

## Mountain Lion Cranium from McCurtain County, Oklahoma

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Reports of wild mountain lions (*Puma concolor*) in southeast Oklahoma are common, and a recent study has concluded that "...there is no doubt that mountain lions are reestablishing themselves in their historic range in Oklahoma." (1). However, a 4-yr survey from 1988 to 1991, covering 1.16 million ha in Arkansas, failed to locate any evidence of mountain lions (2). Southeastern Oklahoma is adjacent, and similar in habitat, to the Arkansas area where this survey was conducted.

On February 5, 1991, Royce R. Tidwell of Hochatown, Oklahoma, brought the cranium of a mountain lion that he had found approximately 2 wks earlier to my office for identification. Tidwell found the cranium, but no other bones, in a remote area near Cedar Creek, approximately 2 km from the nearest residence and 21 km north of Broken Bow.

Topography of the Cedar Creek area is rugged, with steep, rocky hills and deep ravines. Vegetation is of mixed pines and oak-hickory hardwood forest.

The cranium appeared to have been exposed to the weather for several years, but was otherwise undamaged. The teeth were in good condition with no damage or deformities, but two middle incisors, two premaxillaries, and two molars were missing. Measurements (in mm) of this cranium are: condylobasal length, 190.0; greatest cranial length, 209.6; breadth of braincase, 66.4; least interorbital length, 40.0; postorbital constriction, 38.1; zygomatic breadth, 141.6; palatal length, 85.5 (Fig. 1).

Reports to me by local citizens of mountain lion screams and sightings in this area are common, but no verifiable evidence of their occurrence, other than this cranium, has been produced. Having seen captive mountain lions in McCurtain County, I contacted the Oklahoma Department of Wildlife Conservation (ODWC) to determine if any Commercial Wildlife Breeder Permits (required to keep any feline which grows to 22.5 kg or larger) were issued locally. During 1997, ODWC issued 71 permits statewide for individuals to keep captive mountain lions, but ODWC was unable to provide more detailed or historic information regarding permits (pers. comm., Kerry J. Heath, ODWC).

Oklahoma State Game Warden Supervisor James M. Virgin of Broken Bow stated that, prior to 1992, a permittee kept at least one mountain lion at his home near Hochatown, within 4 km of where the cranium was found (pers. comm.).

Both Virgin and former McCurtain County Deputy Sheriff, Buford W. Hill of Broken Bow, were called to this same individual's residence regarding an escaped mountain lion on several occasions. Hill reported that this individual kept a tame mountain lion unrestrained in his house trailer with him, and during the summer of 1985 or 1986, this mountain lion escaped. To Hill's knowledge, this animal was never found (pers. comm.). Hill stated that the individual who lost this puma left the area in the late 1980s.

It is possible that the mountain lion cranium found by Tidwell in 1991 was that of the escaped mountain lion reported by Hill.

### REFERENCES

1. Pike JR, Shaw JH, Leslie DM Jr. The mountain lion in Oklahoma and surrounding states. Proc Okla Acad Sci 1997;77:39-42.
2. McBride RT, McBride RM, Cashman JL, Maehr DS. Do mountain lions exist in Arkansas? Proc Annu Conf Southeast Fish and Wildl Agencies 1993;47:394-402.

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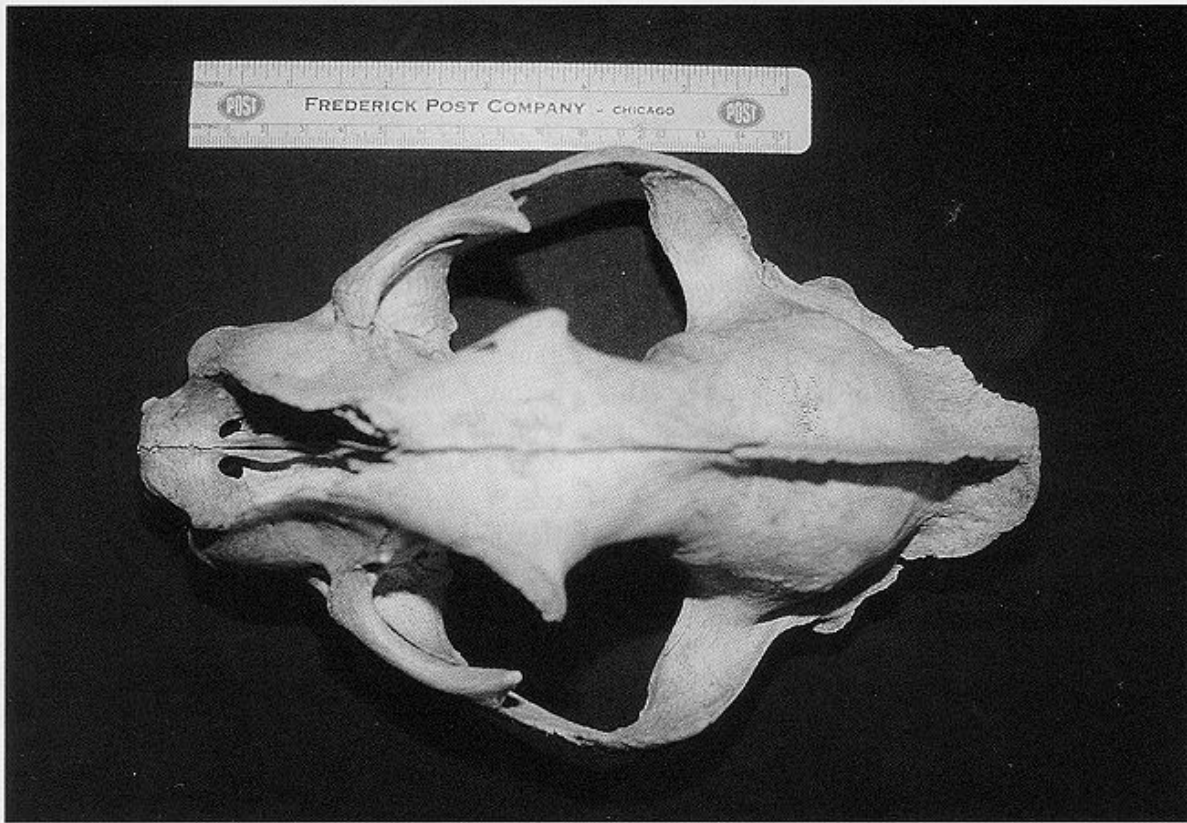


Fig. 1 Mountain Lion (*Puma concolor*) cranium (2 views) found in January 1991 by Royce R. Tidwell near Cedar Creek, approximately 21 km north of Broken Bow, OK. (U.S. Fish and Wildlife Service photos by Berlin A. Heck)