

SWCHR *BULLETIN*

Volume 14, Issue 4

Winter 2024



ISSN 2330-6025



Conservation – Preservation – Education – Public Information
Research – Field Studies – Captive Propagation

The SWCHR *BULLETIN* is published quarterly by the
SOUTHWESTERN CENTER FOR HERPETOLOGICAL RESEARCH
PO Box 131262, Spring TX 77393
www.southwesternherp.com
email: info@southwesternherp.com
ISSN 2330-6025

OFFICERS 2023-2024

EXECUTIVE DIRECTOR EMERITUS

Gerald Keown

EXECUTIVE DIRECTOR

Chris McMartin

PRESIDENT

Robert Twombly

VICE PRESIDENT

Gerry Salmon

BOARD MEMBERS AT LARGE

Steve Bledsoe	Gerald Keown
Tom Lott	D. Craig McIntyre
Gerold Merker	Dave Weber

BULLETIN EDITOR

Chris McMartin

ASSOCIATE EDITOR

Tom Lott

IMMEDIATE PAST PRESIDENT

Gerry Salmon

ON THE COVER: Eastern Collared Lizard (*Crotaphytus collaris*), Irion County, Texas (Francisco Portillo). With this photograph, Frank won the SWCHR 2023 *Hans F. Koenig Award for Excellence in Herpetological Photography*.

BACKGROUND IMAGE: Gates' Pass, Tucson Mountains, AZ (Bill White)

ABOUT SWCHR

Originally founded by Gerald Keown in 2007, SWCHR is a 501(c)(3) non-profit association, governed by a board of directors and dedicated to promoting education of the Association's members and the general public relating to the natural history, biology, taxonomy, conservation and preservation needs, field studies, and captive propagation of the herpetofauna indigenous to the American Southwest.

THE SWCHR LOGO

There are several versions of the SWCHR logo, all featuring the Gray-Banded Kingsnake (*Lampropeltis alterna*), a widely-recognized reptile native to the Trans-Pecos region of Texas as well as adjacent Mexico and New Mexico.

JOINING SWCHR

For information on becoming a member please visit the "Join SWCHR" page on our web site at www.southwesternherp.com.

FOLLOW US ON SOCIAL MEDIA

Facebook: <https://www.facebook.com/SWCHR>



©2024 Southwestern Center for Herpetological Research. The SWCHR *Bulletin* may not be reproduced in whole or in part on any web site or in any other publication without the prior explicit written consent of the Southwestern Center for Herpetological Research and of the respective author(s) and photographer(s).

TABLE OF CONTENTS

A Message from the President, <i>Robert Twombly</i>	iv
Synopsis of SWCHR Region Notes from 2024 Publications, <i>compiled by Robert Twombly</i>	41
The Herpetofauna of Jim Wells County, Texas, <i>Gerald Keown</i>	48
Book Review: <i>California Snakes and How to Find Them</i> by Emily Taylor, <i>review by Tom Lott</i>	51

A CALL FOR PAPERS

Are you a field herpetologist or a herpetoculturist (amateur or professional in either of those capacities) working with species native to the American Southwest? Do you have a paper or an article you have written for which you would like to find a permanent repository? Want to be assured you will always be able to share it with the world? Submit it to the *SWCHR Bulletin* for possible publication. Submitted manuscripts from SWCHR members, as well as non-members, will be considered. There are no page charges to have your articles appear in the *SWCHR Bulletin*, as some other publications now require. To the contrary, **published articles earn the author a free membership in SWCHR for the remainder of the calendar year** (or one-calendar-year extension if they're already a member).

To be accepted for publication, submissions must address herpetological species native to the American Southwest. Such topics as field notes, county checklists, range extensions, taxonomy, reproduction and breeding, diseases, snake bite and venom research, domestic breeding and maintenance, conservation issues, legal issues, etc. are all acceptable. For assistance with formatting manuscripts, contact us at the email address below.

Previously published articles or papers are acceptable, provided you still hold the copyright to the work and have the right to re-publish it. If we accept your paper or article for publication, you will still continue to be the copyright holder. If your submission has been previously published, please provide the name of the publication in which it appeared along with the date of publication. All submissions should be manually proofed in addition to being spell checked and should be submitted by email as either Microsoft Word or text documents.

Send submissions to info@southwesternherp.com.

A Message from the President

Winter to me has always been a time of reflection, both on the year that went by and on how to build upon last year's goals to continue moving forward. This issue of the SWCHR *Bulletin* is the perfect time to reflect on our organization's accomplishments.

We continued to make progress with programs that SWCHR founders outlined in our Articles of Association: namely, activities supporting our objectives of education, research, information dissemination, advocacy, promotion of responsible husbandry, and collaboration between professionals, academics, and amateurs alike. The SWCHR iNaturalist project currently has logged 14,593 observations of 277 species so far. I'm looking forward to seeing how this project will grow over the years with more entries, and how the data will be used.

SWCHR was able to give out annual awards thanks to our members' support through dues and donations. The *Hans F. Koenig Memorial Award for Excellence in Herpetological Photography* for 2023 (a friendly reminder that our awards are given for previous accomplishments!) was once again awarded to Frank Portillo, as can be seen on the cover of our 2024 *Bulletin* issues. Our *Jack Reid Memorial Citizen Scientist of the Year* for 2023 was past SWCHR President Tom Lott. On behalf of the Board and members of the SWCHR, I would like to say congratulations and thank you for the inspiration both from photographs and through actions through citizen science. It gives me and others something to look up to and try to emulate.

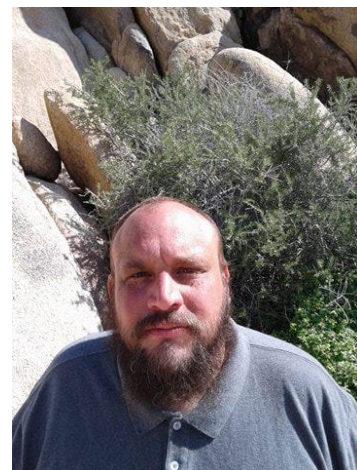
Now on to the fun—introducing the articles in this quarter's *Bulletin*. We start off with our annual synopsis of Southwestern herp notes and articles from organizations outside SWCHR. Next up we have an article by Executive Director Emeritus Gerald Keown on the herpetofauna of Jim Wells County, Texas. Gerald spent fifteen years living there, and has made many visits after that time as well. We end this issue with a book review by Board member and past President Tom Lott book review. His review shows we are living in a “golden age” of field herping literature.

In closing, once again I have the honor to say both personally and on behalf of our Board of Directors, THANK YOU to each and every member for your continued support of SWCHR. Without your membership, we could not make any of this possible. As the 2024 field season comes to a close, I hope everyone is well and people have reached their goals and found some “lifers” along the way.

I believe that is enough of my rambling. I am excited to read this and further issues of the SWCHR *Bulletin* just thinking about what people may discover. These articles inform our passion for these so-called “lower vertebrates” and provide exciting food for thought. I'd like to encourage any member to not hesitate to get in contact with any questions, concerns, or comments they may have at any time. We love to hear from our members on how they can get more involved, so please email info@southwesternherp.com or message our Facebook page.

I will see you on the road cuts!

Robert Trumbley



Synopsis of SWCHR Region Notes from 2024 Publications

compiled by

Robert Twombly

EDITOR'S NOTE: Due to delays in the publication of Herpetological Review, issues 3 and 4 for 2023 (received in late 2024) are included in this synopsis. Just before our publication date for this issue of the SWCHR Bulletin, the first issue from 2024 (Volume 55) was received. Citations from that issue are indicated with the appellation (2024:1) for clarification.

SWCHR publishes these abbreviated accounts of Geographical Distribution, Natural History Notes, and other relevant publications, so our readers may be aware of these items pertaining to the herpetofauna of the American Southwest (Arizona, California, Nevada, New Mexico, Texas, and Utah). Accounts are listed by state, then by class/order/suborder as follows: salamanders and newts, frogs and toads, turtles, crocodilians, lizards, and snakes.

Only natural history notes observed in the six-state SWCHR region of interest are included, though other observations may have been recorded from elsewhere in a given species' range. Furthermore, this synopsis should not be considered authoritative—for the full, original accounts, please see the 2023-2024 issues of *Herpetological Review* published by the Society for the Study of Amphibians and Reptiles (2023 was Volume 54 of *Herpetological Review*; the issue number is appended to each listing below). Entries in bold signify contributions from SWCHR members.

Herpetoculture

Trimorphodon lyrophanes (California Lyresnake). Wild-caught juvenile survived for 17 years in captivity.

Geographic Distribution

ARIZONA

- Incilius alvarius* (Sonoran Desert Toad). Yavapai County: Confirms a high-elevation breeding population outside of the historic geographic distribution of *I. alvarius*. (4)
- Lithobates catesbeianus* (American Bullfrog). La Paz County: Bridges a distribution gap. (4)
- Smilisca fodiens* (Lowland Burrowing Treefrog). Pima County: Extends county distribution. (2024:1)
- Cyrtopodion scabrum* (Rough-tailed Gecko). Pinal County: Bridges a distribution gap. (4)

CALIFORNIA

- Chalcides ocellatus* (Ocellated Skink). San Bernardino County: Apparently established introduced populations of species native to northern Africa, the Middle East, and parts of the Mediterranean. (3)
- Lichanura orcutti* (Rosy Boa). Imperial County: Bridges a distribution gap. (3)

NEVADA

- Diadophis punctatus regalis* (Regal Ring-necked Snake). Nye County: The northernmost vouchered record in Nye County. (3)
- Sonora occipitalis* (Western Shovel-nosed Snake). Clark County: Range extension. (3)
- Trimorphodon lambda* (Sonoran Lyresnake). Lincoln County: New county record. (3)

NEW MEXICO

- Aspidoscelis exsanguis* (Chihuahuan Spotted Whiptail). Colfax County: New county record. (4)
- Bogertophis subocularis* (Trans-Pecos Ratsnake). Hidalgo County: New county record. (3)

TEXAS

- Ambystoma maculatum* (Spotted Salamander). Panola County: Fills a distribution gap. (3)
- Eleutherodactylus campi* (Rio Grande Chirping Frog). Gonzales County: New county record. (4)
- Eleutherodactylus cystignathoides* (Rio Grande Chirping Frog). Gregg County: New county record. (3)
- Eleutherodactylus cystignathoides* (Rio Grande Chirping Frog). Fills a distribution gap. (4)
- Eleutherodactylus planirostris* (Greenhouse Frog). Cameron County: A new established population. (4)
- Hyla chrysoscelis* (Cope's Gray Treefrog). Panola County: Fills a distribution gap. (3)
- Gastrophylax olivacea* (Western Narrow-mouthed Toad). Andrews County: County record. (2024:1)
- Anaxyrus speciosus* (Texas Toad). Martin County: New county record. (3)
- Anaxyrus speciosus* (Texas Toad). Andrews County: County record. (2024:1)
- Lithobates berlandieri* (Rio Grande Leopard Frog). Andrews County: New county record. (3)
- Lithobates palustris* (Pickerel Frog). Panola County: Fills a distribution gap. (3)
- Scaphiobius couchii* (Couch's Spadefoot). Martin County: New county record. (3)
- Spea bombifrons* (Plains Spadefoot). Glasscock County, Martin County: New county records. (3)
- Macrochelys teminickii* (Alligator Snapping Turtle). Brazoria County: New county record. (3)

Agama picticauda (Peters's Rock Agama). Harris County: State record. (2024:1)

Uta stansburiana (Common Side-blotched Lizard). Midland County: County record. (2024:1)

Pituophis catenifer (Gophersnake). Martin County: New county record. (3)

Pituophis catenifer (Gophersnake). Loving County: New county record. (4)

UTAH

(None)

Natural History Notes

ARIZONA

Rana chiricahuensis (Chiricahua Leopard Frog). Report of an unsuccessful attempt by a *Butorides virescens* (Green Heron) to consume a *R. chiricahuensis*. (3)

Anaxyrus punctatus (Red-spotted Toad). Documents extensive *Procyon lotor* (Raccoon) predation during breeding season. (2024:1)

Scaphiopus couchii (Couch's Spadefoot). Observation of a single adult female *Scaphiopus couchii* that expressed biofluorescence under UV light. (4)

Scaphiopus couchii (Couch's Spadefoot). An adult male *S. couchii* regurgitated a juvenile *Coleonyx variegatus* (Banded Gecko). (4)

Gopherus morafkai (Sonoran Desert Tortoise). Documents the first confirmed incidence of *G. morafkai* using culvert underpasses in the Bouse Hills region of west-central Arizona. (2024:1)

Aspidoscelis tigris (Tiger Whiptail). The first report of florivory (flower eating) in *A. tigris*. (2024:1)

Sceloporus magister (Desert Spiny Lizard). A young *S. magister* was observed with its head seemingly stuck inside a broken acorn shell (*Quercus* sp.). (3)

Xantusia arizonae (Arizona Night Lizard). The first report of death-feigning in any species of the family Xantusiidae, and the 20-minute duration is exceptional. (2024:1)

Crotalus scutulatus (Mohave Rattlesnake). *C. scutulatus* and *C. atrox* were repeatedly lured from rodent burrows during hot, dry weather by spraying water from a 750 ml bottle. (2024:1)

Trimorphodon lambda (Sonoran Lyre Snake). To the author's knowledge, this represents the first case of systemic symptoms following envenomation from the bite of any *Trimorphodon* species. (2024:1)

CALIFORNIA

Ambystoma macrodactylum (Long-toed Salamander). An *A. macrodactylum* larva consumed an *Anaxyrus boreas* (Western Toad) larva. (3)

Ambystoma macrodactylum croceum (Santa Cruz Long-toed Salamander). Observation supports the notion that the adults use moist areas underground, similar to juveniles. (4)

Aneides vagrans (Wandering Salamander). Observation adds to previous research showing late seral conifers with complex crowns provide a unique arboreal niche for terrestrial salamanders living in temperate coastal rainforests of North America. (2024:1)

Dicamptodon tenebrosus (Coastal Giant Salamander). A documented interaction between *D. tenebrosus* and a lamprey. (4)

Taricha granulosa (Rough-skinned Newt). Observation of an adult *Taricha granulosa* consuming a *Monadenia fidelis* (Pacific Sideband Snail). (3)

Taricha torosa (California Newt). Suggests that diet may be linked to TTX (a potent neurotoxic tetrodotoxin) levels. (4)

Pseudacris sierra (Sierran Treefrog). Documents the use of commercially operating rice fields in the Sacramento Valley for reproduction. (3)

Lithobates catesbeianus (American Bullfrog). Report of an additional case of ocular fluorescence in an eastern North American ranid frog that occurs in California as an invasive species. (2024:1)

Rana draytonii (California Red-legged Frog). Observation of a female *R. draytonii* of moderate size captured and consumed a live *Microtus californicus* (California Vole). (3)

Rana draytonii (California Red-legged Frog). Report of cloacal prolapse of three individual *R. draytonii* from a site previously unoccupied by the species. (4)

Gopherus agassizii (Mojave Desert Tortoise). Documentation of four different actual and potential predators at a nest (White-tailed Antelope Squirrel, Gray Fox, Western Spotted Skunk, and Coyote). (4)

Phrynosoma mcallii. (Flat-tailed Horned Lizard). Observations of two surface active lizards killed by vehicles on soft sand show that despite their apparent resilience during hibernation, vehicles can cause mortality to surface active *P. mcallii* even on seemingly soft substrates. (2024:1)

Charina bottae (Northern Rubber Boa). Documents a defensive display consisting of elevating the anterior third of the body, drawing back into a serpentine posture, and repeatedly striking with its mouth closed. (2024:1)

Crotalus pyrrhus (Southwestern Speckled Rattlesnake). Observations represent the first records of *Catharus guttatus* (Hermit Thrush) and *Toxostoma redivivum* (California Thrasher) in the natural diet of *C. pyrrhus* and add to the short list of documented avian prey species. (2024:1)

Crotalus pyrrhus (Southwestern Speckled Rattlesnake). The first record of predation on *Phyllodactylus nocticolus* (Peninsular Leaf-toed Gecko) by *C. pyrrhus*. (2024:1)

Crotalus ruber (Red Diamond Rattlesnake). Observation is the only confirmed instance of fire-related mortality in this species. (2024:1)

Lampropeltis californiae (California Kingsnake). *Lampropeltis californiae* was documented as prey of *Geococcyx californianus* (Greater Roadrunner). (2024:1)

Thamnophis couchii (Sierra Garter Snake), *T. hammondi* (Two-striped Garter Snake), and *T. sirtalis* (common garter snake). A report of three instances of tail loss in western garter snakes, two of which are the first records for their respective species. (3)

NEW MEXICO

Terrapene ornata (Ornate Box Turtle). The first report of *T. ornata* scavenging on *P. catenifer* (Gophersnake) and the second report of *T. ornata* feeding on a road-killed snake. (2024:1)

Aspidoscelis marmoratus marmoratus. An unusual individual of *A. m. marmoratus* was encountered in a sandy habitat stabilized by scattered mesquite. This darkly pigmented individual presented a striking contrast to both the sandy substrate of the habitat and the normal coloration of other representatives of *A. m. marmoratus* at this site. (4)

Aspidoscelis marmoratus reticuloriens (Eastern Marbled Whiptail). An unusual individual of *A. m. reticuloriens* exhibited dark pigmentation presenting a striking contrast to both the sandy substrate of the habitat and the normal coloration of other representatives of *A. m. reticuloriens* at this site. (2024:1)

NEVADA

Anaxyrus monfontanus (Hot Creek Toad). Documents late season breeding event following monsoonal rains in this little-known species. (3)

Anaxyrus (Bufo) williamsi (Dixie Valley Toad). Describes possible predation by *Corvus corax* (Common Raven). (4)

Rhinocœilus lecontei (Long-nosed Snake). Documents the discovery of the remains of an adult *R. lecontei* on the apron of a *Vulpes macrotis arsipus* (Desert Kit Fox) burrow. (4)

Tantilla hobartsmithi (Smith's Black-headed Snake). A juvenile female *Latrodectus hesperus* (Western Black Widow) was observed preying upon a *T. hobartsmithi*. (3)

TEXAS

Eurycea sp. #3. Salamander capture data was examined by calculating percentages by spring types, flow, vegetation, and substrates at the Devils River State Natural Area and Dolan Falls Preserve. (2024:1)

Bufo (Anaxyrus) houstonensis (Houston Toad). Observation demonstrating that exhaustive searches should not be limited to their spring activity period, nor restricted to searching under sheltering objects during daylight hours. (3)

Kinosternon hirtipes (Rough-footed Mud Turtle). Study found that the adult sex ratio (female: male) at PWC was male biased (1:2). (3)

Kinosternon hirtipes (Rough-footed Mud Turtle). Study suggests that *K. hirtipes* exhibits relatively rapid growth early in life, which then declines with increasing age. (4)

Chelonia mydas (Green Sea Turtle). Observation of an adult male and female *C. mydas* pair entangled in yellow braided polyethylene fishing line washing ashore on Padre Island National Seashore. (4)

Chelonia mydas (Green Sea Turtle). The first confirmed nesting record of *C. mydas* at Boca Chica beach, and the southernmost nesting record for *C. mydas* in Texas. (4)

Lepidochelys kempii (Kemp's Ridley Sea Turtle). Records of adult *L. kempii* tagged during an in-water study in southeast Florida observed nesting in Texas. (3)

Aspidoscelis scalaris (Plateau Spotted Whiptail). Report on vocalizations made by *A. scalaris* at the Terlingua Ranch Lodge, Brewster County. (2024:1)

Sceloporus poinsettii (Crevice Spiny Lizard). Observation of an apparently dispersing juvenile *S. poinsettii* in a tobosa grassland in Texas, possibly seeking a more appropriate rocky habitat. (4)

Crotalus scutulatus (Mohave Rattlesnake). The second published account of neck spreading as a defensive behavior in the northern subspecies, *C. s. scutulatus*. (3)

Micrurus tener (Texas Coral Snake). Observation of a diurnal aquatic movement. (3)

Sonora semiannulata (Western Ground Snake). An adult specimen was collected while it was swimming across the San Saba River at Menard, Texas. (4)

UTAH

Anaxyrus microscaphus (Arizona Toad). Observations of *A. microscaphus* tadpoles feeding on the carcasses of fish and adult conspecifics from Utah and Arizona. (2024:1)

Crotalus oreganus concolor (Midget-Faded Rattlesnake). A deceased specimen contained an adult *Aspidoscelis tigris* supporting previously published reports on the species' diet. (2024:1)

Book Reviews

Caldwell, Janalee P. Review of: Schuett, Gordon W., Charles F. Smith, and William Wells. 2023. *Amphibians of the Sky Islands—Coronado National Forest*. ECO Publishing, Rodeo, New Mexico (<https://ecouniverse.com>). 144 pp. Softcover. US \$14.95. ISBN: 978-1-938850-49-3. (3)

Clark, Howard O., Jr. 2024. Review of: Gower, David; Katie Garrett, and Simon Maddock. *Snakes—Biology, Diversity, and Behavior*. Comstock Publishing Associates – an imprint of Cornell University Press, Ithaca, New York – first published in 2000, updated in 2023. 191 pp. Softcover. US \$21.95. ISBN 978-1-5017-7353-2. *Sonoran Herpetologist* 37(2): 102-103.

Letters to the Editor

Greene, Harry W., and Bradford D. Hollingsworth. "Why Museum Specimens Matter: Predation by a Red Diamond Rattlesnake (*Crotalus ruber*) on a Western Spotted Skunk (*Spilogale gracilis*)." (4)

Peer-Reviewed and Other Papers of Southwestern Interest (all from 2024 unless otherwise noted)

- Alvarez, Jeff A., Vanessa Lozano, and David G. Cook. "Hind Limb Malformation in the Foothill Yellow-legged Frog, Sonoma County, California." *Sonoran Herpetologist* 37(1): 49-51.
- Alvarez, Jeff A., Anny Peralta-García, and Jorge H. Valdez-Villavicencio. "Putative Cannibalism in the Western Spadefoot (*Spea hammondi*) in Northern Baja California, México." *Sonoran Herpetologist* 37(2): 96-97.
- Alvarez, Jeff A., and Jeff Jones. "Field Update on American Bullfrog (*Lithobates catesbeianus*) Control Measures and the Effect on Foothill Yellow-legged Frog (*Rana boylei*) Observations in Sherlock Creek, Mariposa County, California." *Sonoran Herpetologist* 37(3): 118-119.
- Alvarez, J.A., and C. Del Vecchio. "Maximum Distance of Pond Turtle (*Actinemys* sp.) Nests from Aquatic Sites, and Management Implications." *Sonoran Herpetologist* 37(4): 194-197.
- Alvarez, J.A., J.T. Wilcox, M. Coyle, M. Scofield, and T. Collins. "Color Polymorphism and Individual Variation in Disparate Populations California Red-legged Frogs (*Rana draytonii*)." *Sonoran Herpetologist* 37(4): 181-184.
- Alvarez, Jeff A., Jesse H. Schmiege, and Jeffery T. Wilcox. "Diurnal versus nocturnal surveys for foothill yellow-legged frogs." *The Journal of Wildlife Management*: e22695.
- Alvarez, Jeff A., and Jeffery T. Wilcox. "Ecological context of size extremes at metamorphosis in the California Tiger Salamander (*Ambystoma californiense*)." *The Southwestern Naturalist*, 2023, 67(2): 126-132.
- Alvarez, Jeff A., and Christopher D. Vang. "Distribution of the Western Black-headed Snake (*Tantilla planiceps*) in California: implications for management." *Western North American Naturalist* 84(2): 175-187.
- Ambos, Aaron M., et al. "A 10-year Study of Northern Leopard Frog (*Rana pipiens*) Reproduction in East-central Nevada, USA." *Herpetological Conservation and Biology* 19(1): 33-47.
- Averill-Murray, Roy C., and Daren Riedle. "Shelter Distribution and Type Affect Space Use of a Desert Reptile." *Authorea Preprints* (2024).
- Averill-Murray, Roy C. "Red List Status of *Gopherus morafkai* and Effects of Roads on Desert Tortoises." *Sonoran Herpetologist* 37(1): 19-21.
- Baty, Sarah M., et al. "Strong signatures of selection on genes underlying core reinforcement mechanisms in speciating desert tortoises." *bioRxiv* (2024): 2024-06.
- Bauder, J.M., A. Pawlicki, and M. Goode. 2024. *Northern Mexican Gartersnake Demographics and Movement Ecology*. U.S. Department of Interior, Fish and Wildlife Service, Cooperator Science Series FWS/CSS-158-2024, Washington, D.C.
<https://doi.org/10.3996/10.3996/css35094350>
- Baum, Timothy J., and Hinrich Kaiser. "Tail furcations in lizards: a revised summary and the second report of tail duplication in the Western Fence Lizard, *Sceloporus occidentalis* Baird & Girard, 1852." *Herpetology Notes* 17 (2024): 459-475.
- Bechtel, Molly J., et al. "Associations between *Ornithodoros* spp. Ticks and Mojave Desert Tortoises (*Gopherus agassizii*) Obtained from Health Assessment Documents." *The Journal of Wildlife Diseases* 60(4): 806-817.
- Barry, Sean J. "What's in a Name? The Tortured Taxonomic History of the San Francisco Gartersnake, *Thamnophis sirtalis tetrataenia*." *Herpetological Review*, 2024, 55(1): 32-36.
- Bezy, Robert L. "The Use of Scientific Names for Arizona Amphibians and Reptiles." *Sonoran Herpetologist* 37(2): 76-83.
- Bezy, R.L. "Biogeography of the Herpetofauna of the Mogollon Rim." *Sonoran Herpetologist* 37(4): 160-169.
- Blais, Brian R. "C.H. Lowe Research Fund: Sonoran Desert Road Ecology Study Published." *Sonoran Herpetologist* 37(3): 111-113.
- Blais, B.R., C.J. Shaw, C.W. Brocka, S.L. Johnson, and K.K. Lauger. "Anthropogenic, environmental and temporal associations with vertebrate road mortality in a wildland-urban interface of a biodiverse desert ecoregion." *Royal Society Open Science* 11(7): 240439.
<https://doi.org/10.1098/rsos.240439>
- Burroughs, R.W., et al. "Morphological Species Delimitation in The Western Pond Turtle (*Actinemys*): Can Machine Learning Methods Aid in Cryptic Species Identification?" *Integrative Organismal Biology* 6(1): obae010.
- Byrne, Allison Q., et al. "Revisiting conservation units for the endangered mountain yellow-legged frog species complex (*Rana muscosa*, *Rana sierrae*) using multiple genomic methods." *Conservation Genetics* 25(3): 591-606.
- Camper, B.T., R.T. Manuel, S.C. Godwin, J.E. Cordes, M.A. Paulissen, J.M. Walker, and S.A. Bewick. "First Identification of Caudal Bifurcation in Laredo Striped Whiptail (*Aspidoscelis laredoensis*) in Clonal Complex B." *Sonoran Herpetologist* 37(4): 178-180.
- Clark, Howard O., Jr. "Western Kingbird (*Tyrannus verticalis*) Feeds Pacific Chorus Frog (*Pseudacris regilla*) to Fledglings—by Allison B. Titus, Center for Natural Lands Management, Temecula, California." *Sonoran Herpetologist* 37(1): 30.

- Clark, Howard O., Jr. and Ruby R. Rebensdorf. "Common Side-blotched Lizards Can't Catch a Break." *Sonoran Herpetologist* 37(2): 98-100.
- Clark, H.O., Jr. "Herpetological Analysis of John Steinbeck's Short Story *The Snake*." *Sonoran Herpetologist* 37(4): 207-208.
- Clark, H.O., Jr. "Additional Records of Loggerhead Shrike (*Lanius ludovicianus*) Predation on the American Bullfrog (*Rana catesbeiana*), Pacific Chorus Frog (*Pseudacris regilla*), California Kingsnake (*Lampropeltis californiae*), and Common Garter Snake (*Thamnophis sirtalis*) in Merced County, CA." *Sonoran Herpetologist* 37(4): 203-204.
- Clark, H.O., Jr. "Bibliography of the *Sonoran Herpetologist*: Volume 37, Issues 1-4." *Sonoran Herpetologist* 37(4): 209-210.
- Clark, H.O., Jr., and E. Whitfield. "Embrace All Life." *Sonoran Herpetologist* 37(4): 205-206.
- Cobbold, S.M., and R.P. O'Donnell. "Field Observations of Head-swaying in Juvenile *Thamnophis cyrtopsis* in the Galiuro Mountains, Arizona." *Sonoran Herpetologist* 37(4): 198-201.
- Cordes, J.E., B.T. Camper, R.T. Manuel, S.A. Bewick, M.A. Paulissen, and J.M. Walker. "Coelomic Accommodation of a Large Clutch in Diploid Parthenogenetic Laredo Striped Whiptail (*Aspidoscelis laredoensis*) Clonal Complex B." *Sonoran Herpetologist* 37(4): 185-186.
- Da Cunha, Oceane, *et al.* "Insights into the Pace-of-Life Syndrome hypothesis: Exploring the Influence of personality on Movement Ecology in *Crotalus atrox*." Preprint: doi.org/10.21203/rs.3.rs-4681611/v1
- Delisle, Zackary J., *et al.* "Influence of Created Wetland Size on Herpetofaunal Diversity and Richness in Northeastern Texas, USA." *Herpetological Conservation and Biology* 19.3: 487-496.
- Diamond, Kelly M., *et al.* "Differences between Juveniles and Adults in Habitat Use, Sprint Performance, and Morphology in the Desert Horned Lizard, *Phrynosoma platyrhinos*." *Ichthyology & Herpetology* 112(3): 347-352.
- Enloe, A., *et al.* "Beyond the front yard: investigating environmental drivers of residential snake removals across two spatial scales in a desert city." *Urban Ecosystems* 27(6): 2151-2163.
- Erickson, Lawrence and Matt Sharp Chaney. "An Additional Observation of Malformation in the Hind Limb of the Foothill Yellow-legged Frog (*Rana boylei*) in Santa Cruz County, California." *Sonoran Herpetologist* 37(3): 124-125.
- Fielder, Corey M., *et al.* "Camera trap surveys characterize a snake community from a Chihuahuan Desert shortgrass prairie." *Western North American Naturalist* 84(4): 8.
- Firreno, Thomas, *et al.* "Genome-wide data reinforces the evolutionary relationships of previously problematic earless lizards (Phrynosomatidae: *Holbrookia*)." *Bulletin of the Society of Systematic Biologists* 3(2).
- Fusari, Maggie. "To List or not to List, the Case for the Sonoran Desert Tortoise." *Sonoran Herpetologist* 37(2): 62.
- Germano, David J.; Lawrence R. Salaw, and Erin N. Tennant. "Effects of Oil Fields on Home Range, Movements, and Rates of Predation of Blunt-Nosed Leopard Lizards (*Gambelia sila*)." *Journal of Herpetology* 58(2): 1-13.
- Goldberg, Stephen R. "Notes on Reproduction of Green Toads, *Anaxyrus debilis* (Anura: Bufonidae), from Texas." *Sonoran Herpetologist* 37(2): 74-76.
- Goldberg, S.R. "Notes on Reproduction of Canyon Tree Frogs, *Dryophytes arenicolor* (Anura: Hylidae), from Texas." *Sonoran Herpetologist* 37(4): 152-154.
- Greene, Spencer, and Alexander Teshon. "Efficacy and safety of two Antivenoms in the treatment of eastern copperhead (*Agkistrodon contortrix*) envenomations in Southeast Texas." *Journal of the American College of Emergency Physicians Open* 5(5): e13310.**
- Gregory, Kaili M., *et al.* "Effects of drought, invasive species, and habitat loss on future extinction risk of two species of imperiled freshwater turtle." *Climate Change Ecology* 7: 100078.
- Gremling, Emily. "Comparative morphology and ultrastructure of olfactory epithelia in plethodontid salamanders: Effect of life history variation." *Cal Poly Humboldt theses and projects*. 725. <https://digitalcommons.humboldt.edu/etd/725>
- Grimsley-Padron, Ashley A., *et al.* "Habitat Use, Spatial Ecology, and Management of Southwestern Speckled Rattlesnakes (*Crotalus pyrrhus*) in the Tinajas Altas Mountains of Yuma County, Arizona, USA." *Herpetological Conservation and Biology* 19(3): 507-519.
- Gripshover, N.D., *et al.* "Feeding behavior varies based upon prey defenses in the ground snake (Squamata: Serpentes: *Sonora episcopa*)." *Journal of Zoology* 324(1): 71-82.
- Halstead, Brian J., *et al.* "Sierra Nevada amphibians demonstrate stable occupancy despite precipitation volatility in the early 21st Century." *Frontiers in Ecology and Evolution* 10 (2023): 1040114.
- Halstead, Brian J., *et al.* "Comparison of Two Methods to Detect the Northwestern Pond Turtle (*Actinemys marmorata*) and the Invasive American Bullfrog (*Lithobates catesbeianus*) in Interior Northern California." *Chelonian Conservation and Biology: Celebrating 25 Years as the World's Turtle and Tortoise Journal* (2024).
- Halstead, Brian J., Patrick M. Kleeman, and Jonathan P. Rose. "Using Structural Causal Modeling to Infer the Effects of Wildfire on Foothill Yellow-legged Frog Occurrence." *Journal of Fish and Wildlife Management* (2024).
- Hammond, Talisin T., *et al.* "Understanding and predicting infection dynamics for an endangered amphibian using long-term surveys of wild and translocated frogs." *Biological Conservation* 301 (2025): 110834.

- Hirst, Samuel R., *et al.* "Where the 'ruber' Meets the Road: Using the Genome of the Red Diamond Rattlesnake to Unravel the Evolutionary Processes Driving Venom Evolution." *Genome Biology and Evolution* 16(9): evae198.
- Huck, Margaret A., *et al.* "Anuran occupancy varies with stream characteristics and flow across Arizona wilderness areas." *Freshwater Biology* 69(11): 1654-1671.
- Isner, Heidi; Andrew Isner, Donald W. Hardeman, Jr., and Jeff A. Alvarez. "Atypical Anuran Amplexus between Western Spadefoot and Pacific Chorus Frog During an Explosive Breeding Event, in Fresno County, CA." *Sonoran Herpetologist* 37(1): 54-56.
- Januszkiewicz, Eric. "Investigation of Geographic and Ontogenetic Venom Variation and Diversity of Snake Venom Metalloproteinases in the Great Basin Rattlesnake (*Crotalus oreganus lutosus*)." *Dissertations*. 1067. <https://digscholarship.unco.edu/dissertations/1067>
- Jones, Jessica. "Pond characteristics that influence oviposition site selection by two pond-breeding amphibians, Northern red-legged frog (*Rana aurora*) and Northwestern salamander (*Ambystoma gracile*)." *Cal Poly Humboldt theses and projects*. 736. <https://digitalcommons.humboldt.edu/etd/736>
- Jones, Lawrence L.C. "Relative Abundance and Surface Activity of Long-nosed Leopard Lizards (Sauria: *Gambelia wislizenii*) in Southern Arizona." *Sonoran Herpetologist* 37(1): 22-30.
- Kissel, Amanda M., *et al.* "Contrasting demographic responses under future climate for two populations of a montane amphibian." *Climate Change Ecology* 7: 100081.
- Kohler, Dallin B., *et al.* "Mystifying mountain mimics: two sister species of kingsnake show different trends in mimetic accuracy in allopatry with coral snakes." *Western North American Naturalist* 84(2): 200-209.
- Kong, Brandon R., Ammon Corl, and Sean B. Reilly. "Temporal Changes in Geographic Range and Population Size of the Santa Cruz Black Salamander." *Journal of Fish and Wildlife Management* 15(1): 17-30.
- Kong, Brandon R. "Effects of Extreme Starvation on the Fasting-Adapted Western Rattlesnake (*Crotalus oreganus*)." MS thesis. California Polytechnic State University, 2024.
- Kleponis, Nicole and Jeff A. Alvarez. "Common use of Atypical Breeding Habitat in the Western Spadefoot (*Spea hammondi*), in Central California." *Sonoran Herpetologist* 37(2): 94-95.
- Kluber, Matt R.; Matthew R. House, Ryan M. Bourque, Patrick T. Righter, and William D. Devenport. "Foothill Yellow-legged Frog (*Rana boylei*) Distribution and Oviposition Sites on Managed Timberlands in Coastal Northwestern California, USA." *Herpetological Conservation and Biology* 19(2): 161-172.
- LaFrance, Benjamin J., *et al.* "Amphibian richness, rarity, threats, and conservation prospects across the US National Park System." *Biodiversity* 3(1): 35.
- Lemos-Espinal, Julio A., and Geoffrey R. Smith. "The distribution, diversity and conservation of the Mexican herpetofauna among its biogeographic provinces." *Journal for Nature Conservation* 82: 126714.
- Mackey, Mary A. "Using habitat modeling to locate new populations of Dunn's Salamander (*Plethodon dunni*) near its southern geographic range limit." *Cal Poly Humboldt theses and projects*. 733. <https://digitalcommons.humboldt.edu/etd/733>
- MacLaren, Andrew R., *et al.* "Morphology and vocalization comparison of the Houston Toad and the Dwarf American Toad: implications for their historic range." *PeerJ* 12: e17635.
- Meik, Jesse M., *et al.* "Climatic temperature and precipitation jointly influence body size in species of western rattlesnakes." *Royal Society Open Science* 11(8): 240345.
- Mitchell, Cedar L., *et al.* "Characterization of patients with a snakebite presenting to healthcare facilities and reported to poison and drug information centers—Arizona, 2017–2021." *Clinical Toxicology* (2024): 1-8.
- Muth, David, *et al.* "Aspects of the Demography of a Relict Population of Southwestern Pond Turtles (*Actinemys pallida*) in a West Mojave Desert Stream in California." *Northeastern Naturalist* 31.sp12 (2024): E109-E130.
- Nakamura, Hannah, *et al.* "Twenty-five years of suspected rattlesnake encounters in Arizona." *Clinical Toxicology* 62(8): 526-532.
- Nava, Roman A., *et al.* "The tale of the rattle: Using rattle size to understand growth and sexual dimorphism in an insular population of rattlesnakes (*Crotalus oreganus caliginis*)." *Ecology and Evolution* 14(7): e70005.
- O'Donnell, R.P. "Distribution of the Arizona Night Lizard, *Xantusia arizonae*." *Sonoran Herpetologist* 37(4): 156-159.
- Orton, Makenna M.; Maria A. Eifler, Kaera L. Utsumi, Telma G. Laurentino, Daanya Siddiqui, Janey B. Haddock, Rachel Quock, and Douglas A. Eifler. "Holbrookia maculata Space Use in the Salt Basin Dunes of the Guadalupe Mountains National Park." *Herpetological Review*, 2024, 55(1): 7-10.
- Parr, I., L.T. Myers, J.H. Valdez-Villavicencio, and J.A. Alvarez. "Predation of the Southern California Legless Lizard (*Anniella stebbinsi*) by the San Diego Ring-necked Snake (*Diadophis punctatus similis*)." *Sonoran Herpetologist* 37(4): 189-190.
- Pedersen, Kristopher B. "Evidence for Partitioning? A Comparison of Thermal Niche in Three Species of Sympatric Lizards in Northeastern Utah." *All Graduate Theses and Dissertations, Fall 2023 to Present*. 280. <https://digitalcommons.usu.edu/etd2023/280>
- Pilliod, David S., *et al.* "Climate futures for lizards and snakes in western North America may result in new species management issues." *Ecology and Evolution* 14(10): e70379.

- Power, Mary E., *et al.* "Anticipating responses to climate change and planning for resilience in California's freshwater ecosystems." *Proceedings of the National Academy of Sciences* 121(32): e2310075121.
- Rangel, E. Drake, *et al.* "A comprehensive review of the ecology and conservation status of spot-tailed earless lizards (*Holbrookia lacerata* and *Holbrookia subcaudalis*)." *Frontiers in Amphibian and Reptile Science* 2: 1412860.
- Repp, Roger A. "Observation of Tree Climbing by Sonora Mud Turtles (*Kinosternon sonoriense*) and The Creation Story behind a Famous Dr. Seuss Turtle Tale." *Bulletin of the Chicago Herpetological Society* 59(3): 33-35.
- Rhoads, D.D. "Kauffeld and Sagan's Shared Summer in West Texas." *Sonoran Herpetologist* 37(4): 190-192.
- Richter, Collin J., *et al.* "Factors influencing risk of predation by subsidized predators on juvenile Mojave desert tortoises (*Gopherus agassizii*)." *Global Ecology and Conservation* 55: e03220.
- Robinson, Kelly Elizabeth. "Proteins, Physiology, and Phenotypes: Assessment of Predator and Antipredator Adaptations in a Chemically Mediated System." Diss. 2024.
- Rockel, Ian. "Thermal physiology of *Sceloporus olivaceus* and *Sceloporus variabilis* in south Texas." *Masters Theses*. 20. https://digitalcommons.tamusa.edu/masters_theses/20
- Rorabaugh, J.C. "Two-footed Worm Lizards (*Bipes*) in Arizona?" *Sonoran Herpetologist* 37(1): 8-11.
- Rorabaugh, J.C. "Long-nosed Leopard Lizard (*Gambelia wislizenii*), Regal Horned Lizard (*Phrynosoma solare*), and other items in the diet of the Chihuahuan Raven (*Corvus cryptoleucus*) in Cochise County, Arizona." *Sonoran Herpetologist* 37(3): 129-131.
- Rorabaugh, J.C., and B.R. Hossack. "More than a Decade of Conservation Biology and Research in Sonora and Arizona: the Endangered Sonoran Tiger Salamander and Threatened Chiricahua Leopard Frog." *Sonoran Herpetologist* 37(4): 170-178.
- Smith, Nathan W.; Ryan J. Hanscom, Jonathan Q. Richmond, Robert N. Fisher, and Rulon W. Clark. "Variation in Dietary Ecology of Two Invasive American Bullfrog (*Lithobates catesbeianus*) Populations in Southern California." *Herpetologica* 80(3): 241-247.
- Staub, Nancy L., Stephen G. Hayes, and Mary T. Mendonca. "Levels of Sex Steroids in Plethodontid Salamanders: A Comparative Study Within the Genus *Aneides*." *Ecology and Evolution* 14(11): e70550.
- Sutor, Sean, Nancy E. McIntyre, and Kerry L. Griffis-Kyle. "Vegetation cover, topography, and low-traffic roads influence Sonoran desert tortoise (*Gopherus morafkai*) movement and habitat selection." *Movement Ecology* 12(1): 68.
- Titus, Allison B. "Western Kingbird (*Tyrannus verticalis*) feeds Pacific Chorus Frog (*Pseudacris regilla*) to fledglings." *Western Wildlife* 11: 6-8.
- Trauth, Stanley E. and James M. Walker. "Prairie Racerunner (*Aspidoscelis sexlineatus viridis*): Behavior in Habitat on a Residential Lot in Central Arkansas." *Sonoran Herpetologist* 37(2): 91-93.
- Trauth, S.E., and J.M. Walker. "Incidence of Lateral Field Spotting in the Prairie Racerunner (*Aspidoscelis sexlineatus viridis*)." *Sonoran Herpetologist* 37(4): 187-188.
- Trauth, S.E., and J.M. Walker. "Prairie Racerunner (*Aspidoscelis sexlineatus viridis*): Breakage Position and Rate of Tail Regeneration." *Sonoran Herpetologist* 37(4): 202.
- Van Devender T, R, *et al.* "The Box Turtles (*Terrapene*: Emydidae) of Sonora, Mexico." *Sonoran Herpetologist* 37(1): 12-18.
- Van Devender, Thomas R. "New Paper on the Rock Horned Lizard (*Phrynosoma ditmarsii*)." *Sonoran Herpetologist* 37(2): 63-65.
- Van Devender, Thomas R., James C. Rorabaugh, Randall D. Babb, Stephen F. Hale, Rafael A. Lara-Resendiz, Ryan Martínez, and Erik F. Enderson. "Distribution and Ecology of the Neotropical Vinesnake (*Oxybelis microphthalmus*) in Sonora, Mexico." *Herpetological Review*, 2024, 55(1): 1-6.
- Vegso, Zachary T. "The nature and extent of algal symbiosis in three North American Ranids." *Cal Poly Humboldt theses and projects*. 758. <https://digitalcommons.humboldt.edu/etd/758>
- Walker, J.M. "An Unfortunate Nomenclatural Consequence from a Major Contribution in Systematics." *Sonoran Herpetologist* 37(4): 154-155.
- Wilcox, Jeffery T. and Anna L. Erway. "Atypical Timing and Placement of Egg Masses by Foothill Yellow-legged Frogs (*Rana boylei*) Baird 1854." *Sonoran Herpetologist* 37(3): 126-129.
- Wright, Amber N., Anthony J. Barley, Gregory B. Pauly, Levi N. Gray, Robert C. Thomson. "A Historical Resurvey of Flatland Lizards in the Mojave Desert." *Journal of Herpetology* 58(2): 1-10.
- Yates, Jessica R., Andrew M. Durso, Stephen F. Harding, David Rodriguez, Matthew Kwiatkowski, and Stephen J. Mullin. "Site-Level Occupancy and Microhabitat Selection of Sympatric *Nerodia* (Serpentes: Colubridae) Within an Imperiled River System." *Herpetologica* 80(3): 248-261.
- Zughaiyir, Ferris Eric-Hisham, *et al.* "Measuring interspecific admixture in endangered Houston toads (*Bufo* [= *Anaxyrus*] *houstonensis*) at a main recovery site in the Lost Pines ecosystem of Texas, USA." *Conservation Genetics* (2024): 1-15.

The Herpetofauna of Jim Wells County, Texas

by

Gerald Keown
g.keown4547@gmail.com

Jim Wells County covers some 868 square miles in the Coastal Bend region of South Texas and is surrounded by six adjacent counties: Live Oak, San Patricio, Nueces, Kleberg, Brooks, and Duval. The county (population 38,891) bases its economy primarily on the oil industry and ranching. The City of Alice (population 17,697) is the County Seat. Other smaller cities in the County include Orange Grove, Premont, and a portion of San Diego. A small portion of Lake Corpus Christi, located on the Nueces River, borders the northeastern corner of Jim Wells County. Lake Findley, a 247-acre reservoir also known as Lake Alice, is impounded on the Chiltipin Creek about 2 miles north of the City of Alice. The average annual rainfall in the County is 30.13 inches, with September being the wettest month in the year and March being the driest month.



Location of Jim Wells County, Texas.

I lived in Jim Wells County from 1960 until 1975, and during those 15 years I did extensive field herping throughout the county. Since I moved away 49 years ago, I have continued to make occasional short field herping forays back to the county. The majority of the species and subspecies listed in this document have been placed here as a result of many years' worth of my old field notes, supplemented by vouchered specimens in several university museums. Over the years there have been a great number of taxonomic changes impacting the accepted names of many species. I have attempted to use today's accepted taxonomic names in the preparation of this document.

Snakes

The 25 species and subspecies of snakes listed below are known to occur in Jim Wells County:

Texas Glossy Snake, *Arizona elegans arenicola*
 Texas Indigo Snake, *Drymarchon melanurus*
 Thornscrub Ratsnake, *Pantherophis guttatus meahllorum*
 Texas Ratsnake, *Pantherophis obsoletus lindheimeri*
 Tamaulipan Hook-nosed Snake, *Ficimia streckeri*
 Eastern Hog-nosed Snake, *Heterodon platirhinos*
 Prairie Kingsnake, *Lampropeltis calligaster calligaster*
 Desert Kingsnake, *Lampropeltis getula splendida*
 Tamaulipan Milksnake, *Lampropeltis triangulum annulata*
 Western Coachwhip, *Masticophis flagellum testaceus*
 Schott's Whipsnake, *Masticophis schotti schotti*
 Broad-banded Watersnake, *Nerodia fasciata confluens*
 Northern Diamond-backed Watersnake, *Nerodia rhombifer rhombifer*
 Northern Rough Greensnake, *Opheodrys aestivus aestivus*
 Bullsake, *Pituophis catenifer sayi*
 Long-nosed Snake, *Rhinocheilus lecontei*
 South Texas Ground Snake, *Sonora semiannulata taylori*
 Texas Brown Snake, *Storeria dekayi texana*
 Flat-headed Snake, *Tantilla gracilis*
 Plains Black-headed Snake, *Tantilla planiceps*
 Marcy's Checkered Gartersnake, *Thamnophis marcianus marcianus*
 Gulf Coast Ribbon Snake, *Thamnophis Proximus orarius*
 South Texas Threadsnake, *Leptotyphlops (Rena) dulcis rubellum*
 Texas Coral Snake, *Micrurus tener tener*
 Western Diamond-backed Rattlesnake, *Crotalus atrox*

The additional 11 species and subspecies of snakes listed on the next page could possibly occur in Jim Wells County, Texas but have never been documented. They are listed here because they are known to occur in one or more of the six counties located adjacent to Jim Wells County:

Texas Scarlet Snake, *Cemophora coccinea lineri* (Protected Species)
 Western Mud Snake, *Farancia abacura reinwardtii*
 Mexican Hog-nosed Snake, *Heterodon nasicus kennerlyi*
 Chihuahuan Night Snake, *Hypsiglena jani*
 Northern Cat-eyed Snake, *Leptodeira septentrionalis* (Protected Species)
 Blotched Watersnake, *Nerodia erythrogaster transversa*
 Texas Patch-nosed Snake, *Salvadora grahamiae lineata*
 Mexican Black-headed Snake, *Tantilla atriceps*
 Rough Earth Snake, *Virginia striatula*
 Western Cottonmouth, *Agkistrodon piscivorus leucostoma*
 Desert Massasauga, *Sistrurus catenatus edwardsii*

Lizards

The 13 species and subspecies of lizards listed below are known to occur in Jim Wells County:

Western Slender Glass Lizard, *Ophisaurus attenuatus attenuatus*
 Mediterranean Gecko, *Hemidactylus turcicus* (Introduced species)
 Southern Spot-tailed Earless Lizard, *Holbrookia lacerata subcaudalis*
 Northern Keeled Earless Lizard, *Holbrookia propinqua propinqua*
 Texas Horned Lizard, *Phrynosoma cornutum* (Protected species)
 Blue Spiny Lizard, *Sceloporus cyanogenys*
 Texas Spiny Lizard, *Sceloporus olivaceus*
 Texas Rose-bellied Lizard, *Sceloporus variabilis marmoratus*
 Northern Green Anole, *Anolis carolinensis*
 Great Plains Skink, *Plestiodon obsoletus*
 Four-lined Skink, *Plestiodon tetragrammus tetragrammus*
 Texas Spotted Whiptail Lizard, *Aspidoscelis gularis gularis*
 Prairie Racerunner, *Aspidoscelis sexlineata viridis*

The additional seven species and subspecies of lizards that are listed below could possibly occur in Jim Wells County, Texas but have never been documented. They are listed here because they are known to occur in one or more of the six counties located adjacent to Jim Wells County:

Texas Banded Gecko, *Coleonyx brevis*
 Reticulate Collared Lizard, *Crotaphytus reticulatus*
 Texas Greater Earless Lizard, *Cophosaurus texanus texanus*
 Prairie Lizard, *Sceloporus consobrinus*
 Graphic Spiny Lizard, *Sceloporus grammicus microlepidotus*
 Brown Anole, *Anolis (Norops) sagrei* (Introduced species)
 Little Brown Skink, *Scincella lateralis*

Turtles and Tortoises

The four species and subspecies of turtles and tortoises listed below are known to occur in Jim Wells County:

Yellow Mud Turtle, *Kinosternon flavescens*
 Red-eared Slider, *Trachemys scripta elegans*
 Guadalupe Spiny Softshell Turtle, *Apalone spinifera guadalupensis*
 Texas Tortoise, *Gopherus berlandieri* (Protected Species)

The additional four species and subspecies of turtles and tortoises that are listed below could possibly occur in Jim Wells County, Texas but have never been documented. They are listed here

because they are known to occur in one or more of the six counties located adjacent to Jim Wells County:

Eastern Snapping Turtle, *Chelydra serpentina serpentina*
 Mississippi Mud Turtle, *Kinosternon suburbrum hippocrepis*
 Three-toed Box Turtle, *Terrapene carolina triunguis*
 Ornate Box Turtle, *Terrapene ornata ornata*

Crocodilians

One species of Crocodilian listed below is known to occur in Jim Wells County:

American Alligator, *Alligator mississippiensis*

Salamanders and Newts

The two species and subspecies of salamanders listed below are known to occur in Jim Wells County:

Western Lesser Siren, *Siren intermedia nettingi*
 Barred Tiger Salamander, *Ambystoma mavortium mavortium*

One additional species, the newt listed below, could possibly occur in Jim Wells County, Texas but have never been documented. It is listed here because it is known to occur in one or more of the six counties located adjacent to Jim Wells County:

Black-spotted Newt, *Notophthalmus meridionalis*
 (Protected Species)

Frogs and Toads

The 14 species and subspecies of frogs and toads listed below are known to occur in Jim Wells County:

Couch's Spadefoot, *Scaphiopus couchii*
 Plains Spadefoot, *Spea bombifrons*
 Blanchard's Cricket Frog, *Acris blanchardi*
 Cope's Gray Treefrog, *Hyla chrysoscelis*
 Green Treefrog, *Hyla cinerea*
 Gray Treefrog, *Hyla versicolor*
 Spotted Chorus Frog, *Pseudacris clarkii*
 Eastern Green Toad, *Bufo debilis*
 Texas Toad, *Bufo speciosus*
 Gulf Coast Toad, *Bufo nebulifer*
 Rio Grande Leopard Frog, *Lithobates berlandieri*
 Bullfrog, *Lithobates catesbeianus*
 Western Narrow-mouthed Toad, *Gastrophryne olivacea*
 Sheep Frog, *Hypopachus variolosus* (Protected Species)

The additional 7 species and subspecies of frogs and toads that are listed below could possibly occur in Jim Wells County, Texas but have never been documented. They are listed here because they are known to occur in one or more of the six counties located adjacent to Jim Wells County:

Hurter's Spadefoot, *Scaphiopus huerterii*
 Rio Grande Chirping Frog, *Eleutherodactylus cystignathoides campi*
 Squirrel Treefrog, *Hyla squirella*
 Strecker's Chorus Frog, *Pseudacris streckeri*
 Red-spotted Toad, *Bufo punctatus*
 Rocky Mountain Toad, *Bufo woodhousii woodhousii*
 Southern Leopard Frog, *Lithobates sphenoccephala utricularius*

Comments

I am providing comments below on two of the species I have listed as being known to occur in Jim Wells County:

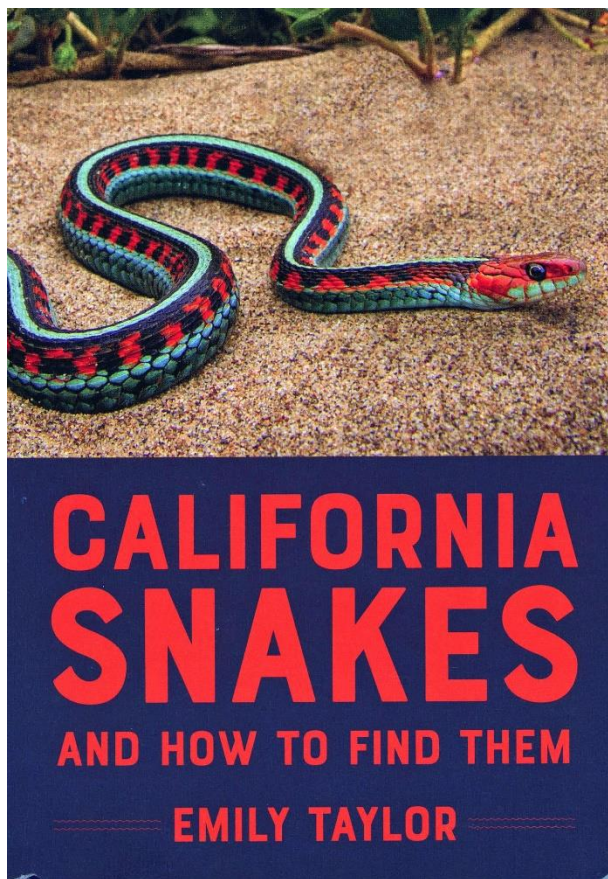
Prairie Kingsnake (*Lampropeltis calligaster calligaster*): On the night of June 23, 1964 at 11:10pm I stopped on US Highway 281, one mile south of the Alice city limits in Jim Wells County, to check out what appeared to be a dead snake on the road. The snake was a very badly mangled "Dead On Road" (DOR) specimen. As I approached it, I was expecting it to be a Thornscrub Ratsnake (*Pantherophis guttatus meablimorum*), which is one of the more common snakes in the County, but as I began inspecting the specimen I noticed that it had smooth scales and a single anal plate...definitely not a Ratsnake. I now had the mangled snake identified; it was a Prairie Kingsnake (*Lampropeltis calligaster calligaster*), a species not yet known to occur in Jim Wells County. I preserved the snake and kept it with the intent of eventually depositing in in a museum collection. However, I was delayed in doing so and the specimen became lost or misplaced while I was on active duty with the military. I have never been able to locate another specimen of *Lampropeltis calligaster calligaster* in Jim Wells County. However, I am aware that a couple of other specimens have turned up just a few miles east of where I found the DOR Jim Wells County specimen, across the county line in Nueces County.

Sheep Frog (*Hypopachus variolosus*): The Sheep Frog is probably the rarest of the amphibians known to occur in Jim Wells County. The majority of people will never see one in the wild. These frogs spend most of their life buried deep underground. They only come to the surface after very heavy rains, such as those that often occur after a hurricane, when they can be heard

calling. During all of my years in South Texas I have only actually seen perhaps 8 or 9 of these creatures, and most of those that I did find were usually calling from freshly dug post holes with rain water standing in the bottom of them.

References

- Brown, Bryce C. 1950. *An Annotated Check List of the Reptiles and Amphibians of Texas*. pp.1-257. Baylor University Press, Waco, Texas.
- Crother, Brian I. (Committee Chair). 2008. *Scientific and Standard English Names of Amphibians and Reptiles of North America*, Sixth Edition. pp. 1-84. Society for the Study of Amphibians and Reptiles, Salt Lake City, Utah.
- Dixon, James R. 2013. *Amphibians & Reptiles of Texas*. pp. 1-447. Texas A&M University Press, College Station, Texas.
- Powell, Robert, Roger Conant, and Joseph T. Collins, Joseph T. 2016. *Peterson Field Guide to Reptiles and Amphibians of Eastern and Central North America*, Fourth Edition. pp. 1-493. Houghton Mifflin Harcourt Publishing Company, New York, New York.



Book Review: *California Snakes and How to Find Them*

by Emily Taylor

2024, Heyday Books: Berkeley, California

Softcover, 208 pages, extensively illustrated with color photos

Publisher's List: \$22.00, Amazon: \$18.62

4.9 x 0.5 x 6.9 inches, 8.8 ounces

ISBN: 978-1597146340

Kindle eBook: \$17.69 (ASIN: B0CKZZJ4FV)

Review by Tom Lott
tomlott46@gmail.com

In this little volume, Dr. Emily Taylor has produced what seems like a totally new genre of herp literature. While it's not a field guide *per se*, it could certainly serve as one in many cases. And if you have ever wished a field guide's all too brief natural history and remarks entries could be expanded, then this book is for you. Despite her impressive academic credentials, Taylor's writing style is refreshingly conversational, avoiding the overly didactic tone common to many science writers. As she states in her preface, "This book is for snake lovers and snake lovers-to-be." Clearly, her goal is to present snakes in a favorable but accurate light.

In her 25-page introduction, Taylor relates the snake diversity of California to its topographical and geological variety as well as its size, stating that a similar area on the East Coast would extend from Maine to North Carolina. She also attributes some of that snake diversity to the tectonic slamming of the former large island that is now Baja California into the southern part of the state millions of years ago. In the section entitled "What's in a snake's name?" Taylor provides a clear explanation of taxonomic issues that might be confusing to a beginning herper, including how scientific names originate and why they frequently change as more data is accumulated. She also admirably follows the practice of capitalizing the common names of snakes when they are used as proper nouns.

Taylor's enthusiasm for snakes, unlike some authors, does not include a strictly hands-off approach. She acknowledges and transmits to her students (and readers) the pleasurable experience of actually catching, handling, and closely observing snakes, even quoting the sentiments of fellow California herpetologist Dr. Sam Sweet that "Field herpetology cannot be (and should not be) reduced to birdwatching." In this vein, Taylor also encourages her students and readers to document their observations with photographs and submit them to the iNaturalist database.

Of course, nowadays catching snakes is regulated almost everywhere by the various state game and fish departments. In California, the Department of Fish and Wildlife requires a valid fishing license to handle or collect snake species that have "open seasons." Open-season species are defined as those not in the categories of endangered, threatened, or species of concern, the latter of which includes those that may become threatened or endangered in the future. Taylor does not go into detail regarding regulations since these may change from year to year, instead referring specific questions to the Department's website, which can be difficult to navigate for herp-specific regulations. A more thorough and helpful treatment of California's herp regulations can be found on Gary Nafis' extraordinary California Herps website, www.californiaherps.com/info/herpinglaws.html, where he goes into a more coherent and accessible explanation of the regulations than the official state site provides.

A caveat, however, should be noted for a book that encourages readers to closely interact with snakes in that some of these behaviors overlap with the Department of Fish and Wildlife's definition of "take." According to Fish and Game Code Section 86, "take" means to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." In that regard, Taylor seems to underemphasize the possible legal consequences associated with some species. In her account for the Rubber Boa (*Charina bottae*), for example, she states that the population/subspecies known as the Southern Rubber Boa (*C. b. imbricata*) may eventually be protected by the Department of Fish and Wildlife, implying these populations are not currently "protected." This ignores the fact that there is a "Special Closed Season" for

the four counties where these populations are known or thought to occur (Kern, Los Angeles, Riverside, and San Bernardino counties).

Similarly, in discussing the much sought-after California Mountain Kingsnakes (*Lampropeltis zonata* and *L. multifasciata*) there is no mention that a “Special Closed Season” exists for these two species in seven counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura) based on former subspecies no longer recognized. Such “Special Closed Seasons” also currently exist for portions of the ranges of Ring-necked Snakes (*Diadophis punctatus*), Coachwhips (*Coluber flagellum*), Striped Racers (*Coluber lateralis*), Patch-nosed Snakes (*Salvadora hexalepis*), Glossy Snakes (*Arizona elegans*), and even Garter Snakes (*Thamnophis sirtalis*). Presumably, there are legal consequences for “taking” these taxa in the closed-season counties even though they might not be on the official endangered, threatened, or species of concern lists. This could have been easily addressed via a footnote following the account for these taxa.

Those legal concerns aside, the meat of this book is, of course, the species accounts. The text covers 50 species of snakes native and introduced to California. Unlike a traditional field guide, this book does not include detailed identification information or range maps, and it occasionally combines information about some closely related species into a single account. Nor are subspecies generally acknowledged except in passing or where some protection issues are involved. Commendably, however, she does direct readers with more technical interests to two excellent websites, the previously mentioned “California Herps” (www.californiaherps.com) and “The Reptile Database” (www.reptile-database.org).

The format for each species account follows a consistent pattern. First, the author introduces the species, usually by recounting some of her own experiences with it. This is followed by the heading “Appearance” where she provides a general, non-technical description of the species. Then comes a short paragraph on “Natural History” containing notable information on the habits and life histories of the subject. This is followed by another paragraph on “Range and Variation” providing details of the distribution of the species within the state and a general description of the range outside of California. Next is another paragraph on “How to Find” the species in question, which includes suggestions regarding the optimal habitats and times to look for the species. Each account concludes with a paragraph or two related to what “You Might Like to Know” about the species where the author discusses some of the information contained in the literature and her own experience with it.

The more technically inclined reader might wish for literature citations at this point. Still, apparently, this is where they are referred to the author’s website (emilytaylorscience.com) for the references. However, in perusing the site I found no literature

citations for data specifically referenced in this book other than her own voluminous publication list. In fairness, however, this work is not really intended for those with more technical interests, although they will thoroughly enjoy it.

The author’s taxonomic choices may not agree with those preferred by some but she explains that she has chosen to use those names “that have been proposed, have had time to be vetted by other scientists, and (so far) have withstood the test of time.” Again, seasoned herpers will recognize any nomenclatural variations in the book and should not be distracted from its thoroughly interesting content.

Despite the few legalistic considerations above, this book is a refreshing variation on available herp guides that will likely be enjoyed by most herpers, whether they herp in California, plan to in the future, or just engage vicariously in its pages.

Dr. Emily Taylor is a professor of biology at California Polytechnic State University where she conducts research on the physiology, ecology, and conservation of lizards and snakes. Her undergraduate degree was in English at the University of California-Berkeley and she obtained her Ph.D. in biology at Arizona State University. Additionally, she founded a citizen science site called Project RattleCam (rattlecam.org) to help the public learn about rattlesnakes with photos and live-streaming footage from rattlesnake dens. She also founded a company called Central Coast Snake Services (centralcoastsnakeservices.com) that strives to help citizens and snakes of the area coexist on good terms.

SWCHR CODE OF ETHICS

As a member of the Southwestern Center for Herpetological Research, I subscribe to the Association's Code of Ethics.

Field activities should limit the impact on natural habitats, replacing all cover objects, not tearing apart rocks or logs and refraining from the use of gasoline or other toxic materials.

Catch and release coupled with photography and the limited take of non-protected species for personal study or breeding use is permitted. The commercial take and sale of wild-caught animals is not acceptable.

Collecting practices should respect landowner rights, including but not limited to securing permission for land entry and the packing out of all personal trash.

Captive-breeding efforts are recognized as a valid means of potentially reducing collection pressures on wild populations and are encouraged.

The release of captive animals including captive-bred animals into the wild is discouraged except under the supervision of trained professionals and in accordance with an accepted species preservation or restocking plan.

The disclosure of exact locality information on public internet forums is discouraged in most circumstances. Locality information posted on public internet forums usually should be restricted to providing the name of the county where the animal was found. When specific locality data is provided to one in confidence, it should be kept in confidence and should not be abused or shared with others without explicit permission.

Other members of the Association are always to be treated cordially and in a respectful manner.



SWCHR
PO BOX 131262
SPRING TX 77393