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Faunal remains from an archaic period cave in the Southeastern United States

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ABSTRACT

Ancient Native American use of caves in the Eastern Woodlands occurred throughout the entire span of regional prehistory; however, the ways that these natural features were used varied considerably over time. To date only 25 cave sites containing deposits dated to the Archaic period (ca. 10,000–3000 B.P.) are recorded in the state of Tennessee, representing just 0.4% of the total known Archaic sites. In 2014 the authors conducted a salvage operation, bucket auger survey, and limited testing at the site of Black Cat Cave (40RD299) in Rutherford County, Tennessee to assess looting damage and assist in the installation of a security gate across the cave entrance. These investigations identified Black Cat Cave as the site of significant mortuary activity during the Middle Archaic (ca. 6460–6360 B.P.), and resulted in the recovery of rare Archaic faunal data from a cave setting. Analysis of faunal materials from the site allows us to add important new information to our understanding of ancient Native American landscape use in the Eastern Woodlands during the mid-Holocene.

1. Introduction

Caves and rockshelters of the Eastern Woodlands were used by people throughout the early- and mid-Holocene for a variety of reasons including for shelter, cemeteries, ritual activity such as the creation of dark-zone art, and for mining of natural resources and minerals (Hubbard and Barber, 1997; Barrier and Byrd, 2008; Crothers and Drooker, 2001; Crothers et al., 2002; Faulkner, 1986; Franklin, 1999; Franklin, 2001; Franklin, 2008; Franklin and Simek, 2008; Griffin, 1974; Munson and Munson, 1990; Pritchard, 2008; Sherwood et al., 2004; Simek et al., 2012; Simek et al., 2001; Simek and Cressler, 2005; Simek et al., 2004; Simek et al., 2008; Simek et al., 1998; Tankersley, 1996; Watson, 1969; Watson, 1974). The unique preservational conditions within caves increase the probability that the archaeological record survives and can be recovered by archaeologists. Unfortunately, historic and modern actions including recreational spelunking and illicit looting of archaeological deposits have severely impacted many cave sites, including the archaeological deposits, which in turn has limited our understanding of how these sites fit into the overall picture of ancient landscape use. Recent research at a cave in Middle Tennessee yielded data on significant prehistoric activities that had been previously unknown.

Many archaeological cave sites in the Eastern Woodlands are located in upland areas at higher elevations (approximately 600 m–1500 m above mean sea level [amsl]). One of the unique features of the Black Cat Cave site (40RD299) is its location in a sinkhole in Rutherford County, Tennessee within the rolling peneplain of the Inner Central Basin physiographic province (Fig. 1). Today the area surrounding Black Cat Cave is situated at approximately 167–179 m amsl, and drains northeast into the Stones River watershed. The dense Ridley limestones that comprise the bedrock of much of the Inner Central Basin belong to the Ordovician Stones River Group, which measure upwards of 45 m thick (Galloway, 1919). Millennia of erosion and weathering of this karst surface have resulted in the formation of thousands of sinkholes and underground drainages throughout Rutherford County.

During the prehistoric period in the Southeastern United States caves were locations where people created art (Simek and Cressler, 2005), procured raw materials and minerals (Franklin, 1999; Franklin, 2001; Franklin, 2008; Franklin and Simek, 2008; Moore et al., 2014; Simek et al., 1998), and buried their dead (Claassen, 2010; Sherwood and Chapman, 2005; Watson, 1969). While cave use in the Eastern Woodlands extends back to the Pleistocene/Holocene transition (e.g. Griffin, 1974; Sherwood et al., 2004), evidence for cave use in the region during the Archaic period (ca. 10,000–3000 B.P.) is relatively sparse. Although it falls outside the scope of the present research to compile a comprehensive directory of Archaic cave occupations in the Eastern Woodlands, data from the Tennessee Division of Archaeology's (TDOA) official Tennessee State Site File (TSSF) provides a state-level proxy to illustrate the scarcity

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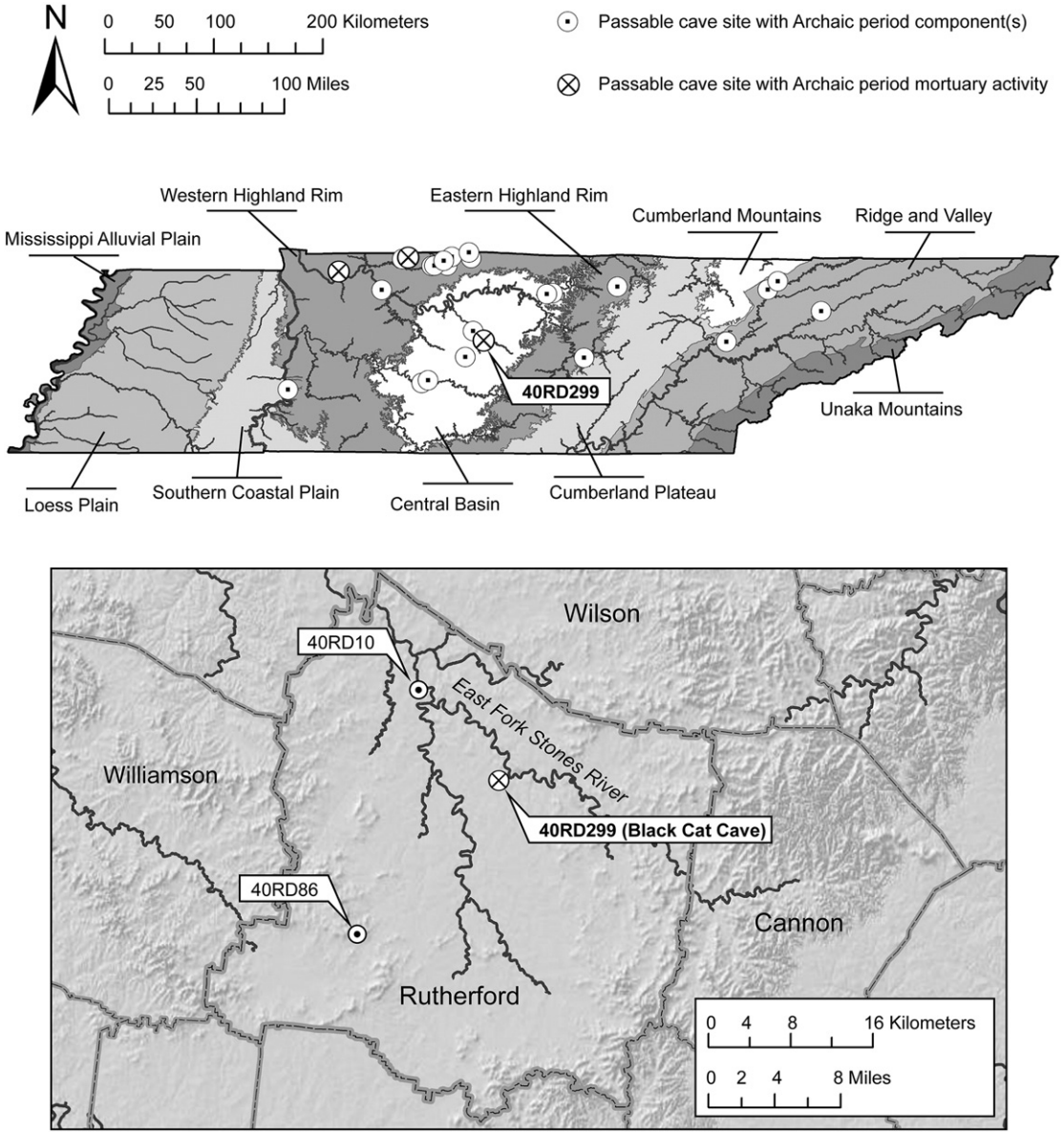

Fig. 1. Location of Black Cat Cave and other caves with Archaic period components within Tennessee's physiographic provinces and in Rutherford County.

of Archaic cave use. As of March, 2016 the TSSF includes entries for 5698 sites in Tennessee exhibiting Archaic components, and 166 passable caves containing prehistoric archaeological deposits. These data sets overlap in just 25 instances where Archaic components have been documented within passable caves (see Fig. 1).

Although there are approximately 20 passable caves in Rutherford County (Barr, 1961; Matthews, 1971), the TSSF records archaeological deposits in only three of those locales: Black Cat Cave (40RD299), Snail Shell Cave (40RD86), and site 40RD10 (see Fig. 1). According to the TSSF, Snail Shell Cave yielded two projectile points/knives diagnostic to the Late Archaic, while inspections at Site 40RD10 identified several fire pits and prehistoric materials from throughout the prehistoric sequence; however, neither site has been subjected to formal archaeological testing and are known only from pedestrian reconnaissance and informant reports.

Given the limited data on Archaic cave use in both Rutherford County and throughout the state of Tennessee, the materials recovered from Black Cat Cave take on new importance for our understanding of the Archaic period in Tennessee and the Eastern Woodlands. Here we present background information on this previously unpublished site including both the historic use and prior archaeological investigations. We then summarize the faunal assemblage from the site and the context of that data set and compare it to other Archaic period cave sites with faunal assemblages, in order to discuss what these data reveal about human-animal interactions and landscape use in the Eastern Woodlands during the mid-Holocene.

2. Black Cat Cave

The main entrance to Black Cat Cave is located along the eastern wall of a karst sinkhole less than 50 yards off of busy US Highway 231 in Murfreesboro, Tennessee (Fig. 2). The sinkhole is approximately 45 m (148 ft.) by 21 m (69 ft.) wide and 3.6 m (12 ft.) deep, and is situated within a small tract of land that was donated to the City of Murfreesboro by the U.S. Department of Veterans Affairs in 1971. At one time the cave entrance would have measured about 21 m wide (69 ft.) and 2 m (6.6 ft.) high, and opened into a single room measuring between 1.2 m (4 ft.) and 2.4 m (7.8 ft.) high, although it has been altered by historic activity (see below). The property is managed by the City of