

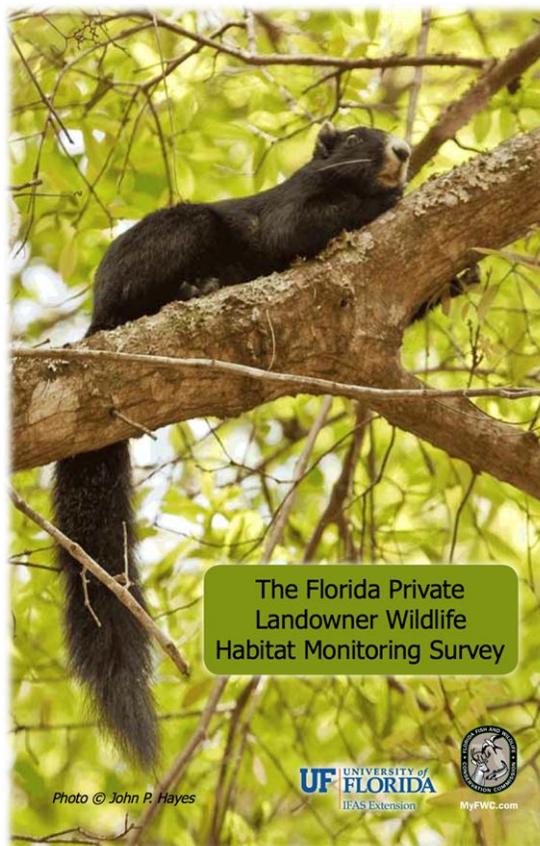
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# FLORIDA PRIVATE LANDOWNER WILDLIFE HABITAT MONITORING SURVEY

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FINAL REPORT PREPARED FOR THE FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION  
LANDOWNER ASSISTANCE PROGRAM

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## ACKNOWLEDGEMENTS

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## EXECUTIVE SUMMARY

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The Florida Fish and Wildlife Conservation Commission (FWC) identified 11 focus areas in 2006 in which to concentrate their Landowner Assistance Program. In a follow-up to the 2008 baseline questionnaire survey of landowner sociodemographics and wildlife management, the FWC partnered with the University of Florida (UF) Department of Wildlife Ecology and Conservation to design and implement a wildlife habitat monitoring survey. This survey is to be administered at five-year intervals so the FWC can monitor private landowner wildlife management and the Landowner Assistance Program. Results from this monitoring survey will be used to continue to improve the Landowner Assistance Program to meet private landowner objectives and improve private lands wildlife conservation in Florida.

The Florida Private Landowner Habitat Monitoring survey was developed over six focus groups attended by FWC Private Lands Biologists, private landowners, and other natural resource agency staff. The survey was then mailed to 4000 private landowners with  $\geq 20$  acres according to the property tax database. One thousand three hundred ninety one surveys were returned resulting in an overall response rate of 35% after discounting undeliverables.

Wildlife management continues to be an important activity for most landowners in Florida with 86% of landowners indicating their routine land management practices benefitted wildlife, 57% actively managing for wildlife, and 40% having land specifically set aside for wildlife habitat and native ecosystems. The benefits landowners receive from having wildlife on their property primarily focused on four aspects: providing the family with hunting and wildlife watching opportunities, perceptions that wildlife help maintain healthy land, and to a lesser degree, perceptions that wildlife provide crop and pasture pollination benefits.

Landowners generally perceived that over the past five years, animals such as deer, turkeys, bears, and feral hogs have either stayed the same or increased; songbirds, panthers, alligators, bald eagles, gopher tortoises, and waterfowl have stayed the same; and quail have either stayed the same or decreased. In the next five years, landowners generally wanted populations of songbirds, quail, turkey, bald eagles, and waterfowl to increase; deer, panthers, and gopher tortoises to stay the same or increase; bears to stay the same; alligators to stay the same or decrease; and feral hogs to decrease. Some regional and focus area specific trends were noted, with respondents in Apalachicola/St.Marks and Lake/Volusia Scrub focus areas reporting increases in bears over the last five years and also desiring the future populations of bears to decrease. The South region reported the most increases in feral hogs and also indicated most frequently that they desired the future population of feral hogs to decrease.

Providing supplemental food for wildlife (62%) was the most common wildlife management activity with deer, turkey, and songbirds being fed most frequently. Planting food plots (46%) and installing nest boxes (33%) were also common practices by landowners. Generally, wildlife did not cause more than a "slight problem" with landowners. However, wildlife problems can potentially discourage landowners from managing for wildlife, therefore measures to control unwanted species should continue to be included in landowner wildlife assistance programs, especially if the wildlife are damaging to property and production.

Considering prescribed fire, one of the most beneficial habitat management tools, one quarter of landowners conducted an average of seven prescribed fires in the last five years, affecting an average

of 1019 acres total per burner. Most prescribed fires were conducted by landowners themselves, their families and employees, and government agencies during the dormant season (November-February). Landowners were burning to reduce wildfire risks and improve wildlife habitat, timber stands, and grazed pastures. Overall, landowners were very satisfied with fire outcomes.

Half of landowners were aware that government agencies provided plans for landowners and most were interested in learning more about land management plans. Landowners were most interested in complete plans that covered the entire property. The most desired topics they wanted included in plans were wildlife habitat, game, timber, agriculture, and fishpond management. One-third of landowners currently had a plan, and these were mostly prepared by the landowners themselves or a government agency. Three-quarters of plans included wildlife management and they perceived the plans were quite useful.

About one-third of respondents were aware of financial assistance programs and technical workshops for wildlife habitat management and they were moderately interested in learning more about the programs. Seven percent of landowners participated in a financial assistance program that included wildlife habitat management and those participants were generally satisfied with the program.

The FWC is providing a desired service to landowners through the Landowner Assistance Program. The program should continue striving to meet landowner production and wildlife management objectives simultaneously for the benefit of both landowners and wildlife. By surveying landowners over time, the FWC should be able to adapt the Landowner Assistance Program to meet dynamic landowner objectives, as well as evaluating the condition of wildlife management on private lands in Florida.

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## INTRODUCTION

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In 2006, the Florida Fish and Wildlife Conservation Commission (FWC) identified 11 focus areas in which to concentrate technical and financial assistance for private landowners (Figure 1). The focus areas were developed to target:

- (1) high priority habitats identified in Florida's Wildlife Legacy Initiative,
- (2) large blocks of private land adjacent to public lands, and
- (3) clusters of landowners near areas with successful FWC private lands programs.

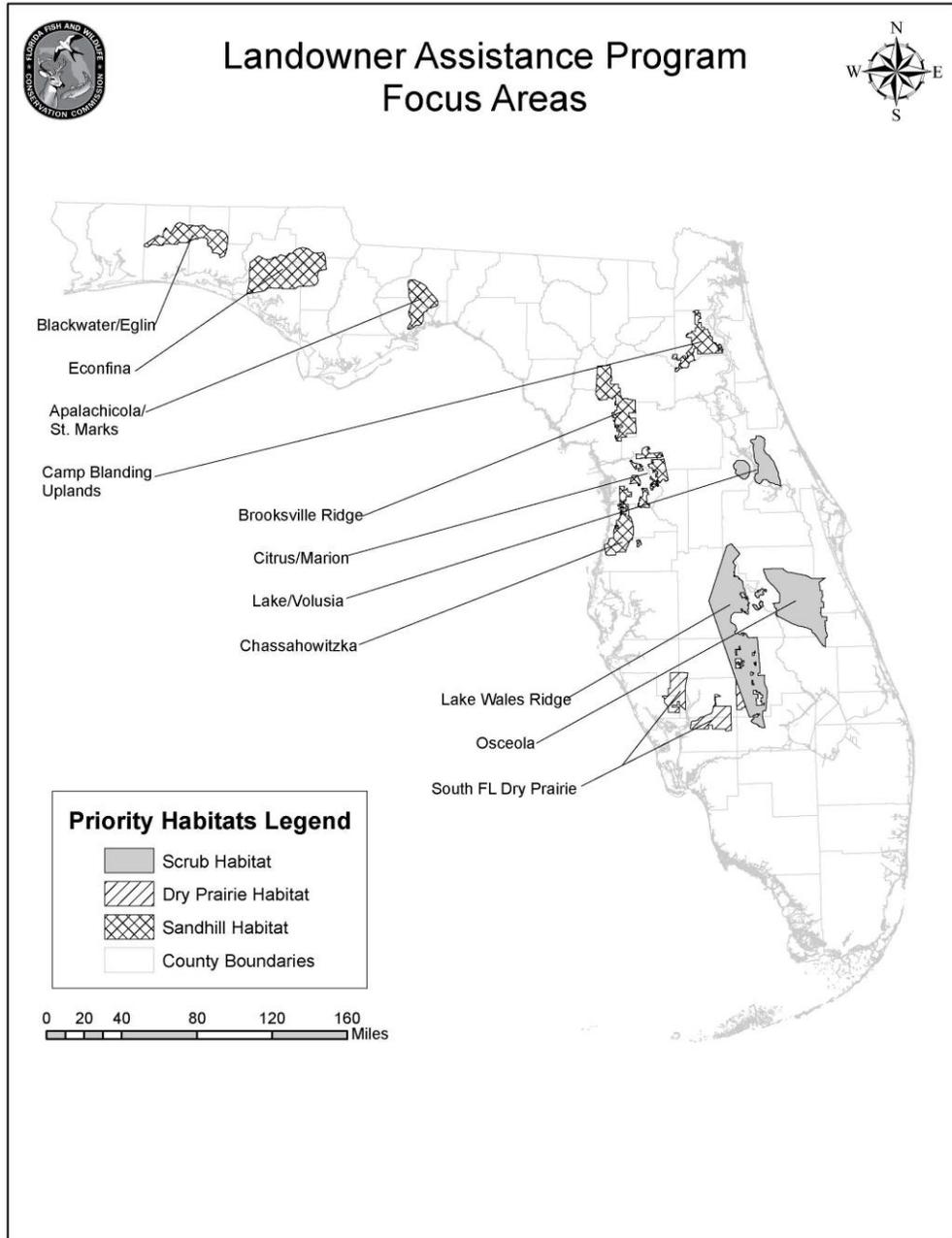
The focus areas currently or historically contained three general habitat types: scrub, sandhill, and dry prairie (Myers and Ewel 1990). Scrub is characterized by well-drained sandy soils, dominated by oak shrubs (*Quercus* spp.), and Florida rosemary (*Ceratiola ericoides*). Scrub can include an open or closed canopy sand pine (*Pinus clausa*) forest, has distinct boundaries where it adjoins pine forests and flatwoods, and is largely restricted to Florida. Sandhill is the elevated xeric portion of the high pine ecosystem. It is typified by sandy soils, an open canopy of primarily pine (*Pinus* spp.) and some oak, and an understory of perennial grasses and forbs. Sandhill high pine is found throughout the coastal plain from Alabama and east Texas to southeastern Virginia. Dry prairie is dominated by expanses of nearly treeless grasses and forbs, acidic soils, and sparse palmettos (*Serenoa repens*) and shrubs. Dry prairie can become inundated with water in the height of the summer rainy season.

In 2008, the FWC partnered with the Department of Wildlife Ecology and Conservation at the University of Florida (UF) to collect baseline wildlife management and land use data by surveying private landowners by mail (Willcox and Giuliano 2009). Those data provided important insights on perceptions of landowner wildlife species and habitat management priorities, wildlife recreation and enterprises, wildlife damage. The survey also measured landowner participation and interest in land management planning and wildlife management financial and technical assistance programs. Those data were used by the FWC to educate their own Private Lands Biologist staff on current landowner sociodemographics and wildlife management priorities and private landowner, develop outreach and educational materials for landowners, and spearhead a collaborative multi-agency effort to maximize private lands conservation planning and technical assistance program impacts.

In 2011, the FWC and UF renewed their research partnership to design and administer the Florida Private Landowner Wildlife Habitat Monitoring Survey. This survey will be administered longitudinally at five-year intervals to measure private landowner perceptions of wildlife management, planning initiatives, and financial and technical habitat management assistance programs. This monitoring survey was to be a streamlined version of the 2008 baseline survey, measuring key habitat management and assistance program topics considered important by FWC Regional Coordinators and Private Lands Biologists, landowners currently participating in the FWC Landowner Assistance Program, and other natural resource professionals. Additionally, a special issues section was to be included that predicts landowner behavior in relation to a specific habitat management activity. The special issue chosen for the first monitoring survey was landowner use of prescribed fire.

The objective of this report is to present data collected during the initial administration of the longitudinal Florida Private Landowner Habitat Monitoring Survey. To maintain consistent monitoring,

we suggest subsequent iterations of this survey be administered at five-year intervals, with the next survey conducted Fall 2016. Reports from future monitoring surveys should begin to explore data trends to better understand the dynamics of private landowner perceptions of wildlife management, planning initiatives, and technical and financial assistance programs over time.



**Figure 1.** Florida Fish and Wildlife Conservation Commission Landowner Assistance Program Focus Areas, 2006.

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## METHODS

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### SURVEY DESIGN AND ADMINISTRATION

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Three regional electronic presentations summarizing the previous baseline private landowner survey results and focus group objectives were developed by UF and approved by FWC to be presented at survey development focus groups. FWC Private Lands Regional Coordinators and Private Lands Biologists organized six focus groups (two groups each in the north, central, and south regions as identified in previous surveys). These meetings opened with a 15-minute presentation of previous survey results and detailed the objectives of the current focus group meeting. Participants then brainstormed topics and issues they thought the FWC should be monitoring in their private lands surveys. These focused on three subject areas: 1) wildlife populations and habitat management, 2) landowner technical and financial assistance programs, and 3) landowner—agency relations. After concluding brainstorming activities on a topic area, participants engaged in a facilitated discussion of the results. All meetings were conducted in March and April 2011, lasted approximately two hours, and were attended by a total of approximately 70 individuals that included private landowners, land managers, Florida Forest Service foresters, FWC Private Lands Biologists and Regional Coordinators, United States Department of Agriculture Natural Resource Conservation Service conservationists, private consultants, and UF Cooperative Extension Service agents.

We used focus group results to develop a survey booklet (Appendix 1). We emailed the survey booklet to all focus group participants with email addresses for testing and review. The final survey was printed as a 10-page 5.5"x8.5" full-color booklet.

FWC Regional Coordinators and Private Lands Biologists compiled a sampling frame from the Florida property tax database of landowners owning properties  $\geq 20$  acres within the FWC Landowner Assistance Program focus areas, resulting in 8141 addresses. We took random probability samples stratified by focus area with sample sizes derived from published tables at a  $\pm 5\%$  level of precision at 95% confidence and inflated by 45% anticipating a 55% response rate. The resultant sampling frame contained 4133 addresses.

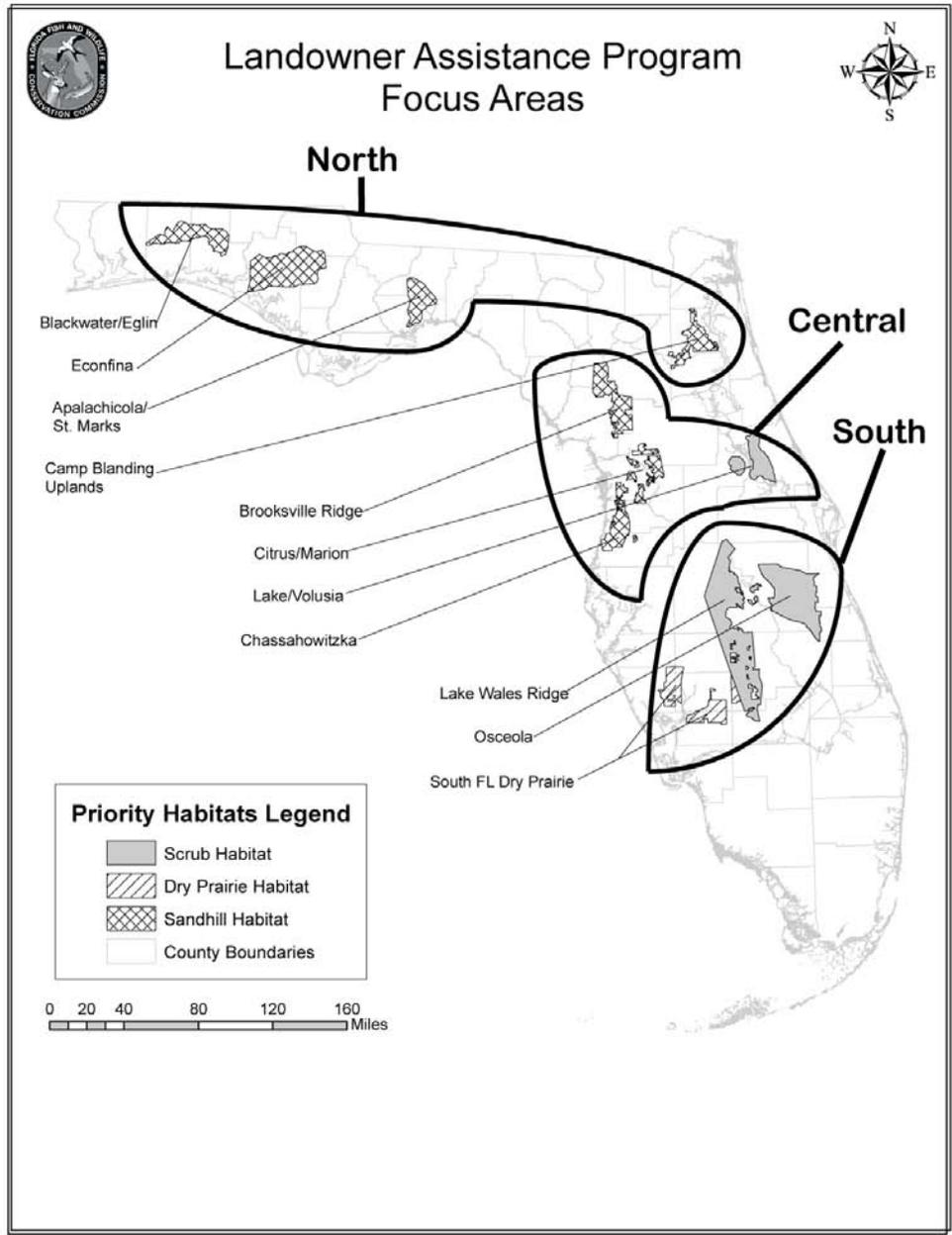
We administered the surveys by mail following a four-wave mail process according to the Tailored Design Method (Dillman, Smyth, and Christian 2009). We mailed preletters in August 2011 informing landowners that they would soon receive a survey in the mail. We mailed surveys with a cover letter in September 2011. We sent reminder postcards to landowners two weeks after the surveys (Appendix 2). When survey responses slowed to five per week, we mailed replacement surveys with cover letters to nonrespondents in October 2011.

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### ANALYSIS

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We calculated descriptive statistics by focus area, region, and statewide. Regions were derived from the previous baseline survey results based on land use and landowner sociodemographics (Figure 2; Willcox and Giuliano 2009). Summary statistics, contingency tables, and graphs were prepared in SYSTAT 13 and Microsoft Excel.



**Figure 2.** Focus area groupings based on landowner and land use characteristics from baseline information collected as part of the 2008 Florida Private Landowner Survey (Willcox and Giuliano 2009).

## RESULTS

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### RESPONSE

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We mailed surveys to 4000 addresses. Fifty-nine of these were returned as undeliverable giving an adjusted sampling frame of 3941 addresses. We received 1391 responses, resulting in a 35% overall response rate. The returned survey envelopes contained 183 blank booklets and 93 responses of individuals who did not own 20 or more acres resulting in 1115 usable surveys. Response rates varied by focus area (Table 1).

Focus Area	Sampling Frame	Responses	Response Rate
Apalachicola/St.Marks	390	168	43%
Blackwater/Eglin	496	200	40%
Camp Blanding Uplands	209	61	30%
Ecofina	534	196	37%
<b>North Subtotal</b>	<b>1629</b>	<b>625</b>	<b>38%</b>
Brooksville Ridge	496	159	32%
Chassahowitzka	225	60	27%
Citrus/Marion	217	80	37%
Lake/Volusia Scrub	406	143	35%
<b>Central Subtotal</b>	<b>1344</b>	<b>442</b>	<b>33%</b>
Lake Wales Ridge	537	192	36%
Osceola Scrub	200	72	36%
S. Florida Dry Prairie	231	60	26%
<b>South Subtotal</b>	<b>968</b>	<b>324</b>	<b>33%</b>
<b>Total</b>	<b>3941</b>	<b>1391</b>	<b>35%</b>

**Table 1.** Response rates for The Florida Private Landowner Wildlife Habitat Monitoring Survey, 2011.

### SOCIODEMOGRAPHICS AND LAND USE

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Respondents were predominantly white males, averaged ( $\bar{x} \pm SE$ ) 62 $\pm$ 0 years old, and earned \$50,000-99,000 per year (Tables 2 & 3). Sociodemographics were consistent across focus areas and regions with the exception of mean income, which was higher in the South region. Respondents owned 731 $\pm$ 108 acres and had owned this land for 23 $\pm$ 1 years across all focus areas (Table 4). Although years owned did not vary much among regions, number of acres increased across regions from North to South. How respondents classified their land varied across regions and focus areas, but generally timber and native forests were more predominant in the north and planted pasture, native grasslands, and groves or orchards more prevalent in the south (Figures 3 & 4). Respondents indicated their primary land use was agriculture (59%), followed by residential (23%), and recreational (14%; Table 5). Primary land use differed by focus area and region with agricultural uses increasing and recreational uses decreasing from North to South.

Focus Area	Female n (%)	Male n (%)	Age $\bar{x}\pm SE$	White n (%)	Asian n (%)	African American n (%)	American Indian n (%)	Latino/Hispanic n (%)	Mixed n (%)
Apalachicola/St.Marks	33 (25)	101 (75)	61±1	125 (93)	0 (0)	4 (3)	3 (2)	1 (1)	1 (1)
Blackwater/Eglin	39 (24)	123 (76)	64±1	153 (97)	0 (0)	0 (0)	2 (1)	1 (1)	2 (1)
Camp Blanding Uplands	6 (14)	37 (86)	62±2	43 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Ecofina	27 (18)	124 (82)	62±1	146 (96)	0 (0)	1 (1)	1 (1)	0 (0)	4 (3)
<b>North Subtotal</b>	<b>105 (21)</b>	<b>385 (79)</b>	<b>62±1</b>	<b>467 (96)</b>	<b>0 (0)</b>	<b>5 (1)</b>	<b>6 (1)</b>	<b>2 (0)</b>	<b>7 (1)</b>
Brooksville Ridge	33 (27)	90 (73)	62±1	111 (91)	4 (3)	1 (1)	0 (0)	5 (4)	1 (1)
Chassahowitzka	14 (38)	23 (62)	65±2	33 (92)	1 (3)	0 (0)	0 (0)	2 (6)	0 (0)
Citrus/Marion	16 (28)	41 (72)	63±1	55 (96)	0 (0)	0 (0)	0 (0)	1 (2)	1 (2)
Lake/Volusia Scrub	36 (33)	73 (67)	61±1	105 (97)	0 (0)	0 (0)	1 (1)	1 (1)	1 (1)
<b>Central Subtotal</b>	<b>99 (30)</b>	<b>227 (70)</b>	<b>62±1</b>	<b>304 (94)</b>	<b>5 (2)</b>	<b>1 (0)</b>	<b>1 (0)</b>	<b>9 (3)</b>	<b>3 (1)</b>
Lake Wales Ridge	20 (14)	127 (86)	62±1	141 (98)	1 (1)	0 (0)	0 (0)	1 (1)	1 (1)
Osceola Scrub	12 (20)	49 (80)	61±2	57 (93)	1 (2)	0 (0)	0 (0)	2 (3)	1 (2)
S. Florida Dry Prairie	8 (16)	41 (84)	58±2	44 (92)	2 (4)	0 (0)	0 (0)	1 (2)	1 (2)
<b>South Subtotal</b>	<b>40 (16)</b>	<b>217 (84)</b>	<b>61±1</b>	<b>242 (96)</b>	<b>4 (2)</b>	<b>0 (0)</b>	<b>0 (0)</b>	<b>4 (2)</b>	<b>3 (1)</b>
<b>Total</b>	<b>244 (23)</b>	<b>829 (77)</b>	<b>62±0</b>	<b>1013 (95)</b>	<b>9 (1)</b>	<b>6 (1)</b>	<b>7 (1)</b>	<b>15 (1)</b>	<b>13 (1)</b>

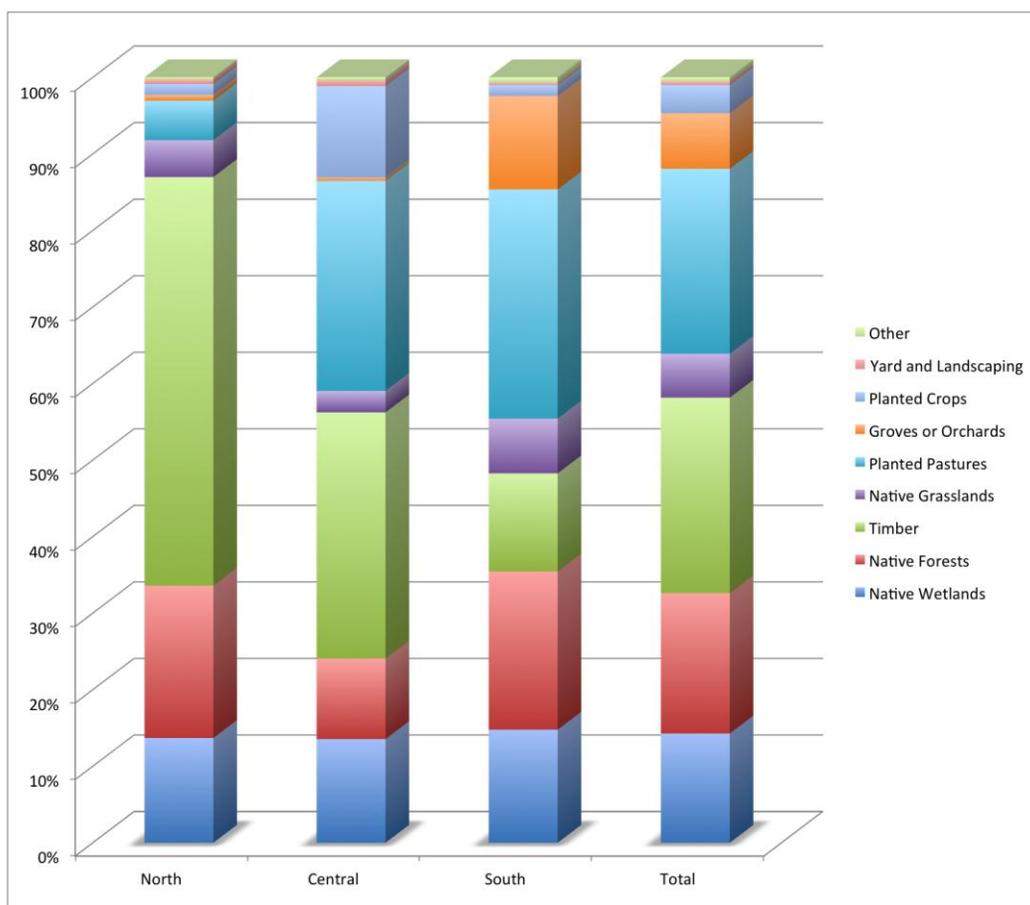
Table 2. The Florida Private Landowner Wildlife Habitat Monitoring Survey respondent gender, age, and ethnicity, 2011.

Focus Area	\$0-24,999 n (%)	\$25,000-49,999 n (%)	\$50,000-99,999 n (%)	\$100,000-149,999 n (%)	\$150,000-199,999 n (%)	≥\$200,000 n (%)
Apalachicola/St.Marks	16 (14)	24 (20)	39 (33)	24 (20)	7 (6)	8 (7)
Blackwater/Eglin	20 (14)	34 (24)	53 (38)	21 (15)	2 (1)	10 (7)
Camp Blanding Uplands	0 (0)	7 (22)	11 (34)	11 (34)	2 (6)	1 (3)
Ecofina	21 (16)	34 (25)	37 (28)	28 (21)	7 (5)	7 (5)
<b>North Subtotal</b>	<b>57 (13)</b>	<b>99 (23)</b>	<b>140 (33)</b>	<b>84 (20)</b>	<b>18 (4)</b>	<b>26 (6)</b>
Brooksville Ridge	20 (19)	16 (15)	37 (35)	15 (14)	6 (6)	12 (11)
Chassahowitzka	5 (16)	7 (9)	14 (44)	6 (19)	1 (3)	3 (9)
Citrus/Marion	7 (15)	8 (17)	12 (25)	8 (17)	5 (10)	8 (17)
Lake/Volusia Scrub	11 (11)	15 (15)	40 (40)	22 (22)	6 (6)	7 (7)
<b>Central Subtotal</b>	<b>43 (15)</b>	<b>42 (15)</b>	<b>103 (36)</b>	<b>51 (18)</b>	<b>18 (6)</b>	<b>30 (10)</b>
Lake Wales Ridge	10 (8)	16 (13)	31 (24)	27 (21)	9 (7)	35 (27)
Osceola Scrub	5 (10)	5 (10)	17 (33)	7 (13)	5 (10)	13 (25)
S. Florida Dry Prairie	4 (10)	5 (12)	11 (26)	12 (29)	1 (2)	9 (21)
<b>South Subtotal</b>	<b>19 (9)</b>	<b>26 (12)</b>	<b>59 (27)</b>	<b>46 (21)</b>	<b>15 (7)</b>	<b>57 (26)</b>
<b>Total</b>	<b>119 (13)</b>	<b>167 (18)</b>	<b>302 (32)</b>	<b>181 (19)</b>	<b>51 (5)</b>	<b>113 (12)</b>

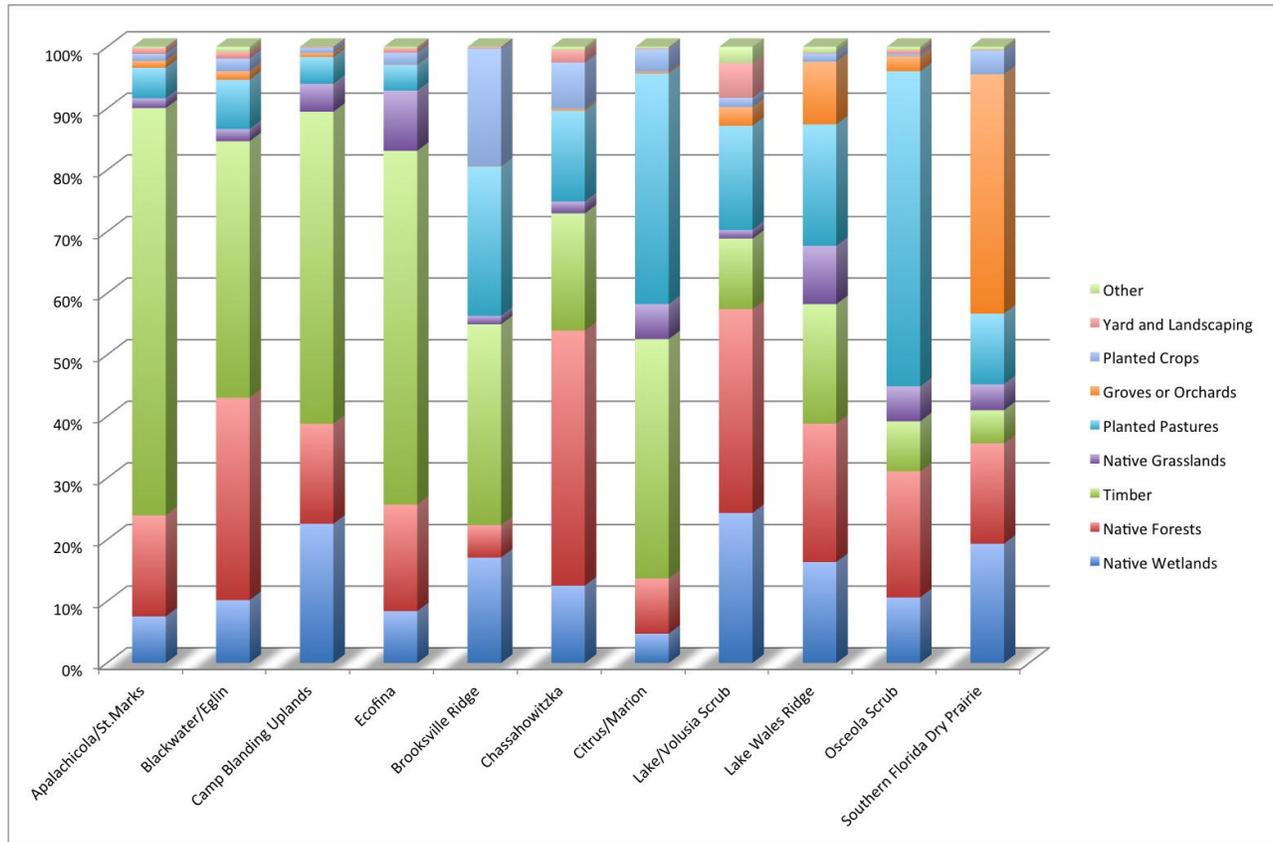
Table 3. The Florida Private Landowner Wildlife Habitat Monitoring Survey respondent income, 2011.

Focus Area	Acres $\bar{x}\pm SE$	Years Owned $\bar{x}\pm SE$
Apalachicola/St.Marks	246±78	27±2
Blackwater/Eglin	197±45	24±1
Camp Blanding Uplands	731±357	27±3
Ecofina	258±53	20±1
<b>North Subtotal</b>	<b>277±44</b>	<b>24±1</b>
Brooksville Ridge	585±384	19±1
Chassahowitzka	205±59	22±2
Citrus/Marion	922±526	21±2
Lake/Volusia Scrub	173±43	23±2
<b>Central Subtotal</b>	<b>463±172</b>	<b>21±1</b>
Lake Wales Ridge	1422±403	26±2
Osceola Scrub	3189±1192	25±3
S. Florida Dry Prairie	2189±634	18±2
<b>South Subtotal</b>	<b>1977±382</b>	<b>24±1</b>
<b>Total</b>	<b>735±108</b>	<b>23±1</b>

**Table 4.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondent acreage and years owning properties, 2011.



**Figure 3.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondent land type by region, 2011.



**Figure 4.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondent land type by focus area, 2011.

Focus Area	Agricultural n (%)	Recreational n (%)	Future Development n (%)	Residential n (%)	Industrial n (%)
Apalachicola/St.Marks	73 (56)	18 (14)	5 (4)	35 (27)	0 (0)
Blackwater/Eglin	73 (47)	28 (18)	8 (5)	47 (30)	0 (0)
Camp Blanding Uplands	24 (57)	5 (12)	2 (5)	11 (26)	0 (0)
Ecofina	69 (46)	35 (23)	7 (5)	38 (26)	0 (0)
<b>North Subtotal</b>	<b>239 (50)</b>	<b>86 (18)</b>	<b>22 (5)</b>	<b>131 (27)</b>	<b>0 (0)</b>
Brooksville Ridge	82 (68)	7 (6)	5 (4)	25 (21)	1 (1)
Chassahowitzka	17 (47)	5 (12)	3 (8)	11 (31)	0 (0)
Citrus/Marion	37 (67)	3 (5)	3 (5)	12 (22)	0 (0)
Lake/Volusia Scrub	45 (42)	22 (21)	9 (8)	30 (28)	0 (0)
<b>Central Subtotal</b>	<b>181 (57)</b>	<b>37 (12)</b>	<b>20 (6)</b>	<b>78 (24)</b>	<b>1 (0)</b>
Lake Wales Ridge	115 (79)	9 (6)	3 (2)	18 (12)	1 (1)
Osceola Scrub	46 (77)	8 (13)	0 (0)	6 (10)	0 (0)
S. Florida Dry Prairie	38 (81)	3 (6)	0 (0)	6 (13)	0 (0)
<b>South Subtotal</b>	<b>619 (79)</b>	<b>20 (8)</b>	<b>3 (1)</b>	<b>30 (12)</b>	<b>1 (0)</b>
<b>Total</b>	<b>619 (59)</b>	<b>143 (14)</b>	<b>45 (4)</b>	<b>239 (23)</b>	<b>2 (0)</b>

**Table 5.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondent primary land use, 2011.

## WILDLIFE AND HABITAT MANAGEMENT

Eighty-six percent of landowners thought their routine land management practices benefited wildlife and 57% actively managed for wildlife on their land (Table 6). Within the different land types (Figure 4), respondents indicated if they managed for wildlife on those acreages (Table 7). Proportionally across all areas, respondents managed for wildlife most in native forests (41%); followed by native wetlands (31%), timber stands (28%), planted pastures (20%), yards or landscaping (17%), native grassland (16%), crop fields (9%), and groves or orchards (6%). Forty percent of landowners had land specifically set aside for wildlife habitat or as native ecosystems with an average reserve size of 282±104 acres (Table 8). The number of reserves was consistent across regions, but mean reserve size was larger in the South region.

Focus Area	Routine Management Benefits Wildlife n (%)	Actively Manage for Wildlife n (%)
Apalachicola/St.Marks	127 (89)	81 (57)
Blackwater/Eglin	141 (87)	86 (53)
Camp Blanding Uplands	40 (91)	22 (50)
Ecofina	132 (87)	88 (57)
<b>North Subtotal</b>	<b>440 (88)</b>	<b>277 (55)</b>
Brooksville Ridge	94 (77)	60 (48)
Chassahowitzka	25 (68)	19 (50)
Citrus/Marion	49 (86)	36 (62)
Lake/Volusia Scrub	94 (87)	73 (67)
<b>Central Subtotal</b>	<b>262 (81)</b>	<b>188 (57)</b>
Lake Wales Ridge	128 (84)	82 (54)
Osceola Scrub	53 (90)	37 (62)
S. Florida Dry Prairie	49 (98)	37 (74)
<b>South Subtotal</b>	<b>230 (88)</b>	<b>156 (57)</b>
<b>Total</b>	<b>932 (86)</b>	<b>621 (57)</b>

**Table 6.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondents who indicated their routine land management practices benefited wildlife and if they actively managed for wildlife, 2011.

Focus Area	Native Forest n (%)	Native Wetland n (%)	Native Grassland n (%)	Timber Stand n (%)	Planted Pasture n (%)	Crop Field n (%)	Grove or Orchard n (%)	Yard or Landscaping n (%)
Apalachicola/St.Marks	49 (36)	28 (21)	6 (5)	53 (40)	14 (11)	15 (11)	1 (1)	21 (16)
Blackwater/Eglin	63 (42)	47 (31)	19 (13)	46 (31)	31 (20)	12 (8)	8 (3)	30 (20)
Camp Blanding Uplands	20 (49)	12 (29)	9 (22)	13 (32)	8 (20)	2 (5)	0 (0)	8 (20)
Ecofina	61 (41)	45 (30)	22 (15)	50 (34)	24 (16)	18 (12)	3 (2)	22 (15)
<b>North Subtotal</b>	<b>193 (41)</b>	<b>132 (28)</b>	<b>56 (12)</b>	<b>162 (34)</b>	<b>77 (16)</b>	<b>47 (10)</b>	<b>12 (3)</b>	<b>81 (17)</b>
Brooksville Ridge	39 (33)	17 (14)	17 (15)	29 (25)	20 (21)	10 (9)	3 (3)	24 (21)
Chassahowitzka	15 (42)	7 (19)	4 (11)	12 (33)	5 (14)	0 (0)	0 (0)	5 (14)
Citrus/Marion	26 (48)	16 (30)	13 (24)	15 (28)	13 (24)	4 (7)	2 (4)	9 (17)
Lake/Volusia Scrub	46 (48)	45 (47)	11 (12)	23 (24)	34 (28)	10 (11)	8 (8)	23 (24)
<b>Central Subtotal</b>	<b>126 (41)</b>	<b>85 (28)</b>	<b>45 (15)</b>	<b>79 (26)</b>	<b>65 (22)</b>	<b>24 (8)</b>	<b>13 (4)</b>	<b>61 (20)</b>
Lake Wales Ridge	51 (35)	57 (40)	36 (25)	24 (17)	34 (24)	8 (6)	22 (15)	17 (12)
Osceola Scrub	28 (53)	20 (38)	16 (30)	11 (20)	15 (28)	5 (9)	3 (6)	7 (13)
S. Florida Dry Prairie	22 (49)	21 (47)	14 (31)	12 (27)	17 (38)	4 (9)	9 (20)	6 (13)
<b>South Subtotal</b>	<b>101 (42)</b>	<b>98 (40)</b>	<b>66 (27)</b>	<b>47 (19)</b>	<b>66 (27)</b>	<b>17 (7)</b>	<b>34 (14)</b>	<b>30 (12)</b>
<b>Total</b>	<b>420 (41)</b>	<b>315 (31)</b>	<b>167 (16)</b>	<b>288 (28)</b>	<b>208 (20)</b>	<b>88 (9)</b>	<b>59 (6)</b>	<b>172 (17)</b>

**Table 7.** The Florida Private Landowner Wildlife Habitat Monitoring Survey land types in which respondents indicated they managed for wildlife habitat, 2011.

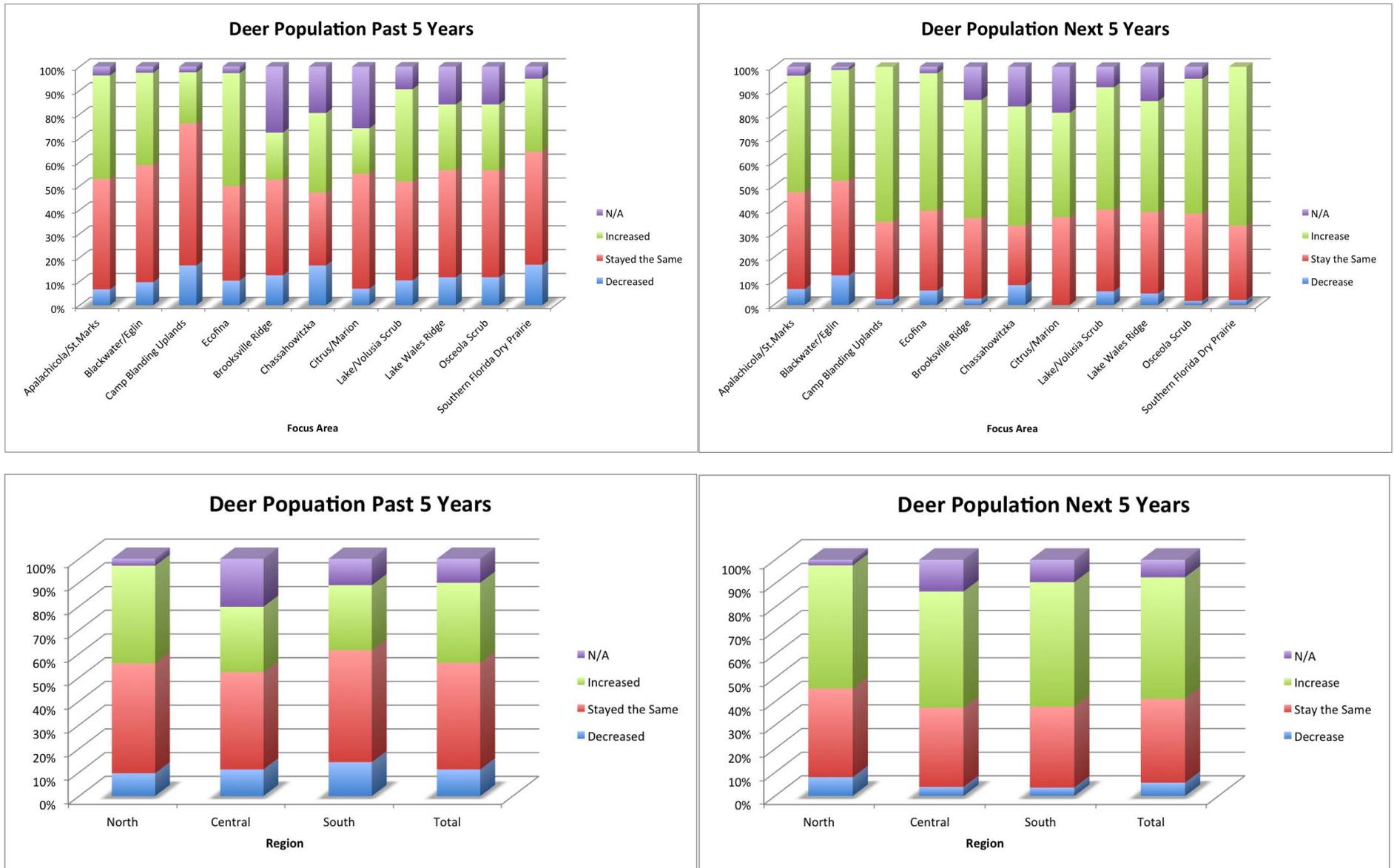
<b>Focus Area</b>	<b>Reserves n (%)</b>	<b>Reserve Acres <math>\bar{x}\pm SE</math></b>
Apalachicola/St.Marks	52 (37)	78±24
Blackwater/Eglin	65 (40)	206±86
Camp Blanding Uplands	18 (42)	573±316
Ecofina	68 (44)	80±16
<b>North Subtotal</b>	<b>203 (41)</b>	<b>164±41</b>
Brooksville Ridge	39 (31)	121±71
Chassahowitzka	11 (29)	101±55
Citrus/Marion	26 (45)	127±54
Lake/Volusia Scrub	48 (45)	91±26
<b>Central Subtotal</b>	<b>124 (38)</b>	<b>108±26</b>
Lake Wales Ridge	50 (33)	1129±907
Osceola Scrub	29 (51)	456±144
S. Florida Dry Prairie	26 (53)	327±135
<b>South Subtotal</b>	<b>105 (41)</b>	<b>749±441</b>
<b>Total</b>	<b>432 (40)</b>	<b>282±104</b>

**Table 8.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondents who had land specifically set aside for wildlife habitat or native ecosystems and the mean reserve sizes, 2011.

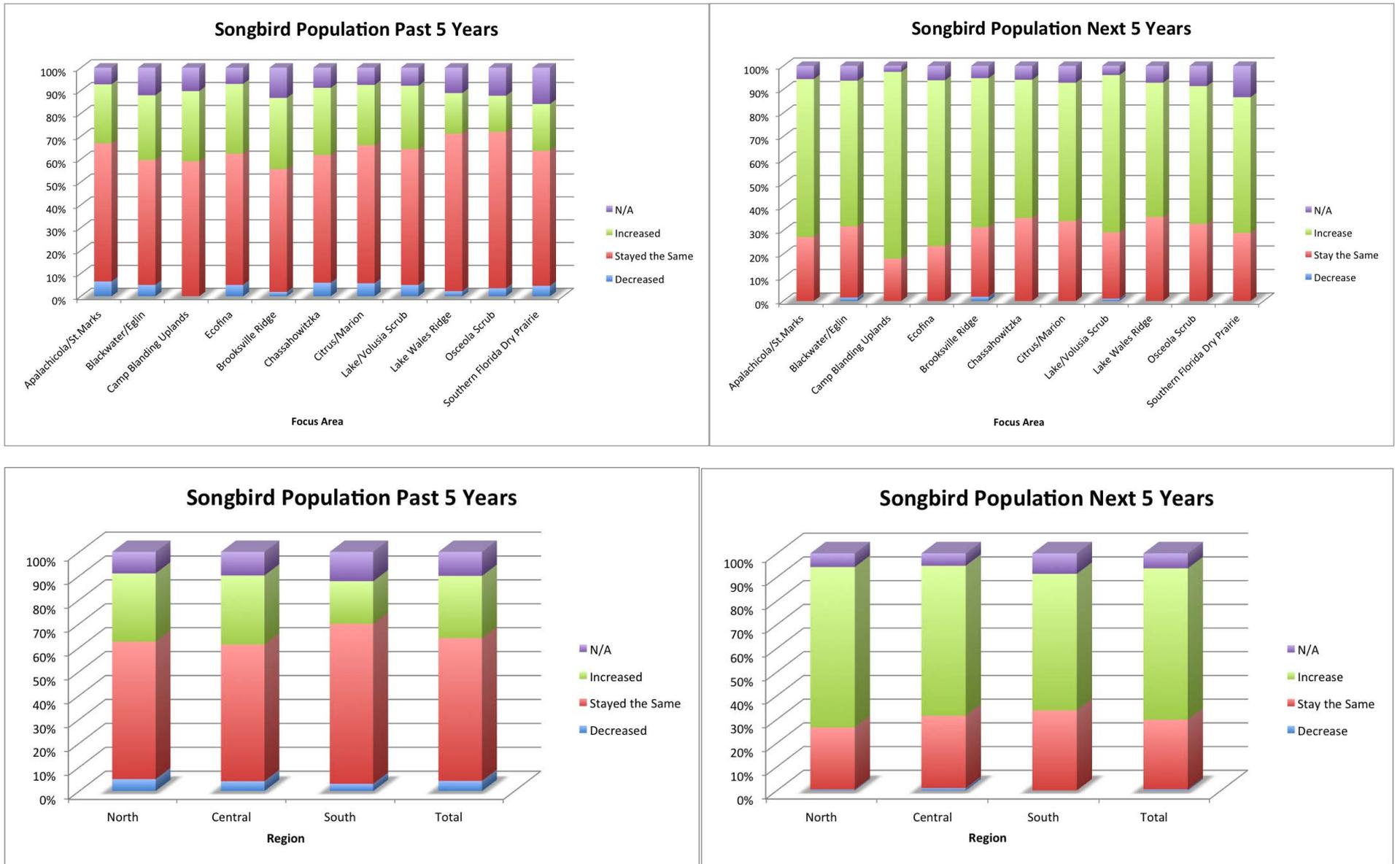
Respondents indicated the benefits they thought wildlife provided to them on a scale of 1="No Benefit" to 5="Serious Benefit" (Table 9). Generally, landowners recognized benefits from wildlife for family recreational opportunities that included wildlife watching and hunting, and felt that wildlife on their property helped to maintain healthy land. All other benefits were small to none, with the exception of some landowners receiving slight wildlife benefits from crop or pasture pollination. We also measured landowner perceptions of 11 different wildlife population trends on their property over the past five years and their desired wildlife population in the next five years (Figures 5-14). Responses varied by the type of wildlife, focus area, and region.

Focus Area	Family Hunting $\bar{x}\pm SE$	Family Wildlife Watching $\bar{x}\pm SE$	Hunting Lease Income $\bar{x}\pm SE$	Ecotourism Enterprises $\bar{x}\pm SE$	Crop or Pasture Pollination $\bar{x}\pm SE$	Income from per Animal Hunts $\bar{x}\pm SE$	Help Maintain Healthy Land $\bar{x}\pm SE$	Conservation Easement Income $\bar{x}\pm SE$	Mitigation Banking Income $\bar{x}\pm SE$
Apalachicola/St.Marks	3.0±0.1	3.5±0.1	1.3±0.1	1.1±0.0	1.8±0.1	1.1±0.1	3.0±0.2	1.1±0.0	1.0±0.0
Blackwater/Eglin	2.7±0.1	3.5±0.1	1.0±0.0	1.1±0.0	1.8±0.1	1.1±0.0	2.8±0.1	1.1±0.0	1.1±0.1
Camp Blanding Uplands	2.3±0.2	3.2±0.2	1.3±0.2	1.0±0.0	1.6±0.2	1.0±0.0	2.6±0.2	1.2±0.1	1.1±0.1
Ecofina	3.0±0.1	3.6±0.1	1.3±0.1	1.1±0.1	1.7±0.1	1.0±0.0	2.9±0.1	1.1±0.0	1.1±0.0
<b>North Subtotal</b>	<b>2.8±0.1</b>	<b>3.5±0.1</b>	<b>1.2±0.0</b>	<b>1.0±0.0</b>	<b>1.8±0.1</b>	<b>1.1±0.0</b>	<b>2.9±0.1</b>	<b>1.1±0.0</b>	<b>1.1±0.0</b>
Brooksville Ridge	2.1±0.1	3.0±0.2	1.3±0.1	1.1±0.1	1.8±0.1	1.1±0.0	2.6±0.2	1.1±0.1	1.1±0.1
Chassahowitzka	2.1±0.3	3.3±0.3	1.0±0.0	1.0±0.0	1.3±0.1	1.0±0.0	2.2±0.3	1.3±0.2	1.1±0.1
Citrus/Marion	2.0±0.2	3.3±0.2	1.2±0.1	1.0±0.0	1.7±0.2	1.0±0.0	2.7±0.2	1.3±0.1	1.1±0.0
Lake/Volusia Scrub	2.3±0.2	3.7±0.2	1.2±0.1	1.2±0.1	1.9±0.2	1.1±0.1	3.0±0.2	1.2±0.1	1.0±0.0
<b>Central Subtotal</b>	<b>2.1±0.1</b>	<b>3.3±0.1</b>	<b>1.2±0.0</b>	<b>1.1±0.0</b>	<b>1.8±0.1</b>	<b>1.1±0.0</b>	<b>2.7±0.1</b>	<b>1.2±0.1</b>	<b>1.1±0.0</b>
Lake Wales Ridge	2.7±0.1	3.5±0.1	1.1±0.1	1.1±0.1	2.0±0.1	1.2±0.1	2.8±0.2	1.2±0.1	1.1±0.1
Osceola Scrub	3.5±0.2	4.1±0.2	1.8±0.2	1.1±0.1	1.8±0.2	1.5±0.2	3.5±0.2	1.2±0.1	1.1±0.1
S. Florida Dry Prairie	3.2±0.2	4.0±0.2	1.1±0.1	1.1±0.1	2.4±0.2	1.1±0.1	3.6±0.2	1.4±0.2	1.4±0.2
<b>South Subtotal</b>	<b>3.0±0.1</b>	<b>3.8±0.1</b>	<b>1.3±0.1</b>	<b>1.1±0.0</b>	<b>2.1±0.1</b>	<b>1.2±0.1</b>	<b>3.2±0.1</b>	<b>1.3±0.1</b>	<b>1.2±0.1</b>
<b>Total</b>	<b>2.7±0.1</b>	<b>3.5±0.0</b>	<b>1.2±0.0</b>	<b>1.1±0.0</b>	<b>1.8±0.0</b>	<b>1.1±0.0</b>	<b>2.9±0.1</b>	<b>1.2±0.0</b>	<b>1.1±0.0</b>

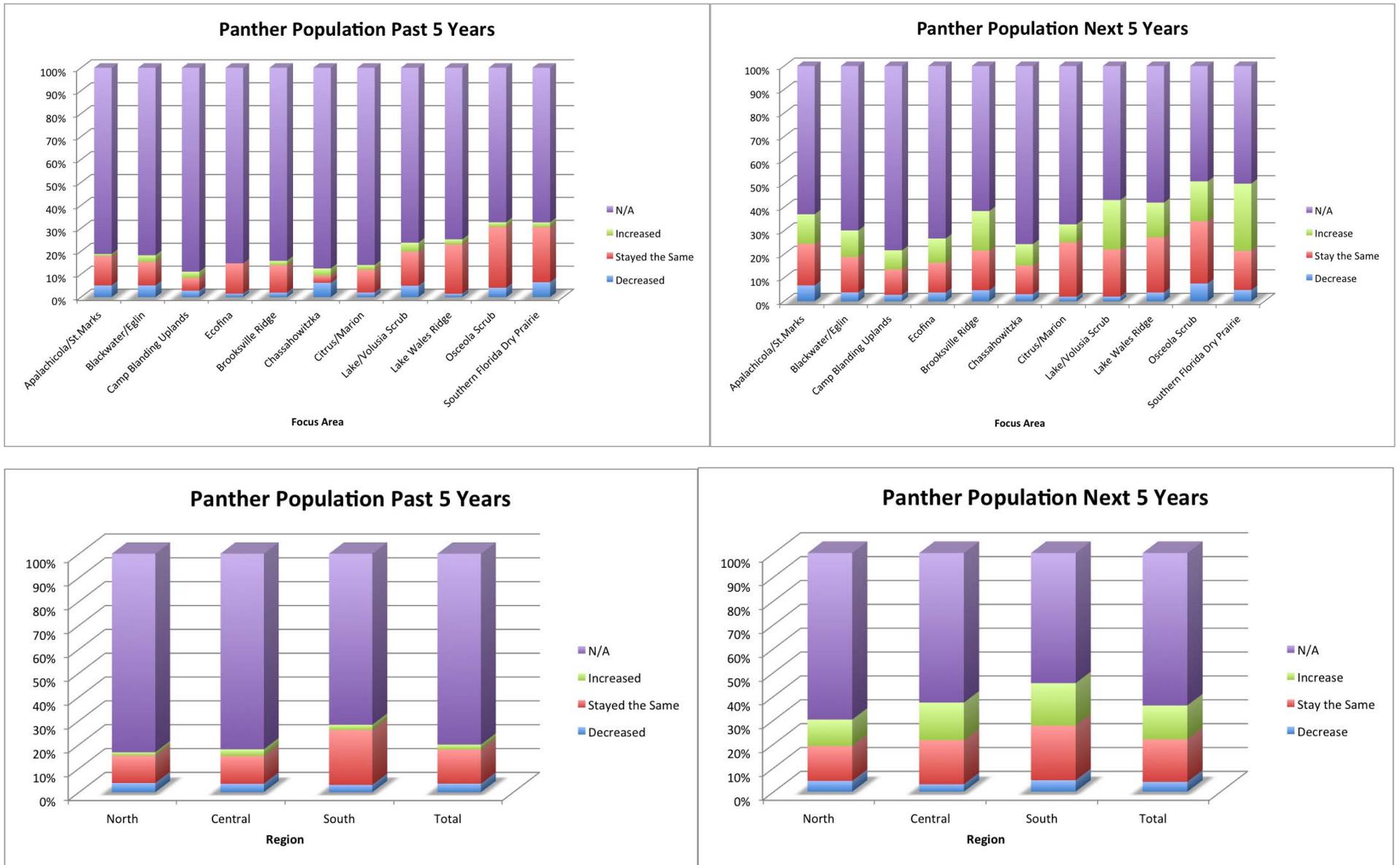
**Table 9.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondents who realized benefits from having wildlife on their land (1="No Benefit"—5="Serious Benefit"), 2011.



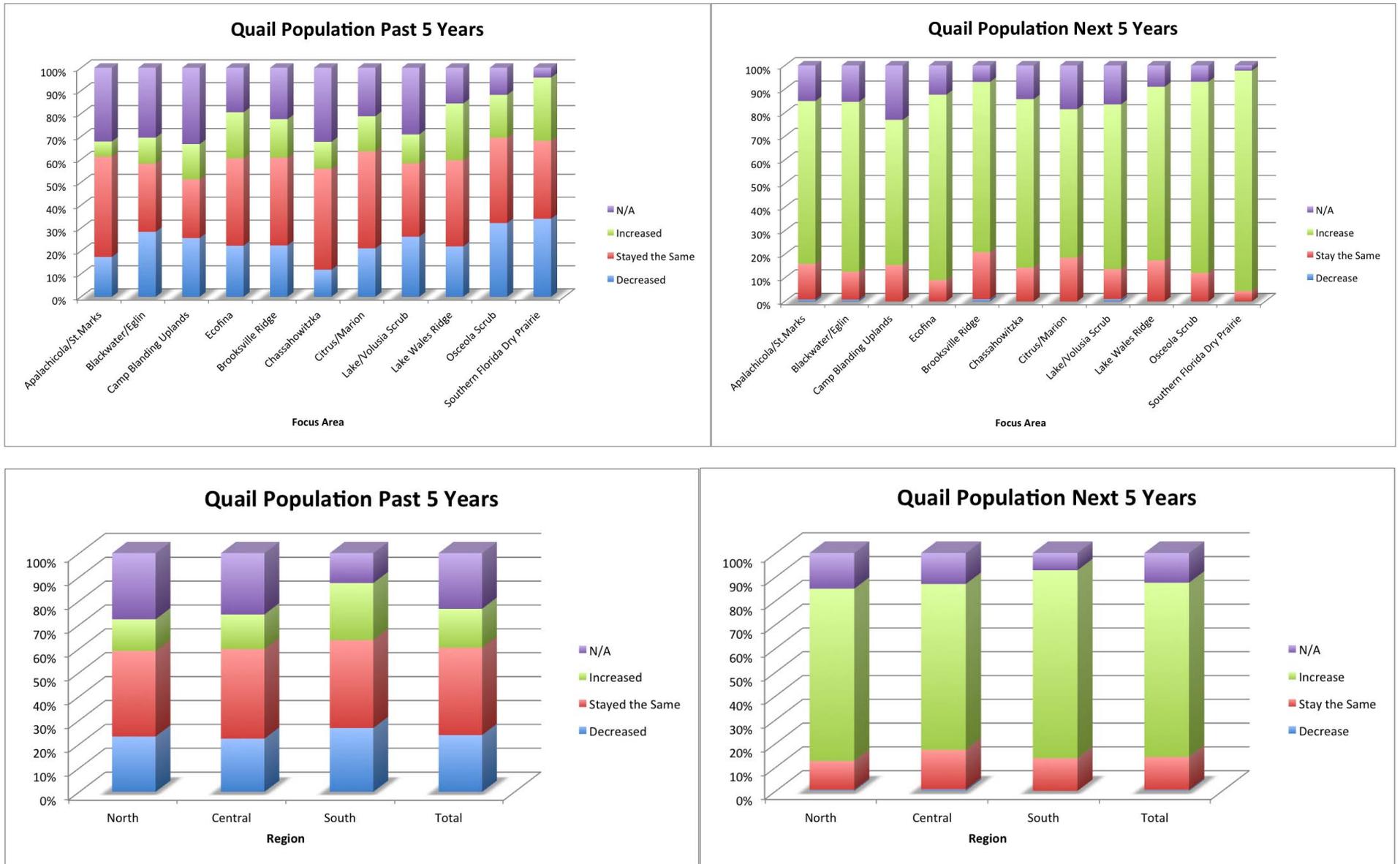
**Figure 5.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondent perceived deer population trend over the last 5 years and desired future population trend over the next 5 years, 2011.



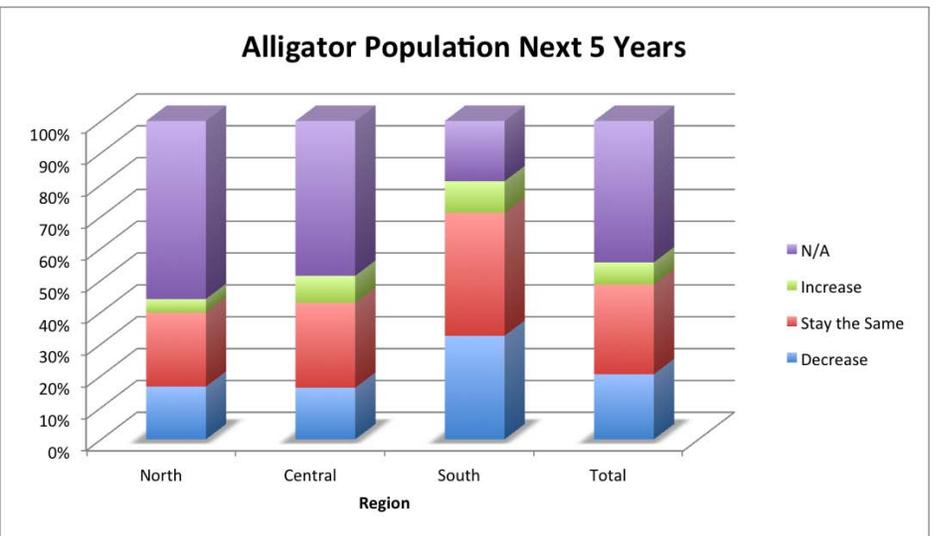
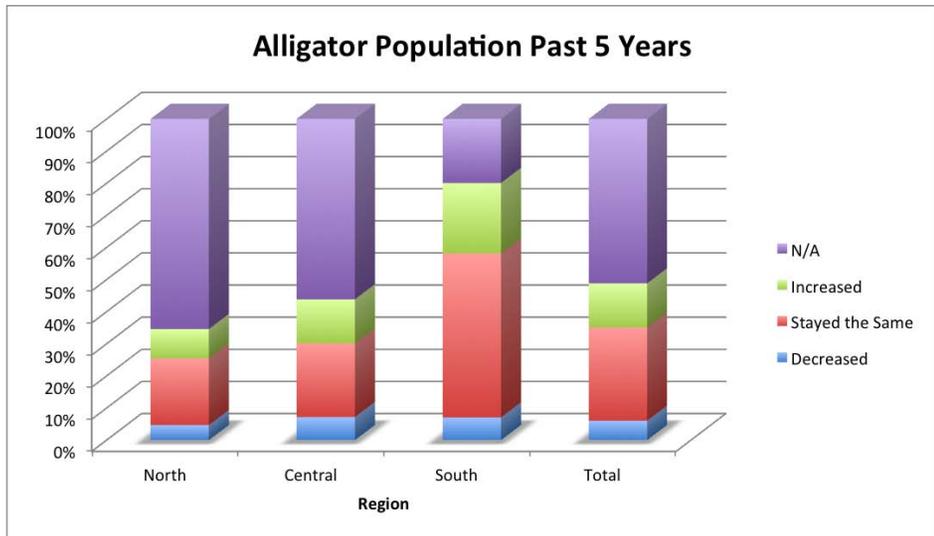
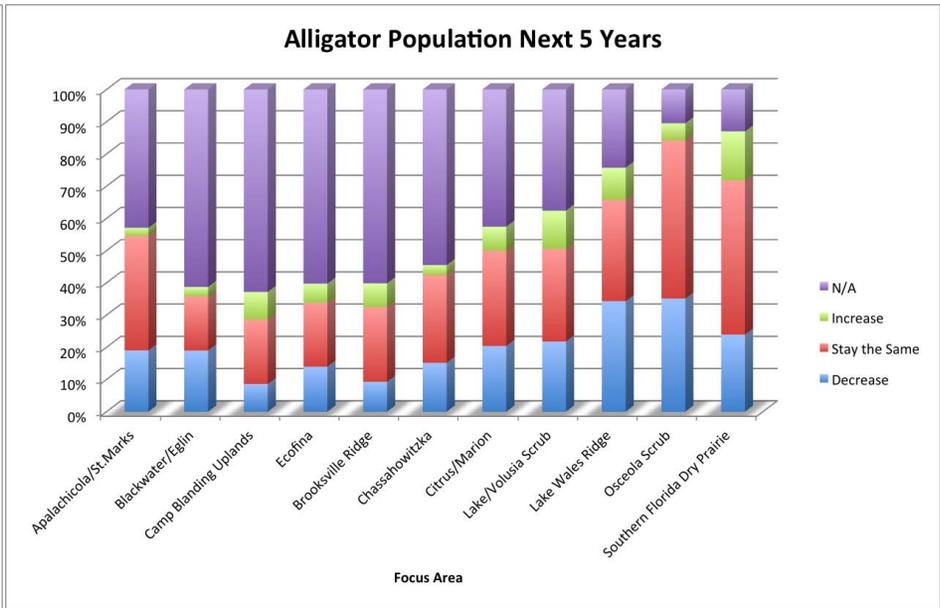
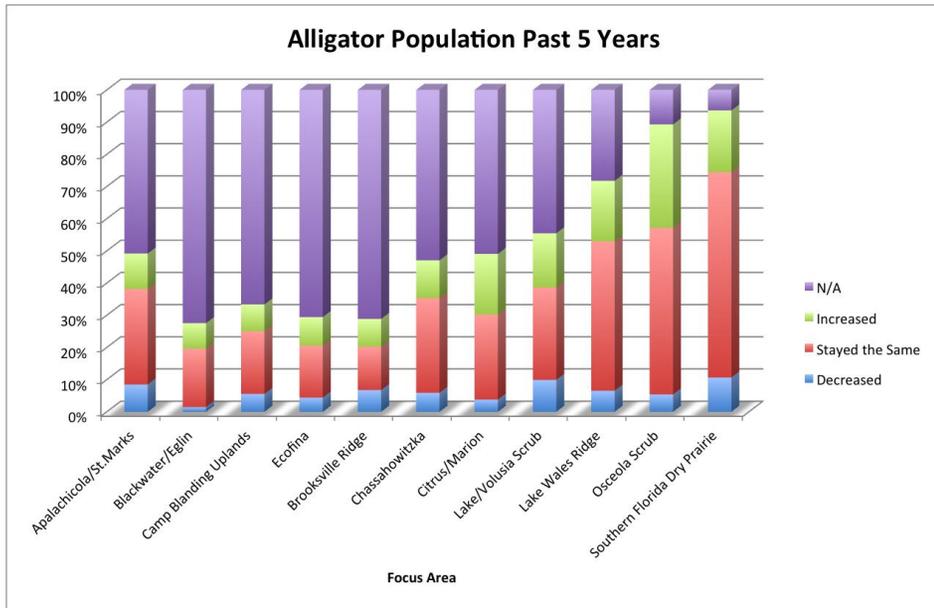
**Figure 6.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondent songbird population trend over the last 5 years and desired future population trend over the next 5 years, 2011.



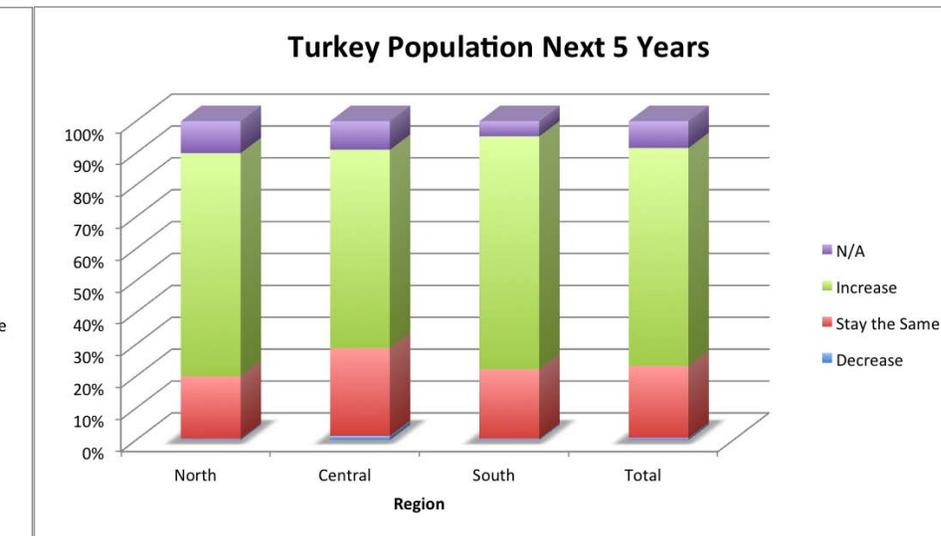
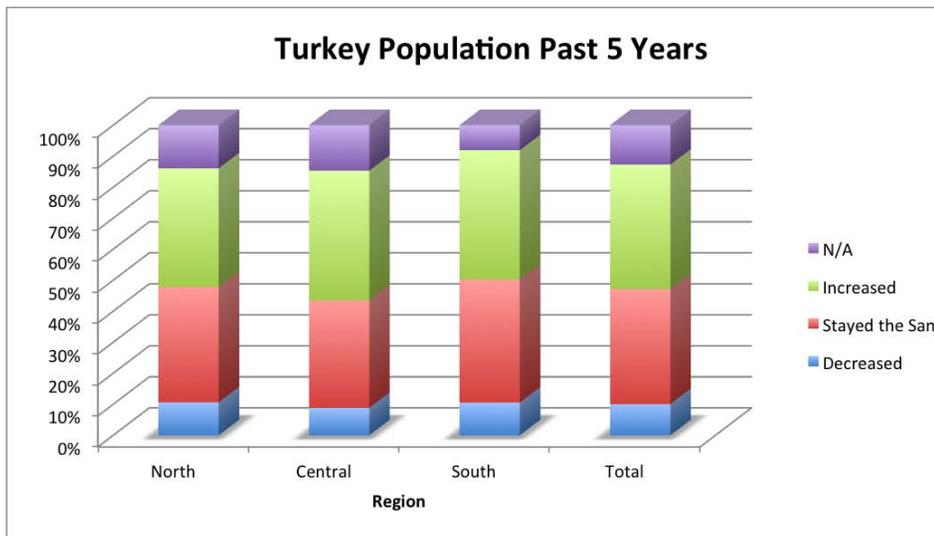
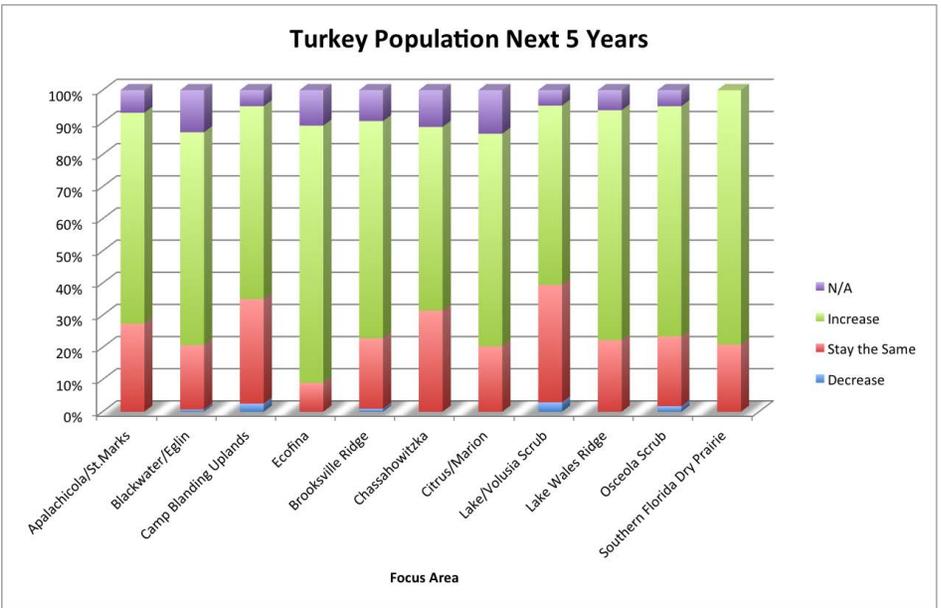
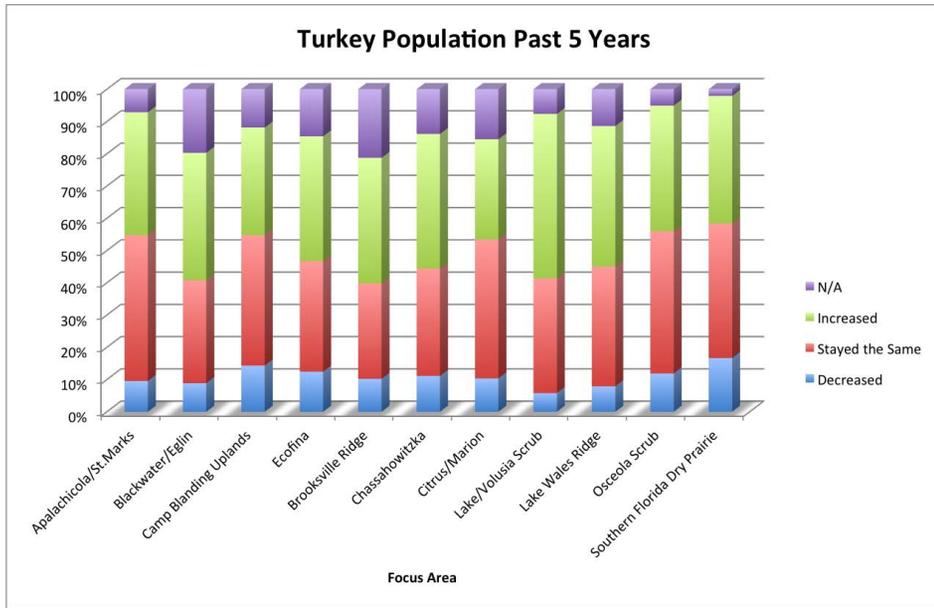
**Figure 7.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondent perceived panther population trend over the last 5 years and desired future population trend over the next 5 years, 2011.



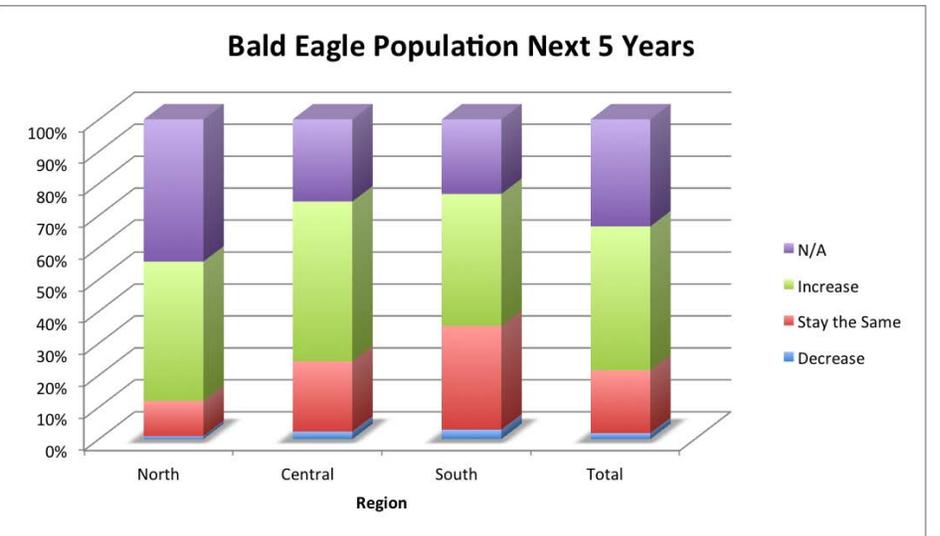
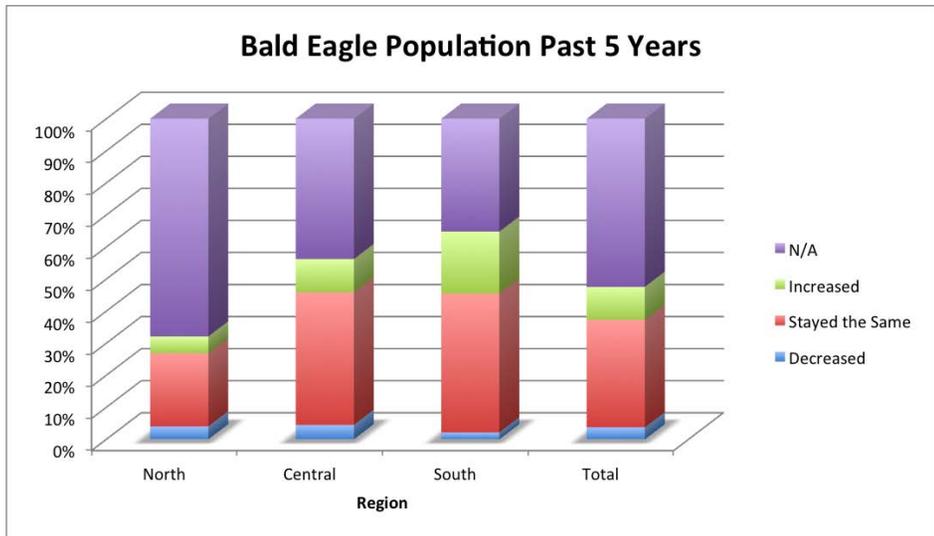
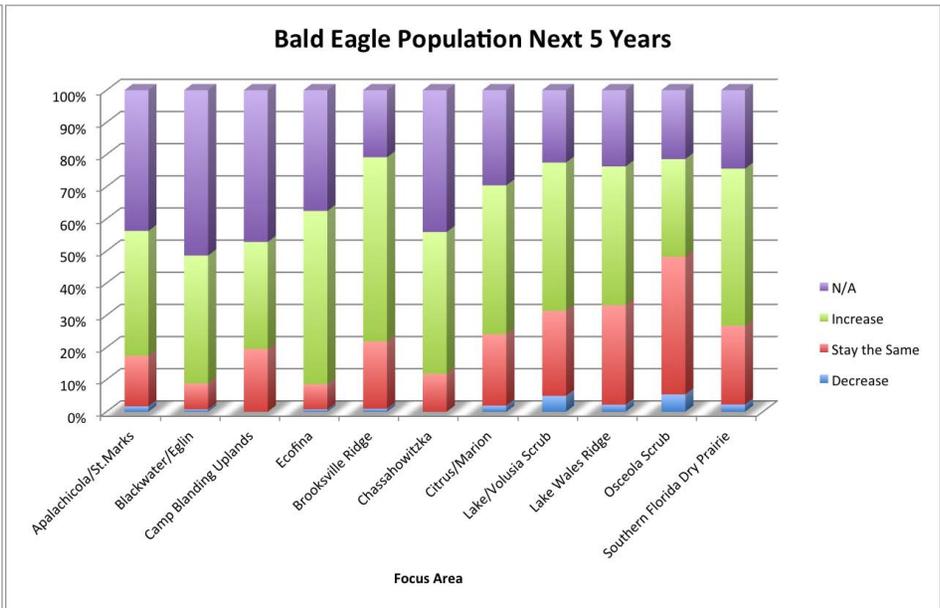
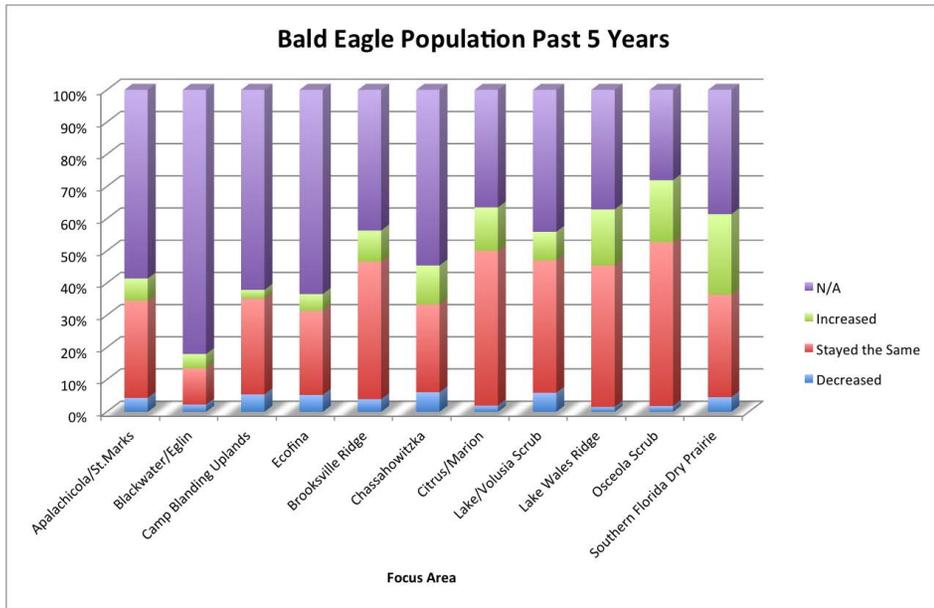
**Figure 8.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondent perceived quail population trend over the last 5 years and desired future population trend over the next 5 years, 2011.



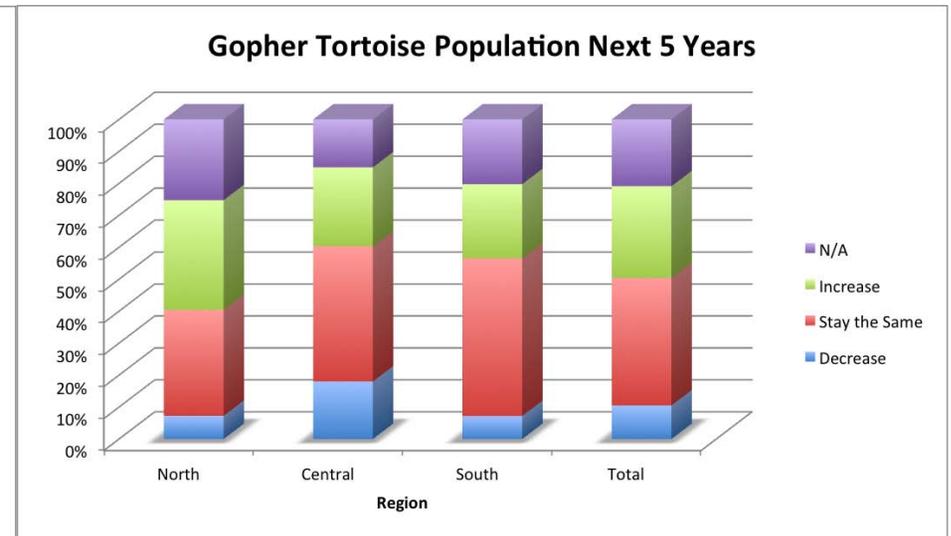
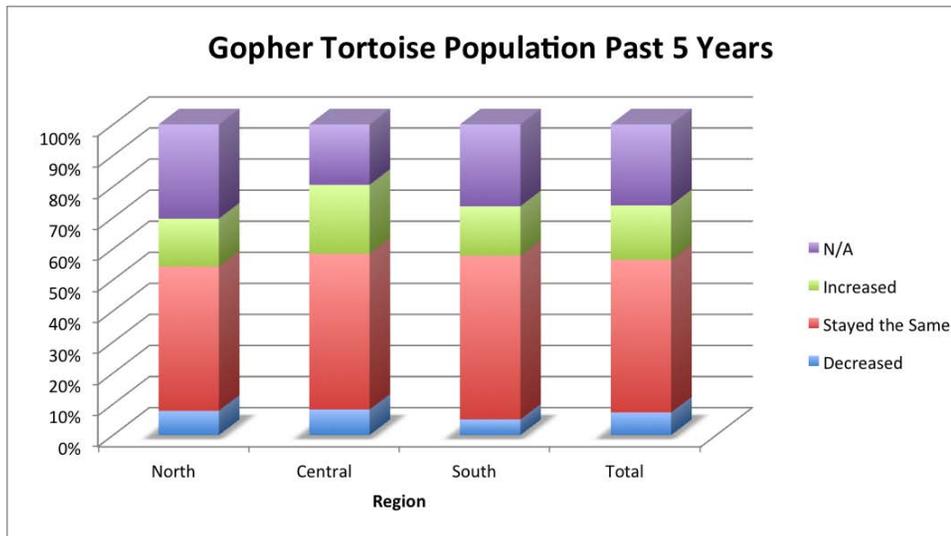
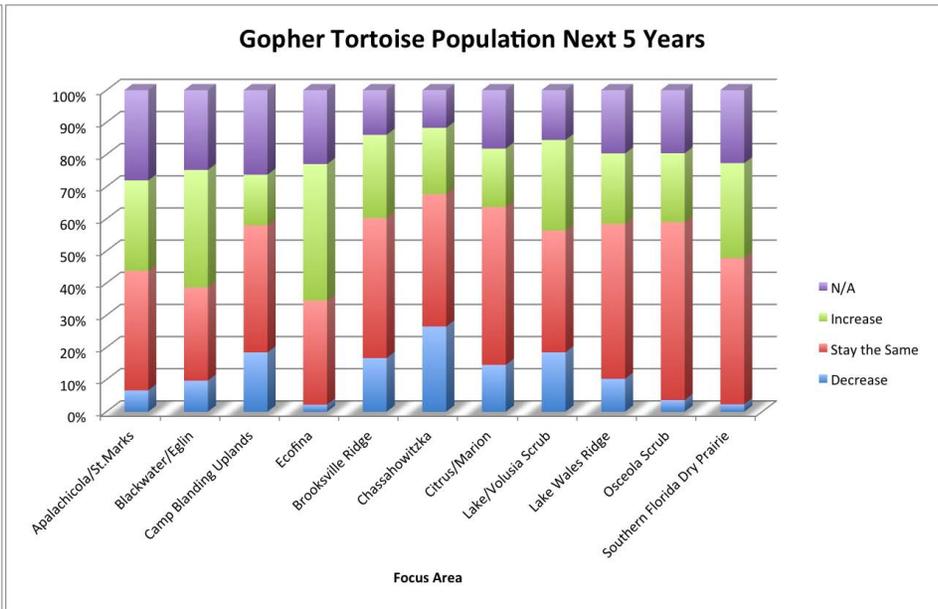
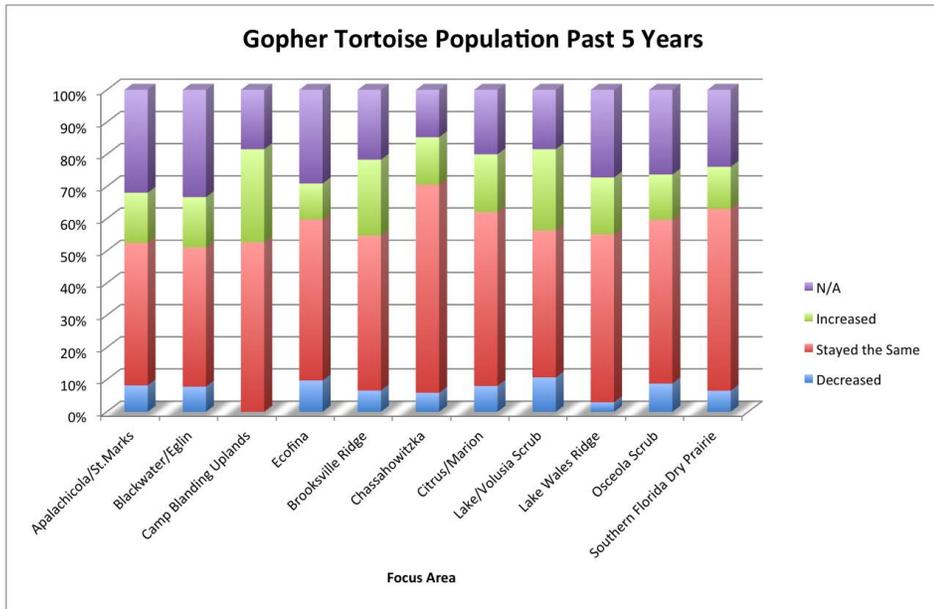
**Figure 9.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondent perceived alligator population trend over the last 5 years and desired future population trend over the next 5 years, 2011.



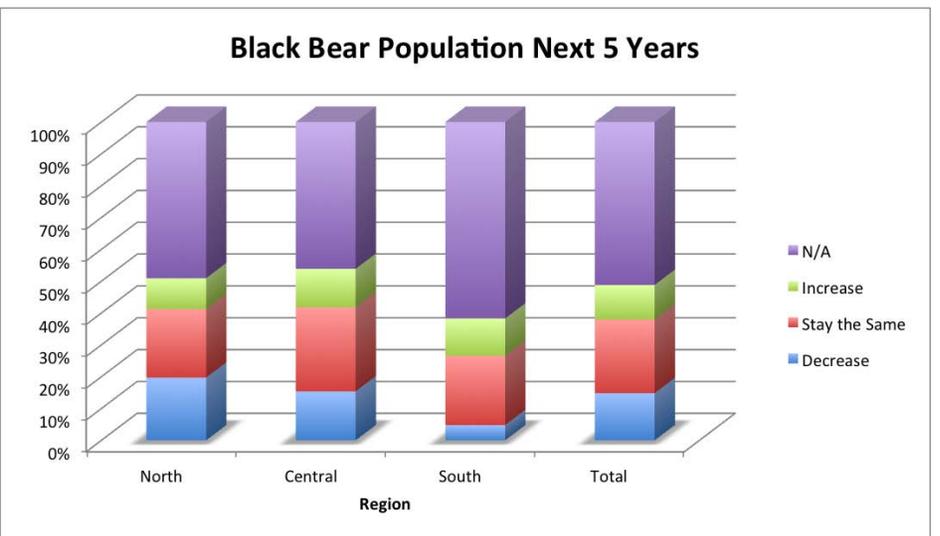
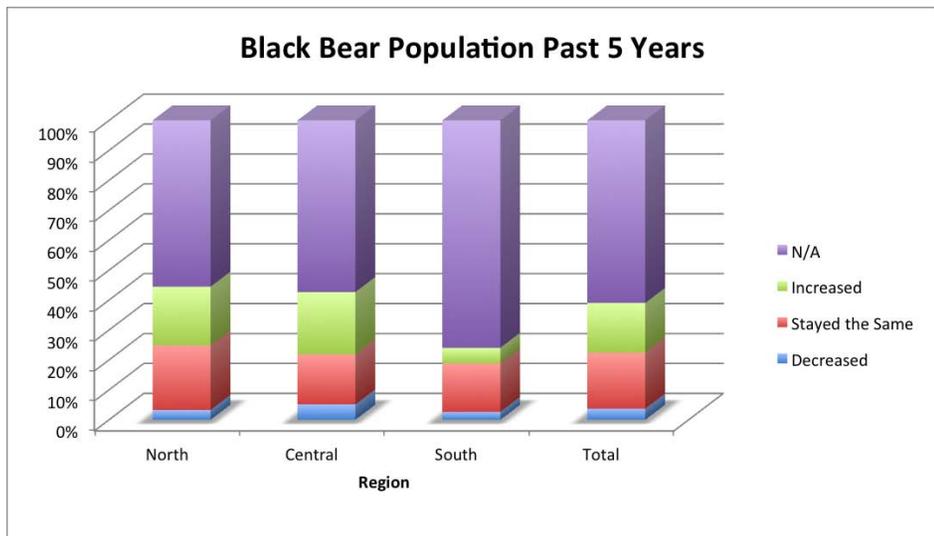
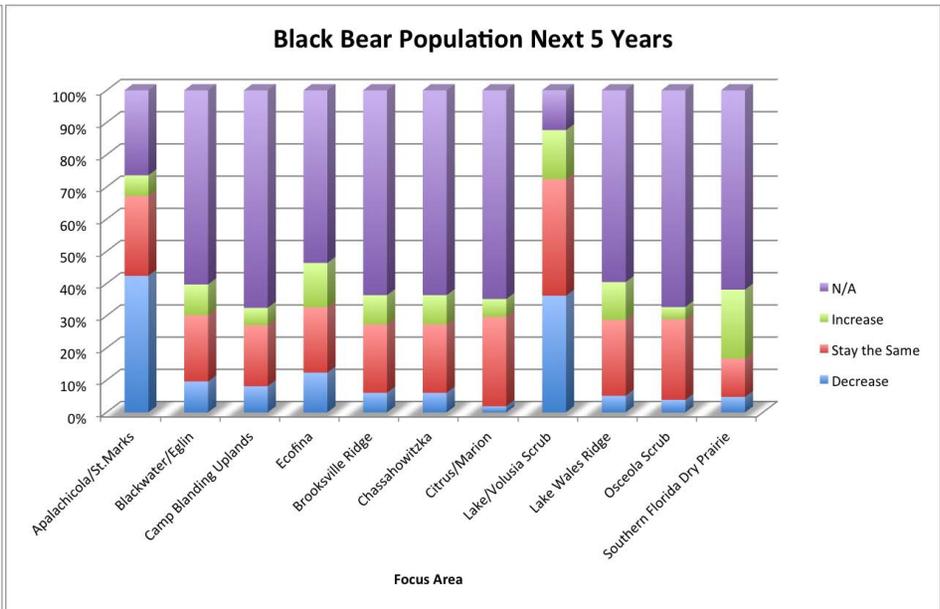
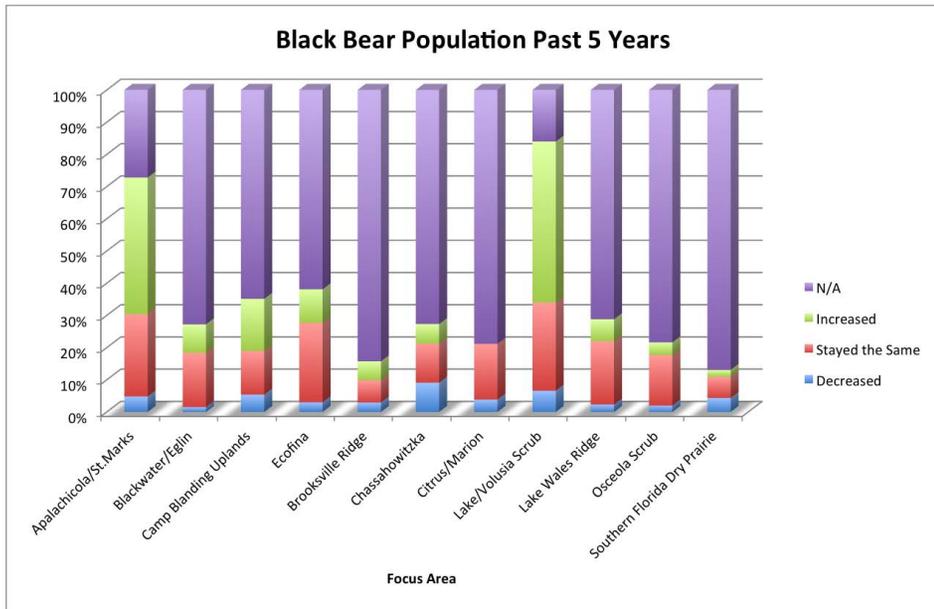
**Figure 10.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondent perceived turkey population trend over the last 5 years and desired future population trend over the next 5 years, 2011.



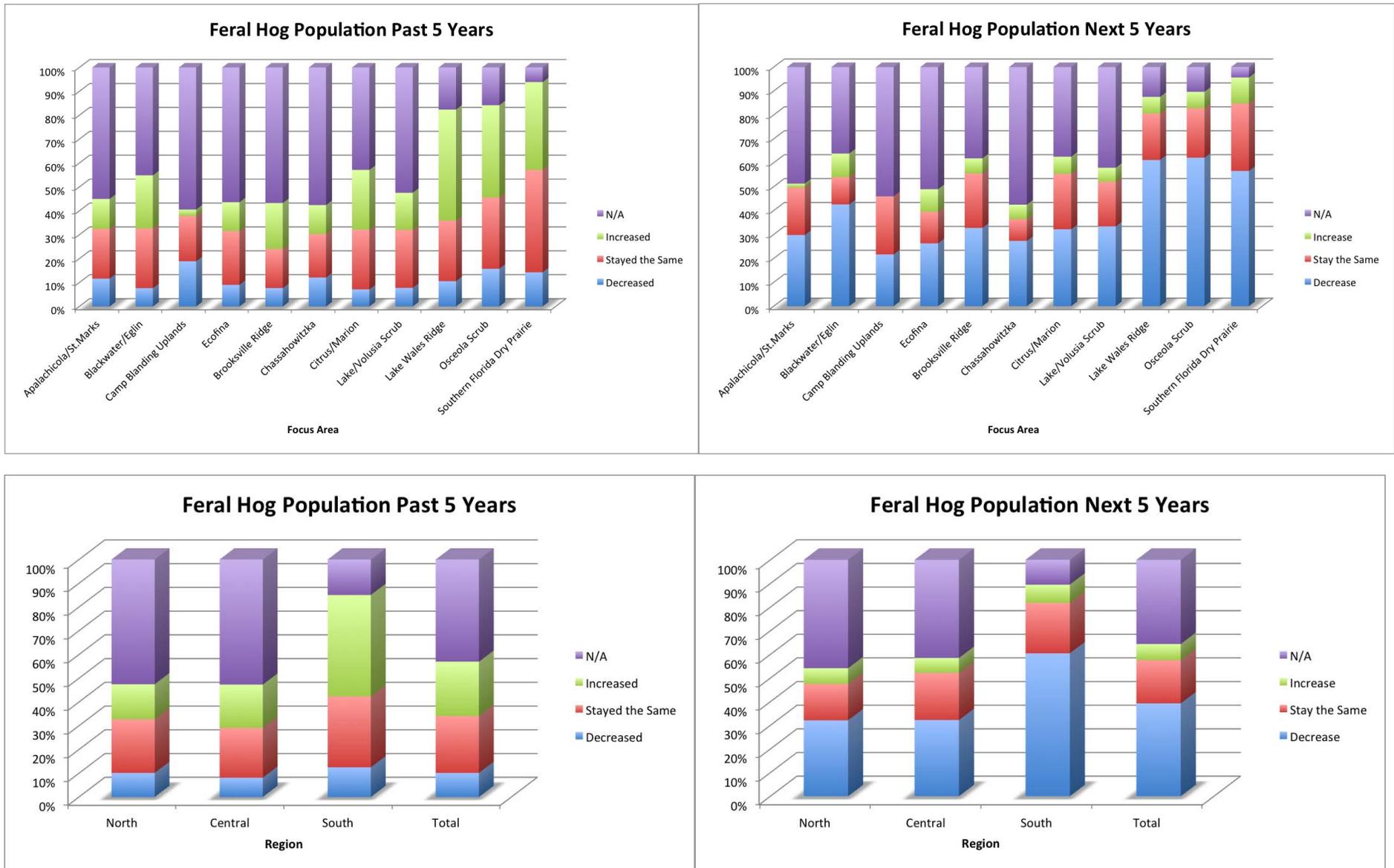
**Figure 11.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondent perceived bald eagle population trend over the last 5 years and desired future population trend over the next 5 years, 2011.



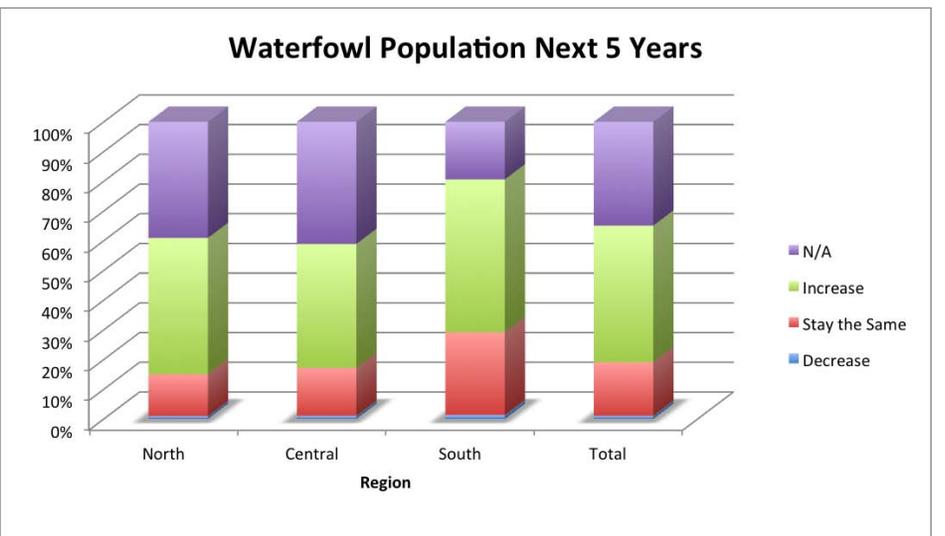
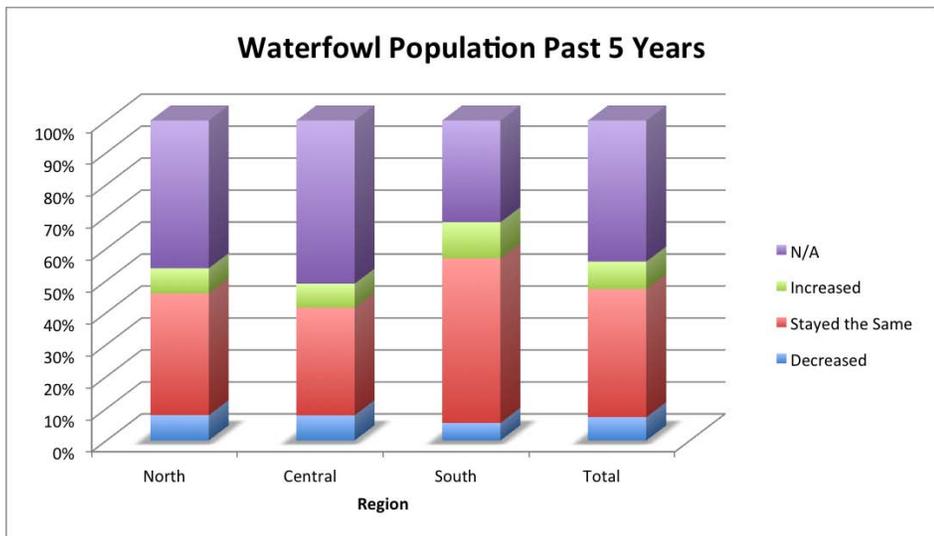
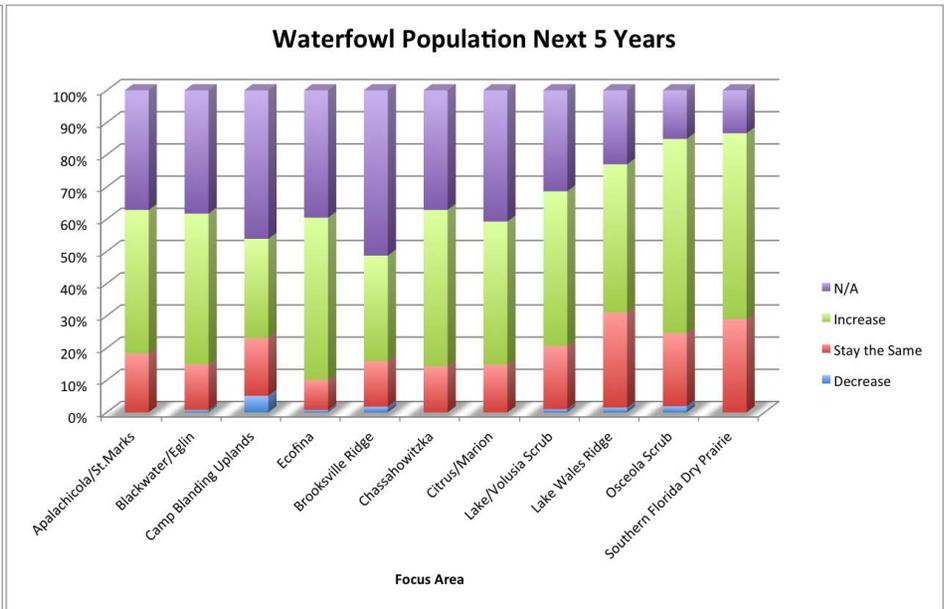
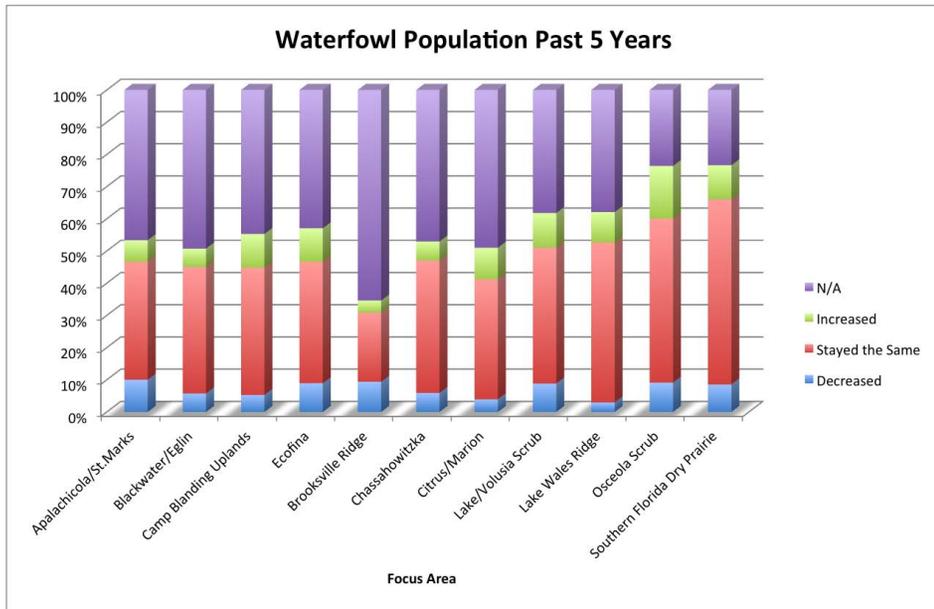
**Figure 12.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondent perceived gopher tortoise population trend over the last 5 years and desired future population trend over the next 5 years, 2011.



**Figure 13.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondent black bear population trend over the last 5 years and desired future population trend over the next 5 years, 2011.



**Figure 14.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondent perceived feral hog population trend over the last 5 years and desired future population trend over the next 5 years, 2011.



**Figure 14.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondent perceived waterfowl population trend over the last 5 years and desired future population trend over the next 5 years, 2011.

Respondents directly managed wildlife and wildlife habitat through plantings, supplemental feeding, and providing nesting structures (Tables 10 & 11). Supplemental feeding of wildlife was the most reported activity (62%), followed by planting food plots (46%), and maintaining nestboxes or birdhouses (33%). Respondents fed deer (81%), turkey (68%), and songbirds (56%) most frequently. In some focus areas and regions, care should be taken when interpreting data regarding the mean acres of native groundcover restoration and planting of native trees as the standard errors of these means are high, likely due to the low number of landowners who indicated they restored native groundcover or planted native trees and their highly varied amounts of acres restored or planted. Landowners also listed feeding dove, fish, waterfowl, foxes, hawks, opossums, sandhill cranes, and gopher tortoises in the “Other” category. Statewide, respondents reported no more than a mean  $2.4 \pm 0.0$  or “Slight Problem” with different types of wildlife (Table 12). Problems with wildlife varied by focus area and region, with the South region reporting feral hogs causing the highest wildlife problem with a mean score of  $3.4 \pm 0.1$  (“Moderate Problem” to “Serious Problem”). Thirty-seven percent of respondents attempted to control for problem wildlife with a mean score of  $2.8 \pm 0.1$ , indicating moderate success. Landowners also indicated having problems with raccoons, snakes, gopher tortoises, bobcats, opossums, armadillos, beavers, geese, foxes, squirrels, salamanders, rabbits, hawks, feral dogs, feral cats, sandhill cranes, pocket gophers, and buzzards in the “Other” category.

Respondents were asked if they could identify seven species of non-native invasive plants, if they had the plants on their property, and the extent of the invasion (Table 13). Responses varied by focus area and region, but aside from the identification of Brazilian Pepper and Tropical Soda Apple in the South region, about 1/3 of respondents could identify the non-native invasive plants that were listed. Forty-two percent of landowners responded that they have attempted to eradicate non-native invasive plants on their property with moderate success ( $3.0 \pm 0.1$ ; 1=“Unsuccessful” — 5=“Successful”; Table 14). Landowners in the South region (72%) were attempting to control invasive plants more than the North (27%) or Central (39%) regions. Landowners also listed invasive plants in the “Other” category, including privet, kudzu, air potato, Canadian thistle, mimosa, wild grape, torpedo grass, jasmine, dog fennel, camphor, prickly pear cactus, smutgrass, latana, skunk vine, chinaberry, wisteria, croton, pigweed, persimmon, Boston fern, nutgrass, hyacinth, Caesar’s weed, coffee plant, milkweed vine, Johnson grass, crabgrass, cat claw, and cattails.

Focus Area	Food Plot n (%)	Food Plot Acres $\bar{x}\pm SE$	Plant Native Trees n (%)	Plant Native Trees Acres $\bar{x}\pm SE$	Plant Native Groundcover n (%)	Plant Native Groundcover Acres $\bar{x}\pm SE$	Nestboxes or Birdhouses n (%)	Number of Nestboxes or Birdhouses $\bar{x}\pm SE$
Apalachicola/St.Marks	73 (54)	20±5	23 (17)	32±13	14 (10)	23±8	41 (30)	6±1
Blackwater/Eglin	76 (47)	27±13	37 (23)	42±15	35 (21)	11±3	70 (43)	7±1
Camp Blanding Uplands	16 (39)	48±21	11 (27)	128±56	5 (12)	12±5	17 (40)	6±1
Ecofina	76 (50)	25±7	31 (21)	73±20	31 (21)	21±5	54 (36)	7±1
<b>North Subtotal</b>	<b>241 (49)</b>	<b>26±5</b>	<b>102 (21)</b>	<b>58±11</b>	<b>85 (17)</b>	<b>17±3</b>	<b>182 (37)</b>	<b>7±0</b>
Brooksville Ridge	32 (27)	25±11	25 (21)	227±199	16 (14)	28±12	40 (34)	6±1
Chassahowitzka	13 (34)	13±4	9 (24)	14±4	3 (8)	15±13	16 (42)	9±3
Citrus/Marion	25 (45)	33±16	14 (25)	73±38	13 (23)	415±382	26 (46)	5±1
Lake/Volusia Scrub	40 (37)	30±25	22 (20)	16±6	14 (13)	13±5	30 (28)	7±2
<b>Central Subtotal</b>	<b>110 (34)</b>	<b>27±10</b>	<b>70 (22)</b>	<b>102±72</b>	<b>46 (14)</b>	<b>132±108</b>	<b>112 (35)</b>	<b>6±1</b>
Lake Wales Ridge	53 (36)	31±6	28 (19)	112±73	21 (14)	192±96	23 (16)	6±1
Osceola Scrub	35 (61)	43±12	13 (23)	29±10	10 (18)	427±397	16 (29)	6±1
S. Florida Dry Prairie	28 (56)	45±17	8 (16)	23±14	15 (31)	54±22	13 (27)	9±4
<b>South Subtotal</b>	<b>116 (46)</b>	<b>38±6</b>	<b>49 (19)</b>	<b>76±42</b>	<b>46 (18)</b>	<b>198±96</b>	<b>52 (21)</b>	<b>7±1</b>
<b>Total</b>	<b>467 (46)</b>	<b>29±4</b>	<b>221 (21)</b>	<b>76±25</b>	<b>117 (17)</b>	<b>94±38</b>	<b>346 (33)</b>	<b>7±0</b>

**Table 10.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondents who conducted wildlife management activities and the mean acres or units over the past five years, 2011.

Focus Area	Feed Wildlife n (%)	Deer n (%)	Songbirds n (%)	Feral Hogs n (%)	Turkey n (%)	Quail n (%)	Rabbits n (%)	Squirrels n (%)	Bears n (%)
Apalachicola/St.Marks	89 (64)	81 (89)	53 (59)	10 (11)	61 (68)	28 (31)	21 (23)	27 (30)	7 (8)
Blackwater/Eglin	106 (65)	97 (88)	62 (57)	9 (8)	70 (64)	38 (35)	14 (13)	39 (36)	2 (2)
Camp Blanding Uplands	30 (70)	26 (84)	17 (55)	0 (0)	19 (61)	9 (29)	5 (16)	10 (32)	0 (0)
Ecofina	99 (65)	88 (89)	58 (59)	10 (10)	62 (63)	47 (48)	31 (32)	48 (49)	2 (2)
<b>North Subtotal</b>	<b>324 (65)</b>	<b>292 (88)</b>	<b>190 (58)</b>	<b>29 (9)</b>	<b>212 (65)</b>	<b>122 (37)</b>	<b>71 (22)</b>	<b>124 (38)</b>	<b>11 (3)</b>
Brooksville Ridge	61 (49)	34 (56)	45 (74)	8 (13)	33 (54)	27 (44)	9 (15)	20 (33)	1 (2)
Chassahowitzka	19 (50)	13 (68)	13 (68)	2 (11)	11 (58)	2 (11)	3 (16)	3 (16)	1 (5)
Citrus/Marion	37 (64)	23 (62)	25 (68)	6 (16)	22 (59)	14 (38)	6 (16)	9 (24)	0 (0)
Lake/Volusia Scrub	64 (59)	51 (78)	28 (59)	5 (8)	44 (69)	19 (30)	14 (22)	22 (34)	4 (6)
<b>Central Subtotal</b>	<b>181 (55)</b>	<b>121 (66)</b>	<b>121 (67)</b>	<b>21 (12)</b>	<b>110 (61)</b>	<b>62 (34)</b>	<b>32 (18)</b>	<b>54 (30)</b>	<b>6 (3)</b>
Lake Wales Ridge	87 (58)	69 (79)	36 (41)	21 (24)	71 (82)	37 (43)	14 (16)	19 (22)	3 (3)
Osceola Scrub	44 (72)	42 (95)	18 (41)	11 (25)	39 (89)	28 (64)	11 (25)	12 (27)	1 (2)
S. Florida Dry Prairie	34 (69)	27 (77)	15 (44)	14 (41)	25 (74)	18 (53)	4 (12)	10 (30)	0 (0)
<b>South Subtotal</b>	<b>165 (64)</b>	<b>138 (83)</b>	<b>69 (56)</b>	<b>46 (28)</b>	<b>135 (82)</b>	<b>83 (50)</b>	<b>29 (18)</b>	<b>41 (25)</b>	<b>4 (2)</b>
<b>Total</b>	<b>670 (62)</b>	<b>551 (81)</b>	<b>380 (56)</b>	<b>96 (14)</b>	<b>457 (68)</b>	<b>267 (40)</b>	<b>132 (20)</b>	<b>219 (32)</b>	<b>21 (3)</b>

**Table 11.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondents who fed wildlife and the animals they intended to feed, 2011.

Focus Area	Deer Damage $\bar{x}\pm SE$	Coyote Damage $\bar{x}\pm SE$	Alligator Damage $\bar{x}\pm SE$	Feral Hog Damage $\bar{x}\pm SE$	Endangered Species Damage $\bar{x}\pm SE$	Bear Damage $\bar{x}\pm SE$	Control Wildlife n (%)	Control Success $\bar{x}\pm SE$
Apalachicola/St.Marks	1.4±0.1	2.3±0.1	1.3±0.1	1.7±0.1	1.2±0.1	2.3±0.1	35 (25)	2.4±0.2
Blackwater/Eglin	1.6±0.1	2.3±0.1	1.2±0.0	2.0±0.1	1.1±0.0	1.1±0.1	45 (28)	2.8±0.2
Camp Blanding Uplands	1.2±0.1	2.0±0.2	1.2±0.1	1.5±0.2	1.1±0.1	1.7±0.2	10 (23)	2.1±0.5
Ecofina	1.4±0.1	2.3±0.1	1.2±0.1	1.4±0.1	1.1±0.0	1.2±0.1	32 (21)	2.2±0.2
<b>North Subtotal</b>	<b>1.5±0.0</b>	<b>2.3±0.1</b>	<b>1.2±0.0</b>	<b>1.7±0.1</b>	<b>1.1±0.0</b>	<b>1.6±0.1</b>	<b>122 (25)</b>	<b>2.5±0.1</b>
Brooksville Ridge	1.2±0.1	2.2±0.1	1.1±0.0	1.8±0.1	1.1±0.1	1.0±0.0	38 (31)	2.5±0.2
Chassahowitzka	1.3±0.1	2.1±0.2	1.3±0.1	1.8±0.2	1.1±0.1	1.1±0.0	11 (30)	2.9±0.4
Citrus/Marion	1.1±0.1	2.7±0.2	1.5±0.2	1.0±0.2	1.2±0.1	1.1±0.1	23 (40)	3.3±0.3
Lake/Volusia Scrub	1.5±0.1	1.9±0.1	1.3±0.1	1.6±0.1	1.3±0.1	2.2±0.1	40 (37)	3.0±0.2
<b>Central Subtotal</b>	<b>1.3±0.0</b>	<b>2.2±0.1</b>	<b>1.3±0.0</b>	<b>1.8±0.1</b>	<b>1.2±0.0</b>	<b>1.5±0.1</b>	<b>112 (34)</b>	<b>2.9±0.1</b>
Lake Wales Ridge	1.5±0.1	2.4±0.1	1.7±0.1	3.3±0.1	1.2±0.1	1.2±0.1	87 (58)	3.0±0.1
Osceola Scrub	1.3±0.1	3.2±0.2	2.1±0.1	3.4±0.2	1.1±0.1	1.1±0.1	41 (67)	2.9±0.2
S. Florida Dry Prairie	1.3±0.1	3.2±0.2	2.1±0.2	3.5±0.2	1.0±0.0	1.1±0.1	33 (66)	3.0±0.2
<b>South Subtotal</b>	<b>1.4±0.1</b>	<b>2.8±0.1</b>	<b>1.9±0.1</b>	<b>3.4±0.1</b>	<b>1.1±0.0</b>	<b>1.2±0.0</b>	<b>161 (62)</b>	<b>3.0±0.1</b>
<b>Total</b>	<b>1.4±0.0</b>	<b>2.4±0.0</b>	<b>1.4±0.0</b>	<b>2.1±0.0</b>	<b>1.1±0.0</b>	<b>1.4±0.0</b>	<b>395 (37)</b>	<b>2.8±0.1</b>

**Table 12.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondents scale of wildlife problems by animal type (1="No Problem"—5="Extreme Problem"), if landowners attempted to control wildlife, and the success of the control efforts (1="Unsuccessful"—5="Successful"), 2011.

Focus Area	Cogongrass ID n (%)	Cogongrass Presence n (%)	Cogongrass Acres $\bar{x}\pm SE$	Brazilian Pepper ID n (%)	Brazilian Pepper Presence n (%)	Brazilian Pepper Acres $\bar{x}\pm SE$	Climbing Fern ID n (%)	Climbing Fern Presence n (%)	Climbing Fern Acres $\bar{x}\pm SE$
Apalachicola/St.Marks	34 (25)	9 (26)	6±3	37 (28)	3 (8)	21±19	47 (35)	14 (31)	17±11
Blackwater/Eglin	62 (39)	40 (65)	12±4	21 (14)	0 (0)	0±0	37 (24)	15 (42)	7±2
Camp Blanding Uplands	11 (26)	4 (36)	23±13	8 (19)	2 (25)	18±13	6 (14)	3 (50)	42±29
Ecofina	35 (23)	14 (40)	23±11	20 (13)	0 (0)	0±0	32 (21)	16 (55)	268±248
<b>North Subtotal</b>	<b>142 (29)</b>	<b>67 (47)</b>	<b>14±3</b>	<b>86 (18)</b>	<b>5 (6)</b>	<b>19±9</b>	<b>122 (25)</b>	<b>48 (41)</b>	<b>97±81</b>
Brooksville Ridge	28 (23)	11 (41)	9±6	40 (33)	1 (3)	0±0	30 (25)	6 (21)	31±23
Chassahowitzka	13 (36)	10 (71)	6±3	23 (62)	3 (13)	0±0	13 (36)	5 (38)	4±3
Citrus/Marion	23 (40)	12 (50)	131±98	32 (55)	5 (16)	4±2	16 (28)	5 (31)	2±0
Lake/Volusia Scrub	30 (28)	15 (50)	2±1	56 (51)	8 (15)	2±1	22 (20)	1 (5)	0±0
<b>Central Subtotal</b>	<b>94 (29)</b>	<b>48 (51)</b>	<b>35±24</b>	<b>151 (47)</b>	<b>17 (11)</b>	<b>3±1</b>	<b>81 (25)</b>	<b>17 (21)</b>	<b>14±10</b>
Lake Wales Ridge	68 (46)	39 (57)	45±35	120 (79)	49 (41)	14±6	67 (45)	23 (35)	16±10
Osceola Scrub	37 (64)	31 (87)	41±25	46 (79)	34 (74)	23±12	32 (55)	23 (72)	10±5
S. Florida Dry Prairie	26 (53)	21 (81)	11±7	45 (92)	29 (66)	14±6	17 (35)	5 (29)	12±7
<b>South Subtotal</b>	<b>131 (51)</b>	<b>91 (70)</b>	<b>36±17</b>	<b>211 (82)</b>	<b>112 (53)</b>	<b>17±5</b>	<b>116 (45)</b>	<b>51 (45)</b>	<b>13±5</b>
<b>Total</b>	<b>367 (34)</b>	<b>206 (56)</b>	<b>28±9</b>	<b>448 (42)</b>	<b>134 (30)</b>	<b>15±4</b>	<b>319 (30)</b>	<b>116 (37)</b>	<b>48±34</b>

**Table 13.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondents' ability to identify different non-native invasive plants, and if so, if they have the plant on their property and the acreage of the invasion, 2011.

Focus Area	Chinese Tallow ID n (%)	Chinese Tallow Presence n (%)	Chinese Tallow Acres $\bar{x}\pm SE$	Tropical Soda Apple ID n (%)	Tropical Soda Apple Presence n (%)	Tropical Soda Apple Acres $\bar{x}\pm SE$	Melaleuca ID n (%)	Melaleuca Presence n (%)	Melaleuca Acres $\bar{x}\pm SE$
Apalachicola/St.Marks	38 (28)	10 (27)	6±4	18 (13)	3 (17)	24±14	35 (26)	1 (3)	0±0
Blackwater/Eglin	55 (35)	27 (50)	7±2	27 (17)	9 (36)	9±5	20 (13)	0 (0)	0±0
Camp Blanding Uplands	11 (26)	6 (55)	12±10	12 (29)	8 (67)	89±82	6 (14)	0 (0)	0±0
Ecofina	34 (22)	23 (70)	20±12	25 (17)	8 (33)	10±12	21 (14)	1 (5)	1±0
<b>North Subtotal</b>	<b>138 (28)</b>	<b>66 (49)</b>	<b>13±4</b>	<b>82 (17)</b>	<b>28 (35)</b>	<b>30±20</b>	<b>82 (17)</b>	<b>2 (3)</b>	<b>1±0</b>
Brooksville Ridge	29 (24)	8 (28)	81±80	39 (33)	16 (41)	19±11	33 (28)	0 (0)	0±0
Chassahowitzka	15 (42)	3 (21)	68±66	18 (50)	10 (53)	49±44	16 (44)	0 (0)	0±0
Citrus/Marion	16 (28)	8 (50)	3±2	24 (41)	15 (63)	12±5	24 (41)	0 (0)	0±0
Lake/Volusia Scrub	29 (27)	7 (25)	1±0	41 (38)	22 (55)	20±6	50 (46)	1 (2)	0±0
<b>Central Subtotal</b>	<b>89 (28)</b>	<b>26 (30)</b>	<b>39±27</b>	<b>122 (38)</b>	<b>63 (52)</b>	<b>23±9</b>	<b>123 (38)</b>	<b>1 (1)</b>	<b>0±0</b>
Lake Wales Ridge	34 (23)	11 (32)	213±199	113 (75)	86 (77)	156±56	103 (69)	10 (10)	5±2
Osceola Scrub	23 (40)	9 (39)	2±1	47 (80)	46 (98)	164±143	39 (66)	6 (15)	1±1
S. Florida Dry Prairie	5 (10)	2 (40)	1±0	39 (80)	35 (90)	52±32	36 (73)	9 (26)	17±11
<b>South Subtotal</b>	<b>62 (24)</b>	<b>22 (35)</b>	<b>119±111</b>	<b>199 (77)</b>	<b>167 (84)</b>	<b>137±49</b>	<b>178 (69)</b>	<b>25 (14)</b>	<b>10±5</b>
<b>Total</b>	<b>289 (27)</b>	<b>114 (40)</b>	<b>41±25</b>	<b>403 (38)</b>	<b>258 (65)</b>	<b>97±32</b>	<b>383 (36)</b>	<b>28 (7)</b>	<b>9±5</b>

**Table 13 Continued.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondents' ability to identify different non-native invasive plants, and if so, if they have the plant on their property and the acreage of the invasion, 2011.

<b>Focus Area</b>	<b>Control Invasives n (%)</b>	<b>Control Success <math>\bar{x} \pm SE</math></b>
Apalachicola/St.Marks	27 (20)	2.3±0.3
Blackwater/Eglin	51 (33)	2.5±0.2
Camp Blanding Uplands	14 (34)	3.3±0.4
Ecofina	40 (26)	2.7±0.2
<b>North Subtotal</b>	<b>132 (27)</b>	<b>2.6±0.1</b>
Brooksville Ridge	44 (37)	3.4±0.2
Chassahowitzka	17 (46)	3.4±0.3
Citrus/Marion	22 (37)	2.8±0.2
Lake/Volusia Scrub	43 (40)	3.0±0.2
<b>Central Subtotal</b>	<b>126 (39)</b>	<b>3.2±0.1</b>
Lake Wales Ridge	101 (67)	3.2±0.1
Osceola Scrub	51 (85)	3±0.2
S. Florida Dry Prairie	33 (68)	3.3±0.2
<b>South Subtotal</b>	<b>185 (72)</b>	<b>3.2±0.1</b>
<b>Total</b>	<b>443 (42)</b>	<b>3.0±0.1</b>

**Table 14.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondents who tried to eradicate non-native invasive plants on their property and how successful their efforts were (1="Unsuccessful"—5="Successful"), 2011.

## PRESCRIBED FIRE

Respondents indicated if they used prescribed fire in the past 5 years, the number of fires and acreage burned, the difficulty of applying prescribed fire, and their level of satisfaction with fire outcome (Table 15). Twenty-four percent of respondents used prescribed fire at least once in the past five years, and those who burned conducted an average of  $7 \pm 1$  prescribed fires that affected  $1019 \pm 350$  acres. Generally, those owning property in the South and North regions used prescribed fire the most with the South burning the highest number of acres ( $2490 \pm 1068$  acres). Landowners who burned indicated that prescribed fire was relatively easy to use ( $3.8 \pm 0.1$ ; 1="Difficult"—5="Easy") and they were satisfied with the fire outcome ( $4.4 \pm 0.1$ ; 1="Unsatisfied"—5="Satisfied"). Respondents mostly applied prescribed fire themselves (59%), followed by their family (33%), the FFS (24%), and their employees (24%), with 61% of the people who conducted the burns being certified burn managers by the Florida Forest Service (FFS; Table 16). Prescribed fires were predominantly lit from November through April with a peak in February (Figure 14). Landowners mainly applied prescribed fire to reduce fuel loads and wildfire risk (79%), improve wildlife habitat (78%), and improve pine timber stands (54%; Table 17).

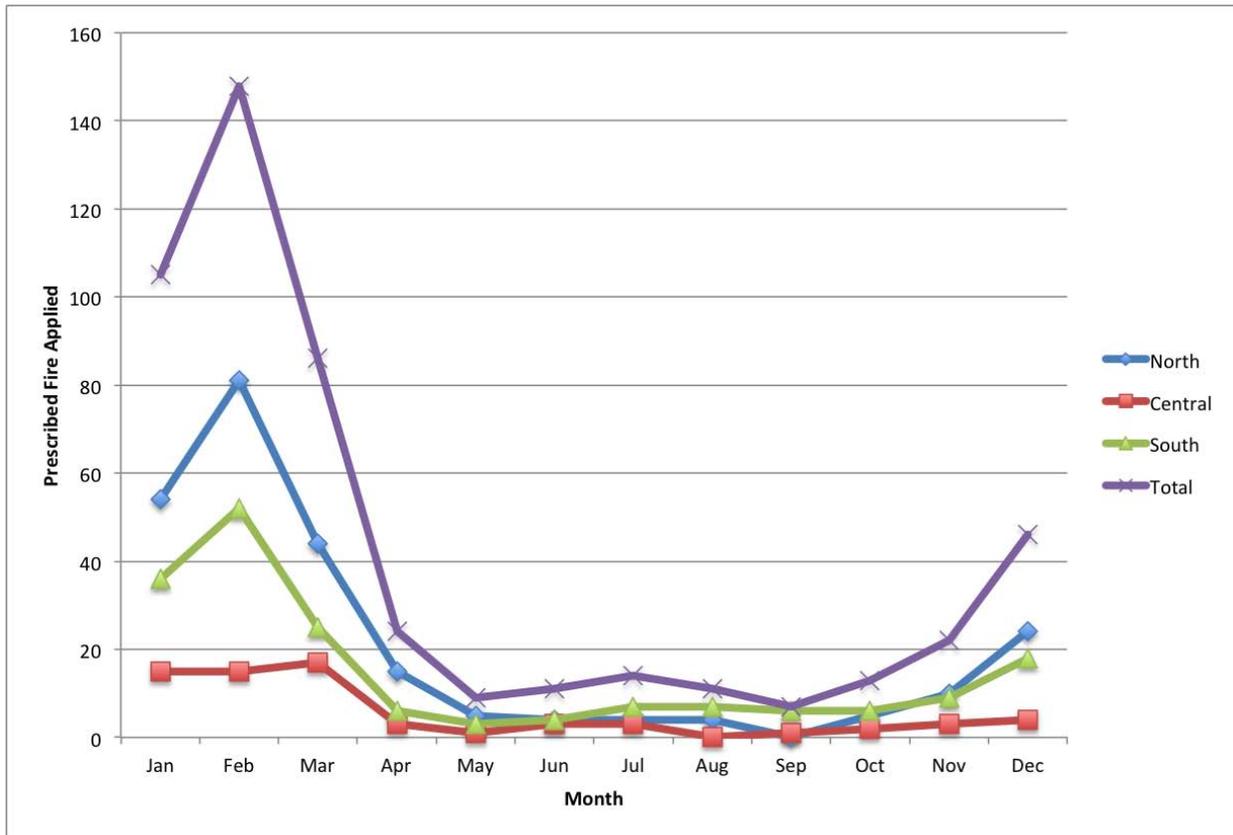
Landowners responded as to how likely they were to use prescribed fire in the next five years, their evaluation of prescribed fire outcomes on their property, and barriers they associated with prescribed fire use (Table 18). Generally, responses were mixed for all questions regarding future fire use, perceived fire outcomes on properties, and perceived barriers with scores of approximately 3 on a five-point scale for all questions. Forty percent of landowners indicated they were aware of burn manager certification by FFS, 21% of landowners or their employees were already certified, and there was mixed interest in landowners or their employees becoming certified burn managers ( $2.7 \pm 0.1$ ; 1="Disagree"—5="Agree"). Landowners in the South region reported higher awareness of burn manager certification and more of them were certified than in other regions.

Focus Area	Fire Used n (%)	Acres Burned $\bar{x}\pm SE$	Number of Fires $\bar{x}\pm SE$	Fire Difficulty $\bar{x}\pm SE$	Fire Satisfaction $\bar{x}\pm SE$
Apalachicola/St.Marks	53 (38)	297±138	5±1	4.0±0.2	4.4±0.1
Blackwater/Eglin	25 (15)	167±46	4±1	4.0±0.2	4.2±0.2
Camp Blanding Uplands	14 (32)	290±80	11±4	3.6±0.3	4.5±0.2
Ecofina	45 (29)	243±61	7±1	3.7±0.2	4.3±0.2
<b>North Subtotal</b>	<b>137 (27)</b>	<b>255±58</b>	<b>6±1</b>	<b>3.9±0.1</b>	<b>4.4±0.1</b>
Brooksville Ridge	20 (16)	880±539	8±5	4.2±0.3	4.5±0.2
Chassahowitzka	5 (13)	72±23	5±2	3.0±0.7	4.2±0.5
Citrus/Marion	6 (10)	547±176	12±6	3.7±0.5	4.5±0.2
Lake/Volusia Scrub	9 (8)	119±38	3±1	2.8±0.6	4.3±0.4
<b>Central Subtotal</b>	<b>40 (12)</b>	<b>558±273</b>	<b>7±3</b>	<b>3.6±0.2</b>	<b>4.4±0.2</b>
Lake Wales Ridge	39 (26)	2973±2153	6±3	4.1±0.2	4.5±0.1
Osceola Scrub	26 (44)	2672±1324	10±2	3.2±0.2	4.2±0.2
S. Florida Dry Prairie	18 (36)	1236±363	7±2	3.8±0.3	4.4±0.2
<b>South Subtotal</b>	<b>83 (24)</b>	<b>2490±1068</b>	<b>8±1</b>	<b>3.8±0.1</b>	<b>4.4±0.1</b>
<b>Total</b>	<b>260 (24)</b>	<b>1019±350</b>	<b>7±1</b>	<b>3.8±0.1</b>	<b>4.4±0.1</b>

**Table 15.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondents who used prescribed fire in the last five years, the number of acres burned, the number of fires lit, the difficulty of using prescribed fire (1="Difficult"—5="Easy"), and the level of satisfaction with the fire outcome (1="Unsatisfied"—5="Satisfied"), 2011.

Focus Area	Myself n (%)	Family n (%)	Neighbors n (%)	Friends n (%)	Employees n (%)	FFS n (%)	Private Contractor n (%)	Fire Department n (%)	Certified Burn Manager n (%)
Apalachicola/St.Marks	37 (70)	24 (45)	5 (9)	10 (19)	2 (4)	13 (25)	12 (23)	0 (0)	34 (64)
Blackwater/Eglin	13 (54)	6 (25)	1 (4)	5 (21)	1 (4)	9 (38)	5 (21)	1 (4)	12 (50)
Camp Blanding Uplands	8 (57)	7 (50)	2 (14)	1 (7)	3 (21)	4 (29)	2 (14)	0 (0)	12 (86)
Ecofina	30 (68)	18 (41)	3 (7)	11 (25)	10 (23)	7 (16)	8 (18)	1 (2)	26 (59)
<b>North Subtotal</b>	<b>88 (65)</b>	<b>55 (41)</b>	<b>11 (8)</b>	<b>27 (20)</b>	<b>16 (12)</b>	<b>33 (24)</b>	<b>27 (20)</b>	<b>2 (1)</b>	<b>84 (62)</b>
Brooksville Ridge	12 (60)	2 (10)	1 (5)	0 (0)	5 (25)	3 (15)	5 (25)	1 (5)	10 (50)
Chassahowitzka	2 (40)	3 (60)	0 (0)	1 (20)	1 (20)	2 (40)	1 (20)	0 (0)	4 (80)
Citrus/Marion	2 (33)	0 (0)	0 (0)	0 (0)	1 (17)	1 (17)	2 (33)	0 (0)	4 (67)
Lake/Volusia Scrub	3 (33)	2 (25)	1 (13)	1 (13)	1 (13)	5 (63)	0 (0)	0 (0)	6 (67)
<b>Central Subtotal</b>	<b>19 (48)</b>	<b>7 (18)</b>	<b>2 (5)</b>	<b>2 (5)</b>	<b>8 (21)</b>	<b>11 (28)</b>	<b>8 (21)</b>	<b>1 (3)</b>	<b>24 (60)</b>
Lake Wales Ridge	23 (59)	11 (28)	2 (5)	4 (10)	16 (41)	8 (21)	5 (13)	0 (0)	18 (46)
Osceola Scrub	14 (52)	8 (30)	2 (7)	0 (0)	11 (41)	7 (26)	7 (26)	2 (7)	21 (78)
S. Florida Dry Prairie	10(56)	3 (17)	1 (6)	0 (0)	9 (50)	2 (11)	1 (6)	0 (0)	12 (67)
<b>South Subtotal</b>	<b>47 (56)</b>	<b>22 (26)</b>	<b>5 (6)</b>	<b>4 (5)</b>	<b>36 (43)</b>	<b>17 (20)</b>	<b>13 (15)</b>	<b>2 (2)</b>	<b>51 (61)</b>
<b>Total</b>	<b>154 (59)</b>	<b>84 (33)</b>	<b>18 (7)</b>	<b>33 (13)</b>	<b>60 (24)</b>	<b>61 (24)</b>	<b>48 (19)</b>	<b>5 (2)</b>	<b>159 (61)</b>

**Table 16.** The Florida Private Landowner Wildlife Habitat Monitoring Survey responses that indicated who applied prescribed fire to their property in the last five years and if the individuals or groups were certified burn managers,2011.



**Figure 14.** The Florida Private Landowner Wildlife Habitat Monitoring Survey responses that indicated in which month private landowners applied prescribed fire over the last five years, 2011.

Focus Area	Reduce Fuel Load n (%)	Improve Wildlife Habitat n (%)	Improve Livestock Forage n (%)	Improve Timber Stands n (%)	Prepare Land for Planting n (%)
Apalachicola/St.Marks	45 (85)	39 (74)	8 (15)	40 (75)	7 (13)
Blackwater/Eglin	20 (83)	20 (83)	4 (17)	17 (71)	7 (29)
Camp Blanding Uplands	14 (100)	13 (93)	6 (43)	10 (71)	3 (21)
Ecofina	34 (77)	35 (80)	9 (20)	26 (59)	14 (32)
<b>North Subtotal</b>	<b>113 (84)</b>	<b>107 (79)</b>	<b>27 (20)</b>	<b>93 (69)</b>	<b>31 (23)</b>
Brooksville Ridge	14 (70)	16 (80)	4 (20)	9 (45)	8 (40)
Chassahowitzka	3 (60)	3 (60)	2 (40)	4 (80)	2 (40)
Citrus/Marion	3 (50)	4 (67)	4 (67)	2 (33)	2 (33)
Lake/Volusia Scrub	9 (100)	7 (78)	3 (33)	4 (44)	0 (0)
<b>Central Subtotal</b>	<b>29 (73)</b>	<b>30 (75)</b>	<b>13 (33)</b>	<b>19 (48)</b>	<b>12 (30)</b>
Lake Wales Ridge	27 (69)	30 (77)	28 (72)	9 (23)	5 (13)
Osceola Scrub	22 (81)	24 (89)	19 (70)	13 (48)	3 (12)
S. Florida Dry Prairie	13 (72)	12 (67)	14 (78)	6 (33)	4 (22)
<b>South Subtotal</b>	<b>62 (74)</b>	<b>66 (79)</b>	<b>61 (73)</b>	<b>28 (33)</b>	<b>12 (14)</b>
<b>Total</b>	<b>204 (79)</b>	<b>203 (78)</b>	<b>101 (39)</b>	<b>140 (54)</b>	<b>55 (21)</b>

**Table 17.** The Florida Private Landowner Wildlife Habitat Monitoring Survey responses that indicated why landowners applied prescribed fire to their property in the last five years, 2011.

Focus Area	Future Rx Fire $\bar{x}\pm SE$	Rx Fire Improve Habitat $\bar{x}\pm SE$	Rx Fire Improve Production $\bar{x}\pm SE$	Rx Fire Decrease Wildfire $\bar{x}\pm SE$	Smoke Manageable $\bar{x}\pm SE$	Liability Manageable $\bar{x}\pm SE$	Sufficient Skills $\bar{x}\pm SE$	Sufficient Financial Resources $\bar{x}\pm SE$
Apalachicola/St.Marks	3.3±0.2	3.5±0.2	3.4±0.2	3.8±0.1	3.7±0.1	3.0±0.2	3.5±0.2	3.1±0.2
Blackwater/Eglin	2.4±0.1	2.8±0.1	2.7±0.1	3.1±0.1	3.6±0.1	2.7±0.1	2.7±0.1	2.7±0.1
Camp Blanding Uplands	2.7±0.3	3.1±0.3	2.7±0.3	3.3±0.3	3.6±0.2	2.8±0.2	2.9±0.3	2.7±0.3
Ecofina	2.7±0.1	3.0±0.1	2.7±0.1	3.0±0.1	3.8±0.1	3.0±0.1	3.1±0.2	2.8±0.1
<b>North Subtotal</b>	<b>2.8±0.1</b>	<b>3.1±0.1</b>	<b>2.9±0.1</b>	<b>3.3±0.1</b>	<b>3.7±0.1</b>	<b>2.9±0.1</b>	<b>3.0±0.1</b>	<b>2.9±0.1</b>
Brooksville Ridge	2.1±0.2	2.2±0.2	2.3±0.2	2.4±0.2	3.3±0.2	2.6±0.2	2.7±0.2	2.7±0.2
Chassahowitzka	2.2±0.3	2.2±0.3	2.0±0.3	2.6±0.3	3.5±0.3	3.1±0.3	2.8±0.3	2.8±0.3
Citrus/Marion	1.9±0.2	2.2±0.2	2.3±0.2	2.4±0.2	3.6±0.2	2.3±0.2	2.4±0.3	2.3±0.2
Lake/Volusia Scrub	1.8±0.1	2.3±0.2	1.8±0.1	2.5±0.2	3.0±0.2	2.1±0.2	2.1±0.2	2.1±0.2
<b>Central Subtotal</b>	<b>2.0±0.1</b>	<b>2.2±0.1</b>	<b>2.1±0.1</b>	<b>2.5±0.1</b>	<b>3.3±0.1</b>	<b>2.4±0.1</b>	<b>2.5±0.1</b>	<b>2.4±0.1</b>
Lake Wales Ridge	2.4±0.1	2.6±0.1	2.6±0.1	3.8±0.1	3.0±0.1	3.2±0.2	3.2±0.1	2.7±0.2
Osceola Scrub	3.3±0.2	3.4±0.2	3.4±0.2	3.5±0.2	3.9±0.2	3.3±0.2	3.6±0.2	3.4±0.2
S. Florida Dry Prairie	2.9±0.3	3.1±0.3	2.7±0.3	3.3±0.3	3.7±0.2	3.2±0.2	3.4±0.3	3.3±0.3
<b>South Subtotal</b>	<b>2.7±0.1</b>	<b>2.9±0.1</b>	<b>2.8±0.1</b>	<b>2.9±0.1</b>	<b>3.8±0.1</b>	<b>2.1±0.1</b>	<b>3.3±0.1</b>	<b>3.3±0.1</b>
<b>Total</b>	<b>2.6±0.1</b>	<b>2.8±0.1</b>	<b>2.6±0.1</b>	<b>2.9±0.1</b>	<b>3.6±0.1</b>	<b>2.8±0.1</b>	<b>2.9±0.1</b>	<b>2.8±0.1</b>

**Table 18.** The Florida Private Landowner Wildlife Habitat Monitoring Survey responses that indicated how likely landowners are to use prescribed (Rx) fire on their property in the next five years (1="Unlikely"—5="Likely"); how likely Rx fire would improve wildlife habitat, production uses, and decrease wildfire risk on their property (1="Unlikely"—5="Likely"); and if landowners could adequately manage smoke, were comfortable with Rx fire liability risks, had the technical skills needed to conduct Rx fire, and if they had sufficient financial resources to conduct a Rx fire (1="Disagree"—5="Agree"), 2011.

<b>Focus Area</b>	<b>Certification Awareness n (%)</b>	<b>Certified n (%)</b>	<b>Certification Interest <math>\bar{x} \pm SE</math></b>
Apalachicola/St.Marks	66 (51)	39 (33)	2.7±0.2
Blackwater/Eglin	37 (25)	24 (17)	2.7±0.2
Camp Blanding Uplands	16 (42)	10 (26)	2.7±0.3
Ecofina	42 (30)	21 (16)	2.8±0.1
<b>North Subtotal</b>	<b>161 (36)</b>	<b>94 (22)</b>	<b>2.7±0.1</b>
Brooksville Ridge	33 (29)	11 (10)	2.6±0.2
Chassahowitzka	12 (34)	4 (11)	2.5±0.3
Citrus/Marion	14 (28)	5 (10)	1.9±0.2
Lake/Volusia Scrub	37 (39)	11 (12)	2.5±0.2
<b>Central Subtotal</b>	<b>96 (33)</b>	<b>31 (11)</b>	<b>2.4±0.1</b>
Lake Wales Ridge	74 (57)	34 (27)	2.7±0.2
Osceola Scrub	36 (61)	24 (46)	2.8±0.3
S. Florida Dry Prairie	29 (67)	11 (28)	3.1±0.3
<b>South Subtotal</b>	<b>139 (60)</b>	<b>69 (32)</b>	<b>2.8±0.1</b>
<b>Total</b>	<b>396 (40)</b>	<b>194 (21)</b>	<b>2.7±0.1</b>

**Table 19.** The Florida Private Landowner Wildlife Habitat Monitoring Survey respondents who were aware of burn manager certification training by FFS, if landowners or their employees were certified, and if landowners or their employees would be interested in certification (1="Disagree"—5="Agree"), 2011.

## LANDOWNER ASSISTANCE PROGRAMS

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Landowner awareness and interest in government-sponsored land management plans was consistent across the Focus Areas and Regions (Table 20). Half of the respondents were aware of government land planning initiatives, were moderately interested in learning more about plans ( $3.0 \pm 0.0$ ; 1="No Interest"—5="High Interest"), and marginally more interested in detailed plans that focused on all land uses and activities than other types of plans ( $3.2 \pm 0.0$ ; 1="No Interest"—5="Serious Interest"). Respondents indicated plans that included habitat management, game management, timber production, and agriculture production would be most useful to them (Figure 15). There were some regional differences. Game management was relatively more important to residents within the South region, and timber management was relatively more important in the North and Central regions than the South. Landowners also indicated if they had a current land management plan, and if so, who prepared it, the plan year, if it included wildlife management components, and how useful it was (Table 21). Thirty-three percent of landowners had management plans that were an average of  $7 \pm 0.0$  years old, and of those plans, most included wildlife and habitat management (76%) and were considered useful ( $3.7 \pm 0.1$ ; 1="Not Useful"—5="Very Useful"). Regional differences included U.S. Department of Agriculture Natural Resource Conservation Service (NRCS) plans being most frequent in the South region and FFS plans more prevalent in the North and Central regions.

Landowner awareness, interest in applying for, past participation in, and satisfaction with government financial assistance programs for wildlife habitat management was consistent among regions (Table 22). Approximately 1/3 of respondents were aware of financial assistance programs for wildlife and were moderately interested in applying for them in the future ( $2.9 \pm 0.0$ ; 1="No Interest"—5="High Interest"). Of landowners who had participated in a past financial assistance program, most were satisfied with it ( $4.0 \pm 0.1$ ; 1="Unsatisfied"—5="Satisfied"). The activities listed by respondents as funded included brush management, prescribed fire, creating wildlife openings, nestboxes, thinning timber, roller drum chopping, duck pond creation, invasive plant control, fence row management, fire lane creation, feral hog control, longleaf pine planting and maintenance, herbicide application, migratory bird habitat creation (i.e., oil spill program), fencing, fire lane creation, mowing, planting cover crops and other legumes, planting native oaks, planting warm season grasses, and sandhill restoration.

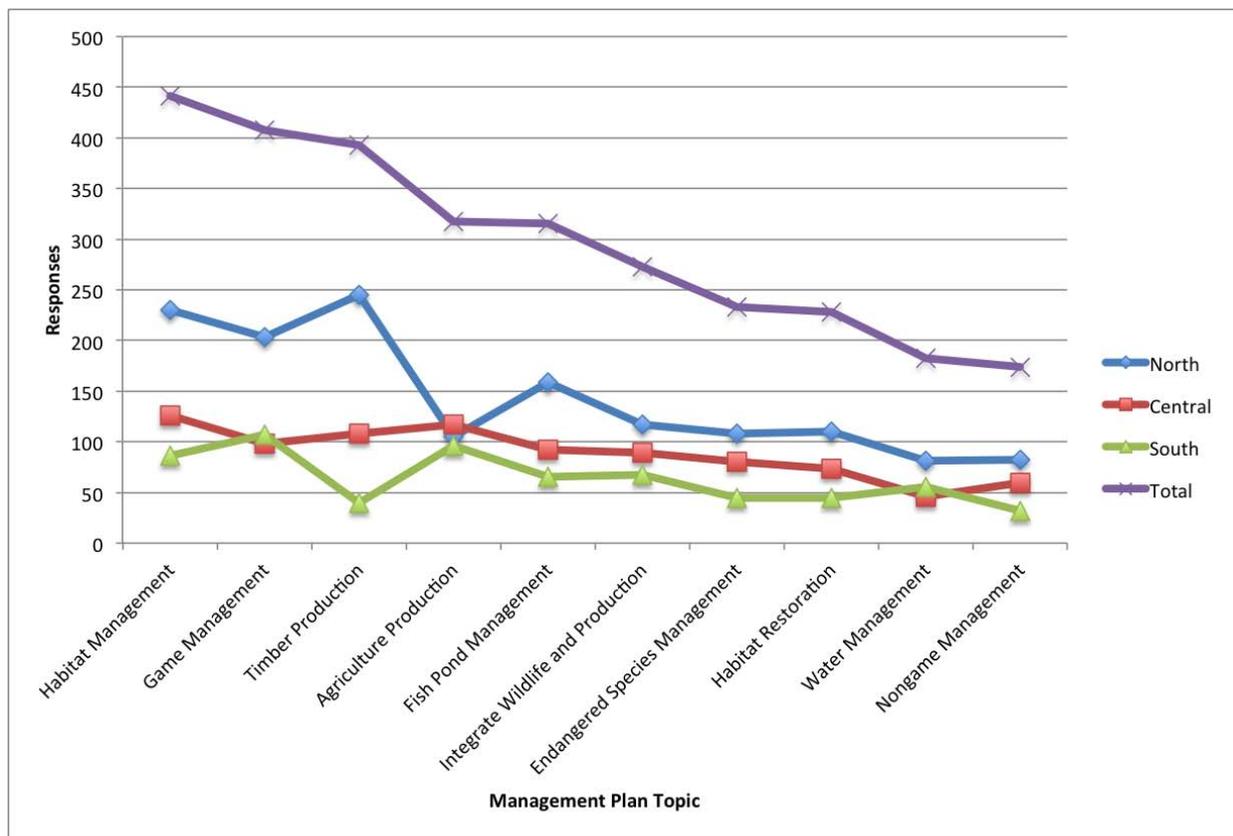
Landowner awareness and interest in attending technical workshops on wildlife habitat improvement was consistent among regions (Table 23). Approximately 1/3 of respondents were aware of technical workshops for wildlife, and were moderately interested in attending them in the future ( $2.9 \pm 0.0$ ; 1="No Interest"—5="High Interest"). Landowners listed potential topics of interest such as all or anything, deer, turkey, quail, game species, hummingbirds, beekeeping, integrating wildlife with cattle and other production uses, songbirds, gopher tortoises, sandhill cranes, fish, owls, bobcats, foxes, Caribbean ant control, invasive plant control, burrowing owls, feral hog control, deer control, prescribed fire application for wildlife, panthers, bears, bear control, coyote control, armadillo control, predator control, bats for insect control, financial assistance program support, food plots, Greenbelt certification, and habitat enhancement and restoration. Of those topics, game species, general habitat management, and invasive plant and animal control were most frequently listed.

Ten percent of respondents had contacted the FWC in the past five years. These individuals contacted the FWC an average of  $4 \pm 1$  times (Table 23). Landowners were satisfied with the information provided by the FWC during these contacts ( $3.9 \pm 0.1$ ; 1="Unsatisfied"—5="Satisfied"). Landowners contacted the FWC for various reasons that included turkey management, deer management, alligator removal, bear problems, hog control, coyote control, buzzard control, deer control, invasive plant control, sandhill crane control, gopher tortoise management, conservation easements, prescribed fire, plant biology and identification, doe permits, issues related to EQIP and WHIP, establishing and managing fishponds, firebreaks, duck ponds, planting and managing longleaf pine, hardwood control, game laws, habitat restoration, herbicide application, wiregrass planting, poachers, nestboxes, bear hunting issues, management plans, night hunting permits, dog hunter problems, possible jaguarondi sightings, wetland management, fish surveys,

trespassers, chopping and mowing for wildlife, game management generally, general habitat management, and Greenbelt certification.

Focus Area	Plan Awareness n (%)	Plan Information Interest $\bar{x}\pm SE$	Greenbelt Only Plan $\bar{x}\pm SE$	Single Activity Plan $\bar{x}\pm SE$	Complete Plan $\bar{x}\pm SE$
Apalachicola/St.Marks	84 (61)	3.1±0.1	2.7±0.2	2.5±0.1	3.2±0.2
Blackwater/Eglin	77 (48)	3.0±0.1	2.5±0.1	2.2±0.1	3.1±0.1
Camp Blanding Uplands	22 (52)	3.0±0.3	3.3±0.3	2.3±0.2	3.3±0.2
Ecofina	71 (48)	3.3±0.1	3.0±0.1	2.6±0.1	3.3±0.1
<b>North Subtotal</b>	<b>254 (52)</b>	<b>3.1±0.1</b>	<b>2.8±0.1</b>	<b>2.4±0.1</b>	<b>3.2±0.1</b>
Brooksville Ridge	60 (48)	2.9±0.1	2.4±0.2	2.4±0.1	3.0±0.2
Chassahowitzka	19 (50)	2.8±0.2	3.3±0.3	2.5±0.2	3.3±0.3
Citrus/Marion	24 (42)	3.1±0.2	3.1±0.2	2.4±0.2	3.1±0.2
Lake/Volusia Scrub	50 (46)	3.2±0.1	3.0±0.2	2.6±0.2	3.1±0.2
<b>Central Subtotal</b>	<b>153 (47)</b>	<b>3.0±0.1</b>	<b>2.8±0.1</b>	<b>2.5±0.1</b>	<b>3.1±0.1</b>
Lake Wales Ridge	78 (53)	2.8±0.1	2.5±0.1	2.3±0.1	3.1±0.1
Osceola Scrub	29 (49)	3.1±0.2	2.9±0.2	2.4±0.2	3.4±0.2
S. Florida Dry Prairie	30 (64)	3.0±0.2	2.3±0.2	2.4±0.2	3.6±0.2
<b>South Subtotal</b>	<b>137 (54)</b>	<b>2.9±0.1</b>	<b>2.5±0.1</b>	<b>2.3±0.1</b>	<b>3.3±0.1</b>
<b>Total</b>	<b>544 (51)</b>	<b>3.0±0.0</b>	<b>2.7±0.1</b>	<b>2.4±0.0</b>	<b>3.2±0.1</b>

**Table 20.** The Florida Private Landowner Wildlife Habitat Monitoring Survey responses that indicated if landowners were aware that government agencies provided management plans, their level of interest in learning more about plans (1="No Interest"—5="High Interest"), and the style of plan they would be prefer (1="No Interest"—5="Serious Interest"), 2011.



**Figure 15.** The Florida Private Landowner Wildlife Habitat Monitoring Survey responses that indicated which topics would be most useful to them in a land management plan, 2011.

Focus Area	Current Plan n (%)	Landowner Prepared n (%)	USDA NRCS Prepared n (%)	Staff Prepared n (%)	FWC Prepared n (%)	FFS Prepared n (%)	Private Contractor Prepared n (%)	Year Prepared $\bar{x}\pm SE$	Included Wildlife Management n (%)	Plan Usefulness $\bar{x}\pm SE$
Apalachicola/St.Marks	56 (41)	31 (54)	5 (9)	0 (0)	4 (7)	17 (30)	18 (32)	2005±1	43 (74)	3.6±0.2
Blackwater/Eglin	36 (23)	25 (69)	7 (19)	0 (0)	5 (14)	7 (19)	3 (8)	2006±1	28 (78)	3.7±0.2
Camp Blanding Uplands	13 (33)	8 (62)	0 (0)	1 (8)	0 (0)	2 (15)	13 (31)	2003±3	8 (67)	4.4±0.3
Ecofina	47 (32)	33 (69)	6 (13)	1 (2)	7 (15)	16 (34)	11 (23)	2002±2	33 (73)	3.9±0.2
<b>North Subtotal</b>	<b>152 (31)</b>	<b>97 (63)</b>	<b>18 (12)</b>	<b>2 (1)</b>	<b>16 (10)</b>	<b>42 (27)</b>	<b>36 (24)</b>	<b>2004±1</b>	<b>112 (74)</b>	<b>3.8±0.1</b>
Brooksville Ridge	39 (32)	21 (54)	4 (11)	4 (11)	4 (11)	13 (34)	5 (13)	2007±1	24 (65)	3.9±0.2
Chassahowitzka	15 (41)	6 (40)	0 (0)	1 (7)	2 (13)	6 (40)	3 (20)	2005±2	9 (64)	3.9±0.3
Citrus/Marion	22 (39)	12 (55)	2 (9)	2 (9)	1 (5)	9 (41)	3 (14)	2006±1	19 (90)	3.3±0.2
Lake/Volusia Scrub	36 (33)	20 (56)	6 (17)	3 (8)	7 (19)	9 (25)	4 (11)	2007±1	29 (81)	3.7±0.2
<b>Central Subtotal</b>	<b>112 (35)</b>	<b>59 (52)</b>	<b>12 (11)</b>	<b>10 (9)</b>	<b>14 (13)</b>	<b>37 (33)</b>	<b>15 (14)</b>	<b>2006±1</b>	<b>81 (75)</b>	<b>3.7±0.1</b>
Lake Wales Ridge	42 (29)	30 (70)	16 (38)	5 (12)	5 (12)	6 (14)	6 (14)	2006±1	34 (83)	3.6±0.2
Osceola Scrub	22 (37)	13 (59)	7 (33)	1 (5)	2 (10)	2 (10)	1 (5)	2005±2	18 (86)	3.6±0.3
S. Florida Dry Prairie	19 (41)	9 (47)	11 (58)	4 (21)	3 (16)	1 (5)	0 (0)	2007±2	14 (74)	3.8±0.2
<b>South Subtotal</b>	<b>83 (33)</b>	<b>52 (62)</b>	<b>34 (41)</b>	<b>10 (12)</b>	<b>10 (12)</b>	<b>9 (11)</b>	<b>7 (9)</b>	<b>2006±0</b>	<b>66 (76)</b>	<b>3.6±0.1</b>
<b>Total</b>	<b>347 (33)</b>	<b>208 (59)</b>	<b>64 (18)</b>	<b>22 (6)</b>	<b>40 (12)</b>	<b>88 (25)</b>	<b>58 (17)</b>	<b>2005±0</b>	<b>259 (76)</b>	<b>3.7±0.1</b>

**Table 21.** The Florida Private Landowner Wildlife Habitat Monitoring Survey responses that indicated if landowners currently had a management plan, who prepared it, if it included wildlife and habitat management, when it was prepared, and the plan usefulness (1="Not Useful"—5="Very Useful"), 2011.

Focus Area	Financial Program Awareness n (%)	Financial Program Interest $\bar{x}\pm SE$	Financial Program Participation n (%)	USFWS n (%)	NRCS n (%)	Water Management District n (%)	FWC n (%)	FFS n (%)	Program Satisfaction $\bar{x}\pm SE$
Apalachicola/St.Marks	53 (39)	2.6±0.1	5 (4)	1 (20)	3 (60)	0 (0)	2 (40)	3 (60)	4.0±0.2
Blackwater/Eglin	48 (30)	2.9±0.1	9 (6)	2 (22)	6 (67)	0 (0)	3 (33)	3 (33)	3.8±0.5
Camp Blanding Uplands	14 (33)	2.6±0.3	1 (2)	0 (0)	0 (0)	0 (0)	1 (100)	1 (100)	4.0±0
Ecofina	48 (32)	3.1±0.1	9 (6)	3 (38)	5 (71)	1 (14)	3 (43)	1 (14)	4.3±0.3
<b>North Subtotal</b>	<b>163 (33)</b>	<b>2.9±0.0</b>	<b>24 (5)</b>	<b>6 (26)</b>	<b>14 (64)</b>	<b>1 (5)</b>	<b>9 (41)</b>	<b>8 (36)</b>	<b>4.0±0.3</b>
Brooksville Ridge	38 (31)	2.7±0.1	9 (7)	0 (0)	6 (67)	1 (11)	2 (22)	3 (33)	4.4±0.2
Chassahowitzka	13 (34)	2.6±0.2	3 (8)	0 (0)	1 (33)	0 (0)	1 (33)	3 (100)	3.7±0.7
Citrus/Marion	13 (22)	3.0±0.2	3 (5)	1 (33)	3 (100)	1 (33)	1 (33)	0 (0)	3.0±0.0
Lake/Volusia Scrub	32 (29)	3.1±0.2	9 (8)	0 (0)	8 (80)	0 (0)	1 (10)	3 (30)	4.0±0.2
<b>Central Subtotal</b>	<b>96 (29)</b>	<b>2.9±0.1</b>	<b>24 (7)</b>	<b>1 (4)</b>	<b>18 (72)</b>	<b>2 (8)</b>	<b>5 (20)</b>	<b>9 (36)</b>	<b>4.0±0.2</b>
Lake Wales Ridge	57 (39)	2.8±0.1	13 (9)	2 (18)	8 (73)	1 (9)	3 (27)	2 (18)	4.0±0.8
Osceola Scrub	26 (43)	3.1±0.2	5 (8)	1 (20)	3 (60)	0 (0)	3 (60)	1 (20)	3.4±0.7
S. Florida Dry Prairie	24 (49)	3.0±0.2	7 (14)	2 (29)	5 (71)	1 (14)	2 (29)	0 (0)	3.9±0.4
<b>South Subtotal</b>	<b>107 (41)</b>	<b>2.9±0.1</b>	<b>25 (10)</b>	<b>5 (22)</b>	<b>16 (70)</b>	<b>2 (9)</b>	<b>8 (35)</b>	<b>3 (13)</b>	<b>3.8±0.2</b>
<b>Total</b>	<b>366 (34)</b>	<b>2.9±0.0</b>	<b>73 (7)</b>	<b>12 (17)</b>	<b>48 (67)</b>	<b>5 (7)</b>	<b>22 (31)</b>	<b>20 (29)</b>	<b>4.0±0.1</b>

**Table 22.** The Florida Private Landowner Wildlife Habitat Monitoring Survey responses that indicated if landowners were aware that government agencies provide financial assistance for wildlife habitat improvement, their level of interest in applying for a financial assistance program to improve wildlife habitat on their land (1="No Interest"—5="High Interest"), if they had participated in a financial assistance program that included wildlife habitat improvement in the last five years, and if so, which agency administered the program and landowner satisfaction with the program. (1="Unsatisfied"—5="Satisfied"), 2011.

Focus Area	Technical Workshop Awareness n (%)	Technical Workshop Interest $\bar{x}\pm SE$	Contacted FWC n (%)	Number of Contacts $\bar{x}\pm SE$	FWC Satisfaction $\bar{x}\pm SE$
Apalachicola/St.Marks	53 (39)	2.6±0.1	15 (11)	2±0	4.4±0.4
Blackwater/Eglin	44 (28)	2.8±0.1	11 (7)	3±1	3.1±0.6
Camp Blanding Uplands	19 (45)	2.9±0.1	3 (7)		4.0±0.6
Ecofina	47 (32)	3.0±0.1	14 (9)	8±4	4.1±0.3
<b>North Subtotal</b>	<b>163 (34)</b>	<b>2.8±0.1</b>	<b>43 (9)</b>	<b>4±2</b>	<b>4.0±0.2</b>
Brooksville Ridge	49 (41)	2.8±0.1	8 (6)	6±2	4.6±0.3
Chassahowitzka	15 (39)	2.8±0.2	5 (13)	3±1	4.0±0.8
Citrus/Marion	13 (22)	2.9±0.2	3 (5)	2±0	4.0±1.0
Lake/Volusia Scrub	30 (28)	3.1±0.1	14 (13)	3±1	3.3±0.4
<b>Central Subtotal</b>	<b>107 (33)</b>	<b>2.9±0.1</b>	<b>30 (9)</b>	<b>4±1</b>	<b>3.8±0.3</b>
Lake Wales Ridge	58 (39)	2.7±0.1	13 (9)	4±2	4.6±0.2
Osceola Scrub	22 (37)	3.1±0.2	10 (16)	6±4	2.9±0.4
S. Florida Dry Prairie	25 (51)	2.8±0.2	10 (21)	3±1	3.9±0.5
<b>South Subtotal</b>	<b>105 (41)</b>	<b>2.8±0.1</b>	<b>33 (13)</b>	<b>4±1</b>	<b>3.9±0.2</b>
<b>Total</b>	<b>375 (35)</b>	<b>2.9±0.0</b>	<b>106 (10)</b>	<b>4±1</b>	<b>3.9±0.1</b>

**Table 23.** The Florida Private Landowner Wildlife Habitat Monitoring Survey responses that indicated if landowners were aware that government agencies conducted technical workshops on wildlife habitat improvement for private landowners, landowner interest in attending technical workshops (1="No Interest"—5="High Interest"), if respondents had contacted the FWC in the last five years, the number of contacts, and their satisfaction with the information provided by the FWC (1="Unsatisfied"—5="Satisfied"), 2011.

## DISCUSSION AND RECCOMENDATIONS

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Wildlife management continues to be an important activity for most landowners in Florida with 86% of landowners indicating their routine land management practices benefitted wildlife, 57% actively managing for wildlife, and 40% having land specifically set aside for wildlife habitat and native ecosystems. The percentage of landowners actively managing for wildlife is similar to the 2008 baseline survey (58%), yet the percentage of landowners perceiving their routine management practices benefit wildlife is higher than the 68% reported in the 2008 baseline survey. This is likely not an actual increase, rather an artifact of asking the question slightly differently in the 2011 survey. In 2008, we allowed for 3 answer choices to this question about routine land management practices, “yes, no, don’t know,” but in the 2011 survey we only allowed for “yes, no.” The 2008 survey had 15% “don’t know” responses, and could easily account for the difference between 2008 and 2011. However, the question about landowners actively managing for wildlife did not have a “don’t know” answer option in 2008, making the actively manage for wildlife question identical to the 2011 survey, and accounting for the similarity in responses for this question between the 2008 and 2011 surveys (58% and 57%, respectively). By forcing landowners to stop and think about the routine land management question, rather than quickly responding “don’t know”, landowners may have expended the actual cognitive effort needed to fully consider if their routine land management practices benefit wildlife. This possibility is supported by phenomena observed in other public opinion survey experiments of substantive versus nonsubstantive answer choices (Krosnick et al. 2002). Regardless, with high percentages of landowners perceiving their routine land management benefiting wildlife indirectly, as well as actively managing and reserving land for wildlife, it further supports private lands wildlife conservation is viable and active in Florida.

The benefits landowners receive from having wildlife on their property focused on four aspects: providing the family with hunting and wildlife watching opportunities, perceptions that wildlife help maintain healthy land, and to a lesser degree, perceptions that wildlife provide crop and pasture pollination benefits. Although wildlife can provide substantial monetary benefits on individual properties, such as income from consumptive and nonconsumptive wildlife enterprises, conservation easements, and species or habitat mitigation banking, these opportunities have yet to realize widespread adoption by private landowners in Florida. This observation is similar to other research in the southeastern US, whereby personal wildlife benefits such as hunting, fishing, pollination, and wildlife watching were reported frequently and economic wildlife benefits were negligible (Willcox & Giuliano 2011). Private landowner wildlife assistance programs should not discourage wildlife enterprises, as they can have tangible benefits to individuals, but it would be prudent to focus programs on issues that enhance wildlife habitat for landowners’ personal enjoyment, improve land quality, and benefit agricultural production.

Landowners generally perceived that over the past five years, animals such as deer, turkeys, bears, and feral hogs have either stayed the same or increased; songbirds, panthers, alligators, bald eagles, gopher tortoises, and waterfowl have stayed the same; and quail have either stayed the same or decreased. These population trends were similar across most regions and focus areas, with the exception that landowners in the South region more frequently perceived increases in feral hogs and landowners in Apalachicola/St.Marks and Lake/Volusia Scrub more frequently reported increases in bear population than in any other focus area. In the next five years, landowners generally wanted populations of songbirds, quail, turkey, bald eagles, and waterfowl to increase; deer, panthers, and gopher tortoises to stay the same or increase; bears to stay the same; alligators to stay the same or decrease; and feral hogs to decrease. The most notable regional and focus area differences in the desired future population trends mirror past population trend differences. Respondents in the South wanted feral hogs to decrease more than other regions and high proportions of landowners in Apalachicola/St.Marks and Lake/Volusia Scrub wanted bears to decrease over the next five years. Consequently, assistance programs that promote habitat management for animals landowners want to increase on their property would likely be more attractive to landowners than those for other species. Assistance programs should also highlight control measures for unwanted non-native invasive species such as feral hogs. A reduction in feral hog numbers would not only meet landowner desired future hog population goals, but also improve wildlife habitat as a result of reduced hog impacts. Special care should be immediately taken with respect to bears, focusing initially on

residents in the Apalachicola/St.Marks and Lake/Volusia Scrub focus areas. Residents in this area have perceived increases in bear populations over the last five years and would like to see their populations decrease in the future. This likely corresponds to landowners having negative interactions with bears. These negative interactions could have an adverse effect on the landowner—FWC relationship in these areas if a “living with bears” or “bear aware” outreach program is not aggressively expanded. We suggest a community-based social marketing approach (McKenzie-Mohr & Smith 1999) that would involve an initial assessment of landowner attitudes, knowledge, and barriers to implementing bear-safe landowner behaviors such as using bear-resistant garbage containers, securing grills indoors after use, and feeding pets indoors. Once landowner behavior towards implementing “bear aware” activities is better understood, a targeted campaign using social marketing tools such as prompts, commitments, and removal of external barriers could be designed (e.g. subsidizing bear-resistant garbage containers if cost is a barrier to their use, working with waste removal services to provide bear-resistant garbage containers, producing prompts on items like grill covers or grill tools with messages that remind people to bring the grill indoors after use, assertive information campaigns if knowledge is a barrier to living with bears, partnering with real estate agencies to target new landowners moving to bear country, etc.).

Providing supplemental food for wildlife (62%) was the most common wildlife management activity implemented by respondents, with deer, turkey, and songbirds being fed most frequently. Feeding may warrant some attention by landowner wildlife assistance programs by recognizing it as the most popular activity for landowners and promote other activities such as habitat restoration and improvement, providing cover, and supplying water as ways for landowners to boost the effectiveness of their feeding activities. This should not only increase and improve wildlife populations they intended to feed, but potentially improve wildlife habitat generally for all species. Planting food plots (46%), an indirect method of feeding, was also popular and could similarly be integrated into wildlife management technical programs that manage for all habitat components. Although generally, wildlife did not cause more than a “slight problem” to landowners, wildlife problems can potentially discourage landowners from managing for wildlife. Therefore measures to control unwanted species should continue to be included in landowner wildlife assistance programs, especially if the wildlife are damaging to property and production. As indicated in the questions about desired populations of certain animals, as well as the data asking directly about problem wildlife, landowner assistance programs may want to focus on feral hogs, coyotes, and bears. The data for problems with bears also supports the desired future population of bears for Apalachicola/St.Marks and Lake/Volusia Scrub focus areas, as mean scores for landowners having problems with bears are approximately one scale point higher than the other focus areas (problems on a 5 point scale from 1=“No Problem—5=“Extreme Problem”). Additionally, as similarly seen in the desired future population of feral hogs, hogs were also listed as causing considerably more of a problem in the South region than the other areas.

Two thirds of landowners reported not being able to identify the non-native invasive plants listed in the survey. Therefore, the extent of non-native plant invasions in the FWC focus areas is likely much larger than the incidences reported by those who could identify these plants. If landowner wildlife assistance programs want to address non-native invasive plants an awareness and identification campaign may be beneficial. There is already an abundance of information on identification and control of non-native invasive plants available online and in print through organizations such as the Florida Exotic Pest Plant Council, the Florida Invasive Species Partnership, the FWC Upland Plant Management Program, and the UF Institute of Food and Agricultural Sciences Extension. By working with those organizations and stressing the negative wildlife impacts of non-native invasive plants, wildlife landowner assistance programs could provide information to landowners on plant identification and control through mass mailings, organized outreach events, and technical workshops.

Prescribed fire is a key habitat management tool and most Florida ecosystems rely on frequent fire for maintenance. Although beneficial, prescribed fire use can be challenging for landowners to apply, as fire can be dangerous, unpredictable, and smoke from fires can make roads hazardous and negatively affect people with respiratory conditions. Landowners must have sufficient knowledge, skill, and experience to conduct burns and get the necessary permissions and permits from FFS to conduct them. Although this task is challenging, one quarter of landowners conducted an average of seven prescribed fires in the last five years, affecting an average of 1019 acres total per burner.

Although most fires were conducted during the dormant season (November-March) and historical natural fires likely occurred during the growing season (spring and summer) when thunderstorms are more frequent, current prescribed fires are likely having a substantial positive wildlife habitat effect within the FWC focus areas. Some landowners were conducting growing season burns, and this practice should be encouraged as it likely has a greater positive effect on wildlife habitat than dormant season burns. There was a clear distinction among the regions related to fire to production uses with the North burning to improve timber stands and the South to improve livestock forage. However, universally across the state, they listed reducing the fuel load (wildfire prevention) and improving wildlife habitat as prescribed fire goals. Prescribed burners were generally satisfied with fire outcome and the difficulty of fire application slightly leaned toward “Easy” with a mean score of 3.8 on a five-point scale ranging from “Difficult” to “Easy.” With such a high level of satisfaction with fires, and the tendency for positive experiences with past behavior to predict future behavior, it is likely these landowners will continue burning in the future, barring no major changes to regulations or permitting. Although most landowners burned themselves or with the assistance of their family or employees, one quarter relied on FFS to assist them with burns. It is therefore important FFS and other agencies continue to support private lands prescribed fire application by assisting landowners directly with burns. Additional benefits of agency staff working side-by-side with landowners on burns will likely include strengthening agency-landowner relationships, sharing prescribed fire knowledge and experiences, and instilling more confidence in landowners to conduct safe and effective prescribed burns independently.

Generally, respondents indicated by a slight majority that they were “Unlikely” to use prescribed fire in the next five years (2.6; 1=“Unlikely”—5=“Likely”). Responses were also mixed for all questions related to prescribed fire barriers and attitudes towards its use. Although not much can be inferred from these descriptive statistics alone, the data are well-suited for more complex multivariate statistical analyses that should predict private landowner prescribed fire use (Willcox et al. in prep).

With half of landowners being aware that agencies provide land management plans to landowners and landowners being interested in learning more about land management plans, it may be prudent for agencies wanting to increase participation in planning initiatives to initiate or expand awareness campaigns. The Florida Land Steward Program, a collaboration of agencies involved in private lands natural resource management that emphasizes planning, launched in 2012 and should be able to raise awareness and education about planning initiatives. In addition to the website, newsletter, and landowner management calendar resources already produced, a postcard, trifold self-mailer brochure, radio or television advertisement, or visual prompt such as a refrigerator magnet could be mailed to landowners in the focus areas advertising the Florida Land Steward Program and planning initiatives. This advertisement could further increase planning program awareness and participation. The planning topics most desired by landowners such as habitat, game, timber, and agriculture management are covered and prioritized in all current land planning initiatives, and therefore agencies appear to be mirroring landowner needs. Additionally, landowners were most interested in detailed, complete plans that focused on all land uses and activities, an aspiration current planning programs accommodate. Fishpond management, a topic that landowners indicated would be the fifth most useful, may require the Florida Land Steward Program to look for other resources within the FWC, UF, or elsewhere to meet landowner planning objectives in certain cases.

Landowner interest in plans is also reinforced by one-third of respondents indicating they currently have a management plan for their property. Most, 59%, of these plans were prepared by the landowner themselves, but agency plans are also popular, with a combined 55% of landowners having a current NRCS, FWC, or FFS plan. With three-quarters of plans including wildlife management, and landowners generally finding plans quite useful (3.7; 1=“Non Useful”—5=“Very Useful”), agencies with wildlife habitat planning initiatives should be encouraged they are meeting landowner planning needs and likely positively impacting wildlife habitat management.

For both financial assistance programs and technical workshops for wildlife habitat improvement, about one third of respondents were aware of them and indicated a moderate interest (2.9; 1=“No Interest”—5=“High Interest”). If agencies desired to increase participation in these programs, we advise they first increase awareness so as to reach the

two thirds of landowners unfamiliar with them. An awareness-raising campaign should be timely and wide reaching, advertising workshops or financial assistance programs near to the date by directly mailing postcards or brochures to potential participants based on the property tax database (i.e. the same list used as a sampling frame for this survey), or by mass media channels that could include radio or popular and trade magazines and newsletters. The seven percent of landowners who participated in a financial assistance program in the last five years that included wildlife management were quite satisfied with the program (4.0; 1="Unsatisfied"—5="Satisfied"). If agencies would like to more completely evaluate financial assistance program participation, we suggest designing a short, compulsory entry and exit survey for program participants that directly assesses program specifics.

The FWC and other organizations are providing topical assistance to landowners and land managers for wildlife habitat management, a very prominent, widespread, and desired land use in Florida. By working with landowners to meet their production and wildlife management goals concurrently, private lands wildlife habitat should continue to thrive in Florida. As private lands wildlife habitat programs continue to grow over the years, this Florida Private Landowner Habitat Monitoring Survey will allow the FWC to track wildlife habitat management trends, assess program effectiveness, and adapt programs to meet landowner and wildlife habitat objectives.

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# APPENDICES

## APPENDIX 1: THE FLORIDA PRIVATE LANDOWNER HABITAT MONITORING SURVEY



### Wildlife and Habitat

1. Do you own or manage 20+ acres of land in Florida?  
 No  Yes  
**If "No" please stop and mail the survey back to us**

2. Do your routine land management practices benefit wildlife?  
 No  Yes

3. Do you actively manage for wildlife?  
 No  Yes

4. How many acres of the following do you have and are they **managed for wildlife habitat**? Please indicate "0" acres if you do not have the type of land use

#Acres	Managed for wildlife habitat?	
	No	Yes
Native forests	<input type="checkbox"/>	<input type="checkbox"/>
Native wetlands	<input type="checkbox"/>	<input type="checkbox"/>
Native grassland	<input type="checkbox"/>	<input type="checkbox"/>
Timber stands	<input type="checkbox"/>	<input type="checkbox"/>
Planted pastures	<input type="checkbox"/>	<input type="checkbox"/>
Planted crop fields	<input type="checkbox"/>	<input type="checkbox"/>
Groves or orchards	<input type="checkbox"/>	<input type="checkbox"/>
Yard & landscaping	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>

5. Do you have land set aside specifically for wildlife habitat or native ecosystems?  
 No  Yes  #Acres

6. Do wildlife provide any of the following benefits on your land?

	No benefit	Serious benefit
Family hunting	<input type="checkbox"/>	<input type="checkbox"/>
Family wildlife watching	<input type="checkbox"/>	<input type="checkbox"/>
Hunting lease income	<input type="checkbox"/>	<input type="checkbox"/>
Ecotourism enterprises	<input type="checkbox"/>	<input type="checkbox"/>
Crop or pasture pollination	<input type="checkbox"/>	<input type="checkbox"/>
Income from per animal hunts	<input type="checkbox"/>	<input type="checkbox"/>
Help maintain healthy land	<input type="checkbox"/>	<input type="checkbox"/>
Conservation easement income	<input type="checkbox"/>	<input type="checkbox"/>
Mitigation banking income (wildlife or habitat banks)	<input type="checkbox"/>	<input type="checkbox"/>

### Wildlife and Habitat

7. **In the last 5 years**, have the populations of these wildlife on your property decreased, stayed the same, or increased? Please mark **N/A** if the animal does not occur naturally in your area

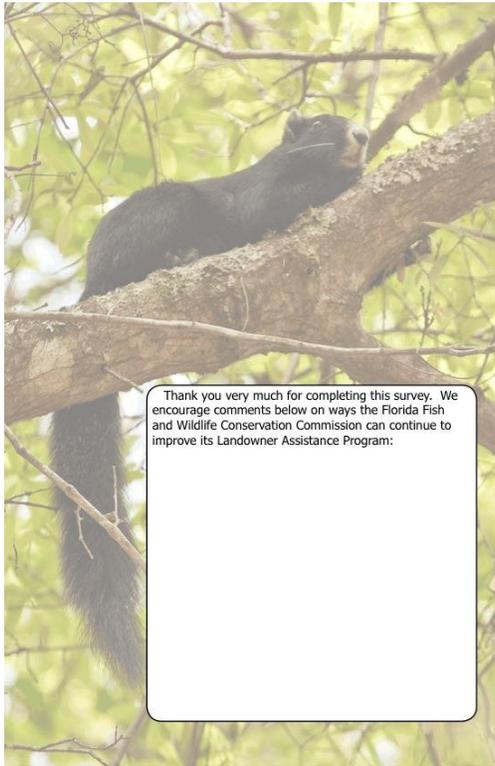
	Decreased	Stayed the same	Increased	N/A	
<input type="checkbox"/>	Deer				
<input type="checkbox"/>	Songbirds				
<input type="checkbox"/>	Panthers				
<input type="checkbox"/>	Quail				
<input type="checkbox"/>	Alligators				
<input type="checkbox"/>	Turkey				
<input type="checkbox"/>	Bald eagles				
<input type="checkbox"/>	Gopher tortoises				
<input type="checkbox"/>	Bears				
<input type="checkbox"/>	Feral hogs				
<input type="checkbox"/>	Waterfowl (e.g. ducks and geese)				

8. Would you like populations of the following wildlife to decrease, stay the same, or increase on your property over the **next 5 years**? Please mark **N/A** if the animal does not occur naturally in your area

	Decrease	Stay the same	Increase	N/A	
<input type="checkbox"/>	Deer				
<input type="checkbox"/>	Songbirds				
<input type="checkbox"/>	Panthers				
<input type="checkbox"/>	Quail				
<input type="checkbox"/>	Alligators				
<input type="checkbox"/>	Turkey				
<input type="checkbox"/>	Bald eagles				
<input type="checkbox"/>	Gopher tortoises				
<input type="checkbox"/>	Bears				
<input type="checkbox"/>	Feral hogs				
<input type="checkbox"/>	Waterfowl (e.g. ducks and geese)				







# Florida Private Landowner Wildlife Habitat Monitoring Survey

