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From: Neil Haggerty [neilhaggerty@comcast.net]
Sent: Thursday, July 10, 2008 4:35 PM
To: Mallecia Hood
Cc: BRUCE YEAGER; ANDREA STERDIS; JIM CHARDOS; FRANCINE BECK; MELINDA HARRIS; 'Neil Haggerty'
Subject: Article from Bat Research News -
Attachments: Bat Research News_45 2 71.pdf

Mallecia,
On June 24, we had a phone call to discuss the results of the June 11 – 12 Bellefonte terrestrial species survey. Corey Duberstein (PNNL) asked if we had access to an article from Bat Research News regarding a survey performed in Alabama for this species. We told him that we would make this article available to him if/when we located it. The attached document is that article. Please forward it to Bob/Bev/Corey (PNNL). I also plan to put this in a notebook in our contractor's Richland office.

Thanks,
Neil Haggerty

Hearing Identifier: Bellefonte_COL_Public_EX
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Subject: Article from Bat Research News -
Sent Date: 7/10/2008 4:35:07 PM
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From: Neil Haggerty

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Indiana Bat Habitat Attributes at Three Spatial Scales in Northern Alabama

William E. Stone and Ben L. Battle, Center for Forestry & Ecology, Alabama A&M University, Normal, AL

We captured and radio-tagged 9 (3 males, 6 females) active Indiana bats (*Myotis sodalis)* in the Bankhead National Forest (BNF) in 2002. All bats were tracked and located at two or more diurnal roost sites during the 3-week period following capture using radio telemetry and a GPS unit. These bats were located 67 times in 48 unique roost locations including a cave, a utility pole, and 46 trees. Micro-habitat characteristics of the 46 diurnal roost trees selected by bats and of the forest stands where roost trees were located were measured and compared with trees and stands at 46 random locations within unoccupied circles located in a representative portion of the forest using a series of t-tests. White oak, shagbark hickory, and loblolly pine composed 78% of all roost tree locations. More than half of these roost trees (56%) were alive. On average, roost trees were 62.7 feet high with a DBH of 25.7 inches. The mean height of bats in trees was 20.7 feet. The mean canopy cover at roost trees was 35.5%. Percent canopy cover at roost trees was the only habitat variable at this spatial scale to differ significantly from random trees (72.5%). Roost trees were most often found in loblolly pine stands (34%) or in the white oak-northern red oak-hickory stand type (26%). On average, these stands were 47 years old, but ranged from 0 to 108 years. Mean canopy cover in these stands was 65.8%, and the mean basal area was 64.2. The basal area of stands selected for roost tree location was the only habitat variable that differed significantly from random stands (92.8). We overlaid the roost location data over a GIS landscape image of the BNF. We used the minimum convex polygon method to represent each bat's home range. Landscape attributes were computed for each home range and for nine unoccupied polygons clustered around a random, but representative, point in the forest. These data were compared using a series of t-tests. Although violation of sampling independence (common capture point) negates a rigorous statistical comparison, we found that occupied polygons had a significantly greater ($p< 0.05$) proportion of hardwood acreage and old-growth acreage (100+ years old) and significantly less conifer acreage and forest type edge. The proportion of young forest (0-70 years) and mature forest (71-100 years) were not significantly different. Stream mile density was higher in occupied polygons, but not significantly ($p=0.20$) higher.

Evening Bat (*Nycticeius humeralis*) Use of Fork-topped Trees: A Potential Tool for Conserving Bat Roosting Habitat in Managed Pine Plantations of the Southeast

Danielle L. Temple, Adam C. Miles, Darren A. Miller, L. Mike Conner, and Steven B. Castleberry, University of Georgia, Athens, GA (DT, AM, SC); Weyerhaeuser Company, Columbus, MS (DM); Joseph W. Jones Ecological Research Center, Newton, GA (LMC)

During the last decade, the southeastern United States has become the top timber producer in the country. The primary objective of the forest product industry and many other private forest landowners in this region is timber production, while secondary or often a tertiary objective is wildlife management. Intensive forest management may limit snag formation, as well as cavities and dead branches prevalent in older trees, reducing available roosting habitat. From May to August 2002 and 2003 we used radio-telemetry to track evening bats to day roosts on a 14,000-ha tract managed for loblolly pine (*Pinus taeda*) production by Weyerhaeuser Company in southwestern Georgia. Thirteen bats, 10 of which were reproductive females or first year young, were tracked to 14 live loblolly pine trees with a fork-topped (also called bifurcated or codominantly branched). Emergence counts indicated that bats were using cavities that formed at

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