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New Vertebrate Records and Natural History Notes from Arkansas

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Although vertebrates are a commonly studied group of animals, the distribution and natural history of many vertebrate species within Arkansas is still not well understood or documented. Thus, we now add new records of distribution and provide notes on the natural history of selected vertebrates from Arkansas.

Robison and Buchanan (1988) provided an extensive treatment of the distribution of fishes within Arkansas, yet recent literature (e.g. McAllister et al. 2009, Connior et al. 2011) has augmented our knowledge of fishes in Arkansas. With assistance of students at Henderson State University and Southern Arkansas University, we collected new observations and specimens of fishes in Arkansas. All fish specimens documented herein are housed in the Southern Arkansas University Vertebrate Collection (SAU) in Magnolia, Arkansas or in the Henderson State University Collection (HSU) in Arkadelphia, Arkansas as uncatalogued lots. Specimens were collected with a 3.1 X 1.8 m seine with 3.175 mm mesh and 6.1 X 1.8 m seine with 3.175 mm mesh size. We documented birds via field observations and digital photography.

Sealander and Heidt (1990) provided an extensive treatment of the distribution of wild mammals occurring within Arkansas. Connior (2010) provided an updated checklist, including additional distributional records within the last 20 years. We found that many specimens housed in institutional collections have not been included within the published literature. Recent literature (Tumilson and Robison 2010, Connior et al. 2011, Pfau et al. 2011) has provided additional mammal records from institutional collections, adding to our knowledge of small mammal distributions in Arkansas. We examined the Soricomorpha and Rodentia in the mammal collection at Arkansas State University Museum of Zoology (ASUMZ) and University of Arkansas at Monticello (UAM) for unpublished or new county records. Many of the new county records have multiple specimens for each species, but for our purposes we sought to verify a single specimen. Taxonomy and common names follow Wilson and Reeder (2005). Locality

descriptions are directly from the museum tags with metric conversions provided.

CLASS CEPHALASPIDOMORPHI

Ichthyomyzon castaneus Girard – Chestnut Lamprey. Robison and Buchanan (1988) provided the first definitive distribution for the Chestnut Lamprey in Arkansas. Later, Robison et al. (2006) updated Arkansas lamprey records and Tumilson and Robison (2010) documented 2 additional records of this parasitic lamprey from south Arkansas. Most recently, Connior et al. (2011) provided a single locality in Miller Co., AR, which is the southwestern-most record of this lamprey. We report herein the capture of a single specimen attached to a Largemouth Bass (*Micropterus salmoides*) that was collected from Bayou Dorcheat at the St. Hwy. 160 bridge (Sec. 9, T19S, R22W), Columbia Co., AR on 19 May 2001 by D. E. Jacobs. This represents the first time this species has been reported from the Bayou Dorcheat drainage system and is a new county record for this rarely taken lamprey.

Lampetra appendix (DeKay) – American Brook Lamprey. In Arkansas, the American Brook Lamprey was known to occur in the northern part of the state at a few locations along the White River system, primarily in the Ozarks (Robison and Buchanan 1988), until several specimens were documented from different sites along L'Eau Frais Creek (a tributary to the Ouachita River) in Clark and Hot Spring counties, AR (Tumilson and Tumilson 1999). Given that the known populations were quite disjunct (about 200 km apart), it was possible that the newly-discovered isolated population might represent a new subspecies. Tissue samples from 3 specimens collected on 20 February 1999 from the White River population (Piney Creek in IZARD Co.) and 8 specimens collected 22 February 2007 from the L'Eau Frais population in Clark Co. were sent to the lab of M. White at Ohio University, to determine the degree of genetic divergence. This analysis indicated that the populations

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in Arkansas are nearly identical – only 1 substitution was found for about every 700 base pairs (M. White, *pers. comm.*). Therefore, we have evidence that there is no cause to treat the L'Eau Frais population as a new taxon.

CLASS OSTEICHTHYES

Hybognathus hayi Jordan – Cypress Minnow. The statewide distribution was presented for the Cypress Minnow by Robison and Buchanan (1988). Herein we report a single collection of 2 specimens of *H. hayi* collected from the Little River (Sec. 4, T10S, R32W), Little River Co., AR on 3 July 2003 by R. Davis. This represents the first time this species has been reported from the Arkansas portion of the Little River mainstem and is a new county record for this lowland cyprinid in the state.

Lythrurus fumeus Evermann – Ribbon Shiner. Robison and Buchanan (1988) provided the distribution in Arkansas of this lowland cyprinid. Herein we document the collection of 3 specimens of *L. fumeus* from Three Creeks at AR St. Hwy. 15 bridge (Sec. 20, T19S, R17W), Union Co., AR on 5 June 2002 by J. D. Williams. This represents only the third time this species has been reported from Union Co.

Notropis chalybaeus (Cope) – Ironcolor Shiner. The habitat, distribution, and status of the Ironcolor Shiner in Arkansas were first presented by Robison (1977). Robison and Buchanan (1988) updated the distribution of this cyprinid. Later, Tumilson and Robison (2010) documented 2 additional collections of this species from southwest Arkansas. We document 2 specimens of this shiner collected from Bayou Loutre at a co. rd. bridge (Sec. 6, T19S, R14W) ca. 3.2 km W of Pleasant Grove, Union Co., AR on 27 July 2002 by H. W. Robison. This represents only the second time this cyprinid has been reported from Union County, a county on the Coastal Plain in southern Arkansas, which is poorly known ichthyologically.

Notropis texanus (Girard) – Weed Shiner. Robison and Buchanan (1988) mapped the statewide distribution of the Weed Shiner. McAllister et al. (2009) reported additional new state geographic distribution records for this lowland cyprinid. One specimen of this shiner was collected from the St. Francis River about 200 m upstream of the I-40 bridge (Sec. 18, T5N, R4E), St. Francis Co., AR on 27 July 2002 by H. W. Robison and SAU students. This

represents the first time this species has been reported from St. Francis Co.

Erimyzon sucetta (Lacepede) – Lake Chubsucker. The Lake Chubsucker is a rather uncommon catostomid in Arkansas inhabiting lowland streams of the Coastal Plain (Robison and Buchanan 1988). On 9 August 2004 a single specimen of this sucker was collected from Bayou Bodcau at a gravel rd. bridge ca. 5 mi. N of Stamps, AR (Sec. 17, T15S, R23W), Lafayette Co., AR by D. E. Jacobs. This represents a new county record for this species and is the first time this chubsucker has been collected from the Bayou Bodcau drainage system in southern Arkansas.

Etheostoma asprigene (Forbes) – Mud Darter. Robison and Buchanan (1988) provided distributional data on the Mud Darter for the entire state. Three specimens of this darter were collected at Bear Creek (St. Francis River system) at Forest Service rd. (Sec. 16, T1N, R4E), Lee Co., on 15 July 1995 by H. W. Robison and SAU students. These represent the first record of this species from Lee Co. and the Bear Creek drainage.

CLASS AVES

Petrochelidon pyrrhonota (Vieillot) – Cliff Swallow. Historically, Cliff Swallows in Arkansas were migrants through the southern part of the state with a breeding range limited to the Ozark Mountains (Baerg 1931, James and Neal 1986), until construction of concrete bridges provided acceptable surfaces for nest construction (Stewart 1976). Cliff Swallows then began to nest in extreme southwestern Arkansas (James and Neal 1986). Surveys of bridges across southern Arkansas documented the eastward expansion of breeding range into 11 new counties (Tumilson 2007, 2009, Tumilson and Robison 2010, Connor et al. 2011).

On 12 June 2011, about 10 Cliff Swallows were observed in Calhoun Co., foraging over the water around the U.S. Hwy 167 bridge over the Ouachita River just N of Calion (Union Co.). A total of about 25 nests was found. About 10-12 nests were located over land on the west side of the bridge, and nests over the water were located on the east side. Most mud nests made by this bird are attached to concrete, but 3 nests on this bridge were attached to portions of the metal framework. The nests were ca. 10-17 m above either ground or water. The bridge is arched upward as it crosses the Ouachita River, explaining the range of

heights between nests and ground or water. This observation represents a new county record for breeding by this bird in Arkansas.

On 28 June 2010, D. Saugey observed 41 nests of Cliff Swallows in Montgomery Co. at Muddy Creek bridge on AR St. Hwy 298, E of Story. Nests were constructed at heights of about 5-6 m, 27 on the south-facing steel beams and 14 on the north. All nests had been constructed over water. Other bridges checked along Hwy 298 (between Jessieville and Story) did not have nests of Cliff Swallows. This observation represents a new county record for breeding by Cliff Swallows and connects nesting records between northwestern and southwestern Arkansas (James and Neal 1986, Tumlison 2007). These new observations suggest that cliff swallows are presumably breeding throughout Arkansas (Fig. 1).

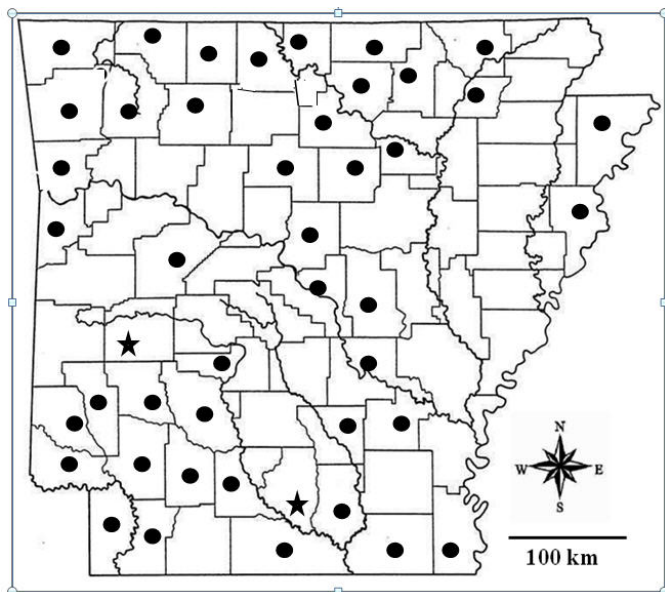


Figure 1. Records of cliff swallow (*Petrochelidon pyrrhonota*) in Arkansas. Symbols: dots = historic records; stars = new records.

CLASS MAMMALIA

Notiosorex crawfordi – Crawford's Gray Shrew. The first southern record of *N. crawfordi* in Arkansas was from Hempstead Co. (Steward et al. 1988). Heidt et al. (1996) reported it from 2 additional southwestern counties (Lafayette and Miller). We add a record from Ouachita Co.: 3.2 km (2 mi) N Harmony Grove on Hwy 43, collected 24 April 1992 (ASUMZ 26381). This new record extends the known range ca. 80 km eastward and represents the easternmost record for this species in Arkansas (Fig. 2).

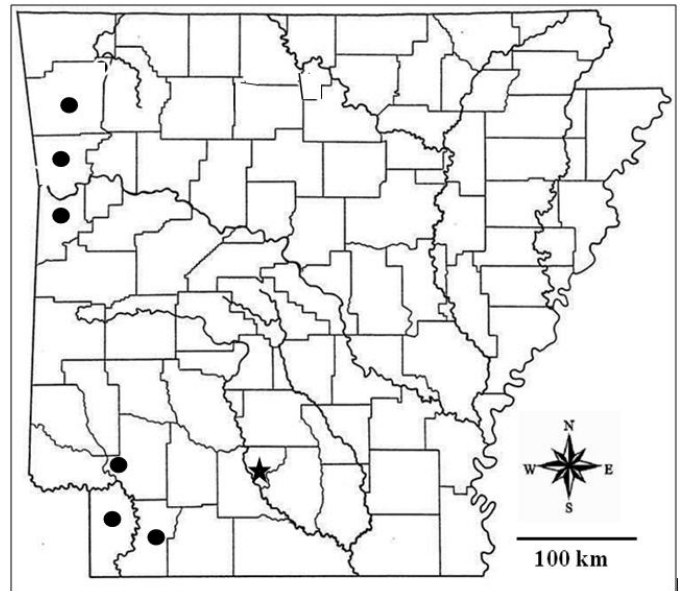


Figure 2. Records of *Notiosorex crawfordi* in Arkansas. Symbols: dots = historic records; stars = new records.

Scalopus aquaticus – Eastern Mole. Cleburne Co.: 8 km (5 mi) SE Heber Springs, collected 22 October 1971 (ASUMZ 26). Independence Co.: 4.8 km (3 mi) SW Cave City, collected 13 April 1974 (ASUMZ 652). Jackson Co.: T10N, R2W, S33, collected 08 March 1977 (ASUMZ 3299). Lafayette Co.: Gin City, collected 24 May 1990 (ASUMZ 25939). Nevada Co.: 0.8 km (0.5 mi) SE Laneburg, collected 17 Jan. 1983 (ASUMZ 10724). Poinsett Co.: Truman, collected 12 March 1974 (ASUMZ 685). Eastern moles occur throughout Arkansas and these new records partially fill voids within the documented distribution.

Oryzomys palustris – marsh Oryzomys. Drew Co.: Monticello, Shady Acres Trailer Park. 18 January 1973. UAM 154. White Co.: 12.9 km (8 mi) S Jct 31 & 5 on 5. 04 January 1980. ASUMZ 7106. The White County record is on the northern periphery of the known range of this species in north central Arkansas.

Reithrodontomys humulis – Eastern Harvest Mouse. The first record of *R. humulis* in southwestern Arkansas included a group of 32 specimens collected in 1983 from Columbia Co. (Tumlison et al. 1988). Connor et al. (2011) added a new county record for Sevier Co. Results of analysis of barn owl (*Tyto alba*) pellets provided records for Hempstead Co. near Ozan (Steward et al. 1988) and near Garland in Miller Co. (Westmoreland et al. 1994). Herein we document an

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additional record for Miller Co., collected 10 December 1989, 11.3 km (7 mi) E Fouke on AR 34 (ASUMZ 22263). Further, we add a new county record for Lafayette Co., collected 27 June 1990 at Gin City (ASUMZ 24652). These records significantly increase our understanding of the occurrence of this species in southwestern Arkansas, as most of the counties in extreme southwestern Arkansas now are represented by collections (Fig. 3).

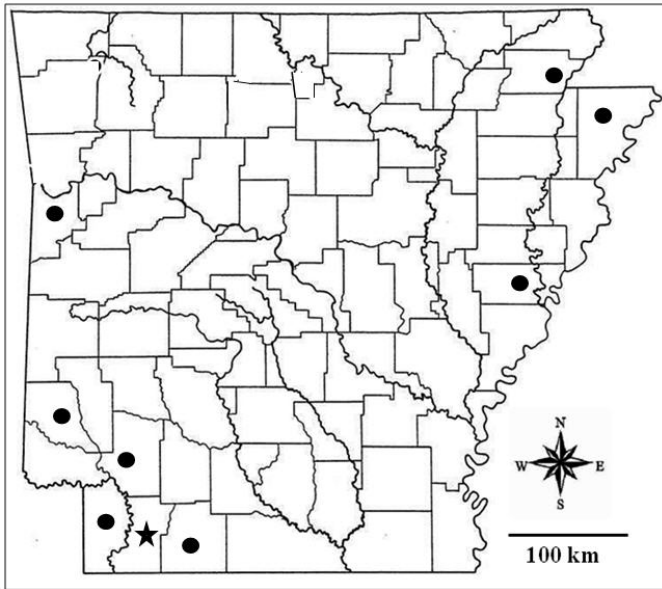


Figure 3. Records of *Reithrodontomys humulis* in Arkansas. Symbols: dots = historic records; stars = new records.

Reithrodontomys megalotis – Western Harvest Mouse. Sharp Co.: 3.2 km (2 mi) south of Wirth; T20, R4, Sec 27, collected 04 November 1987 (ASUMZ 21155). This is the westernmost record for this species in the state (Fig. 4), and represents the first specimen taken west of the “Fall Line” separating the highland and lowland physiographic regions in Arkansas (Sealander and Heidt 1990).

Peromyscus attwateri – Texas Deermouse. Izard Co.: 11.3 km (7 mi) SW Melbourne, Hwy 9, collected 12 July 1975 (ASUMZ 1533). This record partially fills a distributional hiatus in north central Arkansas.

Peromyscus gossypinus – Cotton Deermouse. Poinsett Co.: Lake Hogue on Hwy 39, collected 22 November 1977 (ASUMZ 4064). Scott Co.: T2N, R26W, S33, collected 17 November 1982 (ASUMZ 8980). Cotton deermice occur throughout Arkansas, except the northern Interior Highlands, and these new records

partially fill voids within the documented distribution.

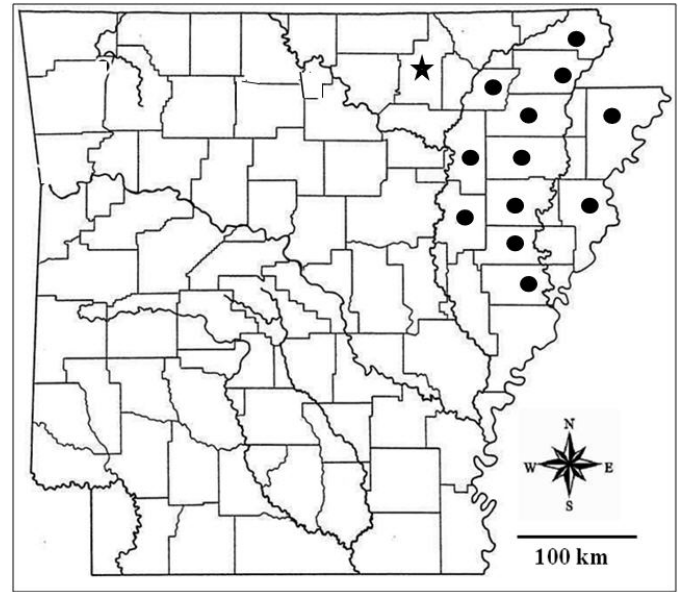


Figure 4. Records of *Reithrodontomys megalotis* in Arkansas. Symbols: dots = historic records; stars = new records.

Rattus rattus – Roof Rat. Bradley Co.: 0.8 km (0.5 mi) NW of Warren, collected 07 April 1975 (UAM 211). Lafayette Co.: Gin City, collected 08 December 1990 (ASUMZ 25569). These 2 records partially fill a distributional hiatus in southwestern Arkansas.

Mus musculus – House Mouse. Arkansas Co.: Stuttgart, 22nd & Buerkle Street, collected 06 December 1986 (ASUMZ 15352). Clay Co.: T19N, R8E, S7, collected 29 November 1977 (ASUMZ 4153). Cleburne Co.: 8 km (5 mi) SE Heber Springs, collected 27 November 1971 (ASUMZ 198). Desha Co.: SE ¼, SE ¼, Sec. 24, TS 10S R 4W, collected 28 January 1998 (UAM 878). Jefferson Co.: 3.2 km (2 mi) S Pine Bluff, 1 mi. W 38th Street, collected 18 February 1981 (UAM 541). Lincoln Co.: SW ¼, NW ¼, Sec. 26, T10S, R7W, collected 15 January 1991 (UAM 681). Mississippi Co.: 4.8 km (3 mi) W Manila, collected 16 October 1975 (ASUMZ 1277). Phillips Co.: W. Helena, collected 07 November 1980 (ASUMZ 7157). Randolph Co.: Dalton, collected 15 November 1982 (ASUMZ 8967). House mice occur throughout Arkansas and these new records partially fill voids within the documented distribution.

Microtus pinetorum – Woodland Vole. Lincoln Co.: 4 mi W of Garrett Bridge, collected 21 February 1994 (UAM 784). This record partially fills a distributional

hiatus in southeastern Arkansas.

Synaptomys cooperi – Southern Bog Lemming. Poinsett Co.: T12N, R3E, S36, collected 21 September 1977 (ASUMZ 3681). This record partially fills a distributional hiatus in northeastern Arkansas.

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