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**New County Records of Amphibians and Reptiles from South Texas, USA**

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Several species of amphibians and reptiles reach their northern range limit in south Texas, USA. Herpetological research in the area, as well as frequent visits from amphibian and reptile enthusiasts, has helped to form a more complete understanding of amphibian and reptile distributions across the region. However, gaps in the recognized distribution of many species remain. Efforts to better document species occurrence are confounded by the lack of public land and the fact that most of south Texas is privately owned, making access to suitable habitat difficult (Schmidly et al. 2001).

Although we include records from across south Texas, the majority are restricted to the Rio Grande Valley and adjacent counties. Specifically, most of the records are from the Western Gulf Coastal Plain and South Texas Plains ecoregions (Griffith et al. 2007). The Western Gulf Coastal Plain is characterized by a relatively flat topography dominated by grasslands, coastal prairies, and oak forests, with a large Coastal Sand Plain just north of the Lower Rio Grande Valley. The South Texas Plains are characterized by arid savanna vegetation and thornscrub. Despite large differences in the biotic and abiotic characteristics of these ecoregions, both face numerous threats that present an uncertain future for many species of amphibians and reptiles (Jahrsdoerfer and Leslie 1988; Fulbright and Bryant 2002).

The major threats to these ecoregions and the species that occupy them are confounded by arid savanna vegetation. The lack of public land and the fact that most of south Texas is privately owned, making access to suitable habitat difficult (Schmidly et al. 2001).

Here, we present 31 new county records of 23 species of amphibians and reptiles in south Texas. County records were determined by examining Dixon (2013), accounts published in Herpetological Review since 2013, and VertNet.org queries. We deposited all voucher specimens at the Biodiversity Collections at the University of Texas at Austin (TNHC) and Travis J. LaDuc verified all species identifications. Locality information was collected with a handheld GPS (WGS 84). The nomenclature used primarily follows that of Crother (2017), although we recognize the genus *Rana* (Yuan et al. 2016) as well as the recently elevated species *Sonora taylorii* (Cox et al. 2018). All recent specimens were collected under Texas Parks and Wildlife Scientific Collecting Permits issued to DRD (SPR-1018-294) and Travis J. LaDuc (SPR-1097-912), and all collecting activities followed an approved University of Texas Rio Grande Valley IACUC protocol (AUP #18-28). Genetic tissue samples (liver or skeletal muscle) were collected from all individuals and deposited with the specimen. Outside of specimens housed at TNHC, many of the closest known specimen records are from the American Museum of Natural History (AMNH), Angelo State Natural History Collections, Angelo State University (ASNH), California Academy of Sciences (CAS), Field Museum of Natural History (FMNH), Biodiversity Institute, University of Kansas (KU), Natural History Museum of Los Angeles County (LACM), Louisiana Museum of Natural History, Louisiana State University (LSUMZ), Museum of Comparative Zoology, Harvard University (MCZ), Museum of Vertebrate Zoology, University of California at Berkeley (MVZ), Biodiversity Research and Teaching Collections, Texas A&M University (TCWC), University of Arizona Museum of Natural History (UAMNH), University of British Columbia, Beaty Biodiversity Museum (UBCBBM), Utah Museum of Natural History (UMNH), National Museum of Natural History, Smithsonian Institution (USNM), UT EP Biodiversity Collections, University of Texas at El Paso (U TEP), and the University of Texas-Pan American Vertebrate Museum (UTPA).

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Creek (27.23913°N, 97.87243°W). 10 February 2020. Clinton J.
Guadiana, Drew R. Davis, and Padraic S. Robinson. TNHC 114542
(DRD 6426). One juvenile (16 mm SVL, 0.4 g) collected under
debris at 1700 h. This specimen represents a new county record
for this introduced species (Dixon 2013). *Eleutherodactylus
cystignathoides* is known from adjacent Willacy County (see
below), and the nearest known population is ca. 70.1 km to the
northeast in Nueces County (KU 223376).

**STARR CO.:** La Vieja St, ca. 0.5 rd km SW jct Salineno Shortcut
and Clinton J. Guadiana. TNHC 113480–113482 (DRD 5318–
5320). Three juveniles (14 mm SVL, 0.1–0.3 g) collected under
debris. These specimens represent a new county record for
this introduced species (Dixon 2013). *Eleutherodactylus
cystignathoides* is known from adjacent Willacy County (see
below), and the nearest known population is ca. 81.3 km to the
southeast in Hidalgo County (MCZ A-81794).

**WILLACY CO.:** Grace Heritage Ranch, 27539 Old Alice Rd,
Matthew J. Schalk. TNHC 113485 (DRD 5518). One adult (20
mm SVL, 0.6 g) collected under debris at 0850 h. This specimen
represents a new county record for this introduced species
(Dixon 2013). *Eleutherodactylus cystignathoides* is known from
adjacent Cameron, Hidalgo, and Kenedy counties (Dixon 2013;
see above), and the nearest known population is ca. 23.9 km to
the southeast in Cameron County (FHSM 8355).

**ELEUTHERODACTYLUS PLANIROSTRIS** (Greenhouse Frog).

**CAMERON CO.:** South Padre Island Butterfly Garden, Gulf Blvd,
between Saturn Ln and Esperanza St (26.11705°N, 97.16608°W). 6
October 2020. Drew R. Davis and Jillian K. Farkas. TNHC 114678
(DRD 7169). An adult male (17 mm SVL, 0.4 g) was found near
a raised bed part of a community garden plot at 2100 h. An adult
female (TNHC 114679 [DRD 7170]: 19 mm SVL, 0.5 g) was also
found nearby. Subsequent searches on 7 and 8 October 2020 re-
vealed no additional individuals. Given this locality, a landscaped
public beach access with a pollinator garden and community
garden plots, it is likely that these individuals were introduced
through the horticultural industry. These specimens represent a
new county record for this introduced species (Dixon 2013) and
this is only the fourth known vouchered locality for this species
in Texas. It has previously been documented in Galveston, Har-
riss, and Tarrant counties (Dixon 2013; Simpson et al. 2019). Given
similarities in appearance with *E. cystignathoides*, *E. planirostris*
may be underestimated across the state and is likely to occur at
additional localities. *Eleutherodactylus planirostris* is not known
from any adjacent counties, and the nearest known population
is ca. 421.1 km to the northeast in Galveston County (TCWC
83067).

**HYLA CHRYSOSCELIS** (Cope’s Gray Treefrog).

**EDWARDS CO.:** Co Rd 674, ca. 3.7 rd km S US Hwy 377 (29.97263°N, 100.27600°W). 16 May 2019. Drew R. Davis.
TNHC 113475 (DRD 5551). Adult male (36 mm SVL, 3.0 g) collected while calling in vegetation at 2240 h. Two additional
males (TNHC 113476 [DRD 5552]: 36 mm SVL, 3.5 g; TNHC 113477 [DRD 5553]: 46 mm SVL, 6.5 g) were also collected while calling nearby. These specimens represent a new county record and expand the western boundary of this species in Texas (Dixon 2013). *Hyla chrysoscelis* is known from adjacent Kerr, Real, and Uvalde counties (Dixon 2013), and the nearest known population is ca. 111.4 km to the east in Kerr County (TCWC 66431).

**PSEUDACRIS CLARKII** (Spotted Chorus Frog).

**WILLACY CO.:** Grace Heritage Ranch, 27539 Old Alice Rd, Lyford, TX 78569 (26.38812°N, 97.56397°W). 17 January 2017. Matthew J. Schalk. TNHC 114472 (photo voucher). One adult found under debris at 1909 h. This specimen represents a new county record (Dixon 2013). *Pseudacris clarkii* is known from adjacent Cameron, Hi-
dalgo, and Kenedy counties (Dixon 2013), and the nearest known
population is ca. 41.7 km to the southeast in Cameron County (TCWC 93805).

**RANA BERLANDIERI** (Rio Grande Leopard Frog).

**LA SALLE CO.:** Holland Dom Park, Nueces River, Holland Dam Rd, ca. 5.6 rd km S jct Co Rd 624 (28.30129°N, 99.1395°W). 13 April 2019. Drew R. Davis. TNHC 113467 (DRD 5398). One juvenile (43 mm SVL, 6.1 g) collected at the water’s edge at 2320 h. This specimen represents a new county record (Dixon 2013). A query of museum re-
cords revealed additional specimens collected in La Salle County
between 1939 and 1999 (ASNHC 13671; KU 145772; LACM
128482, 128483; TCWC 357–367, 2147, 80575; TNHC 61361,
87082, 87083). Further, Dixon (1987) reports a record of *R. ber-
landieri* from La Salle County, but it is unknown why this record
is not listed in Dixon (2000) or Dixon (2013). *Rana berlandieri* is
known from adjacent Dimmit, Frio, McMullen, and Webb coun-
ties (Dixon 2013), and the nearest known population is ca. 44.8 km
to the northeast in McMullen County (TCWC 82707).

**RANA CATESBEIANA** (American Bullfrog).

**BEE CO.:** ephemeral water body adjacent to TX Hwy 359, ca. 0.3 rd km NE jct Co Rd 796 (28.17317°N, 97.75376°W). 5 May 2019. Drew R. Davis. TNHC 113470–113472 (DRD 5499–5501). Three juveniles (50–70
mm SVL, 13.9–32.0 g) collected along the water’s edge at 2205 h.
These specimens represent a new county record (Dixon 2013). *Rana catesbeiana* is known from adjacent Goliad, Karnes, Refu-
gio, and San Patricio counties (Dixon 2013), and the nearest
known population is ca. 32.1 km to the southeast in San Patricio
County (ASNHC 7348).

**RHINELLA HORRIBILIS** (Mesoamerican Cane Toad).

**BROOKS CO.:** G & M Glick Ranch, Las Cutas Rd, Encino, TX 78535
TNHC 113473 (DRD 5539). One juvenile female (78 mm SVL, 38.4 g) collected near an ephemeral water body. This specimen rep-esents a new county record and extends the northern boundary of this species’ distribution in south Texas (Dixon 2013). *Rhinella horribilis* is known from adjacent Hidalgo, Jim Hogg, and Starr counties (Dixon 2013), and the nearest known population is ca. 81.8 km to the southeast in Willacy County (TNHC 114653).

**SMILISCA BAUDINII** (Mexican Treefrog).

**WILLACY CO.:** County Line Rd, ca. 4.8 rd km E jct Co Rd 1420, along Arroyo Colorado (26.29963°N, 97.52870°W). 20 August 2020. Drew R. Davis.
TNHC 114676 (DRD 6937). Adult male (50 mm SVL, 9.6 g) collected while calling from a Desert Olive Tree (*Forestiera pubescens*) at 2313 h. Additional males were observed and heard calling near this locality, suggesting that this species is likely distributed along the Arroyo Colorado in southern Wil-
lacy and northern Cameron counties. This specimen represents a new county record and extends the known range of this spe-
cies northward (Dixon 2013). *Smilisca baudinii* is known from
adjacent Cameron and Hidalgo counties (Dixon 2013), and the nearest known population is ca. 24.8 km to the south in Cameron County (TNHC 114455).
GEOGRAPHIC DISTRIBUTION

TESTUDINES — TURTLES

**APALONE SPINIFERA** (Spiny Softshell). **Brooks Co.:** US Hwy 281, ca. 1.7 rd km S jct Baluarte Creek Rd (27.17424°N, 98.14861°W). 7 October 2019. Drew R. Davis. TNHC 114067 (DRD 6047). One adult female collected DOR at 1510 h. Another DOR subadult (TNHC 114068 [DRD 6048]) was collected nearby at 1515 h. These specimens represent a new county record (Dixon 2013). *Apalone spinifera* is known from adjacent Hidalgo, Kleberg, and Starr counties (Dixon 2013), and the nearest known population is ca. 43.1 km to the northeast in Kleberg County (AMNH R172854).

**GOPHERUS BERLANDIERI** (Berlandier’s Tortoise). **Zapata Co.:** Alejandrejas Rd, ca. 9.6 rd km SW jct US Hwy 83 (26.73323°N, 99.19711°W). 18 March 2019. Drew R. Davis and Clinton J. Guadiana. TNHC 113458 (DRD 5325). Remains of an adult individual collected DOR. This specimen represents a new county record (Dixon 2013). A query of museum records revealed additional specimens collected in Zapata County between 1962 and 1996 (LSUMZ 29548, 29550, 29551; TCWC 69652, 82700–82702; UAZ 35416–35418; UMNH 4186). Further, both Dixon (1987) and Dixon (2000) report a record of *G. berlandieri* from Zapata County, but it is unknown why this record is not listed in Dixon (2013). *Gopherus berlandieri* is known from adjacent Jim Hogg, Starr, and Webb counties (Dixon 2013), and the nearest known population is ca. 40.2 km to the southeast in Starr County (UTEF Herb OS-240, 241).

**MALACLEMYS TERRAPIN** (Diamond-backed Terrapin). **Cameron Co.:** field adjacent to Aquarius Condominiums, 20000 Gulf Blvd, South Padre Island, Texas 78597 (26.09915°N, 97.16325°W). 10 March 2019. Leopoldo Rodriguez. TNHC 114470 (DRD 6931; photo voucher). Hatching (51 mm carapace length, 38 mm plastron length, 25 g; live specimen measured 25 August 2020) found alive crawling near the surf side of South Padre Island beach with umbilical scar still present and donated to the Gladys Porter Zoo. Another similarly-sized juvenile *M. terrapin* (TNHC 114630 [photo voucher]) was reported on South Padre Island around the same time, suggesting that there may have been a hatching event nearby. The exact mode of introduction or dispersal to South Padre Island remains uncertain. Corpus Christi, Nueces County, Texas, USA is often considered the southwestern extent of this species (Brown 1956; Dixon 1987, 2000, 2013), though others have suggested that *M. terrapin* occurs along the Texas coast all the way to Mexico (Nell 1958), perhaps even to the Yucatan Peninsula (Carr 1952). Dispersal or displacement of individuals from Hurricane Harvey, a Category 4 hurricane that made landfall in Aransas County in August 2017, may be a possible explanation. Researchers have suggested that hurricanes may play a role in the dispersal of *M. terrapin* across a region, often due to the lack of population structure among studied populations (Petre et al. 2015; Baxter 2018). Glenos (2013) presented anecdotal evidence of Hurricane Ike dispersing a juvenile *M. terrapin* 300 km along the Texas coastline in 2008. Continued monitoring for this species is needed to better understand their occurrence south of Corpus Christi. These two specimens represent a new county record and expand the known range of this species into southern Texas (Dixon 2013). *Malaclemys terrapin* is known from no adjacent counties (Dixon 2013), and the nearest known population is ca. 197.3 km to the northeast in Nueces County (MVZ 257690).

**PSEUDEMYS TEXANA** (Texas Cooter). **Goliad Co.:** Coles Creek Cooling Pond, along US Hwy 59, ca. 2.9 rd km E jct Rd 2987 (28.70268°N, 97.20843°W). 6 October 2020. Drew R. Davis. TNHC 114680 (DRD 7148). Adult male (150 mm carapace length, 134 mm plastron length, 417.1 g) collected by hand in shallow water at 1830 h. This specimen represents a new county record (Dixon 2013). *Pseudemys texana* is known from adjacent DeWitt, Karnes, Refugio, and Victoria counties (Dixon 2013), and the nearest known population is ca. 5.5 km to the northeast in Victoria County (TNHC 98987).

**SQUAMATA — LIZARDS**

**ANOLIS CAROLINENSIS** (Green Anole). **Jim Wells Co.:** underneath TX Hwy 359, ca. 0.3 rd km SW Nueces River (28.03607°N, 97.86252°W). 6 October 2020. Drew R. Davis and Pastraic S. Robinson. TNHC 114543 (DRD 6522). Adult male (56 mm SVL, 166 mm tail length, 3.2 g) collected on concrete columns raising the highway at 1400 h. This specimen represents a new county record (Dixon 2013). *Anolis carolinensis* is known from adjacent Kleberg, Live Oak, Nueces, and San Patricio counties (Dixon 2013), and the nearest known population is ca. 34.7 km to the northeast in San Patricio County (UBCCBM H001185).

**Kenedy Co.:** Kenedy County Safety Rest Stop along US Hwy 77 (27.13366°N, 97.79274°W). 4 March 2020. Drew R. Davis and Pastraic S. Robinson. TNHC 114543 (DRD 6522). Adult male (56 mm SVL, 106 mm tail length, 3.2 g) collected along the brick exterior of a building at 1005 h. This specimen represents a new county record (Dixon 2013). *Anolis carolinensis* is known from adjacent Kleberg, Live Oak, and Willacy counties (Dixon 2013), and the nearest known population is ca. 80.6 km to the north in Kleberg County (CAS 102910, 102911).

**ANOLIS SAGREI** (Brown Anole). **Victoria Co.:** Four Seasons Garden Center, 1209 Salem Rd, Victoria, TX 77904 (28.85290°N, 96.98929°W). 8 July 2020. Drew R. Davis. TNHC 114640 (DRD 6840). Adult female (45 mm SVL, 75 mm tail length, 2.5 g) collected at a retail nursery at 1650 h. Additional individuals, including juveniles, were also observed, but not collected. This specimen represents a new county record for this introduced species (Dixon 2013). *Anolis sagrei* is known from adjacent Lavaca County (Hernandez et al. 2016) and from nearby Aransas County (Reed and LaDuc 2012), and the nearest known population is ca. 65.2 km to the north in Lavaca County (TCWC 102259).

**Willacy Co.:** Caldwell Jungle Nursery, 12310 TX Hwy 186 W, Raymondville, TX 78580 (26.48197°N, 97.80850°W). 2 July 2020. Drew R. Davis. TNHC 114621, 114622 (DRD 6840). Adult male (56 mm SVL, 104 mm tail length, 3.2 g) collected along the brick exterior of a building at 1005 h. This specimen represents a new county record (Dixon 2013). *Anolis sagrei* is known from adjacent Cameron and Hidalgo counties (Dixon 2013), and the nearest known population is ca. 11.5 km to the southeast in Cameron County (TCWC 65492).

**OPHISAUROUS ATTENUATUS** (Slender Glass Lizard). **Duell Co.:** TX Hwy 359, ca. 9.6 rd km NE jct E Viggie St (27.36660°N, 98.59607°W). 11 May 2020. Kyle Elmore. TNHC 114677 (DRD 7132). Adult male (195 mm SVL, 283 mm tail length, 26.1 g) collected AOR at 1950 h. This specimen represents a new county record (Dixon 2013).
record (Dixon 2013). *Ophisaurus attenuatus* is known from adjacent Brooks, Jim Hogg, and Jim Wells counties (Dixon 2013; Oyervides and Petty 2015; Oyervides et al. 2020), and the nearest known population is ca. 19.6 km to the southeast in Jim Hogg County (UTPA 51501).

**Hemidactylus turcicus** (Mediterranean Gecko). **DISTRIBUTION:** Known from adjacent Brooks, Jim Hogg, and Jim Wells counties (Dixon 2013; Oyervides et al. 2020), and the nearest known population is ca. 43.4 km to the southeast in Jim Hogg County (Dixon 2013). *Hemidactylus turcicus* is known from adjacent Brooks, Jim Hogg, Jim Wells, McMullen, and Webb counties (Dixon 2013), and the nearest known population is ca. 51.8 km to the southeast in Jim Wells County (TCWC 100826).

**Plestiodon tetragrammus** (Four-lined Skink). **DISTRIBUTION:** Known from adjacent Brooks, Jim Hogg, and Jim Wells counties (Dixon 2013; Oyervides et al. 2020), and the nearest known population is ca. 63.1 km to the southeast in Willacy County (MVZ 68402). **Zapata Co:** Alejandrenas Rd, ca. 2.2 rd km SW jct US Hwy 83 (26.76844°N, 98.22457°W). 24 March 2019. Clinton J. Guadiana. TNHC 113469 (DRD 5353). Adult male (67 mm SVL, 79 mm tail length, 6.4 g) collected under debris. This specimen represents a new county record for this introduced species (Dixon 2013). *Plestiodon tetragrammus* is known from adjacent Duval, Hidalgo, Jim Hogg, Jim Wells, Kenedy, Kleberg, and Starr counties (Dixon 2013; Adams et al. 2016), and the nearest known population is ca. 63.1 km to the southeast in Willacy County (MVZ 68402).

**Sceloporus consobrinus** (Prairie Lizard). **DISTRIBUTION:** Known from adjacent Cameron, Hidalgo, and Kenedy counties (Dixon 2013), and the nearest known population is ca. 52.3 km to the northwest in Kenedy County (USNM 299720).

**Squamata — Snakes**

**Coluber constrictor** (North American Racer). **DISTRIBUTION:** Known from adjacent Cameron, Hidalgo, and Kenedy counties (Dixon 2013), and the nearest known population is ca. 39.3 km to the southeast in Cameron County (TNHC 90268).

**Rhinocheilus lecontei** (Long-nosed Snake). **DISTRIBUTION:** Known from adjacent Cameron and Hidalgo counties (Dixon 2013), and the nearest known population is ca. 17.7 km to the southeast in Hidalgo County (TCWC 100211).

**Salvadora grahaimiae** (Eastern Patch-nosed Snake). **DISTRIBUTION:** Known from adjacent Karnes and Refugio counties (Dixon 2013), and the nearest known population is ca. 51.4 km to the southwest in Bee County (MVZ 52384).

**Sistrurus tergeminus** (Western Massasauga). **DISTRIBUTION:** Known from adjacent Brooks, Cameron, Kenedy, and Starr counties (Dixon 2013; see below), and the nearest known population is ca. 36.3 km to the northwest in Brooks County (TCWC 94249). **Starr Co:** Co Rd 1017, ca. 1.0 rd km NW jct US Hwy 281 (26.56177°N, 98.13149°W). 16 April 2006. Patrick M. Burchfield. TNHC 114682 (DRD 6850). Adult male (382 mm SVL, 54 mm tail length, 60.0 g) collected AOR at 2030 h. This specimen represents a new county record and fills part of a gap in the known range of this species in south Texas (Dixon 2013). *Sistrurus tergeminus* is known from adjacent Brooks, Cameron, Kenedy, and Starr counties (Dixon 2013; see below), and the nearest known population is ca. 36.3 km to the northwest in Brooks County (TCWC 94249).

**Sonora taylori** (Southern Texas Groundsnake). **DISTRIBUTION:** Known from adjacent Cameron and Hidalgo counties (Dixon 2013; see above), and the nearest known population is ca. 41.6 km to the southeast in Cameron County (TCWC 93805).

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LITERATURE CITED


