

New County Records of Amphibians and Reptiles from South Dakota, USA from 2017

Over the past two years, more than 150 new distributional records of amphibians and reptiles have been reported from South Dakota (Davis et al. 2016, 2017a, b; Austin et al. 2017; Davis and Zimmer 2017; Farkas and Davis 2017; Davis 2018). These records have provided verifiable voucher specimens in

an under-sampled state, helping to fill distributional gaps in the known range and expand the recognized distribution of some species within South Dakota, as well as providing important vouchered material for future studies. Despite this increase in our understanding of species distributions, there are species and regions that remain poorly sampled in South Dakota. Existing resources such as Thompson and Backlund (1998), Fischer et al. (1999), Bandas and Higgins (2004), and Kiesow (2006) provide generalized or hypothesized distributions based on observations or non-verifiable records. Although these sources are often sufficient for the public, the distribution maps included in them can lead to the mischaracterization of a species' range,

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further highlighting the importance of vouchered material when documenting species occurrence.

Here, we report 54 new county records of 17 species of amphibians and reptiles from South Dakota that are the result of fieldwork, laboratory course field trips, and opportunistic collecting across the state during 2017. Although records are included from across South Dakota, these records are primarily from eastern South Dakota (east of the Missouri River). County records were determined by examining Ballinger et al. (2000), Platt et al. (2005), Davis et al. (2016, 2017a, b), published accounts in *Herpetological Review*, and a thorough review of museum holdings. We deposited all voucher specimens at the Biodiversity Collections, University of Texas at Austin (TNHC) and Travis J. LaDuc verified all identifications. Locality information was collected with a handheld GPS (WGS 84), and nomenclature used primarily follows that of Crother (2017), though we continue to recognize the genus *Rana* rather than *Lithobates* (Yuan et al. 2016). Specimens were collected under a South Dakota Game, Fish and Parks Scientific Collecting Permit (2017 #15) issued to DRD and followed an approved University of South Dakota IACUC protocol (#13-04-16-19D). Genetic tissue samples (liver or skeletal muscle) were collected from all individuals and deposited alongside the specimen. Many of the closest known specimens to these records are formerly part of the University of South Dakota Herpetological Collection that is now housed at the University of Nebraska State Museum (UNSM). Other closest known specimens are from additional collections, including: Peggy Notebaert Nature Museum, Chicago Academy of Sciences (CHAS), Carnegie Museum of Natural History (CM), James Ford Bell Museum, University of Minnesota (JFBM), Biodiversity Institute, University of Kansas (KU), Museum of Natural History, University of Colorado (UCM), and National Museum of Natural History, Smithsonian Institution (USNM).

CAUDATA — SALAMANDERS

AMBYSTOMA MAVORTIUM (Western Tiger Salamander). BON HOMME CO.: 29622 420th Ave, Scotland (43.09314°N, 97.79163°W). 26 August 2017. Catherine C. Beall. TNHC 106087, 106088 (DRD 4434, 4435). Adult male (TNHC 106087: 100.7 g, 146 mm SVL, 157 mm tail length) and female (TNHC 106088: 101.6 g, 155 mm SVL, 130 mm tail length) collected near private residence. These specimens represent a new county record and fill part of a gap in the distribution of this species in southeastern South Dakota (Ballinger et al. 2000). *Ambystoma mavortium* is known from adjacent Charles Mix and Hutchinson counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017b), and the nearest known population is from ca. 21.1 km to the northeast in Hutchinson County, South Dakota (KU 129189).

HAND CO.: US Hwy 14 (197th St), just E of jct with W 14th Ave (44.53002°N, 99.00366°W). 26 August 2017. Jon Dunlap. TNHC 106089 (DRD 4303). Juvenile individual (8.8 g, 69 mm SVL, 48 mm tail length) found alive on road at 0041 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in central South Dakota (Ballinger et al. 2000). *Ambystoma mavortium* is known from adjacent Beadle County, South Dakota (Ballinger et al. 2000), and the nearest known population is from ca. 50.4 km to the east in Beadle County, South Dakota (USNM 197494).

JONES CO.: Ft. Pierre National Grassland, ca. 1.4 km SW of War Creek Dam (44.13987°N, 100.42443°W). 30 September 2017. Drew R. Davis and USD Herpetology Lab. TNHC 106090 (DRD

4423). Adult female (23.4 g, 99 mm SVL, 87 mm tail length) collected alive in mouth of an inactive prairie dog burrow at 2054 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in central South Dakota (Ballinger et al. 2000). *Ambystoma mavortium* is known from adjacent Jackson and Lyman counties, South Dakota (Ballinger et al. 2000), and the nearest known population is from ca. 26.0 km to the north in Hughes County, South Dakota (TNHC 107180).

MINER CO.: SD Hwy 34, ca. 0.7 rd km W jct 245th Ave (44.00885°N, 97.71971°W). 1 October 2017. Drew R. Davis. TNHC 106091 (DRD 4424). Adult female (28.4 g, 98 mm SVL, 90 mm tail length) collected while crossing a road after heavy rains at 2250 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in east-central South Dakota (Ballinger et al. 2000). *Ambystoma mavortium* is known from adjacent Beadle, Kingsbury, Lake, McCook, and Sanborn counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017a, b; see below), and the nearest known population is from ca. 36.6 km to the northeast in Kingsbury County, South Dakota (TNHC 100594; Davis et al. 2017b).

SANBORN CO.: roadside pond along 234th St, ca. 0.5 rd km W jct 295th Ave (43.99569°N, 98.31756°W). 13 May 2017. Drew R. Davis and Jillian K. Farkas. TNHC 103526 (DRD 3987). Adult male (33.2 g, 113 mm SVL, 97 mm tail length) collected alive while swimming in a pool (ca. 1.5 m depth) at 0105 h. A small larval individual (TNHC 103522 [DRD 3988]) was collected at the same locality on 29 May 2017 indicating that reproduction occurs at this site. These specimens represent a new county record and fill part of a gap in the distribution of this species in east-central South Dakota (Ballinger et al. 2000). *Ambystoma mavortium* is known from adjacent Aurora, Beadle, Kingsbury, and Miner counties, South Dakota (Ballinger et al. 2000; see above), and the nearest known population is from ca. 40.9 km to the north in Beadle County, South Dakota (CM 9968).

Ambystoma mavortium is expected to occur throughout most of South Dakota (Fischer et al. 1999; Kiesow 2006), but vouchered individuals are lacking for many counties in central and eastern South Dakota. We recognize these individuals as *A. mavortium* but note that little information is known about the boundary between *A. mavortium* and *A. tigrinum* in South Dakota.

ANURA — FROGS

PSEUDACRIS MACULATA (Boreal Chorus Frog). AURORA CO.: Scott WPA (43.84990°N, 98.43720°W). 13 May 2017. Drew R. Davis and Jillian K. Farkas. TNHC 103553 (DRD 3931). Adult male (0.7 g, 29 mm SVL) collected while calling among vegetation at 0300 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in eastern South Dakota (Ballinger et al. 2000). *Pseudacris maculata* is known from adjacent Brule, Charles Mix, Davison, Douglas, Jerauld, and Sanborn counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017b; see below), and the nearest known population is from ca. 14.0 km to the southeast in Davison County, South Dakota (UNSM ZM-22171).

CHARLES MIX CO.: roadside ditch along 401st Ave, ca. 0.5 rd km S jct 294th St (43.12083°N, 98.1655°N). 5 May 2017. Drew R. Davis and Jillian K. Farkas. TNHC 103541, 103542 (DRD 3904, 3905). Two adult males (TNHC 103541: 0.7 g, 26 mm SVL; TNHC 103542: 1.1 g, 29 mm SVL) collected while calling among vegetation at 2138 h. These specimens represent a new county

record and fill part of a gap in the distribution of this species in southeastern South Dakota (Ballinger et al. 2000). This species has been previously reported from Charles Mix County (Backlund 2005), but no vouchered specimens exist. *Pseudacris maculata* is known from adjacent Aurora, Bon Homme, Brule, Douglas, Gregory, Hutchinson, and Lyman counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017b; see above and below), and Boyd and Knox counties, Nebraska (Hudson 1942; Ballinger et al. 2010; Fogell 2010). The nearest known population is from ca. 16.4 km to the north in Douglas County, South Dakota (TNHC 103543, 103544; see below).

DOUGLAS CO.: Choteau Creek at 402nd Ave (43.26754°N, 98.14899°W). 5 May 2017. Drew R. Davis and Jillian K. Farkas. TNHC 103543, 103544 (DRD 3906, 3907). An adult pair found in amplexus (TNHC 103543: male, 1.1 g, 28 mm SVL; TNHC 103544: female, 1.2 g, 29 mm SVL) among aquatic vegetation at 2215 h. These specimens represent a new county record and fill part of a gap in the distribution of this species in southeastern South Dakota (Ballinger et al. 2000). *Pseudacris maculata* is known from adjacent Aurora, Charles Mix, Davison, and Hutchinson counties, South Dakota (Ballinger et al. 2000; see above and below), and the nearest known population is from ca. 16.4 km to the south in Charles Mix County, South Dakota (TNHC 103541, 103542; see above).

GREGORY CO.: small draw along US Hwy 18, ca. 0.2 rd km W jct 368th Ave (43.00986°N, 98.80638°W). 6 May 2017. Drew R. Davis and Jillian K. Farkas. TNHC 103545 (DRD 3910). Adult male (1.0 g, 29 mm SVL) collected while calling at 0016 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in southern South Dakota (Ballinger et al. 2000). This species has been previously reported from Gregory County (Backlund 2005), but no vouchered specimens exist. *Pseudacris maculata* is known from adjacent Brule, Charles Mix, Lyman, and Tripp counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017b; see above), and Boyd and Keya Paha counties, Nebraska (Hudson 1942; Ballinger et al. 2010; Fogell 2010). The nearest known population is from ca. 53.5 km to the east-northeast in Charles Mix County, South Dakota (TNHC 103541, 103542; see above).

HUTCHINSON CO.: roadside ditch along 435th Ave, ca. 0.3 rd km S jct 285th St, along Knodel GPA (43.25352°N, 97.49832°W). 4 May 2017. Drew R. Davis. TNHC 103546 (DRD 3914). Adult male (0.8 g, 26 mm SVL) collected while calling at 1505 h. Another adult male (TNHC 103547 [DRD 3915]: 1.0 g, 27 mm SVL) was collected nearby (43.25864°N, 97.49839°W) at 1512 h. These specimens represent a new county record and fill part of a gap in the distribution of this species in southeastern South Dakota (Ballinger et al. 2000). *Pseudacris maculata* is known from adjacent Bon Homme, Charles Mix, Davison, Douglas, Hanson, McCook, Turner, and Yankton counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017a, b; see above), and the nearest known population is from ca. 17.0 km to the south-southeast in Yankton County, South Dakota (TNHC 97885).

JEREAULD CO.: agricultural drainage ditch ca. 0.2 km S 231st St, ca. 0.7 rd km E jct 389th Ave (44.0366°N, 98.42346°W). 13 May 2017. Drew R. Davis and Jillian K. Farkas. TNHC 103552 (DRD 3930). Adult male (0.8 g, 26 mm SVL) collected alive while calling at 0200 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in east-central South Dakota (Ballinger et al. 2000). *Pseudacris maculata* is known from adjacent Aurora, Beadle, Brule, Buffalo, and Sanborn counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017b;

see above and below), and the nearest known population is from ca. 20.8 km to the south in Aurora County, South Dakota (TNHC 103553; see above).

MINER CO.: roadside ditch along 421st Ave, ca. 0.6 rd km N jct 239th St (43.92744°N, 97.79062°W). 12 May 2017. Drew R. Davis and Jillian K. Farkas. TNHC 103548, 103549 (DRD 3926, 3927). Two adult males (TNHC 103548: 1.1 g, 29 mm SVL; TNHC 103549: 0.8 g, 25 mm SVL) collected while calling in vegetation at 2210 h. These specimens represent a new county record and fill part of a gap in the distribution of this species in east-central South Dakota (Ballinger et al. 2000). *Pseudacris maculata* is known from adjacent Beadle, Hanson, Kingsbury, Lake, McCook, and Sanborn counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017b; see below), and the nearest known population is from ca. 25.4 km to the west in Sanborn County, South Dakota (TNHC 103550; see below).

SANBORN CO.: roadside ditch along 241st St, ca. 0.6 rd km E jct 405th Ave (43.89455°N, 98.10425°W). 13 May 2017. Drew R. Davis and Jillian K. Farkas. TNHC 103550 (DRD 3928). Adult male (0.7 g, 26 mm SVL) collected while calling at 0000 h. An additional male (TNHC 103551 [DRD 3929]: 1.1 g, 28 mm SVL) was collected nearby (43.89523°N, 98.12810°W) at 0020 h. These specimens represent a new county record and fill part of a gap in the distribution of this species in east-central South Dakota (Ballinger et al. 2000). This species has been previously reported from Sanborn County (Backlund 2005), but no vouchered specimens exist. *Pseudacris maculata* is known from adjacent Aurora, Beadle, Davison, Hanson, Jerauld, Kingsbury, and Miner counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017b; see above), and the nearest known population is from ca. 14.3 km to the south in Davison County, South Dakota (UNSM ZM-22172).

RANA BLAIRI (Plains Leopard Frog). CHARLES MIX CO.: North Point Recreation Area, hillside E of St. Francis Bay and N of small reservoir (43.07232°N, 98.54280°W). 3 September 2017. Drew R. Davis and Jillian K. Farkas. TNHC 106085 (DRD 4074). Adult female (57.3 g, 86 mm SVL) collected in vegetation at 2056 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in southeastern South Dakota (Ballinger et al. 2000). *Rana blairi* is known from adjacent Bon Homme, Gregory and Lyman counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017b; see below), and Boyd and Knox counties, Nebraska (Ballinger et al. 2010; Fogell 2010). The nearest known population is from ca. 34.1 km to the west in Gregory County, South Dakota (TNHC 106086; see below).

GREGORY CO.: public walk-in area along SD Hwy 1806, ca. 1.3 rd km N jct US Hwy 18 (43.09329°N, 98.96035°W). 3 September 2017. Drew R. Davis and Jillian K. Farkas. TNHC 106086 (DRD 4289). Adult male (30.0 g, 62 mm SVL) collected along bank of a shallow pool at 2315 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in southern South Dakota (Ballinger et al. 2000). *Rana blairi* is known from adjacent Charles Mix, Lyman, and Tripp counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017b; see above), and Boyd County, Nebraska (Ballinger et al. 2010; Fogell 2010). The nearest known population is from ca. 34.1 km to the east in Charles Mix County, South Dakota (TNHC 106085; see above).

These two county records now connect localities of *R. blairi* in Bon Homme County to historic localities known in Lyman and Tripp counties, South Dakota. Modern surveys are needed to confirm the presence of *R. blairi* in both Lyman and Tripp

counties, with the last known records of this species occurring in 1999 and 1971, respectively.

RANA PIPIENS (Northern Leopard Frog). CAMPBELL CO.: small pool along 302nd Ave, ca. 1.6 rd km N jct 105th St (45.88395°N, 100.15189°W). 20 June 2017. Drew R. Davis. TNHC 103776 (DRD 4130). Young male (32.7g, 75 mm SVL) collected alive in aquatic vegetation at 0019 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in north-central South Dakota (Ballinger et al. 2000). *Rana pipiens* is known from adjacent Corson, McPherson, and Walworth counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017b; see below), and Emmons, McIntosh, and Sioux counties, North Dakota (Wheeler and Wheeler 1966; Jundt 2000; LeClere et al. 2009). The nearest known population is from ca. 44.4 km to the southeast in McPherson County, South Dakota (KU 288775).

CORSON CO.: public walk-in area along SD Hwy 20, ca. 4.9 rd km S jct US Hwy 12 (45.52016°N, 100.56699°W). 20 June 2017. Drew R. Davis. TNHC 103777 (DRD 4136). Juvenile individual (10.8 g, 52 mm SVL) collected in small stream at 2345 h. Another individual (TNHC 103778 [DRD 4137]), a juvenile female (14.8 g, 57 mm SVL), was collected nearby (45.52016°N, 100.56721°W). These specimens represent a new county record and fill part of a gap in the distribution of this species in north-central South Dakota (Ballinger et al. 2000). This species has been previously reported from Corson County (Backlund 2005), but no vouchered specimens exist. *Rana pipiens* is known from adjacent Campbell, Dewey, Perkins, Walworth, and Ziebach counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017b; see above and below), and Emmons and Sioux counties, North Dakota (Wheeler and Wheeler 1966; Jundt 2000). The nearest known population is from ca. 51.8 km to the northeast in Campbell County, South Dakota (TNHC 103776; see above).

JERAULD CO.: agricultural drainage ditch, ca. 0.2 km S 231st St, ca. 0.7 rd km E jct 389th Ave (44.03658°N, 98.42317°W). 29 May 2017. Drew R. Davis. TNHC 103531 (DRD 3982). Adult male (52.2 g, 87 mm SVL) collected alive while calling at 0040 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in east-central South Dakota (Ballinger et al. 2000). *Rana pipiens* is known from adjacent Aurora, Beadle, Brule, Buffalo, Hand, and Sanborn counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017b; see below), and the nearest known population is from ca. 30.4 km to the north-northwest in Beadle County, South Dakota (KU 288803).

JONES CO.: Ft. Pierre National Grassland, W shore of Sheriff Dam (44.10846°N, 100.42608°W). 29 September 2017. Drew R. Davis and USD Herpetology Lab. TNHC 106092 (DRD 4372). Juvenile individual (8.0 g, 45 mm SVL) collected in grass parking area at 1910 h. Another individual (TNHC 106093 [DRD 4373]), an adult male (16.0 g, 59 mm SVL), was collected nearby (44.10799°N, 100.42603°W) at 1913 h. These specimens represent a new county record and fill part of a gap in the distribution of this species in central South Dakota (Ballinger et al. 2000). *Rana pipiens* is known from adjacent Haakon, Jackson, Lyman, Mellette, and Stanley counties, South Dakota (Ballinger et al. 2000), and the nearest known population is from 27.3 km to the north in Stanley County, South Dakota (USNM 3325, 3351, 290570–590573).

SANBORN CO.: roadside ditch along 230th St, ca. 0.7 rd km W jct 414th Ave (44.05342°N, 97.93949°W). 29 May 2017. Drew R. Davis. TNHC 103523 (DRD 3983). Numerous tadpoles (n = 12) collected while seeking refuge among submerged cattails at 1627 h. These

specimens represent a new county record and fill part of a gap in the distribution of this species in east-central South Dakota (Ballinger et al. 2000). *Rana pipiens* is known from adjacent Aurora, Beadle, Davison, Hanson, Jerauld, Kingsbury, and Miner counties, South Dakota (Ballinger et al. 2000; see above), and the nearest known population is from ca. 25.1 km to the north in Beadle County, South Dakota (UNSM ZM-20115, 20116, 20119–20122).

ZIEBACH CO.: small wetland below outflow of Bedners Dam (45.07367°N, 101.63907°W). 11 June 2017. Drew R. Davis. TNHC 103532 (DRD 4116). Adult female (18.7 g, 68 mm SVL) collected at 2215 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in west-central South Dakota (Ballinger et al. 2000). This species has been previously reported from Ziebach County (Backlund 2005), but no vouchered specimens exist. *Rana pipiens* is known from adjacent Corson, Dewey, Haakon, Meade, Pennington, Perkins, and Stanley counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017b; see above), and the nearest known population is from ca. 32.6 km to the east in Dewey County, South Dakota (KU 91263–91270).

With these six records of *R. pipiens*, voucher specimens now exist from every county in South Dakota. *Rana pipiens*, along with *Pseudacris maculata*, are likely the most widespread and abundant amphibians in South Dakota, though records are still lacking for the latter.

SPEA BOMBIFRONS (Plains Spadefoot). CHARLES MIX CO.: 401st Ave, ca. 0.1 rd km N jct 290th St (43.18362°N, 98.16860°W). 18 May 2017. Drew R. Davis. TNHC 103539 (DRD 3963). Juvenile individual (6.2 g, 39 mm SVL) collected AOR at 0447 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in southeastern South Dakota (Ballinger et al. 2000). *Spea bombifrons* is known from adjacent Bon Homme, Douglas, Gregory, and Hutchinson counties, South Dakota (Ballinger et al. 2000; see below), and Knox County, Nebraska (Ballinger et al. 2010; Fogell 2010). The nearest known population is from ca. 18.8 km to the north-northwest in Douglas County, South Dakota (TNHC 103540; see below).

DOUGLAS CO.: Co Rd 7 (396th Ave), ca. 0.3 rd km S jct 279th St (43.33759°N, 98.26619°W). 18 May 2017. Drew R. Davis. TNHC 103540 (DRD 3964). Adult female (11.2 g, 46 mm SVL) collected AOR at 0523 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in southeastern South Dakota (Ballinger et al. 2000). *Spea bombifrons* is known from adjacent Charles Mix, Davison, and Hutchinson counties, South Dakota (Ballinger et al. 2000; see above), and the nearest known population is from 18.8 km to the south-southeast in Charles Mix County, South Dakota (TNHC 103539; see above).

HANSON CO.: 429th Ave, ca. 0.6 rd km S jct SD Hwy 42 (43.53762°N, 97.62688°W). 18 May 2017. Drew R. Davis. TNHC 103537 (DRD 3960). Adult female with eggs (17.1 g, 56 mm SVL) collected AOR at 0315 h. Another adult female (TNHC 103538 [DRD 3961]: 16.1 g, 53 mm SVL) was collected nearby (43.53952°N, 97.62683°W). These specimens represent a new county record and fill part of a gap in the distribution of this species in southeastern South Dakota (Ballinger et al. 2000). *Spea bombifrons* is known from adjacent Davison, Hutchinson, McCook, and Sanborn counties, South Dakota (Ballinger et al. 2000; see below), and the nearest known population is from ca. 11.1 km to the east-southeast in McCook County, South Dakota (TNHC 103535, 103536; see below).

McCook Co.: Bh20 Rd, ca. 1.0 rd km S jct 267th St (43.50510°N, 97.49758°W). 18 May 2017. Drew R. Davis. TNHC 103535 (DRD 3958). Juvenile individual (7.1 g, 40 mm SVL) collected AOR at 0250 h. Another individual (TNHC 103536 [DRD 3959]), an adult male (13.2 g, 47 mm SVL), was collected nearby (43.50606°N, 97.49762°W). These specimens represent a new county record and fill part of a gap in the distribution of this species in southeastern South Dakota (Ballinger et al. 2000). *Spea bombifrons* is known from adjacent Hanson, Hutchinson, Minnehaha, and Turner counties, South Dakota (Ballinger et al. 2000; see above), and the nearest known population is from ca. 11.1 km to the west-northwest in Hanson County, South Dakota (TNHC 103537, 103538; see above).

SANBORN Co.: SD Hwy 37 at jct with 240th St (43.90920°N, 98.03074°W). 2 October 2017. Drew R. Davis. TNHC 106082 (DRD 4396). Juvenile individual (4.3 g, 34 mm SVL) collected AOR at 0016 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in east-central South Dakota (Ballinger et al. 2000). *Spea bombifrons* is known from adjacent Davison and Hanson counties, South Dakota (Ballinger et al. 2000; see above), and the nearest known population is from ca. 19.1 km to the south-southwest in Davison County, South Dakota (UNSM ZM-21206).

TESTUDINES — TURTLES

CHELYDRA SERPENTINA (Snapping Turtle). CHARLES MIX Co.: U.S. Army Corps of Engineers waste settling ponds near Spillway Lakeside Use Area (43.05558°N, 98.53349°W). 3 September 2017. Drew R. Davis and Jillian K. Farkas. TNHC 106695 (DRD 4306). Adult female (5270 g, 291 mm carapace length, 204 mm plastron length) collected while foraging along margin of pond. This specimen represents a new county record and fills part of a gap in the distribution of this species in southeastern South Dakota (Ballinger et al. 2000). This species has been previously reported from Charles Mix County (Backlund 2005), but no vouchered specimens exist. *Chelydra serpentina* is known from adjacent Douglas and Gregory counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017b), Boyd and Knox counties, Nebraska (Hudson 1942; Ballinger et al. 2010; Fogell 2010). The nearest known population is from ca. 33.5 km to the west in Gregory County, South Dakota (UNSM ZM-18027).

PERKINS Co.: SD Hwy 73, ca. 4.6 rd km S jct SD Hwy 20 (45.40268°N, 102.16926°W). 17 August 2017. Drew R. Davis and Jillian K. Farkas. TNHC 106064 (DRD 4009). Adult male collected DOR at 1803 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in northwestern South Dakota (Ballinger et al. 2000). This species has been previously reported from Perkins County (Backlund 2005), but no vouchered specimens exist. *Chelydra serpentina* is known from no adjacent counties, and the nearest known population is from ca. 169.0 km to the southeast in Haakon County, South Dakota (UNSM ZM-18273).

SANBORN Co.: roadside ditch along 400th Ave, ca. 0.5 rd km N jct 234th St, along east outflow of Long Lake (44.00045°N, 98.21089°W). 19 May 2017. Drew R. Davis. TNHC 106096 (DRD 4127). Adult individual (336 mm carapace length, 263 mm plastron length) collected dead in culvert. This specimen represents a new county record and fills part of a gap in the distribution of this species in east-central South Dakota (Ballinger et al. 2000). *Chelydra serpentina* is known from adjacent Davison County, South Dakota (Ballinger et al. 2000), and the nearest known

population is from ca. 38.6 km to the south-southeast in Davison County, South Dakota (USNM 22303).

YANKTON Co.: Missouri River at confluence with James River (42.86743°N, 97.29890°W). 13 July 2017. Maddie M. Butterfield and Shaylyn D. Austin. TNHC 106696 (DRD 4167). Adult male (279 mm carapace length, 230 mm plastron length) collected in baited hoop trap at 1022 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in southeastern South Dakota (Ballinger et al. 2000). *Chelydra serpentina* is known from adjacent Clay County, South Dakota (Ballinger et al. 2000), and Cedar and Knox counties, Nebraska (Hudson 1942; Ballinger et al. 2010; Fogell 2010). The nearest known population is from ca. 16.6 km to the southeast from Clay County, South Dakota (UNSM ZM-18274).

CHRYSEMYS PICTA (Painted Turtle). CLARK Co.: SD Hwy 20, ca. 3.9 rd km W jct SD Hwy 25 (45.09389°N, 97.58487°W). 26 June 2017. Drew R. Davis and Shaylyn D. Austin. TNHC 106061 (DRD 4155). Adult male collected DOR at 1720 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in northeastern South Dakota (Ballinger et al. 2000). *Chrysemys picta* is known from adjacent Beadle, Codington, Day, Hamlin, and Kingsbury counties, South Dakota (Ballinger et al. 2000; see below), and the nearest known population is from ca. 23.8 km to the east-southeast in Codington County, South Dakota (TNHC 103775; see below).

CODINGTON Co.: SD Hwy 20, ca. 0.3 rd km S jct 163rd St (45.01814°N, 97.30229°W). 26 June 2017. Drew R. Davis and Shaylyn D. Austin. TNHC 103775 (DRD 4156). Adult male (355.4 g, 152 mm carapace length, 129 mm plastron length) collected DOR at 1739 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in northeastern South Dakota (Ballinger et al. 2000). *Chrysemys picta* is known from adjacent Clark, Day, Deuel, Grant, and Hamlin counties, South Dakota (Ballinger et al. 2000; Davis et al. 2016; Davis et al. 2017b; see above and below), and the nearest known population is from ca. 23.8 km to the west-northwest in Clark County, South Dakota (TNHC 106061; see above).

HAMLIN Co.: SD Hwy 28, ca. 0.6 rd km E jct SD Hwy 21 (44.58676°N, 97.21213°W). 9 October 2017. Drew R. Davis. TNHC 106095 (DRD 4428). Subadult female collected DOR at 1403 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in northeastern South Dakota (Ballinger et al. 2000). *Chrysemys picta* is known from adjacent Brookings, Clark, Codington, Deuel, and Kingsbury counties, South Dakota (Ballinger et al. 2000; Davis et al. 2016; see above), and the nearest known population is from ca. 24.0 km to the southeast in Brookings County, South Dakota (UNSM ZM-18156).

HUGHES Co.: Missouri River, north shore, east of southeastern tip of La Framboise Island (44.34530°N, 100.31960°W). 23 July 2017. Josie M. Galles, Kalie M. Leonard, and Anna Kase. TNHC 106693 (DRD 4188). Adult female (660 g, 180 mm carapace length, 167 mm plastron length) collected in baited hoop trap. This specimen represents a new county record and fills part of a gap in the distribution of this species in central South Dakota (Ballinger et al. 2000). *Chrysemys picta* is known from adjacent Lyman, Stanley, and Sully counties, South Dakota (Ballinger et al. 2000), and the nearest known population is from ca. 4.1 km to the west in Stanley County, South Dakota (USNM 220846).

JONES Co.: Ft. Pierre National Grasslands, Sheriff Dam (44.10860°N, 100.42500°W). 29 September 2017. Drew R. Davis

and USD Herpetology Lab. TNHC 106062 (DRD 4370). Skeletal remains of an adult found along earthen dam at 1914 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in central South Dakota (Ballinger et al. 2000). *Chrysemys picta* is known from adjacent Haakon, Jackson, Lyman, Mellette, and Stanley counties, South Dakota (Ballinger et al. 2000), and the nearest known population is from ca. 27.2 km to the north in Stanley County, South Dakota (USNM 220846).

KINGSBURY Co.: US Hwy 14, ca. 0.4 rd km E jct 451st Ave (44.36452°N, 97.18457°W). 8 October 2017. Drew R. Davis. TNHC 106063 (DRD 4427). Subadult female collected DOR at 1706 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in east-central South Dakota (Ballinger et al. 2000). *Chrysemys picta* is known from adjacent Beadle, Brookings, Clark, Hamlin, Lake, Miner, and Sanborn counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017b; see above and below), and the nearest known population is from ca. 18.5 km to the northeast in Brookings County, South Dakota (UNSM ZM-18156).

MEADE Co.: SD Hwy 34/73, ca. 3.6 rd km E jct SD Hwy 73, S of Howes Grazing Lake (44.61839°N, 102.00631°W). 17 August 2017. TNHC 106694 (DRD 4010). Adult male (303.7 g, 144 mm carapace length, 131 mm plastron length) collected AOR at 1915 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in northwestern South Dakota (Ballinger et al. 2000). This species has been previously reported from Meade County (Backlund 2005), but no vouchered specimens exist. *Chrysemys picta* is known from adjacent Butte, Haakon, Lawrence, Pennington, and Ziebach counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017a, b), and the nearest known population is from ca. 12.5 km to the east in Ziebach County, South Dakota (UCM 56573, 56574).

SANBORN Co.: Lake Prior, Woonsocket (44.05613°N, 98.27815°W). 29 May 2017. Drew R. Davis. TNHC 103519 (DRD 3985). Adult male (221.9 g, 126 mm carapace length, 115 mm plastron length) collected dead along the northwest shore. Individual was found wedged between a brick wall and a drainage pipe. This specimen represents a new county record and fills part of a gap in the distribution of this species in east-central South Dakota (Ballinger et al. 2000). This species has been previously reported from Sanborn County (Backlund 2005), but no vouchered specimens exist. *Chrysemys picta* is known from adjacent Beadle, Davison, Hanson, Jerauld, Kingsbury, and Miner counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017b; see above), and the nearest known population is from ca. 11.3 km to the southwest in Jerauld County, South Dakota (UNSM ZM-23829).

GRAPTEMYS PSEUDOGEOGRAPHICA (False Map Turtle). GREGORY Co.: sandbar in Missouri River, ca. 8.4 km downstream of Fort Randall Dam (43.00373°N, 98.50240°W). 29 July 2017. Drew R. Davis. TNHC 106084 (DRD 4011). Recently deceased subadult female (31.3 g, 64 mm carapace length, 53 mm plastron length) collected along a sandbar. This specimen represents a new county record and fills part of a gap in the distribution of this species in southern South Dakota (Ballinger et al. 2000). *Graptemys pseudogeographica* is known from adjacent Charles Mix County, South Dakota (Ballinger et al. 2000), and Boyd County, Nebraska (Ballinger et al. 2010; Fogell 2010). The nearest known population is from ca. 53.0 km to the northwest in Charles Mix County, South Dakota (UNSM ZM-18240).

YANKTON Co.: Missouri River, just downstream of confluence with James River (42.86199°N, 97.29495°W). 3 May 2017. U.S. Fish and Wildlife Service staff. TNHC 103524 (DRD 3992). Adult male (276.7 g, 132 mm carapace length, 114 mm plastron length) collected in baited hoop trap. This specimen represents a new county record and fills part of a gap in the distribution of this species in southeastern South Dakota (Ballinger et al. 2000). This species has been previously reported from Yankton County (Backlund 2005), but no vouchered specimens exist. *Graptemys pseudogeographica* is known from adjacent Bon Homme and Clay counties, South Dakota (Ballinger et al. 2000), and Cedar County, Nebraska (Ballinger et al. 2010; Fogell 2010). The nearest known population is from ca. 16.0 km to the southeast in Clay County, South Dakota (UNSM ZM-18271).

SQUAMATA — LIZARDS

PLESTIODON SEPTENTRIONALIS (Prairie Skink). JERAULD Co.: along 294th Ave, ca. 0.1 rd km W public boat launch at Twin Lakes (43.96163°N, 98.33326°W). 28 May 2017. Drew R. Davis. TNHC 103527 (DRD 3989). Adult female (3.6 g, 58 mm SVL, 89 mm tail length) collected alive under log along road at 2025 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in east-central South Dakota (Ballinger et al. 2000). *Plestiodon septentrionalis* is known from adjacent Beadle and Sanborn counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017b), and the nearest known population is from ca. 1.6 km to the northeast in Sanborn County, South Dakota (TNHC 100590; Davis et al. 2017b).

SQUAMATA – SNAKES

COLUBER CONSTRICTOR (North American Racer). HUGHES Co.: SD Hwy 1804, ca. 0.7 rd km S jct 203rd St (44.43528°N, 100.36694°W). 30 September 2017. Drew R. Davis and USD Herpetology Lab. TNHC 106079 (DRD 4381). Subadult female (37.7 g, 485 mm SVL, 25 mm tail length) collected DOR at 1646 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in central South Dakota (Ballinger et al. 2000). *Coluber constrictor* is known from adjacent Lyman, Stanley, and Sully counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017b; see below), and the nearest known population is from ca. 2.9 km to the west in Stanley County, South Dakota (TNHC 106081; see below).

HUTCHINSON Co.: SW River Rd (S 1st Ave), ca. 0.1 rd km S jct US Hwy 18 (43.23995°N, 97.67778°W). 20 October 2017. Drew R. Davis. TNHC 106080 (DRD 4467). Juvenile male (5.4 g, 288 mm SVL, 90 mm tail length) collected DOR at 1710 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in southeastern South Dakota (Ballinger et al. 2000). *Coluber constrictor* is known from adjacent Bon Homme, Charles Mix, and Yankton counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017b), and the nearest known population is from ca. 32.5 km to the southeast in Clay County, South Dakota (JFBM 19033).

STANLEY Co.: Power House Rd, ca. 0.2 rd km N of the entrance to Oahe Downstream Campground (44.43778°N, 100.40306°W). 30 September 2017. Drew R. Davis and USD Herpetology Lab. TNHC 106081 (DRD 4382). An adult female (112.3 g, 648 mm SVL, 214 mm tail length) collected DOR at 1655 h. This species was previously reported from Stanley County, South Dakota (Ballinger et al. 2000), though after an exhaustive search of South

Dakota specimen records (see Davis et al. 2017b), no specimens from Stanley County were discovered (including querying all collections listed in Ballinger et al. [2000]). The previous specimen is presumed lost and this specimen now represents a new county record, filling part of a gap in the distribution of this species in central South Dakota (Ballinger et al. 2000). *Coluber constrictor* is known from adjacent Dewey, Hughes, Lyman, Sully, and Ziebach counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017b; see above), and the nearest known population is from ca. 2.9 km to the east in Hughes County, South Dakota (TNHC 106079; see above).

CROTALUS VIRIDIS (Prairie Rattlesnake). HYDE Co.: SD Hwy 34, ca. 1.7 rd km E jct 326th Ave (44.27411°N, 99.58328°W). 1 October 2017. Drew R. Davis and USD Herpetology Lab. TNHC 106068 (DRD 4403). Adult male (172.5 g, 880 mm SVL, 95 mm tail length) collected DOR at 1118 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in central South Dakota (Ballinger et al. 2000). *Crotalus viridis* is known from adjacent Hughes, Lyman, Potter, and Sully counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017b), and the nearest known population is from ca. 47.0 km to the east in Stanley County, South Dakota (TNHC 87921).

PANTHEROPHIS RAMSPOTTI (Western Foxsnake). TURNER Co.: SD Hwy 19, ca. 1.0 rd km N jct SD Hwy 46 (43.09255°N, 97.08122°W). 22 September 2017. Drew R. Davis. TNHC 106070 (DRD 4355). Adult female (118.8 g, 668 mm SVL, 117 mm tail length) collected DOR at 0023 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in southeastern South Dakota (Ballinger et al. 2000). *Pantherophis ramspotti* is known from adjacent Clay, Lincoln, Minnehaha, and Yankton counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017b), and the nearest known population is from ca. 16.2 km to the southwest in Yankton County, South Dakota (JFBM 19038).

PITUOPHIS CATENIFER (Gophersnake). JONES Co.: 286th Ave, ca. 4.3 rd km S jct Warcreek Rd (44.15844°N, 100.40644°W). 30 September 2017. Drew R. Davis and USD Herpetology Lab. TNHC 106071 (DRD 4385). Adult male (285 g, 990 mm SVL, 135 mm tail length) collected DOR at 2024 h. This specimen represents a new county record in central South Dakota and fills the remaining gap in the distribution of this species in the West River (west of the Missouri River) portion of South Dakota (Ballinger et al. 2000). *Pituophis catenifer* is known from adjacent Haakon, Jackson, Lyman, Mellette, and Stanley counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017b), and the nearest known population is from ca. 14.5 km to the south-southeast in Lyman County, South Dakota (CHAS HERP-13855).

POTTER Co.: West Whitlock Recreation Area (45.04423°N, 100.26378°W). 13 June 2017. Drew R. Davis. TNHC 106354 (HerpMapper [HM] 191713). Shed skin of a large adult snake found with anterior end in a rodent burrow. This specimen represents a new county record and fills part of a gap in the distribution of this species in north-central South Dakota (Ballinger et al. 2000). *Pituophis catenifer* is known from adjacent Dewey County, South Dakota (Davis et al. 2017b), and the nearest known population is from ca. 35.7 km to the west in Dewey County, South Dakota (CHAS HERP-14259).

STORERIA OCCIPITOMACULATA (Red-bellied Snake). UNION Co.: River Rd, ca. 0.8 rd km N jct 307th St (42.94456°N, 96.52338°W). 19 October 2017. Drew R. Davis. TNHC 106069 (DRD 4457). Adult male (4.7 g, 228 mm SVL, 68 mm tail length) collected AOR at 1611 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in southeastern South Dakota (Ballinger et al. 2000). *Storeria occipitomaculata* is known from adjacent Lincoln County, South Dakota (Ballinger et al. 2000), and Sioux County, Iowa (LeClere 2013). The nearest known population is from ca. 30.5 km to the north in Lincoln County, South Dakota (UNSM ZM-15958).

THAMNOPHIS RADIX (Plains Gartersnake). HYDE Co.: SD Hwy 34, ca. 1.1 rd km E jct 326th Ave (44.28720°N, 99.63015°W). 1 October 2017. Drew R. Davis and USD Herpetology Lab. TNHC 106073 (DRD 4409). Adult male (43.7 g, 485 mm SVL, 149 mm tail length) collected DOR at 1112 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in central South Dakota (Ballinger et al. 2000). *Thamnophis radix* is known from adjacent Buffalo, Faulk, Hand, Hughes, Lyman, Potter, and Sully counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017b; Austin et al. 2017), and the nearest known population is from ca. 43.9 km to the south-southeast in Buffalo County, South Dakota (TNHC 100539; Davis et al. 2017b).

JERAULD Co.: SD Hwy 34 at jct with 374th Ave (44.08048°N, 98.70896°W). 1 October 2017. Drew R. Davis and USD Herpetology Lab. TNHC 106074 (DRD 4410). Adult female (18.5 g, 330 mm SVL, 82 mm tail length) collected DOR at 1214 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in east-central South Dakota (Ballinger et al. 2000). *Thamnophis radix* is known from adjacent Aurora, Beadle, Brule, Buffalo, Hand, and Sanborn counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017b), and the nearest known population is from ca. 31.5 km to the northeast in Beadle County, South Dakota (UNSM ZM-16377).

MINER Co.: SD Hwy 34 at jct with 436th Ave (44.00819°N, 97.49007°W). 1 October 2017. Drew R. Davis. TNHC 106075 (DRD 4414). Adult male (26.6 g, 400 mm SVL, 130 mm tail length) collected DOR at 2128 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in east-central South Dakota (Ballinger et al. 2000). *Thamnophis radix* is known from adjacent Beadle, Hanson, Kingsbury, Lake, McCook, and Sanborn counties, South Dakota (Ballinger et al. 2000; Davis et al. 2016), and the nearest known population is from ca. 25.7 km to the east in Lake County, South Dakota (UNSM ZM-16414).

THAMNOPHIS SIRTALIS (Common Gartersnake). HUTCHINSON Co.: 424th Ave, ca. 1.3 rd km S jct 284th St (43.25874°N, 97.71770°W). 20 October 2017. Drew R. Davis. TNHC 106072 (DRD 4463). Juvenile male (8.0 g, 266 mm SVL, 85 mm tail length) collected DOR at 1720 h. This specimen represents a new county record and fills part of a gap in the distribution of this species in southeastern South Dakota (Ballinger et al. 2000). This species has been previously reported from Hutchinson County (Backlund 2005), but no vouchered specimens exist. *Thamnophis sirtalis* is known from adjacent Bon Homme, Charles Mix, Davison, Hanson, McCook, and Yankton counties, South Dakota (Ballinger et al. 2000; Davis et al. 2017a), and the nearest known population is from ca. 41.7 km to the north in Hanson County, South Dakota (UNSM ZM-16253).

TROPIDOCOLONION LINEATUM (Lined Snake). HUTCHINSON CO.: 272nd St, ca. 0.3 rd km E jct 423rd Ave (43.44341°N, 97.73601°W). 20 October 2017. Drew R. Davis. TNHC 106083 (DRD 4468). Adult female (4.4 g, 218 mm SVL, 26 mm tail length) collected DOR at 1811 h. This specimen represents a new county record and extends the distribution of this species west into the James River Valley in southeastern South Dakota (Ballinger et al. 2000). *Tropidocolonion lineatum* is known from no adjacent counties, and the nearest known population is from ca. 83.2 km to the east-northeast in Minnehaha County, South Dakota (UNSM ZM-16476).

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