New Records of the Badger (*Taxidea taxus*) in Southeastern Oklahoma

Renn Tumlison

Department of Biology, Henderson State University, Arkadelphia, AR 71999

Robert Bastarache

Oklahoma Ranger District - Ouachita National Forest, 201 North Central Street Room 116, Idabel, OK 74745

The badger (*Taxidea taxus*) generally is considered to be a grassland carnivore. It feeds on burrowing rodents and is common in central to western Oklahoma in the plains and the post oak-blackjack oak upland physiognomic regions (Caire et al 1989). Taylor (1965) provided a few reports of badgers from eastern Oklahoma, but they were not known from the southeastern one-third of the state. The most southeastern records were from Hughes, Pontotoc, and Johnston Counties (Caire et al 1989).

On 5 May 2007, at about 10:30 AM, a live male badger was hit as it ran across a dirt road about 2.5 km (1.5 mi.) W of Pleasant Hill Hwy, southwest of Haworth, Mc-Curtain County, Oklahoma. The area was forested. Badgers typically have an affinity for open range and agricultural habitats, but show negative relationships with elevation, ruggedness of the terrain, and forested habitats (Apps et al 2002). The site of collection of the new Oklahoma record (Fig. 1) would seem to be inconsistent with usual habitats, except that the area is lowland (Red River bottoms). A nearby railroad, which could serve as a dispersal lane, runs westward toward Durant, Oklahoma, and roughly parallel to the Red River.

The specimen was brought to the U.S. Forest Service, photographed, and the skin was mounted by a taxidermist and is displayed at the Hochatown Office of the Oklahoma Ranger District. The skull is housed with the collection of vertebrates at Henderson State University, Arkadelphia, AR (HSU 659).

In recent years, badgers have been documented extending their range southward in some northern states (Lindzey 2003), and eastward in the northern United States (Nugent and Choate, 1970) and Texas (Davis and Schmidly 1994). Eastward expansion also has been recorded in neighboring Arkansas. A specimen of the badger was known only from Washington County in the northwestern part of the state (Sealander and Forsyth 1966) until sight records from Franklin County (Sealander and Heidt 1990) were supported by a specimen trapped near the Arkansas River (Cartwright and Heidt 1994). A disjunct record based on a road-hit specimen extended the reported range further eastward to Stone County (Cartwright and Heidt 1994).

To further evaluate the possible eastward expansion of the badger in Oklahoma, we checked with the Oklahoma Department of Wildlife Conservation (ODWC) about more recent records (since Caire et al 1989). The ODWC has conducted a "dead or alive" road survey in March of each year since 2000, in which all wildlife and law enforcement field personnel keep a daily log of sightings during their travels. Two other observations of badgers had been noted for eastern Oklahoma since 2000. We contacted the observers to get details of their sightings.

Warden Larry Luman observed a roadhit badger in 2004 on Hwy 69 just south of Atoka, Atoka County, Oklahoma (Fig. 1). He commented that he hears about several sightings each year in the southern part of the county. Adding credibility to those observations, the only other mammal that might be mistaken for a badger is the wood-chuck (*Marmota monax*), which is not known to occur close to the area of observation (Caire et al. 1989).

In 2007, Spencer Grace (a game ranger for ODWC) reported a road-killed badger north of Poteau in extreme northern LeFlore County, just south of the Kerr Lock and Dam (Fig. 1). He commented that he had not heard of other badgers in the area. Farther eastward, however, specimens have been collected in Franklin County, Arkansas (Cartwright and Heidt 1994).

Dispersing young badgers sometimes move through what seems to be unsuitable habitat, and a dispersing young male, which apparently moves farther than females, has been recaptured 110 km from its original capture site (Messick and Hornocker 1981). The previously documented Oklahoma site closest to the present record is in Johnston County, 4 mi. NE of Mill Creek (Caire et al 1989) – a distance of about 210 km (130 mi.). Across the Red River in Texas, a record from Lamar County (Davis and Schmidly 1994) is farther eastward and about the same longitude as Choctaw County, Oklahoma. The borders of Lamar County are between 55-110 km (35-67 mi.) west of the McCurtain County record.

In southwestern Arkansas, adjoining McCurtain County, badgers were thought to be present in Howard, Lafayette, and Pike Counties based on a mail survey of trappers and state biologists (Majors et al 1996). The authors suggested some caution, however, as some observations may actually have been of woodchucks (*Marmota monax*). Woodchucks have been extending their range southward in Arkansas (Tumlison et al 2007), outside of typical habitat, likely due to the effects of highway construction. In consideration of the new specimen record from McCurtain County and the sight



Figure 1. Distribution of the badger (*Taxidea taxus*) in eastern Oklahoma. Shaded counties represent previously known records (Caire et al 1989). Stars represent new records in Atoka, LeFlore, and McCurtain counties. Squares indicate nearest records in Lamar County, Texas (Davis and Schmidly 1994) and Washington and Franklin Counties, Arkansas (Cartwright and Heidt 1994).

Proc. Okla. Acad. Sci. 87: pp 107-109 (2007)

records from Atoka and LeFlore Counties, we hypothesize that badgers may be using similar anthropogenic modifications of habitat as dispersal corridors to move eastward in Oklahoma.

ACKNOWLEDGMENTS

We thank H. "Bubba" Ferguson for the specimen and information about the McCurtain County record. Dick Hoar, Larry Luman, and Spencer Grace provided information concerning the Atoka and LeFlore County observations. Anonymous reviewers provided helpful suggestions for improvement of the manuscript.

REFERENCES

- Apps CD, Newhouse NJ, Kinley TA. 2002. Habitat associations of American badgers in southeastern British Columbia. Can J Zool 80:1228-1239.
- Caire W, Tyler JD, Glass BP, Mares MA. 1989. Mammals of Oklahoma. Norman (OK): University of Oklahoma Press. 567 p.
- Cartwright ME, Heidt GA. 1994. Distributional records of the badger (*Taxidea taxus*) in Arkansas. Proc Ark Acad Sci 48:248.

- Davis WB, Schmidly DJ. 1994. The mammals of Texas. Austin (TX): Texas Parks and Wildlife Press. 338 p.
- Lindzey, FG. 2003. Badger, *Taxidea taxus*. In: Feldhamer GA, Thompson BC, Chapman JA, editors. Wild Mammals of North America: Biology, management, and conservation. Baltimore (MD): The Johns Hopkins University Press. p. 683-691.
- Majors TJ, Brock DC, Heidt GA. 1996. A mail survey to determine the status of the black-tailed jackrabbit, ringtail cat, long-tailed weasel, badger and eastern spotted skunk in Arkansas. Proc Ark Acad Sci 50:127-130.
- Messick JP, Hornocker, MG. 1981. Ecology of the badger in southwestern Idaho. Wildl Monogr 76:1-53.
- Nugent RF, Choate JR. 1970. Eastward dispersal of the badger, *Taxidea taxus*, into the northeastern United States. J Mammal 51:626-627.
- Taylor RJ. 1965. The badger from Johnston County, Oklahoma. Proc Okla Acad Sci 45:80.
- Sealander JA, Forsyth BJ. 1966. Occurrence of the badger in Arkansas. Southw Nat 11:134.
- Sealander JA, Heidt GA. 1990. Arkansas mammals: their natural history, classification, and distribution. Fayetteville (AR): University of Arkansas Press. 308 p.
- Tumlison R, Sasse B, Pennington T, Freeman N. 2007. Recent records of the distribution of woodchucks (*Marmota monax*) in Arkansas. Proc Ark Acad Sci 61:in press.

Received December 7, 2007; Accepted February 8, 2008