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1. Accession 0225174	Agency Identification No. 2. NIFA 3. LA.B	5. Work Unit/Project No. LAB94098	6. Status Annual Report
7. Title Understanding the Effects of Landscape Change on Populations and Communities of Forest Birds			
12. Investigator Name(s) (Last Name and Initials) Stouffer, P. C.			
20. Termination Date 03/31/2016		40. Period Covered (mo/da/year): 01/01/2011 TO 12/31/2011	
Outputs: Six papers were published in peer-reviewed journals; and seven presentations made at local, national and international conferences. One dissertation and one thesis were completed based on these studies. Several outreach projects for K-12 students and the public were conducted.			
Graduate Student Years: 5.5			
Outcomes/Impacts: Two papers were published on grassland birds in 2011. In the first paper, we addressed how management, especially for Red-cockaded Woodpeckers, affects winter habitat use by Sedge Wrens, Henslow's Sparrows, and Bachman's Sparrows. The two sparrows, both species of conservation concern, differed in their response to woodpecker management. Henslow's Sparrows benefit only from clearing woody vegetation from bogs, but Bachman's Sparrows will use plots managed for woodpeckers as well as other upland sites. The second paper was a major analysis of how habitat structure and food availability affects habitat selection, condition, and survival of Henslow's Sparrows. Habitat structure and seed availability, both mediated by fire, were more important for predicting abundance of sparrows than was specific plant community composition. Although birds avoided plots that had not been burned, survival and condition varied little among plots. Non early successional birds - our results showed a continued increase in species richness and breeding activity as plots age. Birds responded to structural differences among plots but not to site preparation treatment effects. We are collecting data on a combination of birder-reported sightings and standardized sampling, with the goal of determining detectability, persistence, and habitat associations of Rusty Blackbirds, a species undergoing a precipitous decline that winters in Louisiana. Data so far suggest strong associations with shallowly flooded forests and sometimes fields, and persistence, at least of large groups, for weeks at a time. We began a project examining how the Deepwater Horizon oil spill is affecting Seaside Sparrows. The response of these birds, which occur only in salt marsh, will indicate how contamination is making its way from aquatic to terrestrial systems. We have sampled about 50 birds in contaminated and control areas. In 2012 we will continue with a study of demography and expression of genes associated with contamination. We published four papers on Amazonian birds in 2011. Our synthesis of extinction-recolonization dynamics over about 30 years showed that bird communities in rainforest fragments are quite dynamic, with many species colonizing and going locally extinct repeatedly. This paper generated a great deal of interest, including press releases by NSF and the LSU AgCenter, coverage in A Folha do Sao Paulo (the New York Times of Brazil) and mention on dozens of blogs and websites about conservation. In another paper we describe the continuous forest community from our site. We found that species richness was comparable to other Amazonian sites but that biomass was considerably lower. Another paper used these continuous forest data, together with similar data from other researchers, to rebut a claim of massive widespread loss of birds in South American forests over the past 20-40 years. Finally, we contributed to a review of long-term results from Amazonian forest fragments.			
Publications: Brooks, M.E. and P.C. Stouffer. 2011. Interspecific variation in habitat preferences of grassland birds wintering in southern pine savannas. <i>Wilson Journal of Ornithology</i> 123: 65-75. Johnson, E.I., J.K. DiMiceli, P.C. Stouffer, and M.E. Brooks. 2011. Habitat use does not reflect quality for Henslow's Sparrows wintering in fire-managed longleaf pine savannas. <i>The Auk</i> 128: 564-576. Johnson, E.I., P.C. Stouffer and C.F. Vargas. 2011. Diversity, biomass, and trophic structure of a central Amazonian			

rainforest bird community. Revista Brasileira de Ornitologia 19: 1-16.

Laurance, W.F., J.L.C. Camargo, R.C.C. Luizao, S.G. Laurance, S.L. Pimm, E.M. Bruna, P.C. Stouffer, et al. 2011. The fate of Amazonian forest fragments: A 32-year investigation. Biological Conservation 144: 56-67.
doi:10.1016/j.biocon.2010.09.021

Stouffer, P.C., E.I. Johnson, R.O. Bierregaard, Jr., and T.E. Lovejoy. 2011. Understory bird communities in Amazonian rainforest fragments: Species turnover through 25 years post-isolation in recovering landscapes. PLoS ONE 6(6): e20543.
Doi:10.1371/journal.pone.0020543

Participants:

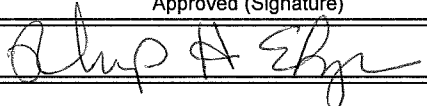
P.C. Stouffer (PI), E. DeLeon, E. Johnson, K. Mokross, L. Powell, F. Owens, J. Wolfe, S. Taylor, S. Woltmann, LSU AgCenter; Mario Cohn-Haft, Brazilian Institute for Amazon Research; L. Soares, collaborator on Brazil project.

Target Audiences:

Land managers, wildlife professionals, and other researchers, including Louisiana Department of Wildlife and Fisheries, US Fish and Wildlife Service, and the US Forest Service

Project Modifications:

Nothing significant to report during this reporting period.

Approved (Signature)	Title	Date
		3/23/12