Phrynosomatics

The Newsletter of the Horned Lizard Conservation Society

Our purpose is to document and publicize the values and conservation needs of horned lizards, to promote horned lizard conservation projects and to assist with horned lizard management initiatives throughout their ranges.

Volume 4, Issue No. 4
December 1999

ODE TO TOADIE
by Marilyn Greenhouse

This story really begins some 40+ years ago: when I was a young girl of primary school age. That is when I developed my life-long love of reptiles, a love that was inspired by the Texas Horned Lizard.

In the 1950's I spent most of my summers with my grandparents who owned a cattle ranch near the tiny town of Springtown, not far from Weatherford, Texas. My grandfather introduced me to reptiles during our walks through the pasture and down country dirt roads. We found the Eastern Omate Box Turtle (Terrapene omate omate) and the Texas Horned Lizard (Phrynosoma cornutum) during these walks, and I would catch them and play with them during my summer vacation. I was particularly fond of the Texas Horned Lizard's antics: the playing dead and the squirting of blood from its eye.

From these early experiences I developed such a deep love for reptiles, that I have kept reptiles all my life with the exception of my college years. Since the early 1990's, I have kept and bred the Australian Bearded Dragon. I was interested in the Bearded Dragon because it reminded me of the Texas Horned Lizard.

I now live in Gaithersburg, Maryland, with my husband Jack, along with a variety of captive-bred lizards and turtles (true to my upbringing). I am a big believer in owning only captive-bred animals. You can imagine my total dismay when, in early October, 1999, I went into a local pet shop to buy some herps supplies and noticed a horned lizard in a dimly lit 5-gallon tank along with 2 or 3 other larger lizards.

I immediately went to the shopkeeper and said to him, "Why do you have this horned toad? Don't you know that they are a protected species?"

He replied, "Ma'am, we don't carry anything illegal. Not every state protects its horned lizards."

I was just incredulous. He told me that he started out with three horned lizards three weeks earlier and had already sold two of them. As I looked at the poor little fellow hovering from the other lizards in the tiny tank, I asked to see him. I noticed that he was so dehydrated that there was not one ounce of body fat on him. I bought him just to get him out of there, because I was determined to try to save his life.

I set him up in a 10-gallon desert terrarium and got out my copy of Wade Sherbrooke's excellent book, Horned Lizards, Unique Reptiles of Western North America, and identified him as a little male Phrynosoma platyrhinos or Desert Horned Lizard. The next thing I did was to search the Internet for a food source other than the quarter-inch crickets that I had on hand. That's when I came in contact with Lester Milroy and the Horned Lizard Conservation Society. Lester gave me a source for harvester ants, and through further queries on the Internet, I found even a second source for the ants.

continued on page 4
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Please Send all Membership Applications and Requests for Information to:

HLCS
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President's Corner

by Scott E. Henke, HLCS President

Congratulations, Horned Lizard Conservation Society! We, as a Society, are ever-expanding and increasing in numbers. We now have three official state chapters (California, Oklahoma, and Texas), two emerging chapters (Nevada and Utah), and, hopefully very soon, a chapter in New Mexico.

I have been in contact with Mr. Don Padilla of New Mexico, who has expressed interest in beginning a chapter in the “Land of Enchantment.” Please take the opportunity to contact Mr. Padilla via e-mail at Don.Padilla@nmshtd.state.nm.us and encourage him to start the New Mexico Chapter. It’s not my intention to badger him into initiating the chapter, but rather to offer him help, advice, and encouragement so he will understand that he will have the support of HLCS members and will not have to work alone! Please also encourage our emerging chapters in Nevada and Utah. If we continue to work together, the HLCS will grow and prosper.

Chapter Strategic Plans by 1 March 2000

As the HLCS grows though, it also experiences growing pains. When the Horned Lizard Conservation Society was originally formed, it consisted of the Texas Chapter. The National Board of Directors (BOD) and the Texas Chapter were one-in-the-same during the early days. Because of this past, it sometimes is unclear what the duties of the National BOD and state chapters are. So let me take this opportunity to state the duties of each group as I understand them.

The National BOD is charged with increasing membership, creating state chapters, developing the quarterly newsletters, providing educational materials to state chapters, identifying research needs, and providing an infrastructure for state chapters.

State chapters should develop strategic plans that outline their short- and long-term goals. State goals can overlap the duties of the National BOD, but should be restricted to their respective state. For instance, a state chapter could elect to develop their own newsletter or educational materials, but should only distribute their newsletter to members of their chapter and, generally, restrict sending materials outside their state. If requests for information come from a person or organization outside their state, then that request should be sent to the appropriate state chapter, or to the National BOD if no state chapter exists. In this way, hopefully, no state chapter will be overwhelmed with additional duties and will be able to focus on their specific goals.

With this in mind, I want to remind each state chapter to meet with their members ASAP and develop their strategic plans [see September 1999, Phrynosomatics 4(3):3 for details]. To date, I have yet to receive a single strategic plan from state chapters. I strongly believe individual chapter strategic plans will help the National BOD better serve the needs of state chapters, and guide state chapters to focus efforts on specific projects and get membership involved. I realize that it can be difficult to meet as a chapter during the holidays; however, I would like to have strategic plans from all chapters (official and emerging) by 1 March 2000. A deadline has been given - Let’s get busy!

As always, your suggestions, advice, and criticisms are welcome.
The Pet Trade and Texas

HELP SAVE THE ROUNDTAIL HORNED LIZARD

Roundtail horned lizards (Phrynosoma modestum) can legally be collected in Texas and sold within and outside the state, at least at present. But the Horned Lizard Conservation Society would like this practice stopped! Even though collection and sale of this species of horned lizard is allowed in Texas, it is prohibited in other states where roundtails are found (i.e., Arizona, California, and Colorado).

Texas Parks and Wildlife Department (TPWD) recently initiated a permits program for the collection and sale of non-game wildlife. Before this time, TPWD collected very little data concerning non-game wildlife. Therefore, establishing the permit system was a positive move toward the benefit of reptiles in Texas because now TPWD can document the collection of nongame wildlife (including reptiles) from the wild. During the first year, TPWD issued 549 non-commercial collection permits and 184 nongame dealer permits.

However, a problem arises concerning the collection of roundtail horned lizards. Because it is legal to collect roundtail horned lizards in Texas but illegal in other states, coincidentally all collectors say that the roundtails they possess were collected in Texas. If true, then a large number of roundtails are being taken from the Lone Star State. If some roundtails are being collected outside of Texas, then those dealers are guilty of poaching and fraud. At present, DNA fingerprinting of P. modestum does not accurately differentiate lizards along geographic borders. Therefore, the location dealers claim as the site of collection is accepted at face value. (Not that I'm the ultimate pessimist, but I think such an attitude is overly naive.) In either scenario, roundtail horned lizards require protection and members of HLCS can help create the solution.

Roundtail horned lizards could be removed from the Texas list of nongame species that can be legally collected if they are either listed as state threatened or placed on the list of exempted species. It would be difficult to convince Texas officials that P. modestum should be listed as a State threatened species. In order to do so, we would need to document that P. modestum is decreasing in number or in distribution over a significant portion of its range. Acquiring the data required to accomplish this, although very useful, could take years. The second option is placing P. modestum on the list of exempted species, which should require less time. There is precedent for such placement. The Texas horned lizard (P. cornutum) was exempted from collection in Texas before the existence of the Endangered Species Act (before it was listed as State Threatened). It was placed on the exemption list of collectable species because of over-collection and exportation of individuals from Texas. Therefore, if HLCS members band together, we can get roundtails placed on the list of species exempted from collection. To do this, letters need to be sent to the Texas Wildlife Commissioners, the Director of TPWD, and the Coordinator of the Texas Wildlife Diversity Program. Please take time to send letters to each person on the following list, stating that roundtail horned lizards should be removed from collection. Please write to:

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<th>Honorable Carol E. Dinkins,</th>
<th>Honorable Richard W. (Dick) Heath,</th>
<th>Honorable Katharine Armstrong Idsal</th>
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<td>4519 Westway Avenue</td>
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<td>1001 Fannin, Suite 2416</td>
<td>2121 Midway Road</td>
<td>Dallas, Texas 75205</td>
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Please Write!

continued next page
Mr. Andy Sansom  
Director, Texas Parks and Wildlife Department  
4200 Smith School Road  
Austin, Texas 78744

Mr. John Herron  
Coordinator, Texas Wildlife Diversity Program  
4200 Smith School Road  
Austin, Texas 78744

Also, if any members see roundtail horned lizards for sale in pet shops or at reptile trade-shows, please take time to document  
* how many roundtails are for sale,  
* the state of collection, and  
* the name and address of the collector.

This information would be most helpful in seeking the removal of *P. modestum* from the Texas collection list.

Lastly, please send an e-mail or letter to HLCS President, Scott Henke, letting him know who you sent letters to concerning roundtail horned lizards and also any information concerning the sale of roundtail horned lizards that you may have.

Thanks for your help. Together, we can make this happen.  
-- Scott Henke

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"Toadie", continued from page 1

I immediately started trying to get some fluids down the little lizard via syringe and force-fed him several tiny crickets each day. "The little fellow, who I called "Toadie", would only eat if forced to." He never went after the live food I put into his tank. Meanwhile, after about four weeks of forcing him to eat and drink, he was picking up some body fat, but the front of his little mandible was broken and inflamed. The sorer, his mouth became, the more he would resist my feeding him. He started to lose what little weight he had gained. Desperate to save Toadie, I took him to a veterinarian who specializes in exotic animals. He told me that I must continue to force him to eat or he would surely die. The vet told me that only the cartilage at the tip of his mandible was broken and that it would heal once Toadie started eating on his own.

However, after five weeks in my care, Toadie died, despite everything I could do for him. Upon my request, the vet performed a necropsy on Toadie and found that his liver was very large and that this was the cause of death. We don’t know if his liver was defective before his capture, or if the stress of captivity caused its enlargement.

The moral of this story is this: WILD-CAUGHT REPTILES JUST DO NOT THRIVE IN CAPTIVITY. This is especially true of those reptiles that have highly specialized needs, such as the horned lizards. What is the likelihood that the average person who buys a horned lizard from a pet shop will go to the trouble of locating and purchasing the right kind of ants and providing the right environment? Not likely.

Toadie just didn’t have a chance. His fate was sealed at the very moment of capture. I am so sad that these creatures that are so near and dear to my heart are suffering so much at the hands of unscrupulous people who are capturing them for the pet trade. I am angry at the state of Nevada, where Toadie probably originated, for not protecting its native species. What does Nevada gain by allowing the capture and sale of their natural resources, such as the Desert Horned Lizard? I rescued Toadie for $29.95. For that price, the pet shop, the wholesaler who sold to the pet shop, and the person who captured Toadie would have profited very little. Does Nevada really consider it worth what little profit is involved with the sale of wild-captured horned lizards to continue depleting its unique natural resources?  

NEVADA, WAKE UP!

Wild Reptiles do not thrive in captivity

I have joined the Horned Lizard Conservation Society as a result of my experience with Toadie. I am dedicating this article to his memory and to the memory of countless other horned lizards that have met or will meet the same fate as Toadie if this inhumane treatment is not stopped.

Marilyn Greenhouse
Oklahoma State University Graduate Students

Spend Summer of 1999 Studying Texas Horned Lizards (Phrynosoma cornutum)
by Richard Stark, Anna Burrow, Richard Kazmaier, and Tiffani Russell

Four Oklahoma State University graduate students – Anna Burrow, Richard Kazmaier, Tiffani Russell, and Richard Stark – spent the summer of 1999 conducting research on Texas horned lizards.

Anna Burrow, Richard Kazmaier, Dr. Eric Hellgren, and Dr. Chuck Peterson from Oklahoma State University in cooperation with Chip Ruthven from Texas Parks and Wildlife Department are working on a study to address the effects of burning and grazing on the Texas horned lizard at the Chaparral Wildlife Management Area (WMA) in Dimmit and La Salle counties, Texas. Prescribed burning and grazing are two management practices widely used throughout Texas. The effects of these management practices on threatened or endangered species are not largely known.

The research focused on five study areas:
1. control: no burning, no grazing,
2. heavily grazed and burned,
3. heavily grazed and unburned,
4. moderately grazed and burned, and
5. moderately grazed and unburned.

Within each study area, horned lizards were monitored by radio telemetry. Radio-tagged lizards were relocated daily to assess home ranges and activity. This approach allowed the collection of general natural history information, such as nesting, about this state threatened species. Differences in horned lizard diet, harvester ant activity, and vegetation between the study sites were also observed.

In addition, Anna Burrow is evaluating habitat selection by these lizards. This was the second year of her study, and she will continue for at least another year.

Tiffani Russell’s study is entitled ‘Thermal Ecology of Phrynosoma cornutum’. Her objectives are to determine active field body temperatures, preferred temperatures, and temperatures that produce optimal locomotory performance.

Because Texas horned lizards don’t rely on locomotion for predatory escape, and they are cryptic and tank-like compared with other heliothermic lizards, Tiffani wants to determine how field body temperatures are related to the preferred and locomotory temperatures, and also how often the environment allows Texas horned lizards to thermoregulate at these temperatures.

Tiffani’s study required her to work both in the field at the Chaparral WMA and in the laboratory at Oklahoma State University. She completed data collection in July, and is currently analyzing the data.

Richard Stark and Dr. Stanley Fox are studying space and habitat use of Texas horned lizards in Oklahoma. Over the past several decades, Texas horned lizards have decreased in both range and abundance in Oklahoma, and are currently listed as a state species of special concern. Scientific research on this species in the state is very limited. Thus, future investigations into the ecology of Texas horned lizards in Oklahoma are necessary to help conserve this species.

The objectives of their study are to:
1) delineate home ranges and their placements, sizes and overlap with home ranges of neighboring horned lizards,
2) describe the movements of adults and juveniles,
3) quantify macro- and microhabitat uses, and
4) estimate demographic parameters and compare them with demographic parameters of lizards in Texas to determine whether any regional differences exist.

During the study, fluorescent powder was used to allow tracking 40 Texas horned lizards (14 Males, 16 Females, 10 Juveniles) on 2 study sites in north-central Oklahoma. The fluorescent powder method was used to obtain space and habitat-use data because it allowed them to obtain exact information about the movements of the lizards. The method involves coating the lizards with fluorescent powder, releasing them, and then following the fluorescent trail they leave behind with the aid of a portable ultraviolet lamp. The coating was conducted in such a way as to protect the lizards' nares and eyes. The powder is supposed to have very low toxicity and should not be harmful.

This method was used during both 1998 and 1999 field seasons, and they are currently analyzing the data.
Texas Parks & Wildlife Expo
by Carolyn Todd

This was a very busy year for HLCS-Texas Chapter at the annual Texas Parks and Wildlife Expo (first weekend in October). A radio program announced that 60,000+ people attended this year's event. As always, TPWD provided many events and activities for audiences of all ages. Displays from many of the state parks were exhibited along with incredible exhibits from the state aquarium, Moody Gardens, non profit groups and many others. There were also state competitions as bird calling in the Big Tent.

Entertainment was given to young audiences in the Children's tent. Austin's own environmental troubadour Bill Oliver sang and acted as the Master of Ceremonies to the children presentations given by such folks as Andy Price, TPWD Herpetologist, on poisonous snakes, and Debra Chronister, Educational Coordinator from the Victoria Zoo, on animal camouflage.

Representing our organization, I read to the children from Alice Nizzy Nezzy. Along with Larry's really "cool" exhibits, Chip from the Chaparral Wildlife

Management Area surprised the kids by pulling a live lizard from his pocket. The kids crowded around us when we described the different lizards from Larry Wisdom's exhibit.

Many folks attended our absolutely incredible booth with Larry's many new exhibits. People bought gift items to sustain our newsletter and educational publications. Next year, Larry has some great ideas to reach our EXPO audience with even more educational outreach. We also want to start recording the public's encounters and stories about horned lizards.

Stay tuned... EXPO gets bigger and better every year. We have been fortunate to be a part of EXPO every year except for the very first. They have a commercial company to sponsor our booth costs. This year it was the OMNI Hotel in South Austin. Try and visit next year if you can. It has been consistently held the first weekend of October. Join us, there are lots of nonprofit groups along with us and many vendor booths from which to purchase recreational and conservation products.

Sighting Reports
by Bill Brooks

We received four sighting reports this quarter. The first was from new members in Willcox, Arizona, the Saenger family, who report, "We seem to have a very vigorous population of P. cornutum in our neighborhood. We'll do what we can to keep it that way." Three cheers for the Saengers!

We received a sighting survey from Mrs. Kathleen Legg, along with her membership. She reports seeing a 2" to 3" horned lizard about 5 years ago in the scrubland of Uvalde, Texas. Mrs. Legg also reports that she often saw horned lizards in her backyard in the '50s and '60s in San Antonio.

Eleanor Veronee sent an interesting report along with her dues. "We used to have them [horned lizards] on Isle of Palms in South Carolina. They were brought here during the Civil War. I have not seen any this summer - although I have looked for them."

Mrs. Jeanie Caprez writes, "I just wanted you to know that I found a Texas horned lizard in my garage here in Russell, Kansas. [We are located almost in the exact center of Kansas.] I had never seen a lizard of this type so I captured it and studied it. After looking on the Internet, I noticed this guy was a long way from home. (I released him/her into a woodpile behind my house)."

Thank you all for taking the time to send in these reports.

Donations For Our Archives
by Bill Brooks

The Society would like to thank Dr. Richard Montanucci for his kind donation of a copy of the book *Kroieichenes* by Bertrand Baur and Richard Montanucci. *Kroieichenes* is a magnificent addition to the HLCS library. This wonderful book contains the latest information on all the species of horned lizards.

Unfortunately, the only edition is written in German. Dr. Montanucci says, "We hope to have an English version out after I complete two systematic projects: one on short-horned lizards and the other on the coast horned lizards. So the English version will be more up-to-date. Wish I could say soon, but it is likely to be several years (unless they reduce my work load here at school)."

We all look forward to this English version and will announce this release in *Phrynosomaties* once it is available. In the meantime, I have not found anyone selling the German edition of this book in the states.

If any of our members would like to order a copy in German, it can be obtained from the publisher (approximate price DM 59.90) at the following address:

Herpeton
Im Mittelfeld 27
D-63075 Offenbach
Germany

Tel.069-86777266,FAX069-86777571

The society would also like to thank Joyce Snodgrass and Bette Armstrong for their continuing donations of photos and articles. We are also fortunate to have Joe Collett who volunteered to help catalog the articles in our archives.

Many thanks to one and all.

*— Bette Armstrong*
Kenedy, Texas: Horny Toad Capital of Texas

by Wendy L. Hodges

Four HLCS volunteers left Austin, Texas, traveling south to Kenedy on 31 May 1997, over two years ago. We were on a mission: to move horned lizards from one property to another property. Carolyn Todd, unable to go that day, had arranged with the property owner, Joe Lang, for the event to take place.

I must make one thing clear, this is not our normal mode of operations. We do NOT recommend moving horned lizards be moved from one place to another for many reasons. Don't try this at home!

On the way south, we discussed how many lizards we might find. I guessed maybe 10 - if we were lucky. Joe had told Carolyn that he found six horned lizards earlier in the year while he was digging a trench for the plumbing of the house he was remodeling. He had counted 29 or so before that. Joe had bought an old house in the middle of town and was going to rebuild it. He felt he needed to treat the entire area with chemicals because he feared termite and other insect pest problems. He also knew he had many horned lizards in his yard and state law protected them. He did not want to hurt the lizards in any manner and asked the HLCS if we could help him move the lizards to his sister's ranch a couple miles away.

Because the move to his sister's was very short, in native lizard habitat, on a ranch used only for cattle with no pesticides, no fire ants, and obliging owners, we agreed. We didn't think pesticides would be very good for the lizards, and problems associated with moving a population were weighed against problems the lizards faced staying where they would be subjected to toxic chemicals. Carolyn had contacted the Texas Parks and Wildlife Department prior to our visit and received permission to move the lizards. (HLCS has a scientific permit allowing us to legally pick up the Texas Horned Lizard.)

We arrived at the house, a nice old house in the center of town, by about 9:00 am. Joe was outside waiting for us. Introductions were short, and we began searching for lizards quickly. One was found in a couple minutes, a nice adult male. We placed him in a tub and then found another one, a nice adult female who squirted blood from her eyes! A few minutes later, Joe found an adult male, and the lizards just kept coming out. His sister and her husband joined us in the search. Joe had some wood and brush piles we moved and found 5-7 individuals under each. He broke out his lawn mower, set it on the highest setting, started it up, and began walking around the yard. Lizards moved everywhere. By lunchtime, we had gathered 76 horned lizards, 33 adult males, 28 adult females, and 15 juveniles! We took the group to their new ranch home and released them in a back pasture under the mesquite trees.

I have never seen so many horned lizards in one place at one time. I have heard many stories about how "they used to be all over the place," so many Texans have seen horned lizards "everywhere" when they were young. I used to think these people would go out their back door and just see the same 2 or 3 all the time. Now I believe differently. Yes, it is possible that only 35 years ago horned lizards were as abundant all over the state. Now, a person is lucky to find one horned lizard after a day of searching. Kenedy is a special place.

Joe contacted me again this year (1999) at the end of August. He was still finding horned lizards, though not as many, and neighbors around him were also finding them. He wanted us to come back to Kenedy and talk once again, but, this time it wasn't going to be about moving lizards. Instead, Joe and his new wife, Ann, wanted to do something better for the lizards. They wanted to proclaim Kenedy as "Horny Toad Capital of Texas" and open a museum to honor them on the ground floor of another beautiful house they are remodeling.

We returned to Kenedy in mid-October a few days after a cold front had passed through. We walked the grounds and encountered about 10 more horned lizards - all young of the year. We met with another neighbor and talked for the afternoon about what they could do to keep the lizards around, encourage their continued prosperity, and engage the whole town in this great venture.

What a great idea! We applaud and admire Joe and Ann for wanting to do so much for horned lizards. They have a tough road ahead. Many neighbors are concerned about having a protected animal in their yards; they would rather just keep quiet about it. Instead, Joe and Ann want to extoll the town and let everyone know what a great place Kenedy is for having horned lizards. Neighbors are afraid that if anyone finds about the lizards, someone ("the government") will come in and restrict the use of their own property - exactly opposite of the truth. From our perspective, we want to know what they are doing right!

Why does Kenedy have an abundance of horned lizards? What are the unique conditions that allow the lizards to thrive when they have disappeared in many other places (at least 30% of the historic range in Texas)?

Convincing the town to take pride in their horned lizards will be a hard road to follow, and we want to help as much as possible. In many ways, to help means we must stay out of Kenedy's business. The last thing people want is a bunch of outsiders coming in. The only way Kenedy will continue to be the Horny Toad Capital is by taking pride in itself and wanting this for their community and families.

We do not want to tell the town what to do.

The helping hands of Joe Lang and one of the 1997 relocated Horned Lizards.
Observations of the Texas Horned Lizard — Excerpts from the Diary of Joe Lang

Today is 7/12/98 approx 1020 AM. I am gathering up the gumption to do something resembling work. I stumble upon a female “horney toad” preparing a hole to bury a clutch of eggs. The lizard is aware of my presence so I walk away so that she might continue the process of life, of reproduction, of fulfilling her ultimate goal. By coincidence she happened to pick an area just out side my bathroom window. A window whose breeze has cooled me off many times this unbearably hot summer. I circle the house entering the back side and position my self at the window to observe the prehistoric looking creature as she continues.

The horned lizard appears to stop periodically to emerge from the hole she is digging to perhaps rest although I believe this to be a survival tactic. I believe the horned lizard to be sitting motionless so that she might [deter] any threat to the eggs she is preparing to lay. The eggs are approximately 1/2 inch long and very spongy. They are white and have a soft rubbery texture about them. This, I believe, is a delicacy for the grackles who like all creatures would welcome the meal. In the time it took me to write to this point the federally protected lizard has advanced about 1 inch deeper.

I can't help but feel that this creature is aware of my presence in the window. It is rather interesting to watch the body movements as the horned lizard digs with her front legs pushing the dirt to the rear where her back legs expel the dirt to the rim of the hole. Periodically the lizard will back out of the hole to kick the dirt away from the rim of the hole — all the while keeping a watchful eye out for possible danger. This time the horned lizard took a different stance above the hole. Instead of keeping a low profile she stood high on her front legs looking proud like a sentry keeping guard of his queen's castle. It looked as though she was about to lay the eggs but soon she returned head first back into the hole. This time only her tail was visible. I would estimate the hole to be 4 - 6 inches deep by now.

Again the horned lizard exits the hole. This time she is half in the hole half above the hole standing on her hind legs with the front legs resting on the rim of the hole. The stance is similar to a prairie dog standing on its hind legs. She stays in this position for about 3 minutes and then submerges once again into the nesting hole. It is approx 5 minutes later and she has emerged again taking up the same stance. As I am writing this I notice a movement about 18 inches from the hole. It is another horned lizard. This one is about 1 1/2 inches long in total length. Perhaps curious it walks right past the rim of the hole. As the much larger of the two continues to dig. The larger female has emerged from the hole and the two lizards appear to be staring at each other. The smaller lizard has now begun to walk away.

Back to my thought prior to the intruder I was about to mention some peculiar movements of the female as she stood above the hole. The lizard opened and closed her mouth and then began bobbing her head up and down. I have seen lizards do this before and have been told that this is their way of marking their territory. Do we really know this for sure? Can we pretend to know what goes through the mind, if anything, of these creatures? My curiosity comes at a price. My back is beginning to get tight as I stand motionless in the window trying not to draw the attention of the lizard and perhaps slow down the ritual which has now taken about 2 1/2 hours.

As the day goes on the hole which has been hiding in the shade of a nearby mesquite is now exposed to the hot summer sun. The horned lizard is now spending more time digging and less time outside the hole. I don't know if the heat has any bearing on this. After all the horned lizard is a reptile. Perhaps the ground gets harder as the horned lizard progresses. Outside of the good rainfall about a week ago there hasn't been any significant rainfall in quite awhile. The horned lizard has been in the hole for about an hour without emerging. There is noticeable movement of the tip of the tail which is the only visible part of the lizard.

It is now 230 PM and very hot. I can no longer see the spectacular view of the reproductive process from this vantage point. I went outside for a moment and positioned myself so that I could see into the hole. The horned lizard continues to burrow. It appears to me that the horned lizard is now not only digging down but she's creating a bowl-like area in the hole. I came to this conclusion because the lizard appears to be turned slightly to the side. The horned lizard does not seem concerned with rest as the digging motion seems to be near continuous.

It is now 330 PM and the horned lizard has finally backed out of the hole just long enough to kick out the little bit of dirt it has been working so hard at. It goes right back into the hole.

It is now a half hour later and the digging continues. A quarter to 5 and the shade of the hackberry tree in the front yard consumes the hole. I am checking on her progress every 30 minutes and the horned lizard continues to chisel away at the drought hardened earth.
It is now 715 PM and the lizard has finally begun the process of laying her eggs. Her head instead of her tail is now visible but not by much. About three weeks ago I had the opportunity to observe a water turtle laying her eggs. I was hoping to see the horned lizard with the same clarity. This however is not possible because the horned lizard is submerged completely into the hole. The turtle, being much larger, remained outside the hole. As she layed her eggs she used her hind legs to push the eggs deep into the hole. When she was done she covered the opening to the hole with mud.

It has now turned to night and I began to wonder if I would actually get to see the horned lizard’s task to completion.

At 830 I shone a light into the hole and she was still there lying motionless. I had all but accepted the fact that I would see no more this night.

It’s 930 and I have drawn a bath. On a hunch I shone the flashlight on the hole from the bathroom window. The cool breeze is a welcomed guest. To my surprise the female lizard has emerged from the hole and is covering the opening. The horned lizard turns to look into the light but does not seem bothered by it at all. The task of filling the hole would seem to be easier than digging it. However the lizard appears to be much busier. The horned lizard is basically reversing the process she used to dig the hole. She is now using her front legs to pull the dirt towards her rear. She then pushes the dirt into the hole with her hind legs. An amusing aspect is that the horned lizard is using her head as a battering ram to pack the dirt.

It has now been about [another hour] and the horned lizard is still at it. What I find curious is that she seems to be working quite hard to get enough dirt to fill the hole. Now I have dug a few holes in my day. I cannot remember ever being short of dirt to fill the hole. Especially if you leave something in the hole! Regardless, the horned lizard continues clawing away, spinning and packing.

It is now 1130 at night. The horned lizard seems to be done. As I shine the light the horned lizard begins to move perhaps confused by the suddenness of light. It appears that the lizard just wants to bed down. It has been a long day for both of us. As I prepare to bed down myself I cannot help but to feel privileged to have stood witness to the procreation of a protected species. I have always been in awe of these creatures. To look at them is to look back to a time when Mother Earth was not defiled by a creature yet to come. A creature called man.

— Joe Lang

Haywire

by M. Hawley

20th Century Food Chain
1999 OLD RIP Festival in Eastland

Leigh Sanders and I met Jim and Bette Armstrong at the courthouse square in the center of Eastland, TX, at 7 a.m. Saturday morning, September 18. I helped Jim put up the four tables and the sun shelter that was to be the booth for the Horned Lizard Conservation Society. Leigh unloaded and arranged the exhibits and boxes of HLCS literature we brought. We were ready for the crowds this year.

Back in Austin, we had filled the bed of Leigh's pick-up truck with HLCS goodies. Lookers trickled in as the vendors set up booths around us. Wood carvers, pottery makers, jewelry, toys for kids, a karaoke machine and all manner of BBQ, Mexican food, horned lizard cookies, and drinks (nothing alcoholic - Eastland is dry, you know) all filled their assigned spaces on both sides of the road around two sides of the courthouse. On the main street side of the courthouse was the grandstand where the parade passed.

Around 9 a.m., Larry Wisdom, who had left his wife and kids at a church function in Blooming Grove, arrived to answer Bette's challenge of the horned lizard derby. Not only had he brought with him a lovely horned lizard race "car", but he had more of his wonderful horned lizard exhibits. We had display cases on the Texas species, the U.S. species, species of the world, and the life cycle exhibit. With these, we were assured of a good, appreciative crowd.

Promptly at 10 a.m., the parade started. Scott and Stephanie Henke, and their sons, Grant and Garrett, arrived at the same time, as if on cue so as not to miss a step of the high school band, the beauty queens, and the antique cars. The parade marshalls this year were Bill Wood, the grandson of Earnest Wood, who put the horned toad in the corner stone in 1897, and three fellows who were there when Old Rip was freed (in 1928): Richard May, V.T. Moser, and Weldon Armstrong. They lead the parade in a bright red convertible. Almost an hour later, Old Rip himself (well, actually Bette in her costume, but we won't tell) finished off the parade.

It was downright crowded at the booths after the parade and we had a steady stream of onlookers the rest of the day. We answered questions and made sales. There were enough members here this day to take turns and allow everyone a chance to see all the vendors, pay homage to Old Rip in his casket in the courthouse, and take in some of the entertainment. I was especially pleased that the Eastland Fine Arts Association and the Chamber of Commerce had pulled together the funds to bring down entertainer Monty Harper from Oklahoma, to sing his horned lizard songs. I have talked to Monty, many times by e-mail. He sent me the words to one of his horned toad songs, to be checked for scientific accuracy. It was and is great. He sent the HLCS a tape for our archives. This face to face meeting held a surprise for us.

Monty offered to sign over the copyright to his Horned Toad song to the HLCS. We, in turn, offered him a life membership. He was a great crowd pleaser at the event. We are pleased to have Monty as a member and very happy to own our own horned toad song. Thanks, Monty.

At 1 p.m., after the 5K foot races, it was time for the horned toad derby. Unlike last year when Larry and Bette were the only participants, this year there were five entries divided into three categories. Jamie Jeffcoat and Jonathan Wilson competed in the "Little Toads" division (ages 11 & under) and Jonathan Wilson won this event. The "Cool Toads" division (ages 12-19) was won by the LONESOME Dove - Dustin Dove. Most of the HLCS members were paying attention to the "Big Ol' Toads" division (ages 19 and over). This was the race between Larry Wisdom and Bette Armstrong. They had bet their IL-"cars" on the results. Last year, Bette had taken Larry's entry. This year, Larry was the victor and he took home Bette's "car". It was, however, in Larry's words, "a hollow victory".

Jonathan Wilson was the overall toad winner. His time beat them all.

About 4 p.m. the crowds started thinning. We were all glad for the hint of fall in the air today. It wasn't a summer scorcher. The weather was kind. Larry had to get back to his family so we helped him pack and said goodbye.

Leigh, Bette, Jim, and I met at Old Rip's Diner for a great dinner. We broke up early. It had been a long day and we had plans for tomorrow.

Sunday, Bette and Jim met us at 9 a.m. at the Super 8 Motel, where Scott Henke and his family, as well as Leigh and me, were staying. Bette had access to the ranch of H. V. O'Brien, Eastland's newspaper editor. It was about 10 minutes out of Eastland on Highway 6. We tromped the ground and passed harvester ant beds, cacti, blooming ironweed, and cow pies. At a cattle tank, Garrett saw a ribbonsnake. As we were holding this little snake, he threw up his last meal, a small frog, which promptly hopped away. Garrett was thereafter known as "the frog saver". We found a couple of old horned lizard scats, but that's all we could muster. No horned lizards were seen that day.

About 11:30, we all gathered along the highway and said goodbye. This was the end of another great Old Rip Festival. Will it happen again next year? Bette says that she doesn't know, but we have a year to work on her.

The Old Rip Festival traditionally falls on the 3rd Saturday in September. In the latter part of February, Eastland's County Judge reads a proclamation and re-tells the Old Rip Story.

by Bill Brooks

If interested in knowing more about Old Rip, H. V. O'Brien, the newspaper editor, has written an 18 page booklet (with pictures) about Old Rip called, The True Story Of Old Rip, which sells for $5.00 and can be obtained by writing:
OldRip Booklet
c/o Eastland Telegram
P. O. Box 29
Eastland, TX 76448

Note from Bette... Make plans now for the Y2000 Tie Breaker!!!
Take care of Sure-bet, Larry...
Don't Forget to Renew—Consider giving a gift membership to the Phrynophiles in your family!
(Families=$25 for the first person and $10 for each additional member).

HLCS is a 501(c)(3) non-profit organization. Contributions are deductible to the extent allowable by law.

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