

New Amphibian and Reptile County Records from Eastern Nebraska, USA

Ecoregions are areas which share similar ecosystems and environmental resources, and can provide a spatial framework for land and resource management. There are six distinct ecoregions in Nebraska, with the eastern portion of the state being in the Western Corn Belt Plains ecoregion (Omernik, 1987). Historically, this region was dominated by tallgrass prairie, but over 90% of the land has since been converted to croplands (Griffith et al. 1994, Kaul et al. 2006). Given this high level of habitat modification, much of this region has been poorly sampled for amphibians and reptiles and many distributional gaps likely exist in species' ranges.

Here, we report 16 new county records from the Western Corn Belt Plains of eastern Nebraska which are the result from recent survey efforts. Current county records were determined by examining Baldwin (1965), Ballinger et al. (2010), Fogell (2010), Hubbs (2013), Hudson (1942), Lynch (1985), and through individual

records published in *Herpetological Review* since 2009. All voucher specimens were deposited at the Texas Natural History Collections (TNHC), and were verified by Travis J. LaDuc. Locality information was obtained via handheld GPS (WGS 84), and all nomenclature follows Crother (2012). Specimens were collected under a Nebraska Game and Parks Commission Scientific and Educational

DREW R. DAVIS*

SPENCER R. SIDONS

JACOB L. KERBY

*Department of Biology, University of South Dakota, 414 East Clark Street,
Vermillion, South Dakota 57069, USA*

**Corresponding author: e-mail: drew.davis@usd.edu*

Collecting Permit (#293) to Drew R. Davis and under an approved University of South Dakota IACUC protocol (#16-02-13-16C).

CAUDATA — SALAMANDERS

AMBYSTOMA MAVORTIUM (Barred Tiger Salamander). DIXON Co.: Nebraska Open Fields and Water Program property, ca. 4.81 air km NW of Newcastle, NE (42.67356°N, 96.92579°W). 9 September 2013. Elizabeth A. Berg. TNHC 86205. Specimen collected from bottom of an abandoned cistern. This record fills a gap between Dakota Co. to the east and Cedar Co. to the west.

ANURA — FROGS

HYLA CHRYSOSCELIS (Cope's Gray Treefrog). CEDAR Co.: cattle pond on south side of 891 Rd at jct. with 573 Ave (42.74851°N, 97.08061°W). 24 May 2013. Cameron D. Siler. TNHC 86196. Chorus male collected from vegetation along edge of pond. DIXON Co.: 588 Ave, 0.18 rd. km SW jct. NE Hwy 12 (42.60647°N, 96.78839°W). 29 May 2013. Drew R. Davis. TNHC 89199. Adult female collected from the middle of a gravel road. Previous records exist to the west in Knox Co. and across the Missouri River to the north in Yankton and Clay counties, South Dakota.

LITHOBATES CATESBEIANUS (American Bullfrog). BUTLER Co.: Redtail Lake WMA (41.08841°N, 96.99875°W). 11 October 2013. Drew R. Davis. TNHC 86209. Juvenile collected along south shore of reservoir. CEDAR Co.: Nebraska Open Fields and Water Program property, ca. 4.87 air km NE of Wynot, NE (42.75795°N, 97.11495°W). 7 June 2013. Drew R. Davis. TNHC 86200. Juvenile female collected in ravine between two cattle ponds. CUMING Co.: Black Island WMA (41.99968°N, 97.00950°W). 22 September 2013. Drew R. Davis. TNHC 86206. Adult female collected on north shore of Elkhorn River. SEWARD Co.: Twin Lakes WMA (40.82618°N, 96.94385°W). 11 October 2013. Drew R. Davis. TNHC 86208. Juvenile collected on SE shore of East Twin Lake. All records fill distributional gaps of this species in Nebraska.

SPEA BOMBIFRONS (Plains Spadefoot). CEDAR Co.: 573 Ave, 0.45 rd. km N jct NE Hwy 12 (42.69729°N, 97.07424°W). 27 May 2013. Danielle J. Quist. TNHC 86198. Adult male collected from the middle of a gravel road. DIXON Co.: 578 Ave, 0.98 rd. km NW jct. 8845 Rd (42.65567°N, 96.97668°W). 26 May 2013. Drew R. Davis. TNHC 86197. Adult male collected from the middle of a gravel road. These records fill a gap in their distribution between Dakota Co. to the east and Knox Co. to the west.

TESTUDINES — TURTLES

APALONE MUTICA (Smooth Softshell). STANTON Co.: Wood Duck WMA (41.93866°N, 97.28041°W). 22 September 2013. Drew R. Davis. TNHC 86212. Juvenile collected on south shore of Elkhorn River. Previous records exist to the west in Madison Co.

APALONE SPINIFERA (Spiny Softshell). SAUNDERS Co.: Catfish Run WMA (41.05193°N, 96.33900°W). 31 August 2013. Spencer R. Siddons. TNHC 86211 (photo voucher). Juvenile collected on north shore of Salt Creek. This record fills a gap between Sarpy Co. to the east and Lancaster Co. to the south.

CHELYDRA SERPENTINA (Snapping Turtle). DIXON Co.: NE Hwy 15, 0.09 rd. km S jct 887 Rd (42.69745°N, 96.95703°W). 27

September 2013. Drew R. Davis and Spencer R. Siddons. TNHC 86210. Adult female collected crossing the highway. STANTON Co.: Elkhorn River, ca. 2.71 air km ESE of Pilger, NE (42.00152°N, 97.02183°W). 22 September 2013. Drew R. Davis. TNHC 86207. Adult male collected in the water near the north shore of Elkhorn River. Both records fill distributional gaps of this species in Nebraska.

CHRYSEMYS PICTA (Painted Turtle). CEDAR Co.: Missouri River near Bow Creek Recreational Area (42.78109°N, 97.14404°W). 1 August 2013. Drew R. Davis and Spencer R. Siddons. TNHC 86203. Adult female collected in side pool of the Missouri River. This specimen fills a gap from a large area devoid of records in northeast Nebraska.

SQUAMATA — SNAKES

THAMNOPHIS PROXIMUS (Western Ribbonsnake). NEMAHA Co.: Langdon Bend WMA (40.34004°N, 95.65984°W). 31 August 2013. Drew R. Davis. TNHC 86204. Juvenile male collected in a culvert along an irrigation ditch. Specimen fills gap between Otoe Co. to the north and Richardson Co. to the south.

THAMNOPHIS SIRTALIS (Common Gartersnake). CEDAR Co.: Bow Creek Recreational Area (42.77880°N, 97.14577°W). 3 July 2013. Drew R. Davis. TNHC 86201. Adult male collected in a backwater channel of the Missouri River. This record fills a gap between Dixon Co. to the east and Knox Co. to the west.

Acknowledgments.—We are grateful for collecting assistance from E. Berg, A. Dececchi, K. Ferguson, R. Munes, D. Quist, and C. Siler, and to T. LaDuc for verifying all specimens.

LITERATURE CITED

- BALDWIN, K. V. 1965. The Distribution of Amphibians and Reptiles in a Portion of Northeastern Nebraska. M.A. Thesis, State University of South Dakota, Vermillion, South Dakota.
- BALLINGER, R. E., J. D. LYNCH, AND G. R. SMITH. 2010. Amphibians and Reptiles of Nebraska. Rusty Lizard Press, Oro Valley, Arizona. 400 pp.
- CROTHER, B. I. (ed.). 2012. Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, With Comments Regarding Confidence in Our Understanding. SSAR Herpetol. Circ. 39:1–92.
- FOGELL, D. D. 2010. A Field Guide to the Amphibians and Reptiles of Nebraska. University of Nebraska – Lincoln, Lincoln, Nebraska. 158 pp.
- GRIFFITH, G. E., J. M. OMERNIK, T. F. WILTON, AND S. M. PIERSON. 1994. Ecoregions and subregions of Iowa: a framework for water quality assessment and management. J. Iowa Acad. Sci. 101:5–13.
- HUBBS, B. 2013. New county records and an update for Kansas and Nebraska, USA. Herpetol. Rev. 44:481–482.
- HUDSON, G. E. 1972 (reprinted). The amphibians and reptiles of Nebraska. Nebraska Conservation Bulletin No. 24. 146 pp.
- KAUL, R. B., D. SUTHERLAND, AND S. ROLFSMEIER. 2006. The Flora of Nebraska. University of Nebraska – Lincoln, Lincoln, Nebraska. 966 pp.
- LYNCH, J. D. 1985. Annotated checklist of the amphibians and reptiles of Nebraska. Trans. Nebraska Acad. Sci. 13:33–57.
- OMERNIK, J. M. 1987. Ecoregions of the conterminous United States (map supplement). Ann. Assoc. Am. Geogr. 77:118–125.