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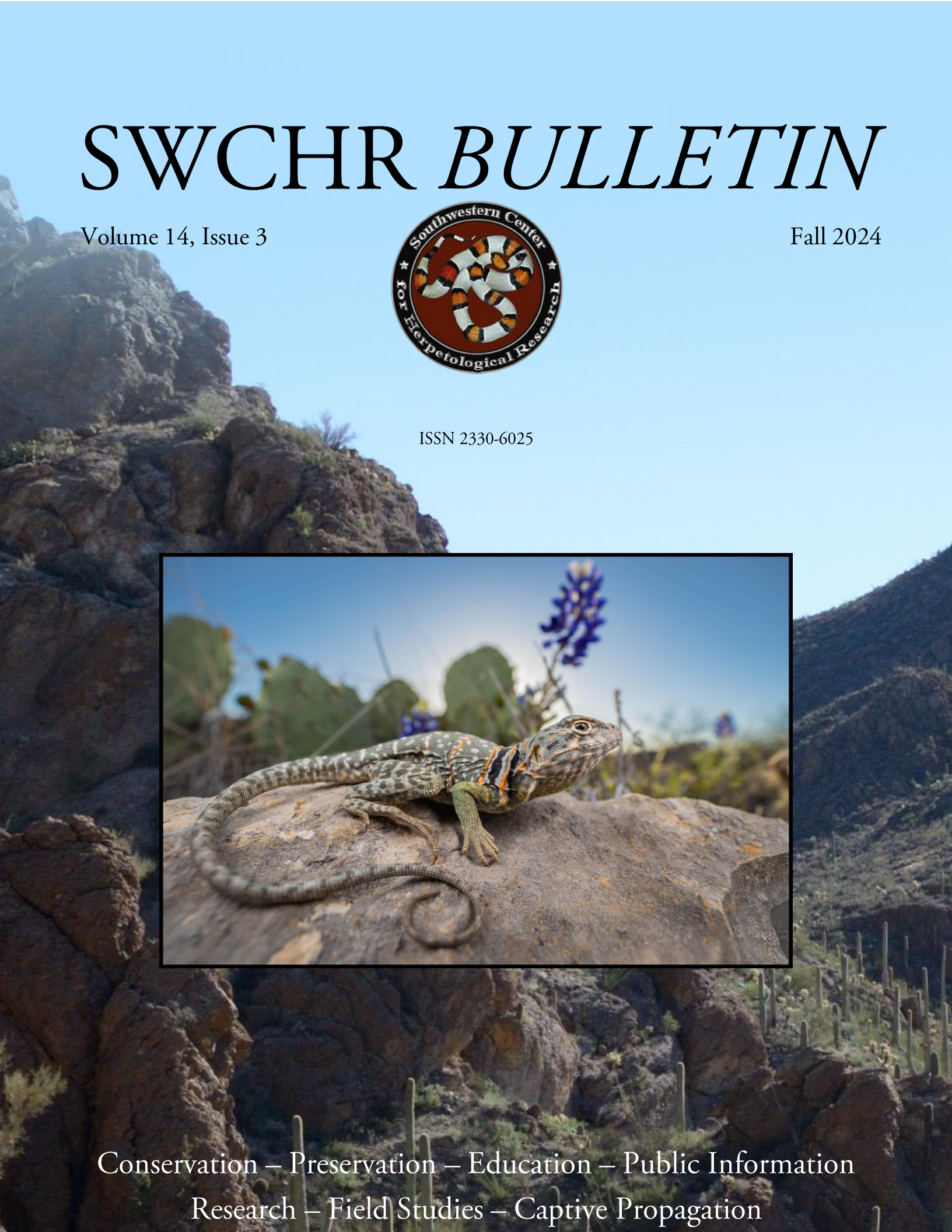

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Research – Field Studies – Captive Propagation

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OFFICERS 2023-2024

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 membership page of the SWCHR web site at
http://www.southwesternherp.com/join.html.

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TABLE OF CONTENTS

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

I hope everyone finds themselves at the tail end of a productive 2024 field herping season. Just a quick reminder—I urge everyone to take along a notebook and pen or pencil and take notes on their observations. Such natural history notes are an important foundation for conservation and can be used to formulate and test hypotheses to increase our knowledge.

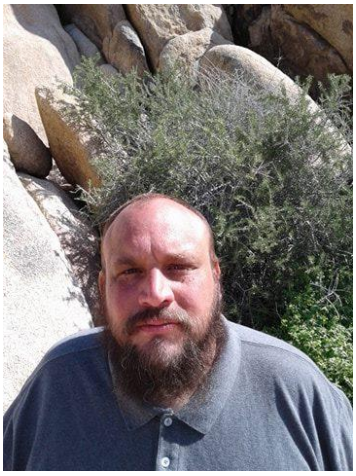
I do believe that this issue of our *Bulletin* is a shining example of what SWCHR set out to accomplish as a society that bridges amateur and professional herpetology. In this issue, you will find natural history notes that fill in gaps in our knowledge, can be used to build further testable hypotheses on, and change the way we view this world we inhabit. Along with the natural history notes in this issue we see what avocational herpetologists can accomplish, and gain better understanding of one of the people on whose shoulders we stand on and owe much gratitude. Now on to my favorite part: having the honor of introducing these amazing papers on behalf of SWCHR.

We kick off with an article by Mayra Oyervides, David Vela, and John Boyle, who offer us a natural history note on a county record for the Mexican Racer (*Coluber constrictor oaxaca*) and the events that took place surrounding it. It is great to see and preserve such exciting natural history for future generations. Following this is SWCHR Board Member Gerald Keown's account of a recent death by a captive Gila monster (*Heloderma suspectum*). Our condolences go to the victim's family and friends; sharing his story will ensure his legacy lives on and others may learn from this incident. Up next we have an interesting natural history observation of an interaction between a Red-striped Ribbon Snake (*Thamnophis proximus rubrilineatus*), a Plain-bellied Water Snake (*Nerodia erythrogaster*), and a Southern Leopard Frog (*Lithobates sphenocephalus*). We then have an article describing a prey item of a Five-lined Skink (*Plestiodon fasciatus*) by Executive Director Chris McMartin. We end with my historical photo essay of snakebite vacuum kits.

I believe that is enough of my rambling. I am looking forward to further issues of the SWCHR *Bulletin* just thinking about what people may discover and build upon using these natural history notes and articles informing our passion for these lower vertebrates. It is an exciting thought.

I will see you on the road cuts!

Robert Trembley



A Snake in Unusual Places

by

Mayra Oyervides, mayraoyervides@hotmail.com
David Vela, David_Vela@usfw.gov
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On 29 June 2024 in Starr County, Texas, a Mexican Racer (*Coluber constrictor oaxaca*) was discovered dead on the road. It was found on a relatively hot night; it was 21:17 Central Daylight Time so the sun had set, but it was still 88 degrees Fahrenheit and the humidity was 74%. This specimen is the first example of this species being found in this county, and highlights one of the more inland examples of *Coluber constrictor oaxaca.* However, the herpetologists that found the snake were lucky they arrived when they did; a few minutes later and this county record may have ended up as dinner for a nearby owl.

A Mexican Racer (*Coluber constrictor oaxaca*). Photo by Troy Hibbitts,.

The owl (species unknown) was perched atop a nearby light post, and waited while we collected the snake. Once back in the car, the owl started flying around and swooping down to where the snake originally was. Now, I am no ornithologist but it seemed like the owl was quite distressed when we took away its easy meal. The snake was then to be sent off to Texas A&M University to have its identity confirmed and to be added to their herpetological collection.

A Mexican Racer (*Coluber constrictor oaxaca*), Cameron County, Texas. Photo by Reed McClure.

However, despite the snake being sent via FedEx Ground and the expected delivery time was only one day, for some reason the snake was sent to Phoenix, Arizona. Now, I get that there can be troubles and delays in delivery, but how on earth does a shipment that was supposed to be driven from one part of Texas to another part of Texas end up in Phoenix, Arizona? When I called, even FedEx was shocked and had no clue how this mistake happened. Eventually, the snake arrived at Texas A&M University but by then, it was less a preserved specimen and instead mostly liquid. Luckily, the "snake soup" was still able to be identified and the range extension of the *Coluber constrictor oaxaca* was confirmed.

A Mexican Racer (*Coluber constrictor oaxaca*) from Veracruz, Mexico. Photo by Guillermo H. Sosa Tovar.

After 94 Years…Another Fatal Gila Monster (*Heloderma suspectum*) Bite

by

Gerald Keown
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The Gila Monster (*Heloderma suspectum*) is the only venomous lizard native to the United States. *Heloderma suspectum* is native to southern and western Arizona, extreme southwestern New Mexico, extreme southeastern California, southeastern Nevada, and extreme southwestern Utah. It also occurs across the border in Sonora, Mexico.

Throughout the years since the late 1800s, *Heloderma* venom has been described by some researchers as being extremely toxic, comparable to the venom of cobras and rattlesnakes and capable of causing human deaths within a couple of hours of envenomation. However, other early studies suggested that the venom was not particularly dangerous. In reality most *Heloderma* bites generally occur as a result of the victim handling or holding the animal. Many of the early *Heloderma* bites were poorly, if at all documented, were intermingled with alcohol consumption and included references to myths and folklore. Actually, some of those early bite stories were totally fictitious and often grew out of wild tales told by cowboys gathered around a campfire.

Gila Monster (*Heloderma suspectum*), Pima County, Arizona. Photo by Bill White.

In later years we began seeing somewhat more reliable reporting and accurate documentation of Gila Monster bites. By 1930 there had only been some 30 bite reports that could be considered reliable and verifiable. Of those 30 verifiable bites, seven had resulted in deaths. Since 1930, occasional bites continued to be reported, but between 1930 and 2024 there were no additional deaths from Gila Monster bites reported and documented until this year.

Gila Monster (*Heloderma suspectum*), Cochise County, Arizona. Photo by Bill White.

Now, however, after 94 years with no additional deaths being documented from *Heloderma* bites, we once again have another reported and documented death. On February 12, 2024 at 11:45 PM the Lakewood, Colorado 911 Call Center received a request for an ambulance for a man bitten by a Gila Monster about two hours earlier. When Emergency Medical Service responders arrived on-scene, they found 34-year-old Christopher Ward going in and out of consciousness. The victim's girlfriend told the EMS responders that the victim had been handling his two 'pet' Gila Monsters. She was in the next room when she heard a commotion in the room where the victim was. She went back in the room to check on him and found the larger of his two 'pet' Gila Monsters firmly attached to the victim's right hand. She estimated that the lizard had remained firmly attached to his right hand for approximately four minutes. They waited about two hours before calling 911 for help, during which time the victim was in and out of consciousness, in great pain, vomiting, and had quit breathing. The victim was transported by ambulance to Saint Anthony Hospital, where he was admitted and placed on life support. Four days after being bitten, Christopher Ward died of anaphylactic shock, respiratory failure, and renal failure. The Jefferson County, Colorado Coroner's Office released the victim's autopsy report listing the cause of death as complications from the Gila Monster bite and listed an enlarged heart, a fatty liver, and a history of substance abuse as being contributing factors.

It should be noted that there has never been a commercially available anti-venom for Gila Monster envenomation. State laws relating to owning and keeping Gila Monsters vary greatly. Some

states may totally prohibit keeping them, while others may require a state permit to keep them, and others neither prohibit keeping them nor require a permit to do so. Anyone planning to keep a *Heloderma* should make certain that they understand what state laws and local ordinances with which they are required to comply. In Colorado you are required to have a permit from the Colorado Game and Fish Department. The City of Lakewood, Colorado has an ordinance prohibiting the possession or keeping of Gila Monsters in the city. Christopher Ward did not have a permit from the State of Colorado and also was in violation of Lakewood's ordinance. The day after Mr. Ward was bitten, both of his 'pet' Gila Monsters were turned over to Lakewood Animal Control Officers and officers from the Colorado Game and Fish Department, who transported them to South Dakota where they were released to the Reptile Gardens in Rapid City.

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A Contested Predation Attempt by Two Snakes on a Frog

by

Ruthann Panipinto

Cypress Creek Park, Travis County, Texas. Photo by the author.

This observation occurred on July 17, 2024 at 11:19 am Central Daylight Time in Cypress Creek Park, Travis County, Texas. I observed a Red-striped Ribbon Snake (*Thamnophis proximus rubrilineatus*) in the creek hunting, but when I arrived at the point I had seen it ahead of me, the snake was not there. I then saw a Southern Leopard Frog (*Lithobates sphenocephalus*) in the center of the creek and stopped to photograph it. The frog leaped under the overhang of the bank and immediately I heard it squeal, and knew it had been grabbed by the ribbon snake I had seen right before I arrived at the location. I peeked under the bank and observed the snake immediately engaged in swallowing the frog.

Red-striped Ribbon Snake (*Thamnophis proximus rubrilineatus*) attempting to consume a Southern Leopard Frog (*Lithobates sphenocephalus*). Video still by the author.

Then, off to the left, I saw movement and observed a Plain-bellied Water Snake (*Nerodia erythrogaster*) approaching the ribbon snake. The second snake appeared to attempt to interrupt the ribbon snake's meal. The ribbon snake tried to avoid the water snake and then crawled up and over the edge of the creek bank into the field. The water snake stayed under the creek bank for a while and seemed curious of my movements while filming its activity.

A young Plain-bellied Water Snake (*Nerodia erythrogaster*) discovered the predation attempt and made an effort to steal the frog from the ribbon snake. Video still by the author.

It eventually followed the ribbon snake's trail into the field next to the creek, where I then lost sight of that animal as well. The encounter lasted maybe six to eight minutes total. Most of that time I was filming the *Nerodia* while it apparently tried to relocate the ribbon snake's scent, and it kept an eye on my movements while I filmed.

After the ribbon snake departed with the frog, the water snake crawled up the creek bank and attempted to locate the pair by their scent trail. Video still by the author.

A Large Prey Item for a Five-lined Skink, *Plestiodon fasciatus* (Lacertilia: Sincidae)

by

Chris McMartin

I was doing yard work the afternoon of 04 June 2024 when I heard a commotion near our front porch in Montgomery County, Texas. Upon further investigation I discovered an adult female Five-lined Skink (*Plestiodon fasciatus*) attempting to subdue and eat an as-yet unidentified insect. I took my first photo of the encounter at 4:45:37pm Central Daylight Time and continued to take photographs and video for the duration of the event. The skink was able to swallow the insect completely by 4:54:05pm. The elapsed time was approximately eight and a half minutes, plus however long the skink took in its struggle with the insect before I discovered them. What drew my attention to this interaction was the large size of the insect relative to the skink.

Initially the skink grabbed and let go of the insect multiple times, seemingly using its powerful jaws to crush the insect at various points along its body. The insect did make at least one attempt to crawl away, but was obviously injured and could not move quickly.

An adult female Five-lined Skink (*Plestiodon fasciatus*) subduing a large insect 04 June 2024 in Montgomery County, Texas. Photo by the author.

I first saw the skink while it was under a gutter downspout, but after about ten seconds it moved (with the insect in its mouth) behind a potted plant on our porch. The leaves and growth overflowing the pot gave cover to the skink, allowing it to feel concealed/secure as it continued to work on the insect. The skink would grab the insect in its jaws and then "wipe" it on the ground, apparently to further disable the insect to the point where it could be swallowed. After the insect was sufficiently subdued, the skink made several tries at swallowing it until it finally had the insect's body aligned conveniently to do so. As it swallowed the insect, the skink continued to wipe its jaws on the ground, possibly to help push the insect into its mouth.

The skink moved with its prey to a more secure location under a potted plant on our porch. The insect was more than twice as long as the skink's head, and its tough exoskeleton proved challenging for the skink to consume. Photo by the author.

I posted photos of the encounter to the Facebook social media group "Texas Field Herpers" on 07 June 2024, and the insect has been tentatively identified as a wood-borer beetle (Coleoptera: Cerambycidae) of indeterminate species. Long appendages near the front of the insect were identified as antennae, not legs, lending credence to this identification. Though no carapace/elytra were noticed on the insect, they may have been damaged/torn off prior to my discovery of the skink/insect interaction, or perhaps only the ventral side of the insect was visible.

Acknowledgments

I thank Shawn Evans, Graham Hill, and Randy Reynolds for their suggestions as to the insect's identification.

A Photo Portrayal of Early Snakebite Kits

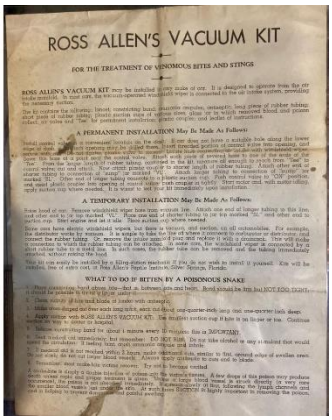
by

Robert Twombley

This photographic essay is meant to preserve historical images so that they will not be lost to history, and act as a catalyst for future research in the historical context. This collection should not be considered complete, but it is a first attempt to preserve as much history as possible. Most antique snakebite kits remain in private collections; therefore, there is a chance to lose such historical information without photographs of the kits to fill in some of these gaps in documentation.

In Laurence Klauber's monograph *Rattlesnakes: Their Habits, Life Histories, and Influence on Mankind,* Klauber mentions "A type of suction mechanism that works off the windshield-wipers suction line on an automobile is also available" on page 929. This is an extremely rare type of kit, with only a few people who are avid collectors having seen one. The following series of photos shows two examples. The first is from Ross Allen's Reptile Institute in Silver Springs, Florida.

"Ross Allen's Vacuum Kit" container. Photos courtesy Dave Fogel.



Another view of "Ross Allen's Vacuum Kit," along with the instruction sheet contained inside. Photos courtesy Dave Fogel.

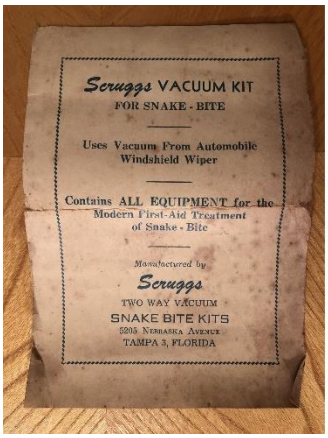
The instruction sheet for "Ross Allen's Vacuum Kit" describes how to install the kit to one's vehicle either temporarily or permanently, and the kit provided necessary parts for both options. The instructions suggest a "filling-station mechanic" can install the kit as well, and offers free installation at Ross Allen's Reptile Institute in Silver Springs, Florida. At the bottom of the sheet are steps to take if bitten by a "poisonous" [*sic*] snake, which were current at the time of production but many of which have since been superseded by developments in our understanding of envenomation and treatment methods:

1. Place constricting band above bite—that is, between bite and heart. Band should be firm but NOT TOO TIGHT; it should be possible to thrust a finger under it.
2. Clean vicinity of bite and blade of lancet with antiseptic.
3. Make cross-shaped cut over each fang mark, each cut about one-quarter-inch long and one-quarter-inch deep.
4. Apply suction with ROSS ALLEN'S VACUUM KIT. Use smallest suction cup if bite is on finger or toe. Continue suction on way to doctor or hospital.
5. Release constricting band for about 1 minute every 10 minutes; this is IMPORTANT.
6. Seek medical aid immediately; but remember: DO NOT RUN. Do not take alcohol or any stimulant that would speed the circulation. If feeling faint, crush ammonia ampule and inhale.
7. If medical aid is not reached within 2 hours, make additional cuts, similar to first, around edge of swollen area. Do not slash; do not cut larger blood vessels. Always apply antiseptic to cuts and to blade.
8. Remember: most snake-bite victims recover. Try not to become excited.

A snake-bite is simply a double injection of poison into the victim's tissues. A few drops of this poison may produce death unless rapid and proper treatment is given. Unless a large blood vessel is struck directly (a very rare occurrence), the poison is not absorbed immediately. It spreads slowly at first, following the lymph channels and the smaller blood vessels just under the skin. At such times SUCTION is highly important in removing the poison, and in helping to prevent dangerous and painful swelling.

The second kit shown here was made by Scruggs Vacuum Kits in Tampa, Florida; apparently this company existed for the sole purpose of manufacturing these kits and not much else is known of the enterprise.

"Scruggs Two Way Vacuum Snake Bit Kit" container. Photos courtesy Frank Castle.



The instruction sheet included with the Scruggs kit. The illustration shows how any venom suctioned out of the victim would collect in the supplied jar. Photos courtesy Frank Caslte.

Looking into the opened Scruggs kit. The venom collection jar and tubing with funnel to place over the bite location are visible. Photo courtesy Frank Castle.

A view of the Scruggs kit venom collection jar, which in its unopened state housed a plastic vial with the instructions and accessories inside, as well as other components used to assemble the kit. Photos courtesy Frank Castle.

A closer view of the supplied razor blade, air valves/connectors, and mounting nut/bolt to complete the suction kit. Photo courtesy Frank Castle.

The opened Scruggs kit venom collection jar, showing razor blade, various valves and connectors, and the plastic vial containing instructions and accessories. Photo courtesy Frank Castle.

The opened vial of the Scruggs kit showing instructions, scalpel, and presumably small vials of antiseptic and ammonia similar to the Ross Allen kit. Photo courtesy Frank Castle.

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.

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