banding Needs document is 499. The classification of birds banded during the 2014 banding season is outlined in Table 1.

Age	Sex	<u>Number</u>
AHY	М	37
AHY	F	45
НҮ	М	83
НҮ	F	87
U	U	0

Table 1. Number of Wood Ducks Banded by Sex and Age During the 2014 Banding Season.

<u>Remarks</u>: 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 non-target species such as feral hogs, squirrels, raccoons, and coyotes keeping the wood ducks from the bait site. Widespread flooding 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.

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

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

<u>Activity</u>: 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.

	Tenness	ee River	Mobile Ba	y & Delta
Hunting Season	Average Hours/Trip	Average Ducks/Trip	Average Hours/Trip	Average Ducks/Trip
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
06-07	3.7	0.6	3.2	0.9
05-06	4.5	1.6	3.8	1.9

The composition of the Alabama duck harvest by species for 2014-2015 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 2014-2015 Season on the Tennessee River and Mobile Bay and Delta.

	Tennessee River	Mobile Bay and Delta
	<u>%</u>	<u>%</u>
Mallard	12.0	1.1
Black Duck	0.4	0.2
Gadwall	37.6	17.8
Wigeon	1.3	0.6
GW Teal	10.3	13.2
Pintail	0.5	0.2
Canvasback	1.3	2.3
Scaup	0.7	26.1
Ringneck	16.3	0.0
Wood Duck	9.3	5.7
Goldeneye	0.1	0.0
Bufflehead	0.4	4.4
Merganser	0.8	1.5
BW Teal	2.1	3.2
Shoveler	3.0	17.8
Ruddy Duck	0.2	1.7
Redhead	3.7	3.8
Mottled Duck	0.0	0.0
Other	0.0	0.2

Decade of the 2010's	Tennes	see River	Mobile Ba	y and Delta
Season	Average Trip Hours	Average Harvest/Trip	Average Trip Hours	Average Harvest/Trip
14-15	3.5	1.2	3.1	1.
13-14	3.8	1.2	2.4	1.
12-13	3.7	0.9	3.0	2.
11-12	3.2	1.8	3.3	2.
10-11	3.3	1.6	3.6	1.
Low Value for Decade	3.2	0.9	2.4	1.
High Value for Decade	3.8	1.8	3.6	2.
Average	3.5	1.3	3.1	1,
Decade of the 2000's	Tennes	see River	Mobile Ba	y and Delta
Season	Average Trip Hours	Average Harvest/Trip	Average Trip Hours	Average Harvest/Trip
09-10	3.6	1.8	3.3	1.
08-09	3.9	1.1	2.7	1.
07-08	4.1	1.0	2.9	1.
06-07	3.7	0.6	3.2	0.
05-06	4.5	1.6	3.8	1.
04-05	3.1	1.6	3.4	1.
03-04	3.1	2.3	2.7	1.
02-03	4.1	1.0	3.2	0.
01-02	4.0	0.9	3.2	1.
00-01	5.2	1.3	3.3	1.
Low Value for Decade	3.1	0.6	2.7	0.
High Value for Decade	5.2	2.3	3.8	1.
Average	4.0	1.3	3.3	1.
Decade of the 1990's	Tennes	see River	Mobile Ba	y and Delta
Season	Average Trip Hours	Average Harvest/Trip	Average Trip Hours	Average Harvest/Trip
99-00	4.4	0.9	3.4	2.
98-99	4.9	1.3	3.3	2.
97-98	4.7	1.0	3.4	1.
96-97	5.7	1.0	3.6	2.
95-96	5.6	1.2	3.4	1.
94-95	5.0	1.1	3.8	1.
93-94	4.8	0.8	3.8	1.
92-93	4.6	0.8	3.9	1.
91-92	4.6	0.6	3.8	1.
90-91	4.6	0.8	4.1	1.
Low Value for Decade	4.4	0.6	3.3	1.
High Value for Decade	5.7	1.3	4.1	2.
Average	4.9	0.9	3.6	1.

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

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

Decade of the 1980's	Tenness	see River	Mobile Ba	y and Delta
Season	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	5 Yr. Avg
# hunters checked						3399	4059	3482	747	1054	2548
# ducks checked						4067	4767	3025	1346	1707	2982
Mallard						12.0	16.8	11.5	6.4	17.7	12.9
Black Duck						0.4	1.0	0.4	0.2	0.9	0.6
Gadwall						37.6	44.3	32.4	42.6	46.8	40.7
Wigeon						1.3	1.6	1.5	0.7	1.5	1.3
GW Teal						10.3	3.6	3.3	2.5	2.5	4.4
Pintail						0.5	1.6	0.7	0.4	0.6	0.8
Canvasback						1.3	1.8	0.6	0.5	2.1	1.3
Scaup						0.7	0.3	3.5	1.8	1.1	1.5
Ringneck						16.3	13.0	19.0	26.5	10.6	17.1
Wood Duck						9.3	7.1	18.1	14.0	8.6	11.4
Goldeneye						0.1	0.2	0.3	0.1	0.3	0.2
Bufflehead						0.4	0.5	0.5	1.1	1.5	0.8
Merganser						0.8	0.4	1.5	0.4	2.0	1.0
BW Teal						2.1	0.2	1.1	0.3	0.3	0.8
Shoveler						3.0	3.1	3.7	2.4	3.2	3.1
Ruddy Duck						0.2	0.4	0.5	0.0	0.2	0.3
Redhead						3.7	4.1	1.4	0.0	0.1	1.9
Mottled Duck						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

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	1870	1677	1732	1526	2256	1786	830	1232	1817	1314	1537
checked											
# ducks	3366	1844	1915	936	2734	2887	1868	1195	1611	1763	1856
checked											
										-	
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 6. Percentage of Ducks by Species in the Alabama Hunter Bag Checks Conducted During the Decade of the 2000's on the Tennessee River.

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	1144	1833	1648								
checked											
# ducks	1015	2392	1725								
checked											
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

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

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.

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						396	365	276	297	205	308
checked						390	505	270	291	205	508
# ducks						471	444	571	632	307	485
checked						4/1	+++	571	032	307	405
Mallard						1.1	1.3	0.5	0.5	2.0	1.1
Black Duck						0.2	0.2	0.0	0.0	0.0	0.1
Gadwall						17.8	21.1	22.9	29.4	40.2	26.3
Wigeon						0.6	2.5	0.9	1.9	0.0	1.2
GW Teal						13.2	6.1	2.4	12.7	2.6	7.4
Pintail						0.2	3.4	0.2	0.3	0.0	0.8
Canvasback						2.3	2.0	0.0	0.3	0.0	0.9
Scaup						6.1	8.8	53.5	6.3	13.1	17.6
Ringneck						0.0	0.8	0.0	0.3	0.9	0.4
Wood Duck						5.7	13.9	2.3	2.1	33.6	11.5
Goldeneye						0.0	0.0	0.2	0.0	2.0	0.4
Bufflehead						4.4	6.8	2.1	7.9	0.0	4.2
Merganser						1.5	0.7	0.0	0.6	1.3	0.8
BW Teal						3.2	2.7	1.6	0.9	0.3	1.7
Shoveler						17.8	16.2	5.8	19.5	2.0	12.3
Ruddy Duck						1.7	2.7	0.5	2.7	0.0	1.5
Redhead						3.8	9.7	6.7	13.9	0.0	6.8
Mottled Duck						0.0	1.1	0.4	0.6	2.0	0.8
Oldsquaw						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	211	239	153	289	387	348	300	408	368	178	325
checked											
# ducks	338	331	252	260	741	344	415	402	676	243	440
checked											
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	287	201	213								
checked											
# ducks	565	413	411								
checked											
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 3.1 hunting trips. The Tennessee Valley averaged only one coot taken for each 23 hunting trips. The low harvest numbers for coot is not indicative of their availability but shows 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 2 reports of Canada goose harvest. There was also 1 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. Alabama has incorporated an early season to improve management of resident geese. This allows hunters more opportunity in the field and the harvest can serve act as a tool to contain a goose population explosion. The 2014 Special Goose Season was 15 days beginning on September 1st and ending September 15th. Success during this season continues to depend on local giant Canada geese populations and increasing hunter participation. Bag checks reflected harvest success estimates during this special season to be 4.78 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 first split of regular Canada goose season, September 20th - October 7th, outside the Southern James Bay Population zone. The 2nd split of the Canada goose season ran from November 27 through January 25th and resulted in 11 Canada geese recorded in the harvest checks. Goose harvest during the regular season increased slightly as compared to the 2013-14 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 special seasons or 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 these 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
9/1-9/15/14	4.78
9/20/-10/7/14	N/A
11/27/14-1/25/15	1 goose/ 309 trips

<u>Recommendations</u>: 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

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

<u>Activity</u>: 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 2014 pre-season surveys were up 33% in the Tennessee Valley (northern) region and up 124% in the Mobile Delta (southern) versus the 2013 survey. Goose numbers surveyed for both regions numbered 478, which was a decrease by 20% as compared to 2013.

The 2015 Mid-winter counts reflected a decrease in duck numbers by 2% in the Tennessee Valley and an increase by 231% in the Mobile Bay and Delta versus the 2014 survey. Compared to the 10 year averages, 2015 mid-winter duck survey numbers were up 1% in the Tennessee Valley and up 73% in the Delta. Mid-Winter goose numbers decreased by 60% in the Tennessee Valley compared to 2014 and were down 48% below the last 10 year average. In the Mobile Bay and Delta, mid-winter goose numbers remained very low, but are showing an overall growing trend, increasing 187% as compared to the 10 year average.

USFWS personnel reported that the migrant Canada goose numbers continue to decline in general and reported 177 geese were observed during the midwinter waterfowl survey. This number is about the same number (180) observed during the midwinter survey in 2014, but is well below the historical average. Snow goose numbers were reported at 903 birds, far fewer than the 2,700 observed in 2014, although the annual variation in snow goose numbers seems to correlate with population fluctuations. Greater white front geese numbers were reported at 300, which is slightly more than the reported number (245) in 2014. Duck numbers at Wheeler were reported at 53,416 during the midwinter survey and was a significant increase from the 36,897 reported during the 2014 midwinter survey.

Tennessee River		Winter Pool	= 157,750	acres	Summer Pool = 196,900 acres			
		Water	Ducks	% Change from	Geese	% Change from	Coots	% Change from
Date	Temperature	Level	Seen	Previous Flight	Seen	Previous Flight	Seen	Previous Flight
11/24/14	48 to 61	0.4	44,396	33%	478	-20%	50,703	24%
01/05/15	30 to 38	0.4	77,074	-2%	1,779	-60%	31,228	-10%
Mobile Bay	and Delta	Winter Pool	= 57,600 a	acres	Summer Po	ool = 57,600 acres		
		Water	Ducks	% Change from	Geese	% Change from	Coots	% Change from
Date	Temperature	Level	Seen	Previous Flight	Seen	Previous Flight	Seen	Previous Flight
11/25/14	71	normal	2,414	124%	0	N/A	3,235	-67%
01/06/15	60	normal	3,692	231%	48	-34%	5,250	293%

Table 14. Data from Inventories of the Tennessee River and Mobile Bay and Delta for the 2014-2015 Hunting Seasons

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 2014-2015 Hunting Season.

Guntersville I	Reservoir						
Winter Pool =	593.0 MSL 62	,000 acres	Summer P	ool = 595.4 MSL	70,200 acres		
	Approximate		Approximate	Approximate			
	Survey	Air	Reservoir	Reservoir	Number of	Number of	Number of
Date	Time	Temp.	Elevation	Acres	Ducks	Geese	Coots
11/24/14	120 min.	61	594.27	66,932	38,919	181	35,675
01/05/15	120 min.	38	594.3	67,019	18,200	180	16,930
01/03/13	120 mm.	50	574.5	07,017	10,200	100	10,750
Wheeler Rese	rvoir						
Winter Pool =	550.0 MSL 45,4	50 acres	Summer Po	ool = 556.0 MSL	67,070 acres		
	Approximate		Approximate	Approximate			
	Survey	Air	Reservoir	Reservoir	Number of	Number of	Number
Date	Time	Temp.	Elevation	Acres	Ducks	Geese	Coots
	1	1	-		•		
11/24/14	45 min.	48	551.34	50,278*	1,358	37	885
01/05/15	45 min.	30	554	59,863*	243	28	283
01/03/13	43 11111.		554	57,005	243	20	203
	·			y area is about 21,0		20	200
*Note: The ac	creage shown is for						
*Note: The ac Wilson Reser	creage shown is for	r the entire rese	ervoir, the inventor	y area is about 21,0	00 acres less.		200
*Note: The ac Wilson Reser	reage shown is for voir 504.7 MSL 15,		ervoir, the inventor	y area is about 21,0 			
*Note: The ac Wilson Reser	voir 504.7 MSL 15, Approximate	r the entire rese	srvoir, the inventor Summer Po Approximate	y area is about 21,0 ol = 507.7 MSL Approximate	00 acres less.		
*Note: The ac Wilson Reser Winter Pool =	voir 504.7 MSL 15, Approximate Survey	r the entire rese	Summer Po Approximate Reservoir	y area is about 21,0 ol = 507.7 MSL Approximate Reservoir	00 acres less. 15,600 acres Number of	Number of	Number
*Note: The ac	voir 504.7 MSL 15, Approximate	r the entire rese	srvoir, the inventor Summer Po Approximate	y area is about 21,0 ol = 507.7 MSL Approximate	00 acres less.		
*Note: The ac Wilson Reser Winter Pool = Date	voir 504.7 MSL 15, Approximate Survey Time	r the entire rese	Summer Po Approximate Reservoir Elevation	y area is about 21,0 ol = 507.7 MSL Approximate Reservoir Acres	00 acres less. 15,600 acres Number of Ducks	Number of Geese	Number Coots
*Note: The ac Wilson Reser Winter Pool =	voir 504.7 MSL 15, Approximate Survey	r the entire rese	Summer Po Approximate Reservoir	y area is about 21,0 ol = 507.7 MSL Approximate Reservoir	00 acres less. 15,600 acres Number of	Number of	Number
*Note: The ac Wilson Reser Winter Pool = Date 11/24/14 01/05/15	voir 504.7 MSL 15, Approximate Survey Time 30 min 30 min	r the entire rese 000 acres Air Temp. 48	Summer Po Summer Po Approximate Reservoir Elevation 507.21	y area is about 21,0 ol = 507.7 MSL Approximate Reservoir Acres 15,502	00 acres less. 15,600 acres Number of Ducks 134	Number of Geese 0	Number Coots 238
*Note: The ac Wilson Reser Winter Pool = Date 11/24/14 01/05/15 Pickwick Rese	voir 504.7 MSL 15, Approximate Survey Time 30 min 30 min ervoir	r the entire rese 000 acres Air Temp. 48 30	Summer Po Summer Po Approximate Reservoir Elevation 507.21 505.12	y area is about 21,0 ol = 507.7 MSL Approximate Reservoir Acres 15,502 15,084	00 acres less. 15,600 acres Number of Ducks 134 430	Number of Geese 0	Number Coots 238
*Note: The ac Wilson Reser Winter Pool = Date 11/24/14 01/05/15 Pickwick Rese	voir 504.7 MSL 15, Approximate Survey Time 30 min 30 min 408.0 MSL 37,	r the entire rese 000 acres Air Temp. 48	Summer Po Approximate Reservoir Elevation 507.21 505.12 Summer	y area is about 21,0 ol = 507.7 MSL Approximate Reservoir Acres 15,502 15,084 Pool = 414.0 MSL	00 acres less. 15,600 acres Number of Ducks 134	Number of Geese 0	Number Coots 238
*Note: The ac Wilson Reser Winter Pool = Date 11/24/14 01/05/15 Pickwick Rese	voir 504.7 MSL 15, Approximate Survey Time 30 min 30 min ervoir 408.0 MSL 37, Approximate	r the entire rese 000 acres Air Temp. 48 30 000 acres	Summer Po Approximate Reservoir Elevation 507.21 505.12 Summer Approximate	y area is about 21,0 ol = 507.7 MSL Approximate Reservoir Acres 15,502 15,084 Pool = 414.0 MSL Approximate	00 acres less. 15,600 acres Number of Ducks 134 430 42,700 acres	Number of Geese 0 25	Number Coots 238 365
*Note: The ac Wilson Reser Winter Pool = Date 11/24/14 01/05/15 Pickwick Res Winter Pool =	reage shown is for voir 504.7 MSL 15, Approximate Survey Time 30 min 30 min ervoir 408.0 MSL 37, Approximate Survey	r the entire rese 000 acres Air Temp. 48 30 000 acres Air	Summer Po Approximate Reservoir Elevation 507.21 505.12 Summer Approximate Reservoir	y area is about 21,0 ol = 507.7 MSL Approximate Reservoir Acres 15,502 15,084 Pool = 414.0 MSL Approximate Reservoir	00 acres less. 15,600 acres Number of Ducks 134 430 42,700 acres Number of	Number of Geese 0 25 Number of	Number Coots 238 365 Number
*Note: The ac Wilson Reser Winter Pool = Date 11/24/14 01/05/15 Pickwick Rese	voir 504.7 MSL 15, Approximate Survey Time 30 min 30 min ervoir 408.0 MSL 37, Approximate	r the entire rese 000 acres Air Temp. 48 30 000 acres	Summer Po Approximate Reservoir Elevation 507.21 505.12 Summer Approximate	y area is about 21,0 ol = 507.7 MSL Approximate Reservoir Acres 15,502 15,084 Pool = 414.0 MSL Approximate	00 acres less. 15,600 acres Number of Ducks 134 430 42,700 acres	Number of Geese 0 25	Number Coots 238 365
*Note: The ac Wilson Reser Winter Pool = Date 11/24/14 01/05/15 Pickwick Res Winter Pool =	reage shown is for voir 504.7 MSL 15, Approximate Survey Time 30 min 30 min ervoir 408.0 MSL 37, Approximate Survey	r the entire rese 000 acres Air Temp. 48 30 000 acres Air	Summer Po Approximate Reservoir Elevation 507.21 505.12 Summer Approximate Reservoir	y area is about 21,0 ol = 507.7 MSL Approximate Reservoir Acres 15,502 15,084 Pool = 414.0 MSL Approximate Reservoir	00 acres less. 15,600 acres Number of Ducks 134 430 42,700 acres Number of	Number of Geese 0 25 Number of	Number Coots 238 365 Number

Decade of th	ne 2010's						
Dete	0	# of	% Change from	# of	% Change from	# of	% Change from
Date	Season	Ducks	Previous Season	Geese	Previous Season	Coots	Previous Season
11/24/14	2014-15	44,396	33%	478	-20%	50,703	24%
11/24/14	2013-14	33,325	11%	601	24%	40,752	-29%
11/24/13	2013-14	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		23,020		433		40,752	
High Value for		44,396		855		57,762	
Average for 2	2010s	32,539		572		48,773	
Decade of th	e 2000's						
		# of	% Change from	# of	% Change from	# of	% Change from
Date	Season	Ducks	Previous Season	Geese 588	Previous Season	Coots	Previous Season
11/23/09	2009-10	37,422	.04%		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	or Decade	9,316		380		22,445	
High Value for	or Decade	48,744		1,003		96,728	
Average for 2		23,401		599		40,221	
Decade of th		, ,				,	
Decaue of th	e 1990 s	# of	% Change from	# of	% Change from	# of	% Change from
Date	Season	Ducks	Previous Season	Geese	Previous Season	Coots	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	73%	633	110%	24,235	27%
Low Value for		16,904	1 /0	745	1 /0	16,886	21/0
High Value for		-				-	
mign value fo	or Decade	41,678		1,370		42,196	

Decade of th	e 1980's						
		# of	% Change from	# of	% Change from	# of	% Change from
Date	Season	Ducks	Previous Season	Geese	Previous Season	Coots	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	or Decade	8,299		435		5,563	
High Value f	or Decade	25,397		1,781		24,500	
Average for 1	1980's	16,664		965		16,365	

Date	Season	Ducks	% Change from Previous Season	Geese	% Change from Previous Season	Coots	% Change from Previous Season
Date	Season	Ducks	Flevious Season	Geese	Flevious Season	COOLS	Flevious Season
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		1,080		0		3,132	
High Value f		3,047		10		10,875	
Average for 2		2,008		2		7,380	
Decade of th	e 2000s	1	04 C I			1	04 C1 C
Date	Saacan	Ducks	% Change from Previous Season	Geese	% Change from Previous Season	Coots	% Change from Previous Season
11/23/09	Season 2009-10	1,211	-48%	0	Previous Season	1,239	196%
11/24/08	2009-10	2,356	62%	0		418	-61%
11/19/07	2003-09	1,453	20%	0		1,065	42%
11/19/07	2007-08			0			
		1,166	-34%			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		1,166		0		1,007	
High Value f		4,331		0		8,214	
Average for 2		2,550		0		3,165	
Decade of th	e 1990s				1	· · · · · ·	
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	Flevious Season	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%
11/12/96	95-96	1,908	71%	0		9,446	48%
11/13/93	93-90	1,503	-33%	0		6,398	34%
11/14/94	94-93	1,110	-33%	0		6,398 4,779	-40%
				0			
11/17/92	92-93	6,498	32%			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 High Value f		1,116 12,088		0 0		4,245 34,152	
0	or Decade	4,563		0		34,152 13,222	

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

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

Decade of th	e 1980s						
			% Change from		% Change from		% Change from
Date	Season	Ducks	Previous Season	Geese	Previous Season	Coots	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	or Decade	1,200		0		3,200	
High Value f	or Decade	8,560		10		24,475	
Average for 1	1980s	4,911		2		10,122	

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

Date	Season	Ducks	% Change from	Geese	% Change from	Coots	% Change from
			Previous Season		Previous Season		Previous Season
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 f		72,800		1,163		31,228	
High Value		90,252		4,775		45,872	
Average for		79,031		3,171		34,581	
Decade of t							•
Date	Season	Ducks	% Change from	Geese	% Change from	Coots	% Change from
a /= ·			Previous Season	0.77-	Previous Season	07.0	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 f	for Decade	14,384		271		13,500	
High Value	for Decade	40,182		1,075		47,188	
Average for		27,280		701		36,636	
Decade of t	he 1990s			Γ		Г	
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%
1/1/2/	95-96	26,116	11%	1,073	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%
	93-94	29,906	-14%	865	32%	33,275	-7%
	92-93	29,900 34,777	-14%	632	11%	32,280	21%
Low V.1	90-91	18,823	34%	567	-75%	26,692	26%
Low Value	for Decade	14,384 37,670		567		13,500	
High VII		1 3/ D/U		1,608	1	40,502	

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

Decade of t	he 1980s						
			% Change from		% Change from		% Change from
Date	Season	Ducks	Previous Season	Geese	Previous Season	Coots	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 M Change from Previous Season % Change from Previous Season % Change from Previous Season % Change from Previous Season

			% Change from		% Change from		% Change from
Date	Season	Ducks	Previous Season	Geese	Previous Season	Coots	Previous Season
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		1,114		8		1,335	
High Value for Decade		3,790		72		5,250	
Average for	2010s	2,613		42		3,896	
Decade of th	ne 2000s						
			% Change from		% Change from		% Change from
Date	Season	Ducks	Previous Season	Geese	Previous Season	Coots	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 th		1007		Ű		_,	
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	Trevious Season	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%
1/03/90	94-95	2,538	12%	9		16,018	131%
	93-94	2,338	35%	4		6,930	135%
	93-94		-63%	4		2,954	-36%
	92-93	1,673 4,496	-63%	0		4,631	-36%
	91-92	12,229	-03%	0		5,816	-20%
Low Value C			-1070				-1270
Low Value for Decade High Value for Decade		1,673 12,229		0 9		2,954 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.

			% Change from		% Change from		% Change from
Date	Season	Ducks	Previous Season	Geese	Previous Season	Coots	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	
ow Value for Decade		3,800		0		1,685	
igh Value for Decade		14,916		85		16,700	
verage for 1980s		8,775		9		9,129	

<u>Recommendations</u>: 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.