

NOTEWORTHY SMALL MAMMAL RECORDS FROM GRAHAM COUNTY, NORTH CAROLINA

MATTHEW B. SMITH and TIMOTHY J. GAUDIN

*The University of Tennessee at Chattanooga
Department of Biological and Environmental Sciences
Chattanooga, TN 37403*

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Sizable literature exists on the biology, ecology, and taxonomy of the Southern Appalachian mammalian fauna (Webster et al. 1985; Wilson and Ruff 1999), yet gaps persist in the distributional records for a number of small mammal species in some western North Carolina counties, especially Graham County (Lee et al. 1982). This may be because of the remote nature of some regions of the county, only recently made more accessible upon completion of Tennessee State Highway 165 / North Carolina State Highway 143 (a.k.a. the “Cherohala Skyway”). Preliminary results cover small mammal surveys conducted on 5–7 September 2003 and on 23–25 September 2005 at four primary locales in the Nantahala National Forest, Graham County, North Carolina, and provide distributional records for small mammal species previously undocumented therein.

Hooper Bald (USGS Big Junction Quad, Zone 16N, 35.30593N 83.99361W, approx. elev. 1,649 m) and Huckleberry Knob (USGS Big Junction Quad, Zone 16N, 35.32206N 83.99379W, approx. elev. 1,691 m) are high elevation grassy balds with similar vegetation, including various grasses, blueberry (*Vaccinium* spp.), strawberry (*Fragaria* spp.), blackberry (*Rubus* spp.), and partridge berry (*Mitchella repens*), with adjacent hardwood forests dominated by beech (*Fagus grandifolia*) and birch (*Betula* spp.; Mark 1958; Radford et al. 1968). Wright Creek (USGS Big Junction Quad, Zone 16N, 35.31702N 83.9833W, approx. elev. 1,437 m) is a first order stream surrounded by and abundant with mosses, ferns, and other small herbaceous plants; an overstory is dominated by red maple (*Acer rubrum*), cherry (*Prunus* spp.), and buckeye (*Aesculus* spp.; Radford et al. 1968). Rattler Ford (Santeetlah Creek Quad, Zone 16N, 35.35984N 83.91685W, approx. elev. 627 m) is a U.S. Forest Service campground located in mixed mesophytic forest consisting largely of tulip poplar (*Liriodendron tulipifera*) and eastern hemlock (*Tsuga canadensis*; Radford et al. 1968).

During the 2003 survey, Sherman live traps were placed along the edges of the forest-field interface at Hooper Bald and Huckleberry Knob. Fifty traps were set at Hooper Bald and 100 traps at Huckleberry Knob. During the 2005 survey, 50 Sherman live traps were placed along the edges of Hooper Bald and 40 Sherman live traps along the edges of Huckleberry Knob, with an additional 11 Sherman live traps placed directly in the field at the Huckleberry Knob site. During the 2005 survey, 20 pitfall traps and three Tomahawk live traps were placed in the beech (*F. grandifolia*) and birch forest (*Betula* spp.; Radford et al. 1968) along the upper trail leading to Huckleberry Knob. The 2005 survey also incorporated two new sampling sites. Sixty

Table 1. Small mammal species captured during survey of Graham County, NC, in September 2003 and 2005.

Species	Locale				
	HB	HK	WC	RF	SM
<i>Sorex cinereus</i>	2 / 0	0 / 3			
<i>Sorex fumeus</i>	0 / 2	0 / 2			
<i>Blarina brevicauda</i>	18 / 5	5 / 0			
<i>Myotis lucifugus</i>				1*	
<i>Myotis leibii</i>					1*
<i>Myotis septentrionalis</i>				1	
<i>Lasiurus borealis</i> *				2	
<i>Peromyscus leucopus</i>	15 / 1	7 / 0	1		
<i>Peromyscus maniculatus</i> *	4 / 2	3 / 1			
<i>Microtus pinetorum</i>		0 / 1			
<i>Clethrionomys gapperi</i>	10 / 16	6 / 1	2		
<i>Synaptomys cooperi</i>		1 / 1			
<i>Napaeozapus insignis</i>	4 / 0	5 / 0	1		
<i>Tamiasciurus hudsonicus</i> *+		1 / 0			
Totals:	53 / 26	27 / 8	4	4	1

Note: HB = Hooper Bald; HK = Huckleberry Knob; WC = Wright Creek; RF = Rattler Ford; SM = Stratton Meadows (see museum records for location); * = No voucher obtained. + = Previously documented for Graham Co. (Lee et al. 1982); ◆ = See museum records for collection dates; X / X in columns for HB and HK report numbers of individuals captured in 2003 / 2005; WC and RF sampled in 2005 only.

museum special snap traps were placed along the banks of Wright Creek and on large rocks and among vegetation within the creek bed. Mist nets were also deployed across Santeetlah Creek at the Rattler Ford campground. All trapping protocols followed standard procedures (Wilson et al. 1996).

A total of 125 individuals (81 in 2003, 42 in 2005, and 2 additional chiropterans collected in 2002 and 2004) representing 14 different mammal species were captured in 549 trap nights. All 14 species have a prior documented presence in North Carolina, with many being reported from counties adjacent to Graham (Lee et al. 1982; Webster et al. 1985; Table 1). Thirteen of these species constitute new records for Graham County (Table 1). Hereafter, the catalog number and mean measurements are provided for those individuals that were deposited as voucher specimens in The University of Tennessee at Chattanooga Natural History Museum. Mean measurements (m) are given in millimeters following the standard sequence [i.e., total length, tail length, hindfoot length, ear length; mass (g)] and ranges are provided afterwards in parentheses. Taxonomy follows (Baker et al. 2003).

Museum Records

Sorex cinereus; UTCM 1046, 1176, 1180, and 1181; mean m = 98.7 (85–94), 46.3 (45–49), 8.7 (6–12), 4.3 (2–7); 3.5 g (3–4). *Sorex fumeus*; UTCM 1048, 1154, 1157, and 1182; mean m = 109.0 (107–111), 48.0 (46–49), 12.8 (10–15), 5.5 (3–8); 7.8 g (6–9). *Blarina brevicauda*; UTCM 937, 952, 953, 954, 955, 1044, 1051, 1054, 1139, 1144, and 1145; mean m = 105.6 (78–117), 25.1 (20–30), 13.6 (11–16), 5.6 (3–7); 16.7 g (14–19). *Myotis septentrionalis*; UTCM 1166; m = 77, 26, 7, 16, forearm length: 34, tragus length: 9; 9 g. *Peromyscus leucopus*; UTCM 941, 946, and 1142; mean m =

157.7 (153–167), 77.7 (67–94), 19.7 (18–21), 14.3 (12–16); 20.7 g (15–22). *Microtus pinetorum*; UTCM 1153; m = 103, 24, 17, 10; 16 g. *Clethrionomys gapperi*; UTCM 940, 943, 970, 1105, 1134, 1135, 1137, 1138, 1140, 1149, 1150, 1172, and 1199; mean m = 125.1 (97–151), 41.8 (33–56), 19.0 (15–25), 11.8 (9–17); 20.8 g (14–30). *Synaptomys cooperi*; UTCM 934 and 1136; mean m = 111.5 (97–126), 13.5 (9–18), 17.5 (15–20), 7.5 (5–10); 26.5 g (17–36). *Napaeozapus insignis*; UTCM 1155; m = 210, 137, 35, 16; 10 g.

One little brown bat was collected at Rattler Ford campground on 25 September 2004. *Myotis lucifugus*; UTCM 1080; m = 90, 28, 10, 7, forearm length: 37, tragus length: 4; 11 g. One deceased small-footed myotis was collected from the Stratton Meadows Bridge (Graham County, North Carolina, USGS Big Junction Quad, Zone 16N, 35.33672 N 84.03122 W; approx. elev. 1,307 m) on the Cherohala Skyway, Highway 143 on 24 July 2002. *Myotis leibii*; UTCM 883; m = 81, 32, 8, 14, forearm length: 45, tragus length: 9; 9 g.

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