

# Phry'•no'•so'•ma•tics

noun, 1. people enthusiastically dedicated to the reversing the decline and supporting the conservation of horned lizards. From the genus Phrynosoma-the horned lizards.

March 1991

A Monthly Newsletter of the Horned Lizard Conservation Society



## Bart's Notes

The Horned Lizard Conservation Society is now moving on many fronts. **Bill Davis** has shown the kind of initiative I find most welcome. I had been making an effort in this monthly article to recap the events of the last meeting and it was boring. Bill has begun submitting articles to the news-letter which recount the events of the past meeting without being boring. Check inside for a blow by blow of our February meeting. This is a perfect example of taking the initiative and getting the job done. If you see a problem and you can think of a solution, do it. Thanks, Bill.

At our next meeting on March 12, we'll have some copies of the bylaws which the board of directors have drafted. These bylaws are about ten pages in length and we didn't want to spend a lot of money printing copies for all 200 people on our mailing list, so we've printed two dozen copies. Usually there are only a few individuals within an organization sufficiently interested to read through ten pages of bylaws and we want to be sure such interested members get a copy. Please understand these bylaws are in first draft form. We wanted to get our thoughts out to the membership as soon as possible for their comments. We will be making changes as we get response from the membership.



Speaking of response from the membership. It was clear from the last meeting that there is a strong desire ("mutiny" might be a better word) to join together the research and propagation committees. "Too much overlap..." is what I kept hearing. When you read this article the two committees will, in fact, have been merged and the newly drafted bylaws will reflect similar changes.

The big news is our upcoming first election of officers. You may recall that Deborah, George and I were elected as temporary directors, to serve until permanent officers operating under written bylaws could be elected. As you will see in the draft bylaws, we plan to hold two elections in June: one for officers and directors at the national level (elected by mail-out ballot) and one for local officers (elected at our June meeting). As they are currently drafted, the bylaws permit one individual to hold dual (national and local) offices and some may do so, but there is a potential for as many as 21 offices to be filled by election in June, with an additional 8 national committees of a permanent type and who knows how many temporary and local committees (chairs appointed). Besides organization, we need leadership. You leaders out there, you know who you are; start preparing for June.

-Bart Cox



## Notes on Becoming a 501(c)(3) Organization:

The IRS must determine whether we may obtain public recognition as a tax exempt organization in order to exempt us from certain state and federal excise taxes, provide non-profit mailing privileges, and give advance assurance to donors of the deductibility of contributions for tax purposes.

The key IRS District Office will issue a favorable determination letter, issue an adverse determination letter denying exempt status, or refer the request to the National IRS office. An adverse determination is appealable.

We must file within 15 months after our organization was formed. We must provide an Employer Identification Number and our organizing instrument must contain a dissolution clause specifying distribution of funds in an approved manner. We must also specify the purposes of our organization and these must fall within the 501(c)(3) guidelines. If we receive a favorable determination letter, the determination will be as of the date the organization was formed and contributions will be deductible as of that date.

An applicant that has existed for less than one year must give financial data for the current year and the proposed budgets for the following 2 years. If we expect to take in more

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**NEXT MEETING: March 12, 7PM  
Austin Nature Center**



## Bill's Notes



For those of you who could not attend or, snuck out early, here's a lengthy summary of the meeting. Members of the propagation committee presented an update on the info they have been acquiring since our last meeting. A map of Texas and all the counties therein was placed at the front of the room. Current Horny Toad sites were marked with red or green dots. However, from the cold hard bench in the back all I could ascertain was that it was indeed a map of Texas. Later, this problem was solved by moving it back another 6 feet! Mucho Interesting info came out. Horny Toads apparently prefer the dry scruffy sandy areas to live as opposed to grasslanda. For diet, of course ants get top billing but apparently, they are also known to eat a savory collation of beetles, insect larvea and spagetti. It was recommended that they stay away from starchy foods. A side note- to start a Harvester ant mound for a food source, it would take sixty hours of digging to find the queen. (or, just wait until she goes out to shop) Another member gave a report on his conversation with Fuzzy Plunkett. I don't remember what was said, I just wanted to write the name "Fuzzy Plunkett".

Next, the research committee gave more great info into why the Horny Toad populations have disappeared in some areas. Overly simplified, I still think all factors given probably contributed. Fire ants killing everything, people keeping them, and insecticides, Bart arose with a soliloquy on his pet theory for Horny toad decline in the Pan Handle area. Essentially, massive insecticide use. He would welcome counter information showing Horny Toads unaffected by these chemicals. Discussion on Horny Toad populations arose. Where are the biggest populations? How can you tell? If transplanted, will you need a few or alot? Would you hurt existing populations by movement? How do they find each other to reproduce?

Would inbreeding be a problem? Could we set up a singles video buisness to get them interested in each other~ These are just some of the questions discussed. A letter from one expert was presented stating that the Horny Toad species is OK it's the local populations that are not. Big help. Many, many experts were quoted on all these questions. While their opinions were interesting. I think Bart put it best when he said, "You can always get the best expert opinion money can buy". I think years from now our group will have the most accurate info available. Horny Toads are our primary concern.

The group discussed merging the propagation and research committees. I felt the ensuing arguments proved that to be an overly complicated idea. The meeting ended with discussion on membership fees. Students \$10 Subscribing (but non-voting) \$10 Regular \$25 and gold card kiss-a-toad Contributing members \$50. I think all present realized the expenses of our organization and will pitch in as best they can. There is also some planning on sending out "Freebie" news letters to people who might help our cause. I suggest Gov Ann Richards should be the first to get one. For our March meeting look for lots of idea's on logos and or T-shirt idea's some can get that ball rolling as soon as possible.

-Bill Davis

### Call for Logo Entries Continues

Steve Austin reminds you that we are still looking for log ideas. Call him or send entries to:

Steve Austin  
c/o Grey Matter Design  
2003 Oakglen Drive  
Austin, Texas 78745  
512/441-1266 371-7066 hm

## Becoming a 501(c)(3)

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than \$10,000 averaged over four years, our filing fee to obtain a determination letter is \$375.00. If we expect less, the fee is \$150.00. Income includes amounts received from members, income generated by activities, and by non-taxable fund raising events that are not regularly carried on or that are conducted with at least 85% volunteers. We may not attempt to influence legislation no urge nor contact a legislative body in an attempt to influence legislation. This is basic but gives an idea about methodologies.

-Ann Cummings

## Reptile Systematics

### Or Just What is a Horned Lizard Anyway?

by Melanie Typaldos

By now all of us in the Horned Lizard Conservation Society are familiar with the term *Phrynosoma*. You may have been wondering just what significance this term has. This article will discuss a little of the biological terminology which provides us with this term. Once you become familiar with this terminology, you can use it to understand the relationships between horned lizards and other lizards and reptiles.

Biologists have developed a system of classification for all of the living organisms on the Earth. The task of determining a particular organism's position in this classification scheme is called *systematics*. The classification of the Texas horned lizard can be represented in this system as shown below:

Phylum Chordata  
Class Reptilia  
Order Squamata  
Family Iguanidae  
Genus *Phrynosoma*  
Species *Phrynosoma cornutum*

In this system, know as the Linnacan

Mountain Short-horned Lizard  
(*Phrynosoma douglassii hernandez*)



system, each level represents a related group of animals. All of the animals within a group share some common characteristics.

Each type of animal is represented by a unique binomial; *genus species*. To ensure the uniqueness of the binomials, each genus has a unique name. For this reason, it is sufficient to refer to the genus name, *Phrynosoma*, to specify the horned lizards. Since the species name is not unique, it is not correct to refer to it alone, it should always be used in conjunction with the genus name. Examples are *Phrynosoma cornutum* or, if a reference has previously been made to the genus, *P. cornutum*. Notice that, while the genus name must always be capitalized, the species name never is.

Phylum Chordata contains all of the *chordates*. Chordates are animals which possess a notochord - a stiff rod down their backs - at some point in their lives. All of the familiar chordates are vertebrates, or animals with backbones. Along with the reptiles, this includes mammals, birds and fishes.

Class Reptilia contains four orders: Testudinata (turtles and tortoises), Rhynchocephalia (a single species, the tuatara), Squamata (lizards, snakes and amphibians), and Crocodilia (alligators and crocodiles). Reptiles are distinguished by a combination of traits; some of these are: amniotic eggs (or remnants thereof for viviparous species), scales, no larval stage, and several bones in each side of the lower jaw. In the four orders of reptiles, there are 48 families, 905 genera and about 6,547 species.

The order Squamata contains the lizards and snakes as well as the little

known group of amphibians. This means that the relationship between these groups is quite close. The lizards are in the suborder Sauria. There are 3,751 species of lizards in 383 genera and 16 families. This means that over half of all reptiles are lizards! In fact, lizards have been increasing in numbers and diversity in recent times.

The Iguanidae is a large family of lizards distributed in North and South America, Madagascar and Fiji. There are about 50 genera of iguanids. All iguanids are diurnal (active by day), and they may be terrestrial or arboreal. The iguanids are the most familiar of the North American lizards. The family includes, along with the horned lizards, the anoles, collared lizards, spiny lizards, and fence lizards.

There are about thirteen species in the genus *Phrynosoma*. The genus has a range extending from southern Canada to the Mexico-Guatemala border. Of the thirteen species, seven species occur

within the United States and three within the state of Texas. The horned lizards are distinguished from other iguanids by their horns and their extremely flattened body.

#### References

Garrett, Judith M. and David Barker, *A Field Guide to Reptiles and Amphibians of Texas*

Goin, Coleman J. and Olive B. Goin, *Introduction to Herpetology*

Halliday, Tim and Kraig Adler *The Encyclopedia of Reptiles and Amphibians*

Obst, Fritz Jurgen, *Turtles, Tortoises and Terrapins*

Sherbrooke, Wade C., *Horned Lizards, Unique Reptiles of Western North America*



## How to Tell the Boys from the Girls

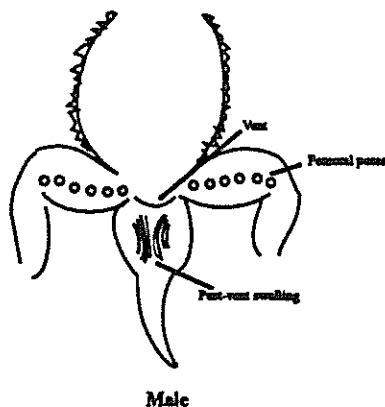
*P. Cornutum* mates from April to June, and during this time it is easy to distinguish between the sexes in reproductive animals. Turn one over and look at its back legs. A row of pores runs from the body to the knee on the inner side of the upper leg. In the reproductive male these pores will be enlarged and a

waxy brown secretory material may be present. The area of the tail posterior to the vent will be firm and round; and by gently pressing forward on the posterior edge of this swelling, the paired male secondary organs - the hemipenes, will be everted. Females and juvenile males will lack enlarged secretory pores and the post-vent enlargement.

Egg laying occurs from May through July. Prior to laying, adult females will exhibit roundness and fullness of the abdomen, indicating the presence of large yolky ova in the ovaries or eggs in the oviducts. These

can be felt by gently rubbing the abdomen and their contours seen by stretching the skin taut.

Coming next: Personal observations on egg-laying.  
-Clare S. Freeman



## Horned Lizard Habitat Threatened

Susan Ridgway Garry has alerted us to a threat to horned lizard populations with the possible relocation of F.M 973. She is in favor upgrading the existing roadway to improve safety conditions and against moving this road. This area may very well be one of the only areas in Travis County still affording habitat to the Texas horned lizard. Call or write her if you need more information on this issue. Rt. 1, Box 213, Coupland, Texas 78615, 512/856-2564. Or write Roland E. Gamble, District 14 Planning Engineer, P.O. Drawer 15426, NEAS, Austin, Texas 78761-5426 to express your concerns in this matter.

## Membership

Please Join Us NOW! Students-\$10 •Subscribing-\$10 •Regular-\$25 •Contributing-\$50. Mail fees along with Name, Address, Phone Number and any comments to **Horned Lizard Conservation Society**, P.O. Box 122, Austin, Texas 78767

### Newletter Input

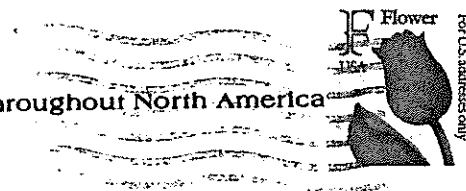
Please help build this newsletter! We need articles, graphics, maps etc. Send to George Perry, P.O. Box 122, Austin, Tx 78767. Articles of more than 100 words must be: (1) typed originals, or (2) done on a Mac or PC and submitted on a 3.5" disk. Deadline for articles is first day of the month. Questions? Call me at 263-2039 evenings or 327-8395 weekdays

## Horned Lizard Conservation Society

P.O Box 122

Austin, Texas 78767

Dedicated to Conserving Horned Lizards Throughout North America

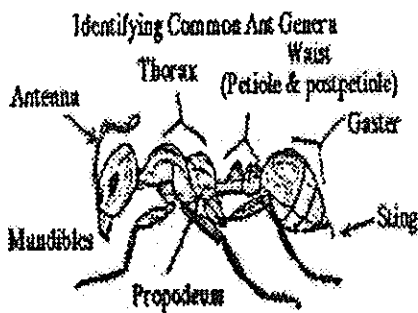


Lee Stone  
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names: the first generic and the second specific. The species name must be an adjective agreeing with the generic name, independent and in opposition with the generic, or independent but derived from the same source. Most commonly the species name either modifies the generic with an adjective or is derived from a proper noun belonging to an individual or place closely related to that species. A generic name must be independent and not subordinate to any other. To the names of sub family are added the suffixes -oidea and -inae. The suffix -idae is added to the stem of the type genus, (genus for which the family is named) to form the family name. No rules are set out for names in higher categories than that of super family. (ibid)

Thus the classification of our local carpenter ant would appear like this:

- Species: americanus
  - Genus: Camponotus
  - Subfamily: Formicinae
  - Family: Formicidae
  - Suborder: Apocrita
  - Order: Hymenoptera
  - Class: Insecta
  - Phylum: Arthropoda
- The ant is in the phylum Arthropoda



because it meets all of the following criteria: "Any invertebrate organism 'having a horny segmented external covering and jointed limbs.' (American Heritage, 1974) Further, the ant meets all the criteria of an insect; any invertebrate animal having an adult form characterized by three pairs of legs, a segmented body with three major divisions, and usually two pairs

of wings. (ibid) Ants are placed in the order Hymenoptera because all Hymenoptera are said to have two pairs of membranous Wings. (Queen ants and males are winged.) The suborder Apocrita, of which most Hymenoptera belong, have the abdomen stalked or constricted between the propodeum and the true second segment. ( Davies 180) Genus, family, and subfamily are arbitrarily decided by taxonomists knowledge. To adequately address the question "What impact, if any, has the fire ant (*S. invicta*) had on the *Phrynosoma* species?" A systematic approach must be utilized at the outset. The Propagation Committee has taken on this responsibility. The group's preliminary objective regarding ants is to form some hypotheses about the relationships between *Phrynosoma* sp., *S. invicta* and Harvester Ants (*Pogonomyrmex* sp.)

#### Bibliography

Davies, R.G., 1988, Outlines of Entomology, Chapman and Hill, New York.  
 Morris, William (ed), 1980, American Heritage Dictionary, Houghton Mifflin Co., Boston MA.  
 (Editor's note: This is the first in a series of articles by Daniel Atha. Next Issue: *Native Ants*)

### A Horned Star?

Question: In the movie "Old Yeller" what did the little boy trade the cowboy for Old Yeller? That's right! A horny toad! Not a bad trade either. Of course, the cowboy (Chuck Conners) immediately turned it loose (what a guy). Also you might notice that the little kid had been carrying it in his pocket. As a child I never did that. Seems like it would be a bad idea for both of us.

A second movie where the horny toad played a prominent role was "The Outlaw Josey Wales". In one scene Clint Eastwood wakes up eye to eye with one of our little friends, seems that Chief Dan George placed it in front of him because horny toads "know which way to go". Clint didn't take the horny toad's advice, but at least he didn't spit tobacco juice on him!

Are there any other movies out there with our hero in them/ Well, there are tons of Cheapie Creepies that involve spiders, bats and even

ants that terrorize the human race. But none, so far as I know have exclusively starred our friend the horny toad.

So...here's my idea! A horny toad (minding his own business) stumbles onto and eats a radioactive cheeseburger. After growing to an enormous size, he waits just outside the city limits gobbling up unsuspecting bicyclists that stray too far from the "mound". The city, citing budget problems, is unable to deal with this new menace (the last menace the city handled was building developers and they did that badly). Naturally the city turned to the Horned Lizard Conservation Society for help. After much debate and 17 votes, a spokes-person is elected to attempt communication with the giant creature. This brave soul (whose initials are "BD") uses a complex form of head movements (a.k.a. "horny toad talk") to communicate with the rampaging reptile. He eventually convinces "Chuck" (found out his name) that eating the entire fire ant mounds like popcorn would make him a national hero, beloved by all. Chuck admits that while bicyclists legs were something of a delicacy, the equipment that they wore was definitely hard to digest. Hence, Chuck's reign of terror came to an end. -Bill Davis

