



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.

And the Winner is...

By Tom Van Devender

The results are in for the annual Sonoran reptile beauty contest. The contestants were judged on looks, color pattern, rarity, and screen presence. This year's winner was a male Ditmars horned lizard seen on a Project WILD CAT



trip to Rancho Pueblo Viejo in November. Memo Galaz saw him strolling along a dirt track on Rancho Subitatchi (an old Opata Indian name for 'what's for dinner' or 'I'm lost'). Ana Lilia Reina captured the moment with her Panasonic point-and-shoot. He scored highly with his yellow-brown scale suit with elegant dark cross bands, his massive crest of horns in that front-end loader style, his coquettish side view, and

that great publicity head shot. I'm sure he cuts quite a swath through the adoring Subitatchi female horned lizards!

P.S. Fun aside, this is another great record and some of the best images yet. I still

haven't found one. Memo Galaz, our jaguar whisperer, found this one. Born in Bacadehuachi and working with predators in this area for 15 years -- this is the first one he's ever seen. I'm really impressed with the scales on the chest -- just like *Sceloporus*! There are more images that will go with the Madrean Discovery Expeditions database record.

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**JOIN US and Help Protect the Texas
State Reptile**



www.hornedlizards.org

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LIZARD
CONSERVATION SOCIETY**

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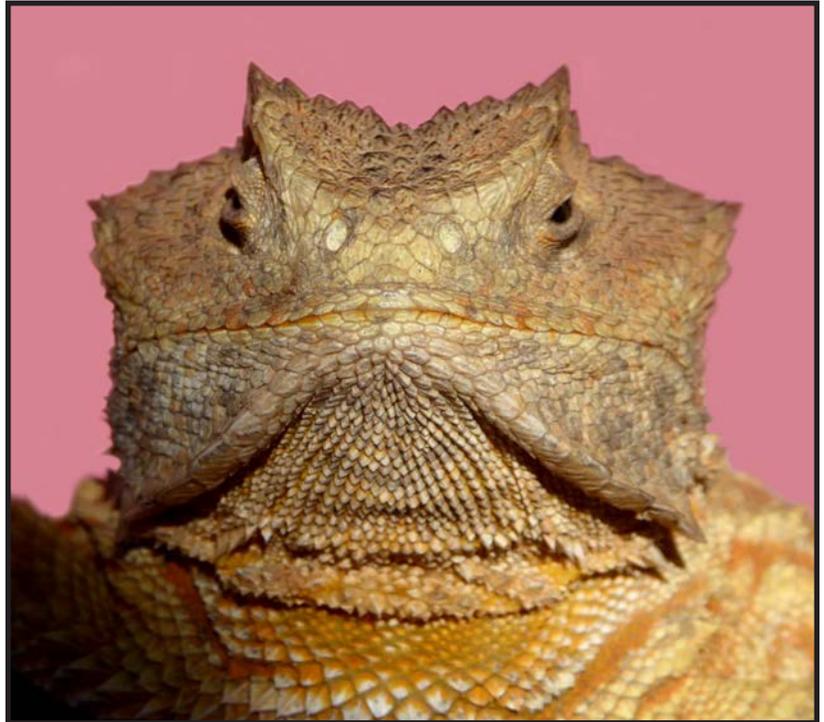
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GOT NEWS? FOR THE PHRYNOSOMATICS NEWSLETTER THAT IS...

*Send your photos (with captions),
cartoon, artwork, poems, or articles
for the newsletter to Leslie Nossaman
at poppies14@comcast.net today!*





Caption below is for the front page photo and the four on this page. The caption describes the location, habitat, and description of this individual *Phrynosoma ditmarsii*:

Mexico: Sonora: Municipio de Divisaderos:
Rancho Subitatchi, Puerta la Sierrita, 16.8 km (by air) ENE of
Divisaderos. 29.62833°N -109.29972°W, 1325 m elev.
Desert grassland-oak woodland mosaic.
M.J. Galaz-G., A.L. Reina-G., T.R. Van Devender. 23-Nov-16.
Active on dirt road at 11:10 A.M.
Male; Snout-vent: 67 mm, Tail: mm 31 mm.

Newly Elected Board of Directors Announcement

By Leslie Nossaman

The votes have been counted and we have a new 2017-2019 Board of Directors. Please welcome:

Jared A. Fuller
President
Leslie Nossaman
Secretary
Monty Criswell
Member-at-Large



Jared Fuller will be the twelfth HLCS President since the Society started.

We are still looking for volun-

teers for Treasurer, President-Elect, and Membership Services Officer. Without these officers it will be difficult to offer the services our members have come to enjoy and assist in

horned lizard conservation for the long term. We may have to change to publishing only two *Phrynosomatics* newsletter issues each year. We should be able to continue with our grants program. Please contact Jared (jaredansley@gmail.com) if you know of someone who might be interested in helping by joining the Board of Directors.

And a big thanks to the outgoing Board members for all their contributions to the Society and its mission and vision for the past two years!

Horned Lizard Research Grant 2018 Applications

The Horned Lizard Conservation Society is dedicated to protecting horned lizards by documenting and publicizing the values and conservation needs of horned lizards, promoting horned lizard conservation projects, and assisting with horned lizard management initiatives. Towards those ends, the HLCS annually sponsors research that has direct conservation applications. To learn more about the society and past grants, go to

<http://www.hornedlizards.org/>.

We will be offering grants again in 2018. In the past, priority has been given to projects that have direct conservation implications, including public education.

To apply, send a proposal detailing the goal of the study, the rationale for it including relevance to conservation of horned lizards, and how your work would benefit from this opportunity. The proposal may

not exceed 1000 words, excluding up to ten references. Also include a preliminary budget with any other funding sources available or received for your project. In addition, send a short resume or CV (up to 3 pages) for the lead applicant and have a single letter of reference sent to Monty Criswell: mcrisw1@gmail.com.

The deadline is January 1, 2018. The decision will be announced by January 31, 2018.

CAPS, CAPS, CAPS!!!

Guess what! A beautifully designed HLCS cap is ready for ordering. It is a one-size-fits-all khaki brushed cotton, with the HLCS logo stitched in dark brown and dark blue thread.

They are \$14, plus \$3 for shipping. Checks (payable to HLCS - Texas Chapter) should be mailed to HLCS - Texas Chapter, P.O. Box 122, Austin, TX 78767. *Order yours now!*



Horned Lizard Population Spikes in Fort Stockton

By *Jeremy Gonzalez*, reporter for The Fort Stockton Pioneer newspaper

Small wonders are darting across the streets this summer and their spiny presence has great significance. These spiked critters with toad-ish bodies are often referred to as “horny toads” or “horned frogs”, but they are actually horned lizards.

Beyond their frog-like shape, horned lizards have a fearsome appearance. They are not your charming roadrunner or jackrabbit; these things look grumpy and are covered in spikes. You might catch one striking a bulldog stance somewhere out in the street or in your yard, but don't be fooled; they are actually very gentle.

These unique creatures have become highly favored with many crowds. The Texas horned lizard was crowned State Reptile in 1993. Texas Christian University (TCU) also embraced the horned lizard, choosing it to represent their athletic teams and adopting their official mascot “Super Frog.” At the Fort Worth college, you see more lizard logos on hats than you see actual horned lizards darting across the campus. There has been a serious decline of population in various parts of Texas due to a number of contributing factors.

However, Fort Stockton has experienced an unusual increase of horned lizards this year and

numerous sightings have been reported from all corners of town.

This gain has intrigued three experts who have fervently studied the species. Each provided insight on why this boom of population should be cherished and not feared. Admired and not captured. Safeguarded and not killed.

The seasoned conservationist

Bill Brooks is a Lost Pines Master Naturalist living near Bastrop, southeast of Austin. He has given presentations on reptiles and horned lizards for over 45 years, and recalls a time when masses of horned lizards could be found in the south-central part of Texas.

“I grew up playing with horned lizards in my hometown of San Antonio. They were our own little pet dinosaurs. They were completely harmless and slow enough for kids to catch. One summer when I was about seven years old, about five buddies and I caught 100 over a weekend. We released them all. We just did this to see just how many we could catch,” he shared, adding that he lived inside loop 410 of San Antonio at the time, one of the major highways of the fast-paced city. “The horned lizards disappeared at different times around Texas, and I have a good idea when they disappeared in San Antonio. I could find horned lizards in alleys and vacant lots until I went to college in 1970. After that I

couldn't find any,” he said.

Brooks has been associated with the Horned Lizard Conservation Society (HLCS) since the organization's first meeting at the Zilker Club House in Austin in 1990. He served as president twice, in 2000 or so, and then again in 2014. The organization recently made a trip to survey and check on horned lizards in Terlingua, a West Texas destination they visit annually. “The Horned Lizard Conservation Society was founded to bring back the horned lizard,” he explained. “We found it easier said than done. We have yet to find the ‘smoking gun.’ Either we don't know what caused the population to drop, or it's a combination of the usual suspects: chemicals in the environment, farming practices, more roads and traffic, habitat destruction, over collection, and more predators such as free ranging cats.”

He went on to address the prime suspects being blamed for the disappearance. “Fire ants certainly kill horned lizard babies and eggs, but they did not start the decline of the species. The species was in decline before fire ants were in the habitat. Today, fire ants surely depress the population but they did not start the population decline,” said Brooks.

He then turned to the subject of why horned lizards are seen more frequently during spring and summer, as opposed to

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other seasons. "In Texas, most reptiles don't go through a full hibernation like bears up north. They do hibernate when the weather is cold, but if it warms up for a few days, they might dig out and look around. That's why, if it's warm enough, you can see snakes and lizards in December and January," he said.

Brooks was upbeat and polite, relating his excitement about the species reappearing in high numbers in Pecos County. "I'm happy to know that it's a good year for horned lizards in Fort Stockton. It's really neat that your community is witnessing a rise of horned lizards. Enjoy it while you can and try preserving those little guys," he said.

The Trans-Pecos specialist

Russell Martin works with Texas Parks and Wildlife as the Wildlife Diversity Specialist for the Trans-Pecos district. "I cover ground from El Paso to Midland, to Sanderson and back to El Paso. I do all the non-game stuff for that region," he said with obvious contentment. "I haven't been in Fort Stockton for a few weeks, but I pass through every other month or so," he said before going into the topic of horny toads.

Martin was enthusiastic about his work and pinpointed why he suspects the horned lizard population has boosted in Fort Stockton. "We don't monitor horned lizard populations per se; I think all the biologists just keep an eye out for them, because we all like to see them. They're neat little critters. We're seeing a lot more of

them than we have in years past, especially the last five years. The numbers are definitely up, and it's largely due to the increase of precipitation that we've had over the last eighteen months or so. Last year was a pretty wet year, and then the first half of this year has been relatively wet."

He paused for a moment to marshal his thoughts, and went on, "The rain has caused an increase in grass production and that extra grass production has meant extra seed production, the extra seed production leads to increased harvester ants, and harvester ants are the horned lizard's primary food source. They feed almost exclusively on harvester ants. There's this little linkage that's pretty easy and clear, where when you have a good base of native grasses and they get rain, and they produce a lot of seed, you see more ants, and then you see more horny toads. That's essentially what we're seeing right now in West Texas," he said with confidence.

When asked about the decline in population, Martin didn't have to ponder the answer. He immediately zeroed in on the key issues at hand. "They are state threatened and essentially that threatened status means they can't be collected. Surprisingly, we have a large number of what we call "herpers," people who go out and collect herp such as snakes, lizards, and basically all the little squiggly wiggly stuff that a lot of people don't like,"

Martin says herpers are good,

law-abiding citizens that help collect valuable data about horned lizards and other herp species.

"This segment of the population really enjoys observing horned lizards, picking them up, and adding them to their home collection. The horned lizards have been listed as state threatened for a long time. It's partly due to the declines in the population from a state-level perspective. In particular, the eastern part of their range - the I-35 corridor back into the hill-country and the rolling plains. That whole area has seen a very dramatic decline over the last several decades. We think a lot of that has to do with habitat loss, habitat degradation and the habitat change that has happened over the last hundred to two hundred years."

He added some positive news regarding population, "We're starting to see those impacts for the eastern population of the horned lizard, but out west in the panhandle and the Trans-Pecos, their numbers have stayed really strong. We've not seen the major overall decline like they have. We see annual ups and downs like with rainfall, but we haven't seen an overall decline like we've seen back east."

Martin continued with a roll call of the varied species found in West Texas. "We actually have three species of horned lizards in the Trans-Pecos. The most common one is the Texas horned lizard, that's the one that goes across most of the

state. We have another one called the round tailed horned lizard; it's exclusively in the western part of the state. The third species is called the mountain short-horned lizard, and they live exclusively in the Davis Mountains and Guadalupe Mountains."

Martin defined the species as a health barometer for their individual ranges, "I consider all three of them to be an indicator species, meaning they help us understand the health of the ecosystem that they're in. When their numbers are doing well, that indicates to us that the system is relatively functional. When the numbers go down dramatically like they have back east, that's an indication that the habitat is degrading," he said.

"Personally it's been a couple of weeks since I've seen one, but I've seen a lot this year already. They are a great species to work with. People have this nostalgia about them and they'd like to see more of them. Since they want to see more of them, they're willing to do some real conservation work if it benefits horned lizards," he said.

The Texas Monthly journalist Alex Dropkin is a freelance, environmental journalist based in Austin. In June of 2015 he wrote a tremendously in-depth story on horned lizards for Texas Monthly titled "Our Toad to Ruin". The story captured some of the most up to date research on the lizards and even featured former HLCS president Bill Brooks.

"Alex was a graduate journal-

ism student at UT. This was his grad project. We talked and he worked on his article for two years," said Brooks, who spoke highly of Dropkin's work.

After doing immense research for the Texas Monthly piece, Dropkin acquired a good amount of expertise on horned lizards and was open to share his unique perspective.

"I absorbed so much information doing that story," Dropkin said over the phone from the comfort of his home in Austin. "I've never actually seen a horned lizard out in the wild, so that's pretty awesome that your city is experiencing them. In Austin they're pretty much locally extinct. People are monitoring for them, but I haven't heard of anyone seeing one in 10, 15, maybe even 20 years. I know in the '60s and '70s they were everywhere around Austin; there was a ton of them on UT's campus. Now they're not here anymore," he shared.

Horned lizards are often stereotyped and feared for shooting blood out of their eyes. Dropkin went on to share how horned lizards seldom use their "blood gun" in defense.

"I've only seen horned lizards at the zoo when I got a tour of the breeding facilities, and I didn't see the blood-spurting defense happen. From what I've read that's a type of defense that they're pretty selective about. It really works well on their canine predators such as dogs, foxes, and wolves. For other predators like cats, birds, lizards, snakes it's been

shown to not have much of an effect," he explained.

Before ending the conversation, the horned lizard aficionado had one last word of advice for Fort Stockton.

"Be aware that they're there and do what you can to protect them. It's going to start getting really hot out and they'll probably end up hunkering down somewhere out of sight. If they are still out and about, they really like to hang out in the street. Roads can be pretty bad for them, but there's not that much you can do to prevent running them over. You can't shut down traffic for such a little critter," he said, chuckling.

"As long as people know that they're out there, they might be more cautious and more aware. They're so cool and so important to Texas statewide that it seems kind of foolhardy to ignore the fact that they are there or be careless about it. They're totally gone in some areas of the state. You got this little interesting and fun creature that certainly benefits the environment, so make sure you try your best to keep them there," he said.

Local conservation

Conservation of the horned lizard weighs heavy on the hearts of many conservationists, specialists, herpetologists and general lovers of the lizard. Lost Pines Master Naturalist, Bill Brooks, shares his concern. "I worry that when the people who grew up with these interesting creatures die, there will

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be no one working to preserve the horned lizards. One of the hardest things I have to do in my talks is to get kids to miss something they have never seen," he said.

According to Brooks, 80 percent of the adult Texas horned lizard's diet is harvester ants. Killing harvester ants results in killing horned lizard population since they are a linked species. You basically don't find Texas horned lizards where there are no harvester ants.

Carefully fighting fire ants is another suggested method of conservation. Do not broadcast poison over all your property. There is no poison that affects just fire ants alone. Brooks shared that the best way to treat fire ants is to treat each mound with boiling water. You may have to treat the mound two or three times.

As with so many other animals, the key to saving them is to save the habitat. Horned lizards don't live in St. Augustine turf grass. They need native bunch grasses with open spots of dirt for sunning and hunting for food.

"Leave your Texas horned lizards where you find them. State law protects them. They do not make good pets. They don't live long without their harvester ants and they can eat up to 200 harvester ants a day. If you want a lizard pet get a bearded dragon," said Brooks.

He then shared some positive news. "I get sighting reports on a regular basis. Horned lizards

are not going to go extinct in our lifetime. Sometimes I get several reports from one area. Horned lizards are like other animals in that sometimes an area has everything they need: enough rain, enough food, and shelter. When all this happens you can get more horned lizards. I see this in certain areas but I do not see this as a statewide trend."

Local Wildlife Diversity Specialist, Russell Martin of Alpine, shared his advice for conservation as well. "The best thing people living in Fort Stockton can do is learn the difference between harvester ants and fire ants, because we have both out here. Fire ants aren't as prevalent here as they are in Dallas and other parts of the state, but a lot of people will poison any ant mound they see. When they do that, they're removing a food source for the horned lizard."

He went on to cite from personal experience, "In my yard out in Alpine, I know I have five or six harvester ant mounds that I let stay. I let them do their own thing away from the structures and what not, but I leave them alone so that I can attract horned lizards. I don't poison them. You can also provide some shade in your yard for them. Whether its full of bushes, grasses or rocks. Basically that shade helps them thermoregulate. They can also use rocks for an escape cover. If there's a predator, a dog, a cat, a bird – basically everything likes to eat horned lizards. If they see that threat they need to have some kind of

escape cover, somewhere they can escape to. Essentially if you can provide those elements, do those things for them, provide the food and shelter, then that's a pretty good recipe for helping encourage and maintaining good horned lizard populations," said Martin.

The Horned Lizard Conservation Society (HLCS) has members all over the US plus a few members in Canada and Mexico. They publish a quarterly newsletter, have biannual conventions, do Horned Lizard Surveys, and give grants to people doing Horned Lizard research. For more information see: hornedlizards.org. For more information on Trans-Pecos Wildlife district of Texas Parks and Wildlife, visit facebook.com/TPWD-TransPecosWildlife. To read Alex Dropkin's Texas Monthly story on horned lizards, visit texasmonthly.com/the-culture/our-toad-to-ruin/.

Editor's note: We would like to thank Jeremy Gonzalez and the Fort Stockton newspaper for permission to reprint the article and the pictures in *Phrynosomatics*.



*The Texas horned lizards have markings that resemble Cherokee war paint on their faces. The double row of fringe scales on the side of their body break up the outline of the lizard. This is a characteristic of the species. Other species have one, two rows, or none.
(Staff photo/Jeremy Gonzalez)*



*The white stripe down the center of the horned lizard's back is for camouflage. It looks like a blade of dead grass or a stick.
(Staff photo/Jeremy Gonzalez)*

*Texas Horned lizards are classified as state threatened, meaning it is illegal to collect them. Reasons for the overall decline are attributed to a number of factors, including loss of habitat and a decline of the population of harvester ants, their food of choice.
(Staff photo/Jeremy Gonzalez)*



Guidelines on Submitting Articles and Photos

By Fannie Messec and Leslie Nossaman

If you are planning on submitting articles or photos, the editors for *Phrynosomatics* recommend the following to help with newsletter editing.

For articles:

- Header at the top of the file in Helvetica font, size 12, and Bold
- Your name "By your name" below the heading in Helvetica font, size 12, and not Bold. Line space below your name and before the article text
- Use Helvetica font for text body and font size 12
- Single line spacing
- Hard paragraph ending only at the end of a paragraph with another hard paragraph ending between paragraphs
- No paragraph indentation

- No tabs at the beginning of paragraphs
- One-half page to two pages in length
- Word formatted document is best
- Spell-checked and grammar-checked

For photos:

- Send the highest possible resolution image possible unless the file size is too large to email
- Send the photo at least 300 DPI - for pixel dimensions = an image that is 5000 X 3000 pixels is great for many purposes, print, reproduction, etc.
- Crop to what you think is the best view of the photographed subject if you can
- If it's an original color photo, then keep it that way (for pictures or images) and we can convert it to black and white, if necessary, for the newsletter - we might

be able to use color pictures for other purposes

- Transferring the color pictures to black and white for the newsletter sometimes takes out detail, try to use photos that have more lighting which transfer better to black and white in the printed newsletter
- Permission statement for HLCS use
- JPEG files are preferable
- Photo file sizes up to 1.2 MB - if more than 1.2 MB, please send a CD or DVD through the post mail.
- We need to know who took the photo, when and where it was taken, and a description of the subject. If possible, we also like to have short stories about the photo such as why was it taken, what was going on when it was taken, and anything else the photographer would like to share about the photo.



The Value of Being a Member of the HLCS

If you have ever held a horned lizard in your hand or seen them in the wild, you would understand the value of working towards its conservation. It just feels good to try and protect the future of these lizards. They are mean looking and are covered in horns but somehow still seem cuddly. As kids, many of us were lucky enough to hold them and turn them on their back and rub their tummy, and they would just go to sleep in your hand.

By becoming a member, you will receive the quarterly newsletter which has articles about what people are doing to conserve the horned lizard with ideas on how you can help. There are also scientific articles on lizard research. The regional chapters also have activities that you will hear about such as art shows and surveys to look for the horned lizard. In the newsletter are announcements of horned lizard surveys which you will be in-

ited to and wildlife conservation expos. The articles are written by children and adults. And there are pictures of the horned lizard too.

Your membership donation goes to paying for the newsletter printing and mailing, funding research grants, conservation handout printing, and funding trips to expos among other conservation activities. We *toadally* need your support!



President's Message

Phrynosomatics!

Happy 2017! It is my great pleasure to assume the Office of President in this new year, and with that I just wanted to briefly introduce myself. As a native South Texan, I grew up in an area that no longer contained horned lizards, and wasn't introduced to them until taking an internship as a young adult in the Rio Grande Valley. Ever since I saw and handled my first horned lizard, these creatures have been a passion of mine, and some would argue that it borders on an obsession! While obtaining my master's degree at West Texas A&M University in Canyon, Texas, I focused my research on studying the effects of a wildfire on a horned lizard population in the Chaparral Wildlife Management Area. I currently reside in Reno, Nevada, where I am pursuing a PhD in Ecology, Evolution, and Conservation biology. My current

research focuses on the conservation genetics of desert fishes of Nevada. However, horned lizards are never far from my mind, and I have focused some research efforts towards them even still.

As a small nonprofit, the HLCS relies heavily on our members to keep the organization alive and growing. I would like to encourage everyone to get involved in 2017! You can contribute to the society by writing an article for the newsletter, taking part in a survey, volunteering for a leadership position, or simply by educating a peer about the wonders of horned lizards!

I look forward to serving the Society! If you have any suggestions on how to improve the HLCS, or if you have something you would like included in the



Jared Fuller weighing a round-tailed lizard (*Phrynosoma modestum*) in Val Verde County, Texas.

newsletter, then please feel free to reach out to me (jaredansley@gmail.com) or another board member.

Happy Horned Lizarding!
Jared Fuller



Editor's Note

By Leslie Nossaman

Every quarter the editors of *Phrynosomatics* search for articles and photos for your newsletter. As you probably noticed, we have been very fortunate to have received many excellent articles and photos that you have submitted. Thank you to all who have submitted an item for the newsletter!

The types of items we are looking for include:

- local news and events

(booths, fairs, meetings)

- national news and events
- newspaper article reprints
- scientific article reprints
- articles on experiences with horned lizards
- survey experiences
- poetry and prose
- kid's contributions
- photographs or drawings
- cartoons

We also have a section where we highlight a member. If you would like people to know about your involvement with horned lizards, we would like

to hear from you!

Typical questions people like to hear about:

- How long have you been a member of HLCS?
- What type of activities have you done regarding horned lizards?
- When and why did you get interested in horned lizards?
- What are your interests other than horned lizards?
- Do you have any interesting hobbies (sky diving, hang gliding, bag piping, gardening, etc.)?





Return Service Requested

PLEASE JOIN US! Students/Seniors: \$10; Regular: \$25; Contributing: \$50; Corporate: \$250; Lifetime: \$300
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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Phrynosomatics is now sent electronically.