

## THE FIRST RECORDS OF THE EASTERN SMALL-FOOTED BAT (*MYOTIS LEIBII*) IN INDIANA

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**ABSTRACT.** This note reports the netting of two individuals of the eastern small-footed myotis (*Myotis leibii*) on two different dates at the entrance to Wyandotte Cave, Crawford County, Indiana. This is the first report of the species from Indiana.

**Keywords:** Bat, eastern small-footed bat, *Myotis leibii*, Indiana, Wyandotte Cave

Twelve species of bats have been reported from the state of Indiana other than three Seminole bats (*Lasiurus seminolus*) that were likely transported by humans from their more southerly range (Whitaker & Mumford 2009). While conducting a survey on 25 February 2009 at Wyandotte Cave in Crawford County, Indiana, one eastern small-footed bat (*Myotis leibii*) was captured in a harp trap at the entrance to the cave. A second individual was captured in a harp trap at the same location on 16 March 2009. These are the first records of *M. leibii* in the state of Indiana, and the bats were released after voucher photographs were taken.

The first individual was a female weighing 4.0 g with a 29 mm forearm and was given band IN-ISU A04581. The second was a male weighing 4.3 g with a 30 mm forearm and was given band IN-ISU A04639. The measurements, in combination with a black facial mask and distinct keel on the calcar, were the main characteristics used for identification. Both bats were captured exiting the cave, so we suspect they were hibernating in the cave. Interestingly, Wyandotte Cave is surveyed every two years for the endangered Indiana bat (*Myotis sodalis*), but no eastern small-footed bats have ever been reported during the surveys.

The distribution of *M. leibii* extends from the northeastern United States and southern Ontario and Quebec southward to Georgia and Alabama and west into Oklahoma (Best & Jennings 1997). The only known hibernacula for *M. leibii* consist of caves and mines (Best & Jennings 1997). The hibernation ecology of this

species has not been extensively studied (Veilleux 2007), but they apparently hibernate in areas with colder temperatures compared to other species of *Myotis* (Best & Jennings 1997; Butchkoski 2003; Tuttle 2003). For this reason, they tend to be found near the entrances of larger caves and mines (Tuttle 2003). Individuals have been found on cave floors hibernating under rocks which may explain why none have been reported in surveys of Wyandotte Cave (Davis 1955; Martin et al. 1966).

This is a species that had long been expected in Indiana (Mumford & Whitaker 1982); but it is not surprising that it was not found earlier, as there is only one record for Ohio, the type locality in Erie County (Whitaker & Hamilton 1998). Two individuals were recently reported in Pope County, Illinois approximately 280 km southwest of Wyandotte Cave (Steffen et al. 2006). The range comes close in Breckenridge County, Kentucky approximately 65 km south of Wyandotte Cave (Barbour & Davis 1974).

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