Sherman's Fox Squirrel Biological Status Review Report

March 31, 2011

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
620 South Meridian Street
Tallahassee, Florida 32399-1600

Biological Status Review Report
for the
Sherman's fox squirrel
(*Sciurus niger shermani*)
March 31, 2011

EXECUTIVE SUMMARY

The Florida Fish and Wildlife Conservation Commission (FWC) directed staff to evaluate all species listed as Threatened or Species of Special Concern as of November 8, 2010 that had not undergone a status review in the past decade. Public information on the status of the Sherman's fox squirrel was sought from September 17 to November 1, 2010. The members of the Biological Review Group (BRG) met on November 3-4, 2010. Group members were Elina Garrison (FWC lead), Robert McCleery (University of Florida), and John Kellam (National Park Service). In accordance with rule 68A-27.0012, Florida Administrative Code (F.A.C.), the BRG was charged with evaluating the biological status of the Sherman's fox squirrel using criteria included in definitions in 68A-27.001, F.A.C., and following the protocols in the *Guidelines for Application of the IUCN Red List Criteria at Regional Levels (Version 3.0)* and *Guidelines for Using the IUCN Red List Categories and Criteria (Version 8.1)*. Please visit http://myfwc.com/wildlifehabitats/imperiled/listing-action-petitions/ to view the listing process rule and the criteria found in the definitions.

In late 2010, staff developed the initial draft of this report which included BRG findings and a preliminary listing recommendation from staff. The draft was sent out for peer review and the reviewers' input has been incorporated to create this final report. The draft report, peer reviews, and information received from the public are available as supplemental materials at http://myfwc.com/wildlifehabitats/imperiled/biological-status/.

The Sherman's fox squirrel BRG concluded from the biological assessment that the Sherman's fox squirrel did not meet any listing criteria. They also, however, expressed concerns about the adequacy of the data currently available for making this evaluation. FWC staff therefore recommends that the Sherman's fox squirrel be maintained as a Species of Special Concern until more data can be collected.

This work was supported by a Conserve Wildlife Tag grant from the Wildlife Foundation of Florida. FWC staff gratefully acknowledges the assistance of the biological review group members and peer reviewers. Staff would also like to thank Karen Nutt who served as a data compiler on the species and drafted much of this report.

BIOLOGICAL INFORMATION

Taxonomic Classification –Sherman's fox squirrel (*Sciurus niger shermani*) is one of three subspecies of fox squirrels occurring in Florida. Sherman's fox squirrel has been defined to the subspecies *Sciurus n. s.* on the basis of size (it is only slightly larger than *S. n. niger*, but

considerably larger than *S. n. avicennia*; Moore 1956; Turner and Laerm 1993 as cited in Wooding 1997).

Life History – Sherman's fox squirrel is a large (600-700mm) tree squirrel with highly variable dorsal fur color ranging from silver to all black (uncommon), with variations of silver over black and black over silver (Florida Natural Areas Inventory 2001). Ideal habitat for Sherman's fox squirrels is mature, open, fire-maintained longleaf pine (*Pinus palustrus*) - turkey oak (*Quercus laevis*) sandhills and flatwooods (Florida Natural Areas Inventory 2001; Kantola 1992; Kantola and Humphrey 1990; Moore 1957). To accommodate the large home-ranges and fluctuating food resources, suitable habitat should also include more productive lower slopes of sandhills (Kantola 1992). This species also inhabits mixed hardwood pine, mature pine forests, cypress domes, pastures, the ecotone between bayheads and pine flatwoods, and other open habitats with pines and oaks (summarized in Endries *et al*. 2009; Florida Natural Areas Inventory 2001).

Sherman's fox squirrel typically has two breeding seasons each year. The winter breeding season is from October to February and the summer breeding season is from April to August (Wooding 1997). Males expand their home ranges during the breeding season and several males will cluster around a single female while she is in estrus (Wooding 1997; see Koprowski 1994 for a summary of breeding behavior in *Sciurus niger*). Females average one litter per year with a mean of 2.3 offspring per litter (Moore 1957; Wooding 1997), compared with 2.5-3.2 young for the midwestern fox squirrel (Kantola 1992). Young are weaned at 90 days and sexual maturity is reached at about 9 months. Captive fox squirrels have lived more than 10 years (Moore 1957); however, based on an annual mortality rate of 30% for radio-collared adult squirrels and field observations, average longevity in the wild is likely considerably less than 10 years (Wooding 1997).

Longleaf pine seeds and turkey oak acorns appear to be some of the main food items utilized by Sherman's fox squirrels. Squirrels have been observed to move their home ranges into live oak forests if a mast failure of turkey oak occurs (Kantola and Humphrey 1990). The highest quality habitat for Sherman's fox squirrel may therefore be habitat that includes both longleaf pine savanna and live oak forest (Kantola and Humphrey 1990). Additional food items include other acorns, fungi, bulbs, vegetative buds, insects, nuts and staminate pine cones (Kantola 1992).

Sherman's fox squirrels use several different nests in their home ranges (Kantola and Humphrey 1990). Most nests are leaf nests made of Spanish moss, pine needles, twigs, and leaves, while a few nests are within tree cavities (Kantola and Humphrey 1990). In the Katharine Ordway Research Preserve, nests of Sherman's fox squirrels were found in six tree species: slash pine, post oak, laurel oak, live oak, turkey oak, and longleaf pine (Kantola and Humphrey 1990).

Sherman's fox squirrels in Florida occur at lower densities and have larger home ranges than estimates obtained for *Sciurus niger* elsewhere in its range (Wooding 1997). A population size of approximately 100-200 animals was estimated to inhabit the 37 km^2 area occupied by the Katharine Ordway Research Preserve, Putnam County, Florida (Kantola and Humphrey 1990). Other density estimates in Florida range from 7 to 38 individuals/ km^2 (Wooding 1997;

Humphrey et al. 1985; Kantola 1986; Moore 1957). Average home range size for Sherman's fox squirrels is 16.7 ha for females and 42.8 ha for males (Kantola and Humphrey 1990). In contrast, midwestern fox squirrel home ranges average 0.8-7.0 ha (Kantola 1992). Sherman's fox squirrel adults defend mutually exclusive core areas (Kantola and Humphrey 1990). Males have home ranges that overlap with those of females and other males, but there is very little overlap in home ranges of adult females (Wooding 1997). The relatively large home ranges of Sherman's fox squirrels may result from a food supply that varies in time and space (Kantola and Humphrey 1990).

The low carrying capacity in Florida may be explained by a lack of high quality, storable seeds, coupled with periodic failures of seed crops (Wooding 1997). Habitat that is low in productivity leads to low population densities, large home range sizes, and the low production of young per unit area (Wooding 1997).

Geographic Range and Distribution – Three surveys have assessed the distribution of fox squirrels in Florida (Brady 1977; Williams and Humphrey 1979; Wooding 1997). Based on morphological characteristics, *Sciurus niger shermani* range includes most of peninsular Florida, extending northward into central and southern Georgia, westward into Gilchrist and Levy counties, southward on the west coast probably to the vicinity of the Caloosahatchee River (at least to Highlands and Hillsborough counties), and southward on the east coast to Jupiter, Palm Beach County (Moore 1956; Wooding 1997).

Population Status and Trend – Population size of Sherman's fox squirrels is unknown. However, based on known levels of habitat loss, Sherman's fox squirrels are believed to have declined at least 85% from presettlement levels (Kantola 1992). Sherman's fox squirrels are rare because their habitat has been lost or degraded, and that which is left is highly fragmented (Kantola 1992; Wooding 1997). These trends are expected to continue due to the persistent destruction of *S. n. shermani*'s native habitat (FWC 2005; Kantola and Humphrey 1990; Wooding 1997). It is predicted that between 2010 and 2020, approximately 4% of Florida's total land area will undergo urban development. It is also predicted that 39.4% of the converted land will be native habitat (Zwick and Carr 2006). Conversely, Florida's programs for purchasing public conservation lands (e.g., Preservation 2000 and Florida Forever) have likely offset some of these losses. In addition, efforts are being made to restore degraded sandhill habitat (https://public.myfwc.com/crossdoi/fundedprojects/GrantDetails.aspx?ID=215). These restoration projects will increase the quantity and quality of habitat for wildlife species on 6,740 ha of sandhill habitat in Florida by 2012 and may offset some of the future habitat loss and fragmentation. Approximately 50% of potential habitat is on conservation lands, the other 50% is vulnerable to degradation or conversion to other uses (Endries et al. 2009; M. Endries, FWC, unpublished data).

Quantitative Analyses – A population viability analysis was carried out on Sherman's fox squirrel using demographic information from the species as a whole (Root and Barnes 2006; Endries *et al*. 2009). The baseline model estimated a finite growth rate of 1.0034. Initial abundance was estimated at 0.025 while carrying capacity was estimated at 0.18. Results revealed that the risk of extinction in the next 100 years was zero for both managed habitat and all potential habitat. The risk of large declines was also very small (for example, the probability

of a 50% decline was ~18%). The model was very sensitive to small changes in survival and fecundity so, considering what little is known about this species' demographics, the validity of the results are questionable. Regardless, changes to the finite growth rate altered the probability of a large decline in the population as a whole, but did not change the probability that the species would not go extinct over the next 100 years.

BIOLOGICAL STATUS ASSESSMENT

Threats – The biggest threat to Sherman's fox squirrels is destruction of habitat due to encroaching development (FWC 2005; Kantola and Humphrey 1990). Such habitat loss has already been significant; it is estimated that only 10-20% of original Sherman's fox squirrel native habitat is still intact, most of it having been logged, converted to pasture, ruined by lack of fire, or used for agriculture, commercial development, and residential development (Bechtold and Knight 1982 as cited in Kantola 1992). Florida's longleaf pine forests in particular were reduced by 88% between 1936 and 1986, to the extent that by 1987 only 0.38 million ha remained (Wooding 1997). Many of the other habitat types in which Sherman's fox squirrels are found are declining. Mixed hardwood-pine forest is declining; natural pineland, sandhill, and scrub are in poor condition and declining; and the condition of disturbed/transitional habitat is unknown (FWC 2008). Such habitat destruction is expected to continue as Florida's population continues to expand (FWC 2005; FWC 2008; Zwick and Carr 2006). In addition, most remaining tracts of longleaf pine savanna in Florida are not of good quality (Kantola and Humphrey 1990). Logging and the suppression of fire have led to the replacement of pine trees by turkey oak over much of *S. n. shermani*'s range (Kantola and Humphrey 1990). Yearly burns of longleaf pinelands on northern bobwhite quail (*Colinus virginianus*) plantations also prevent pine seedling growth, damaging the habitat for fox squirrels and other wildlife (Kantola and Humphrey 1990). For proper regeneration, longleaf pine savanna habitat requires a burning regime in which areas are prescribed burned every 3 to 5 years (Kantola and Humphrey 1990).

Due to their slow, lumbering gait, Sherman's fox squirrels are vulnerable to road mortality. Mortality due to vehicle collisions is likely to increase as Florida's human population increases.

Hunting of Sherman's fox squirrels also may have been detrimental to local populations, particularly small, isolated populations that have low potential for recolonization (Kantola 1992). Presumably this threat has ceased as hunting of Sherman's fox squirrel is no longer permitted.

Sciurus niger shermani is currently listed as Lower Risk, near threatened by the IUCN Rodent Specialist Group because of "extensive loss of the habitat of *S. n. shermani*, which could be mitigated by establishment of preserves of adequate size" (Hafner *et al*. 1998).

The recommended action of the IUCN Rodent Specialist Group (Hafner *et al*. 1998) was:

"Establish large (several km^2) preserves of longleaf pine habitat for *S. n. shermani*; management should include a natural fire-cycle of burning at 3 to 5-year intervals."

Kantola (1992) recommended: (1) preserving and reclaiming large areas (at least 25 km^2) of Sherman's fox squirrel habitat with a prescribed summer burn every 2 to 3 years; (2) conduct status surveys to determine population levels throughout the fox squirrel's range; and (3) determine the effects of hunting on small or closed populations.

Population Assessment – Findings from the BRG are included in a Biological Status Review information findings table. The BRG found the Sherman's fox squirrel did not meet any of the listing criteria, but they also expressed concerns about the adequacy of the data for making this evaluation. They referenced uncertainties in current estimates of extent of occurrence, area of occupancy, recent trends, and population size. Please see Additional Notes following the table for additional notes and clarifications.

LISTING RECOMMENDATION

Because the *Guidelines for Using the IUCN Red List Categories and Criteria (Version 8.1)* cautioned "assessors should adopt a precautionary but realistic attitude, and … resist an evidentiary attitude to uncertainty when applying the criteria." Staff recommends that the Sherman's fox squirrel be maintained as a Species of Special Concern until more data can be collected. Research is planned over the next two years to assess the taxon's range, population genetics, and habitat occupancy.

SUMMARY OF THE INDEPENDENT REVIEW

Comments were received from 6 reviewers; Dr. Reed Noss (University of Central Florida), Mr. John Wooding (North Carolina Wildlife Resources Commission), Ms. Deborah Jansen (National Park Service, Big Cypress National Preserve), Dr. Jack Stout (University of Central Florida), Dr. Bill Giuliano (University of Florida) and Dr. Brad Bergstrom (Valdosta State University). Appropriate editorial changes recommended by the reviewers were made to the report, and road mortality was included as an additional threat.

Five reviewers concurred with the staff recommendation to maintain Sherman's fox squirrel as a Species of Special Concern until more data can be collected. One reviewer recommended that Sherman's fox squirrels should be listed as Threatened until substantial further study finds them much more abundant and stable than existing evidence suggests. Peer reviews are available at MyFWC.com.

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Biological Status Review Information Findings		
	Species/taxon:	Sherman's Fox Squirrel (*Sciurus niger shermani*)
	Date:	11/04/10
	Assessors:	Elina Garrison, John Kellam, Robert McCleery
	Generation length:	Generation length = 3 years; used 10 years as the time frame (Please see additional notes).

Criterion/Listing Measure	Data/Information	Data Type*	Sub-Criterion Met?	References
*Data Types - observed (O), estimated (E), inferred (I), suspected (S), or projected (P). Sub-Criterion met - yes (Y) or no (N).				
(A) Population Size Reduction, ANY of				
(a)1. An observed, estimated, inferred or suspected population size reduction of at least 50% over the last 10 years or 3 generations, whichever is longer, where the causes of the reduction are clearly reversible and understood and ceased[1]	Population reduction due to hunting (d) has ceased.	I	N	Kantola 1992
(a)2. An observed, estimated, inferred or suspected population size reduction of at least 30% over the last 10 years or 3 generations, whichever is longer, where the reduction or its causes may not have ceased or may not be understood or may not be reversible[1]	Population reduction due to habitat loss and fragmentation is suspected. Extent of decline in last 10 years is unknown.	I	N	FWC 2005, Wooding 1997, Kantola and Humphrey 1990
(a)3. A population size reduction of at least 30% projected or suspected to be met within the next 10 years or 3 generations, whichever is longer (up to a maximum of 100 years) [1]	Population reduction projected in future based on area of occupancy and quality of habitat. Extent of the decline unknown.	I	N	Zwick and Carr 2006, FWC 2005
(a)4. An observed, estimated, inferred, projected or suspected population size reduction of at least 30% over any 10 year or 3 generation period, whichever is longer (up to a maximum of 100 years in the future), where the time period must include both the past and the future, and where the reduction or its causes may not have ceased or may not be understood or may not be reversible.[1]	Please see notes on A2 and A3.	I	N	Zwick and Carr 2006, FWC 2005
[1] based on (and specifying) any of the following: (a) direct observation; (b) an index of abundance appropriate to the taxon; (c) a decline in area of occupancy, extent of occurrence and/or quality of habitat; (d) actual or potential levels of exploitation; (e) the effects of introduced taxa, hybridization, pathogens, pollutants, competitors or parasites.				
(B) Geographic Range, EITHER				
(b)1. Extent of occurrence < 20,000 km^2 (7,722 mi^2) OR	Based on available range estimates, extent of occurrence is greater than 20,000 km^2.	I, E	N	Wooding 1997, Moore 1956, Kantola 1992

(b)2. Area of occupancy < 2,000 km^2 (772 mi^2)	Based on GIS-based model of available habitat, AOO is estimated at 14,222 km^2. The habitat model has not been ground proofed for actual occupancy and likely overestimates the AOO, however, it is unlikely that the overestimate exceeds 80%.	I, E	N	Endries et al. 2009
AND at least 2 of the following:				
a. Severely fragmented or exist in ≤ 10 locations	Occurs in more than 10 locations.	I	N	Wooding 1997
b. Continuing decline, observed, inferred or projected in any of the following: (i) extent of occurrence; (ii) area of occupancy; (iii) area, extent, and/or quality of habitat; (iv) number of locations or subpopulations; (v) number of mature individuals	See notes from A3.	I	N	
c. Extreme fluctuations in any of the following: (i) extent of occurrence; (ii) area of occupancy; (iii) number of locations or subpopulations; (iv) number of mature individuals	No data to indicate extreme fluctuations.	I	N	
(C) Population Size and Trend				
Population size estimate to number fewer than 10,000 mature individuals AND EITHER	Statewide population size is unknown, however, previous density estimates in Florida range from 2.7 - 38 squirrels/km2. Using Endries et al. 2007 estimated area of occupancy (14,222 km2) and the lowest density estimate, the number of individuals equals 38,381. Even if we assume only 50% of the estimated available habitat is occupied, the population size estimate is above the 10,000 threshold.	E, I	N	Kantola and Humphrey 1990, Wooding 1997, Humphrey et al. 1985, Kantola 1986 and Moore 1957
(c)1. An estimated continuing decline of at least 10% in 10 years or 3 generations, whichever is longer (up to a maximum of 100 years in the future) OR	We do not have estimates of decline.		N	
(c)2. A continuing decline, observed, projected, or inferred in numbers of mature individuals AND at least one of the following:	As human population continues to increase, we suspect populations will continue to decline based on habitat loss and fragmentation.	I, P	Y	Zwick and Carr 2006, FWC 2005
a. Population structure in the form of EITHER				
(i) No subpopulation estimated to contain more than 1000 mature individuals; OR	Population size estimates not available.		N	
(ii) All mature individuals are in one subpopulation	All mature individuals are not believed to be in one subpopulation.		N	Wooding 1997, Moore 1956, Kantola 1992
b. Extreme fluctuations in number of mature individuals	There are no data suggesting extreme fluctuations in the number of mature individuals.		N	

(D) Population Very Small or Restricted, EITHER				
(d)1. Population estimated to number fewer than 1,000 mature individuals; OR	Does not apply.		N	
(d)2. Population with a very restricted area of occupancy (typically less than 20 km^2 [8 mi^2]) or number of locations (typically 5 or fewer) such that it is prone to the effects of human activities or stochastic events within a short time period in an uncertain future	Does not apply.		N	
(E) Quantitative Analyses				
e1. Showing the probability of extinction in the wild is at least 10% within 100 years	PVA analysis did not show probability of extinction in wild of at least 10%. The population parameters for the PVA were generated from populations from the midwest, and most research shows that demographic data from the midwest does not apply to Florida fox squirrels, e.g., Florida fox squirrels are more K-selected, reproductive rates are lower, and ranges in the southeast are larger, resulting in lower population densities.	P	N	Root and Barnes 2006

Initial Finding (Meets at least one of the criteria OR Does not meet any of the criteria)	Reason (which criteria/sub-criteria are met)
Does not meet any of the criteria	
Is species/taxon endemic to Florida? (Y/N)	N
If Yes, your initial finding is your final finding. Copy the initial finding and reason to the final finding space below. If No, complete the regional assessment sheet and copy the final finding from that sheet to the space below.	
Final Finding (Meets at least one of the criteria OR Does not meet any of the criteria)	Reason (which criteria/sub-criteria are met)
Does not meet any of the criteria	

1	Species/taxon:	Sherman's fox squirrels
2	Date:	11/3-4/10
3	Assessors:	Elina Garrison, John Kellam, Robert McCleery
4		
5		
6		
7		
8	Initial finding	Supporting Information
9		
10	2a. Is the species/taxon a non-breeding visitor? (Y/N/DK). If 2a is YES, go to line 18. If 2a is NO or DO NOT KNOW, go to line 11.	N
11	2b. Does the Florida population experience any significant immigration of propagules capable of reproducing in Florida? (Y/N/DK). If 2b is YES, go to line 12. If 2b is NO or DO NOT KNOW, go to line 17.	N
12	2c. Is the immigration expected to decrease? (Y/N/DK). If 2c is YES or DO NOT KNOW, go to line 13. If 2c is NO go to line 16.	
13	2d. Is the Florida population a sink? (Y/N/DK). If 2d is YES, go to line 14. If 2d is NO or DO NOT KNOW, go to line 15.	
14	If 2d is YES - Upgrade from initial finding (more imperiled)	
15	If 2d is NO or DO NOT KNOW - No change from initial finding	
16	If 2c is NO or DO NOT KNOW- Downgrade from initial finding (less imperiled)	
17	If 2b is NO or DO NOT KNOW - No change from initial finding	
18	2e. Are the conditions outside Florida deteriorating? (Y/N/DK). If 2e is YES or DO NOT KNOW, go to line 24. If 2e is NO go to line 19.	
19	2f. Are the conditions within Florida deteriorating? (Y/N/DK). If 2f is YES or DO NOT KNOW, go to line 23. If 2f is NO, go to line 20.	
20	2g. Can the breeding population rescue the Florida population should it decline? (Y/N/DK). If 2g is YES, go to line 21. If 2g is NO or DO NOT KNOW, go to line 22.	
21	If 2g is YES - Downgrade from initial finding (less imperiled)	
22	If 2g is NO or DO NOT KNOW - No change from initial finding	
23	If 2f is YES or DO NOT KNOW - No change from initial finding	
24	If 2e is YES or DO NOT KNOW - No change from initial finding	
25		
26	Final finding	No change

Biological Status Review Information
Regional Assessment

Additional Notes

Generation length is defined by IUCN as the average age of adults in the population. Sherman's fox squirrels become sexually mature at 8-9 months, however, they generally do not reproduce until they are over a year old. Using adult mortality of 30% (Wooding 1997) and field observations (J. Kellam, and R. McCleery, personal communication), we estimated the generation length as 3 years. Since three generations is less than 10 years, we used 10 years as the evaluation time frame.

Regional assessment - Although the range of Sherman's fox squirrels extends into Georgia (different authors diverge on how far into Georgia Sherman's fox squirrel range extends; Kantola 1992), based on estimated dispersal distances and densities (Wooding 1997), we concluded that the number of individual fox squirrels that could contribute to reproduction in Florida is minimal.

Final thoughts - It is important to note that the Sherman's fox squirrel Biological Review Group recognized that, similar to other species with short generation length (Cox 2004), the short time frame (10 years) used to assess population trends for Sherman's fox squirrel does not take into account historic losses. Sherman's fox squirrels, with large home-range, low densities, low reproductive rates and preferred habitat that includes open, fire-maintained upland habitat are very vulnerable to habitat loss and fragmentation. However, their short generation length obligated us to limit our past and future evaluation of population trends to 10 years, therefore missing the "big picture" of extensive historical losses. In addition, without current data on geographic range, we based our evaluation of area of occupancy and subsequent calculations of population size on a habitat model that has not been ground truthed for accuracy and may overestimate the area of use. Furthermore, density estimates were obtained from areas where Sherman's fox squirrels are known to be common and may therefore overestimate the density of squirrels in other, less ideal habitats.

Our conclusion is that during the development of the management plan, research that evaluates current status, range and occupancy of Sherman's fox squirrels is critical and that as new data becomes available, it is crucial that Sherman's fox squirrels are re-evaluated prior to removing them from the state list.

APPENDIX 1. Brief biographies of the Sherman's fox squirrel Biological Review Group members.

Elina Garrison has a M.S. in Wildlife Ecology and Conservation from the University of Florida. She has worked as a biologist in FWC's Terrestrial Mammal Research Subsection since 2004. Ms. Garrison has experience with a variety of Florida mammals, including black bears, white-tailed deer, and fox squirrels, and she has assisted with fox squirrel risk assessments and compiling statewide range maps.

Robert McCleery has a Ph.D. in Wildlife Science from Texas A & M University. He currently serves as an assistant professor in the Department of Wildlife Ecology and Conservation at the University of Florida. Dr. McCleery has over 15 years experience in research and conservation of wildlife and has worked extensively on the ecology of fox squirrels, Key Largo woodrats, Keys marsh rabbits, Florida Key deer and Indiana bats.

John Kellam has a BS in Biology from Humboldt State. John has been the lead biologist on a field study of Sherman's fox squirrels in Big Cypress National Preserve since 2007. To date, 20 radio-collared individuals have been monitored 3 times per week to determine movements, habitat use, food preferences, and nest tree selection.

APPENDIX 2. Summary of letters and emails received during the solicitation of information from the public period of September 17 through November 1, 2010.

No letters or emails were received from the public during the solicitation period.