KANSAS HERPETOLOGICAL SOCIETY NEWSLETTER NO. 100

MAY 1995

ANNOUNCEMENTS

SPECIAL EDITION

In honor of the occasion of publishing the 100th edition of the Kansas Herpetological Society Newsletter, we are presenting a special expanded edition of the Newsletter. This issue consists primarily of feature articles and a reprint of the first KHS Newsletter. Consequently, there will be no Announcements and News of the World features in this issue and the KHS Business section is greatly reduced. Of interest is a significant herpetofaunal survey conducted by longtime member Kelly Irwin, which is the second peer-reviewed paper published in this Newsletter. We believe you will find the other articles of equal interest. In addition, the cover art was done especially for this issue by KHS member and artist extraordinaire John Lokke. He has my deepest gratitude.

On a personal note, I want to extend by heartfelt thanks to all those who have contributed to the KHS Newsletter over these many years. Without your efforts, much of what KHS is all about would not exist. It doesn't seem possible that we have existed for 22 years and 100 issues. Much of it seems like it happened only yesterday. Although I doubt that I will be editing the 200th issue, I have no doubt that there will be a 200th and a 300th and so forth. Thanks again for all your contributions and keep those articles and other offerings coming!

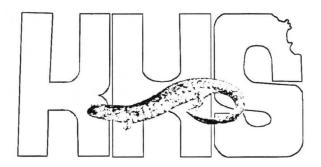
— Eric M Rundquist Editor

KHS BUSINESS

LOGO DECISION NEARING

The following two pieces of artwork were submitted by member Travis Taggart as potential logos for the Kansas Herpetological Society. Before we make a final decision on which logo to pick, we would like to hear from you as to which piece you prefer. Send your comments to me at the address listed on the inside front cover of this Newsletter.

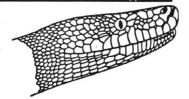
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The following piece is a reprint of the first Kansas Herpetological Society Newsletter Joseph T. Collins, Editor

KANSAS HERPETOLOGICAL SOCIETY



NEWSLETTER

Number 1 June 1974

The organizational meeting to form the Kansas Herpetological Society was called to order at 1:30 pm on 18 May 1974 in the Museum of Natural History at the University of Kansas, Lawrence. Eric Rundquist, presiding member of the Ad Hoc KHS Constitution Committee, read letters of welcome and encouragement from William E. Duellman, KU Curator of Herpetology, and Ray E. Ashton, Chairman of the Liaison Committee of the Society for the Study of Amphibians and Reptiles. Committee member Mary E. Dawson, animal keeper at the Topeka Zoo, read a similar letter from Gary K. Clarke, Topeka Zoo Director.

Following an opening address by Mr. Rundquist, a motion was made and seconded to adopt the proposed KHS constitution and Bylaws. The motion passed unanimously.

Mr.Rundquist then requested that Joseph T. Collins preside over the nomination of candidates for KHS offices. The following individuals were nominated for office:

President - Eric Rundquist (Lawrence)
President-Elect - George R. Pisani (Lawrence)
Treasurer - Mary E. Dawson (Topeka)
Secretary - Richard Lattis (Lawrence)

A motion was made, seconded and unanimously passed that the slate be elected. Mr. Collins then turned the meeting over to newly elected KHS President Eric Rundquist. After brief discussion, a motion was made, seconded and passed to establish KHS dues at \$3.00 per person per fiscal year. This was followed by a general discussion of the goals and functions of the Society. President Rundquist announced the formation of a KHS program

committee to include Mark Thiry (chairperson), Jan Perry and Kris Sperry.

The meeting, attended by over 30 persons, adjourned at 3:15 pm.

- - - - LETTER FROM THE KHS PRESIDENT- - - -

On 18 May 1974, the organizational meeting of the KHS was held in Lawrence, Kansas. Events being what they were, I was elected KHS president and, as one of my first duties, bent the ears of the assembled interested persons. I was most gratified at the large number of individuals in attendance.

First, I would like to thank Philip S. Humphrey, director of the Museum of Natural History at KU, and the Museum staff for their cooperation in letting us use the Museum auditorium and various facilities, and helping us get our feet the ground.

Second, I was pleased to see and present the following distinguished biologists at our meeting: Edward H. Taylor, Robert F. Clarke (Emporia), Henry S. Fitch, Theodore H. Eaton and Richard Wasserzug. I am honored that these individuals chose by their presence to support our efforts to form the KHS.

Overall, I was impressed with the spirit of cooperation and interest shown by all persons present. If this is an indicator of the quality of our membership, we stand an excellent chance to establish a strong, viable regional herpetological society. Although I'm sure we will encounter many problems in our struggle to build the KHS, I think we have the collective energy and ability to overcome these problems and accomplish great things.

So, with great accomplishments as our goals, and with Kansas' strong herpetological history in mind, I will do the best I can to fulfill the duties of my office and make an organization of which we can be proud.

Sincerely,

Eric Rundquist President, Kansas Herpetological Society

- - - - JULY KHS MEETING ANNOUNCED- - - -

The next meeting of the Kansas Herpetological Society will be <u>SATURDAY</u>, 13 JULY 1974 AT 1:00 PM in the EDUCATION ROOM (LARGE MAMMAL BUILDING) AT THE TOPEKA ZOO. Please plan to attend and bring interested friends. The program will be:

AMPHIBIANS AND REPTILES OF THE PACIFIC NORTHWEST

a slide presentation and talk by Joseph T. Collins of the Museum of Natural History at KU. The program is based on Mr. Collins' August 1973 trip to Oregon and Washington in conjunction with professional meetings.

KHS PROGRAM COMMITTEE QUESTIONAIRE

The KHS Program Committee wishes to know what KHS members expect from their organization. To help them determine this, please answer the follow-ing questions -- feel free to make additional comments and suggestions that might be relevant. Return this questionaire to Ms. Mary Dawson (see address below) in order to better enable the program committee to channel its efforts to bring you the types of programs, meetings and field trips you will enjoy.

- 1) What should be the goals of the KHS? Please give specific ideas for implementation of suggested goals.
- What programs would you like the KHS to plan for its meetings? Please list specific examples (slide talks, field trips, etc.) and give details.

Topeka, Kansas 66606

FEATURE ARTICLES

OBSERVATIONS ON AMPHIBIANS AND REPTILES IN THE LOWER RIO GRANDE RIVER VALLEY, TEXAS

KELLY J. IRWIN 2218 WEST 2ND STREET TOPEKA, KANSAS 66606

PREFACE

From 20 May-10 August 1991 I served as a Student Conservation Association volunteer for the United States Fish and Wildlife Service (USFWS) on the Lower Rio Grande Valley National Wildlife Refuge (LRGVNWR). I resided on the Santa Ana National Wildlife Refuge (SANWR) which also served as the headquarters for the LRGVNWR. Although my primary assignments were to work on aspects of a major revegetation program, census breeding birds, do tract management inspections, and monitor wildlife on the various tracts, I also independently undertook a herpetofaunal survey of selected refuge tracts through the use of drift fence/funnel trap/pitfall arrays and general collecting techniques. Due to the vagaries of work schedules, refuge priorities, USFWS regulations, and weather, I soon realized that I would not be able to conduct as complete and as thorough a survey as I had envisioned. I therefore opted for a different approach, conducting instead a general overview of the refuge herpetofauna and the lower Rio Grande valley as a whole based upon my dayto-day observations and limited trapping efforts. This proved to be a workable plan, the results of which are presented here.

INTRODUCTION

The Lower Rio Grande Valley contains a unique ecosystem, often referred to as Tamaulipan brushland. This broad, deltitic plain was once covered in dense thorny brush, but over 95% of this native brushland has been cleared for agricultural and urban use since the 1920s (Jahrsdoerfer and Leslie 1988). This rapid and near total removal of the natural plant community threatened to extirpate many subtropical, peripheral species of flora and fauna which are found nowhere else in the United States.

In response to the threatened loss of this unique biota, the USFWS established the LRGVNWR in 1980. The USFWS initiated a program for acquiring and replanting agricultural land adjacent to the Rio Grande River to re-establish a natural wildlife corridor. The USFWS also acquired properties containing threatened natural communities in outlying areas. With these acquisitions, it became important to conduct surveys on these various tracts to ascertain what species of flora and fauna reside there. The LRGVNWR is located within the southernmost tier of counties in the southern tip of Texas. Over 85 separate tracts of land in Cameron, Hidalgo, Starr, and Willacy counties, comprise this refuge.

PHYSIOGRAPHY

Cameron and Willacy counties, because they lie within the gulf coastal plain, are essentially flat except for coastal dunes and lomas (wind blown clay dunes). Hidalgo County has low hills in its northern quarter and is a broad, flat deltitic plain in the remainder of the county. Starr County is a series of dissected rolling hills except for a thin strip of level floodplain along the Rio Grande River.

CLIMATE

The climate in the Lower Rio Grande Valley varies from subtropical in southern Cameron County to semi-arid in Starr County. Rainfall totals range from 76 cm on the coast to 38 cm in Starr County. Temperatures average about 10°C in January and about 36°C in July.

COMMUNITIES

The USFWS currently recognizes 11 distinct biotic communities within the Lower Rio Grande Valley

(Jahrsdoerfer and Leslie 1988). These communities are: 1) Chihuahuan Thorn Forest: This desert shrub community has the unique feature of an abrupt ecotone between the riparian vegetation along the river and the adjacent desert scrub uplands. The riparian vegetation is characterized by the presence of black willow, Montezuma baldcypress, Texas ebony, and mesquite. The desert scrub contains sotol, catclaw mimosa, and blackbrush acacia. 2) Upper Valley Flood Forest: This community consists of the small forested valleys of the Rio Grande between Falcon and Mission, Texas. Mesquite, grajeno, Texas ebony, and guayacan are the predominant woody species. 3) Barretal: The "barretal" or thicket, is dominated by the Barreta tree, North America's only native citrus tree. This habitat is restricted to a narrow band of gravel and caliche ridges that form an ecotone with the Rio Grande floodplain. Other brush species in this community include chapano prieto, Tamaulipan Palo Verde, chapano amargosa, and junco. 4) *Upland Thornscrub*: This community is found in connecting corridors between riparian habitats and surrounding uplands. Typical woody plants are anachuita, cenizo, guayacan, coyotillo, granjeno, colima, and lotebush. 5) Ramadero: Ramaderos are isolated riparian strips of dense brush that are associated with arrovos in upland areas. The dominant plants found in ramadero habitat are granjeno, mesquite, huisache, retama, and brasil. 6) Mid-Valley Riparian Woodland: This community is a bottom land hardwood site with stands of cedar elm, Rio Grande ash, and sugar hackberry, mixed with mesquite and granjeno. These trees form a dense, tall canopied forest. 7) Mid-Delta Thorn Forest: This community contains a mesquite and granjeno association mixed with Texas ebony, anacua, and brasil. At one time this was an extensive thicket that covered most of the Rio Grande delta. Shrubs in this habitat form a tight interwoven canopy 4-6 meters in height. 8) Woodland Potholes and Basins: This community is characterized by hypersaline lakes, due to evaporation and inflow from underground salt springs. The areas adjacent to these lakes contain salt tolerant species such as sea purslane and Carolina wolfberry. The area surrounding these lakes grades into upland brush containing small freshwater potholes which were formed by "blow-outs" in the sandy soil. This upland brush is characterized by the presence of snakeeyes, Texas ebony, brasil, and lotebush. 9) Coastal Brushland Potholes: This coastal-eolian ecosystem contains windblown sand dunes which are slowly moving inland. As the sand dunes move, they leave behind a sand sheet which contains freshwater-filled depressions. This area has unique live oak mottes which are found nowhere else in the Rio Grande delta. 10) Sabal Palm Forest: The remnant palm forests which border the Rio Grande river of the lowermost valley are best described as palm dominated brush tracts. Dominant species are sabal palm, tenaza, anacua, Texas ebony, and tepeguaje. 11) Clay Loma/Wind

Tidal Flats: This community actually contains three subcommunities: loma (clay dunes) scrub, tidal flats, and gulf cordgrass grassland. Vegetation includes fiddlewood and Texas ebony on the lomas, gulf cordgrass, borrichia, and salicornia on the tidal flats, and black mangrove on the margins of South Bay.

MATERIALS AND METHODS

At the outset of the study my intent was to conduct a series of species composition comparisons between habitat types through the use of drift fence/pitfall/funnel trap arrays (Campbell and Christman 1982, and Fitch 1951). Drift fence material consisted of 41 cm wide X 7.6 m long galvanized roofing tin. This was placed on edge in a shallow (ca. 10 cm deep trench) around which soil was packed tightly against the base to keep the fence upright. Nineteen 1-liter plastic buckets were used as pitfall traps and these were then covered with small sheets of masonite board which had 2.5 X 5 cm risers. The boards prevented rain from flooding the buckets and provided shade from the intense sunlight, both conditions of which could cause death by drowning or heat exposure of trapped animals. Funnel traps were constructed with 4 mm hardware cloth using the design of Fitch (1951). The drift fences were laid out in the shape of a Y with equal angles of 120 degrees between each arm. Holes were dug at the end of each arm and at the intersection of the three arms. The nineteen liter buckets were sunk flush with the surface of the soil into each hole and then backfilled. The trailing ends of the drift fence were slipped into slits in the buckets to hold the fence in place. A total of five such arrays were installed on the La Coma Tract, LRGVNWR. Four drift fences, consisting of straight 7.6 m runs, were installed at the Santa Ana National Wildlife Refuge. These drift fences were fitted with funnel traps at each end of the fence. The fences were installed in such a way that the funnel traps were in shade, or were covered with leaves to provide shade, thus preventing captured animals from succumbing to overheating. Commercial turtle traps were used to sample turtles in local oxbow lakes or resacas. The turtle traps were made of 5 cm mesh braided nylon line on 0.9 m diameter hoops. Traps were baited with either canned sardines or frozen chicken livers. General collecting techniques were also employed such as turning available ground cover — old boards, matted palm fronds, logs, etc. A headlamp was used while walking along the margins of flooded ditches, lakes, and resacas, to locate calling amphibians in breeding choruses at night after rains. Some road cruising was done in selected areas, and consisted of slowly driving at night along lesser traveled county highways where suitable native habitat exists on either side of the road. This was usually done on warm, windless nights during the dark of the moon for optimal results. Road-killed specimens were fixed with 10% formalin and then preserved in 70% ethanol alcohol for permanent storage. All specimens were placed in the herpetological collections of the Natural History Museum, University of Kansas, Lawrence, Kansas. All specimens were collected under the authority of Texas Parks and Wildlife Department (TPWD) Scientific Collecting Permit SPR-0691-414.

NOTE ON SAMPLING BIASES

It should be noted that some major sampling biases exist between pitfall and funnel traps for effectively sampling an entire local herpetofauna. Pitfalls work very well in catching lizards, frogs, and small snakes, but are ineffective for sampling large snakes, turtles, and in this study, adults of the Giant Toad (Bufo marinus). However, funnel traps that I used proved effective at capturing both large and small snakes, lizards, frogs, small mammals, and one Olive Sparrow (Arremonops rufivirgatus). Further refinements, such as lining the funnel traps with window screen would ensure capture of even the smallest of snakes. Here again, funnel traps would exclude the capture of the Texas Tortoise (Gopherus berlandieri) and the largest specimens of Bufo marinus. Although these trapping methods are effective, they do have their drawbacks by no means guarantee the sampling of the entire local herpetofauna. Such sampling requires the use of conventional field collecting techniques to assure finding all species in a given habitat.

LA COMA TRACT STUDY

The La Coma Tract, LRGVNWR, is situated in southeastern Hidalgo County, Texas, and lies within the Mid-Valley Riparian Woodland Community. This tract is bordered on the south by the Rio Grande River, and by cultivated land on the remaining three sides. This tract was originally composed of climax bottom land hardwood forest, dominated by cedar elm, sugar hackberry, and Rio Grande ash, interspersed with mesquite and granjeno. This land has since been cleared and farmed; consequently, only a remnant of climax forest remains. Since its acquisition by the USFWS, natural succession has been allowed in the old fields. Four identifiable plant community types were chosen for comparison on this tract. These are: 1) Floodplain Climax Forest, dominated by cedar elm, Rio Grande ash, and sugar hackberry; 2) Mesquite Forest, dominated by an almost pure stand of mesquite trees; 3) Old Field Baccharis Succession, dominated by baccharis and sunflowers, with two sub-categories, A) dense stand of almost pure baccharis, with little to no sunflowers, and B) light density of baccharis, with cover of 40% sunflowers; and 4) Floodplain Successional Grassland, dominated by mesquite, huisache, retama, and prickly-pear cactus, in a very sandy soil.

Previous Work: Four drift fence/pitfall arrays (as previously described) were initially installed on 28 November 1990 by a previous SCA volunteer. These arrays were placed, one each, in the floodplain grassland, floodplain climax forest, and in both types of baccharis stands. These traps were operated intermittently on the following dates: 28-30 November, 3 and 10-13 December 1990, and 11-14, 25-27 March, and 4 April 1991. During this time a total of three species of reptiles and one species of amphibian were collected in the arrays (Table 1).

Present Work: On 30 May 1991 I reworked and installed the existing arrays, some of which were in a state of disrepair, and also several of the pitfalls, which were full of rain water. By 4 June 1991 all five arrays were fully operational. The arrays were operated until 16 June, when they were closed due to extreme heat and low capture rates. During this closed period, a 5 cm rain fell. The arrays were reactivated on 18 June and were operated until 23 June whereupon they were closed for the remainder of the season. The five pitfall arrays were in operation for a total of 19 days, plus four days where arrays 2, 3, and 4 only were in operation, for a total of 107 array days. A total of 60 captures were made in this time, which yielded an average of 0.56 captures/array day. A total of eight species were captured (Table 2), four of which had been

recorded by the previous investigator. This consisted of two frogs, five lizards, and one snake species. In addition, one Texas Tortoise (*Gopherus berlandieri*) and one Racer

Table 1. Previous array capture of species by site number at La Coma Tract, LRGVNWR, Hidalgo County, Texas.

	Site Numbers				
Species	#1	#2	#3	#4	
Bufo valliceps	_	_	1	_	
Eumeces obsoletus	_	_	_	3	
Sceloporus olivaceus	_	_	_	1	
Leptotyphlops dulcis	_	_	1	_	

(Coluber constrictor) were observed near array 4. From this limited sampling effort some indications of species composition trends are evident. The floodplain forest and dense baccharis sites produced only those species which prefer moist shaded habitats such as Eumeces tetragrammus, Sceloporus olivaceus, and both species of Bufo. The grassland array site yielded the greatest diversity of species (7), and was inhabited by species which prefer open habitats, such as both Cnemidophorus species, Eumeces obsoletus, Coluber, Leptotyphlops, and Gopherus. The light baccharis and mesquite forest sites produced the most depauperate fauna with just two species each. The light baccharis was frequented by Cnemidophorus gularis (four captures), presumably because this habitat has scattered open areas which are necessary for this diurnal lizard. The dense closed canopy of the mesquite forest site is suitable for the presence of both species of Bufo because this site was relatively moist. The lack of more lizard species at this site may be due to the lack of a developed understory of shrubs and herbaceous plants, which would create more microhabitats for lizards. It was interesting to find Leptotyphlops present in the baccharis sites, 2 & 3. These sites contain very clayey soils which are extremely hard upon drying and would be impossible to burrow through, unlike the sandy soil grassland site 4. The only explanation I can offer for the presence of Leptotyphlops at sites 2 and 3 is that both specimens were captured after a rainfall, which forces such small snakes to the surface whereupon they actively engage in long distant movements (Smith 1950). It was surprising that the arrays failed to capture more species of small snakes since at least six small snake species occur in this region. It is interesting to note that 40% of all captures made during this study occurred in the six day interval following a 5 cm rainfall on 17 June. This accounted for only 31% of the total trapping period when all five arrays were activated. Reptile and amphibian movements in semiarid habitats are greatest during and after appreciable rainfall, and could explain the increase in capture rate. During this brief study, drift fence/pitfall sampling techniques proved to be an effective means of ascertaining species composition between habitat types. However, the use of conventional field collecting techniques and funnel traps would probably have produced a greater number of species.

SANWR FUNNEL TRAPPING RESULTS

A series of four funnel trap/drift fences were installed along the margins of a borrow ditch, dominated by cattail and bordered by midvalley riparian woodland forest which was dominated by huisache and mesquite. These arrays totaled approximately 30.5 linear meters of drift fence and incorporated eight funnel traps. This sampling was done with the intent of capturing the very rare Speckled Racer (Drymobius margaritiferus), which occurs in the US only in the two most southern counties of Texas. This trapping effort failed to produce any Speckled Racers, but it did sample a variety of other reptile and amphibian species (Table 3). Thirteen species of reptiles and amphibians were trapped, four frogs, three lizards, and six snakes. A total of 87 individuals were trapped over 23 days, for an average of 0.94 captures/trap day. Several species of small mammals and one ground-foraging Olive Sparrow (Arremonops rufivirgatus) were also captured in the funnel traps. The abundance of Rana and Thamnophis were not surprising, since both are known inhabitants of marshy environs. However, the number of

Eumeces taken in this habitat was unexpected, and indicates this species preference for moist areas. The number of Drymarchon and Elaphe captured in this habitat is interesting to note, but their presence could be attributed to the abundant food sources for each species, in the form

Table 2. Array captures of species by site number (this study) at La Coma Tract, LRGVNWR, Hidalgo County, Texas.

			Site Number	Number		
Species	#1	#2	#3	#4	#5	
Bufo marinus	6	4	_	_	2	
Bufo valliceps	1	_	_	_	1	
Cnemidophorus gularis	_	_	4	9	_	
Cnemidophorus laredoensis	_		_	2	_	
Eumeces obsoletus	_	_	_	10	_	
Eumeces tetragrammus	11	1	_	_	_	
Sceloporus olivaceus	3	1	_	1	_	
Leptotyphlops dulcis		1	1	2		

of other snakes and small mammals, respectively. One drift fence was placed at the top edge of the borrow ditch, which was the edge of a microecotone between the dryer huisachemesquite forest and the cattail marsh. This location produced *Sceloporus*, *Cnemidophorus*, and *Masticophis* which all prefer more xeric habitats. Since this trapping effort was undertaken in basically one habitat type and was in a very limited area, little more than species composition of this habitat can be drawn from the data.

TURTLE TRAPPING RESULTS

Two commercial turtle traps were placed in resacas on the Ranchito and Resaca del Rancho Viejo tracts, LRGVNWR. These traps yielded the addition of two species to each of the tract species lists. On 23 July two traps were placed in the resaca on the Resaca del Rancho Viejo tract. These traps were checked on 24 July and contained 16 (7 females and 9 males) adult Sliders (Trachemys scripta) and one adult female Spiny Softshell (Apalone spinifera), as well as one Alligator Gar (Atractosteus spatula). Two traps were installed in the resaca on the Ranchito tract on 29 July, and checked on 30 July. The traps contained one adult male Apalone and two adult, one male and one female, Trachemys. While seining ponds for fish and salamanders on the Tiocano Lake and Schaleben tracts, LRGVNWR, we recovered one and eight specimens respectively, of Trachemys in our hauls. These were the first records of this species for these tracts. A large adult male Yellow Mud Turtle (Kinosternon fllavescens) was also recorded from the Schaleben tract.

SPECIES ACCOUNTS

The following species accounts are brief synopses of the species that I encountered during the course of my work. The species represented were either observed or collected on LRGVNWR tracts, on SANWR, or other public and private lands. These accounts present my general impressions of the species abundance, comments on range, or life history observations. The accounts are not complete reviews of the species, but may provide some insights as to their current status in the Lower Rio Grande River Valley. There are 84 currently recognized species of terrestrial and freshwater reptiles and amphibians which occur within this four county region. I collected or observed 49 of these species, and accounts for these only are presented below. Common and scientific names are those of Collins (1990). Abbreviations are as follow: AOR = alive on road: DOR = dead on road.

AMPHIBIANS

FROGS & TOADS

Giant Toad Bufo marinus

This, the largest toad in the United States, was observed frequently from the Chihuahuan Thorn forest and Ramaderos of Starr County to the Sabal Palm Forest of southern Cameron County. It appears to be quite abundant both in native habitat, as evidenced by a number of DOR's

Table 3. Number of funnel trap capture by species (this study) at SANWR, Hidalgo County, Texas.

Species	Number of Captures
Bufo marinus	3
Bufo valliceps	3
Rana berlandieri	37
Syrrhophus cystignathoides	3
Cnemidophorus gularis	1
Eumeces tetragrammus	11
Sceloporus olivaceus	4
Coniophanes imperialis	1
Drymarchon corais	5
Elaphe guttata	6
Masticophis taeniatus	1
Nerodia rhombifer	2
Thamnophis proximus	13

observed in Starr County, and the heavily cultivated regions in the midvalley of eastern Hidalgo County where it was observed along irrigation ditches and again DOR in abundance. I frequently observed this toad at night under the security lights in the parking lot at the SANWR visitor center parking lot. This amphibian was originally found only in the native Ramaderos of Starr County (Patrick Burchfield, pers. comm.), but with the advent of brush clearing and irrigation ditches this species has expanded throughout the lower valley into Hidalgo and Cameron counties.

Texas Toad

Bufo speciosus

I observed this toad only in Starr County, where I found several AOR while road cruising in native brush habitat. From the numbers of specimens observed, I feel it is a common animal in undisturbed habitat.

Gulf Coast Toad

Bufo valliceps

This common toad was trapped on La Coma tract and on SANWR. It was also observed on several mid-valley LRGVNWR tracts. I observed this species calling along a concrete lined irrigation ditch and also in naturally flooded pools on SANWR.

Green Treefrog

Hyla cinerea

This treefrog was commonly heard in breeding choruses from several ponds on SANWR, but I feel it is somewhat restricted in its range in the valley. Since Dixon (1987) records it only from Cameron and Willacy counties, the population I observed at SANWR is the most westerly known population within the valley. This would be a range extension of ca. 28 km and a county record. I consider this treefrog as uncommon and it probably exists only in isolated populations in the valley.

Mexican Treefrog

Smilisca baudinii

This treefrog occurs in the United States only in Hidalgo and Cameron counties in Texas. It is designated as a Threatened Species by TPWD. It has been recorded from only three LRGVNWR tracts and SANWR. Martin Bray (LRGVNWR Biologist) and I seined tadpoles of this frog at the two previously known LRGVNWR tracts and recorded it for the first time from the Santa Maria tract. I was fortunate to observe a breeding chorus of ca. 10 individuals

in a flooded ditch on SANWR on 17 June and again on 6 August. I consider this treefrog to be very uncommon and it is found in widely disjunct populations. Its requirement of unpolluted waters for breeding and the scarcity of such in the heavily agriculturalized lower valley have greatly contributed to the reduction of its range in the United States.

Great Plains Narrowmouth Toad

Gastrophryne olivacea

This fossorial frog is common over a wide area of the central United States, but I observed this species only on SANWR in a small breeding chorus. It is probably less common in the valley now due to agricultural practices.

White-lipped Frog

Leptodactylus labialis

This frog has been recorded only from Cameron, Hidalgo, and Starr counties, Texas, and is considered an Endangered Species by the TPWD. I conferred with several herpetologists within the valley as to its population status and found no one was in total agreement. I was informed that it has been recorded in Cameron County on the Audubon Society owned Sabal Palm Grove and I located a listing for this frog on the Boscaje de la Palma tract, LRGVNWR. Ken King (Weslaco, Texas) and I found two localities where we heard a total of eight calling males. The frogs were calling from rain-filled arroyo pools in the Ramaderos habitat of Starr County on 10 July after some moderate rains in the area two days previously. I consider this frog to be very uncommon to rare in the lower valley.

Rio Grande Chirping Frog

Syrrhophus cystignathoides

Ifound this frog to be common to abundant on SANWR, where I observed it in both edificarian and natural habitats. Males were observed calling from fallen logs or piles of tangled fallen limbs, in climax floodplain forest, which afforded excellent cover as egg deposition sites. On a drizzly evening I observed males calling from as high as 1.5-2.2 meters above the forest floor, on a broken tree trunk and on a long hanging clump of Spanish moss, respectively. This is interesting as no previous investigators have recorded this frog calling from such heights. I also found this frog in well-watered lawns in Harlingen, Texas and in and around a dilapidated garage under old boards and bricks in Weslaco, Texas. I discovered a clutch of seven eggs deposited under moist, matted vegetation beneath a funnel trap on 29 June on SANWR.

Rio Grande Leopard Frog

Rana berlandieri

The Rio Grande Leopard Frog is the most ubiquitous frog in the lower valley. I encountered this frog AOR in native brush habitat in Starr County, around the margins of freshwater pools in Willacy County, in wet agricultural fields of Hidalgo County, in resacas in Cameron County, and in many wet areas of SANWR. This frog can be found anywhere where there is standing water. It is an abundant species as evidenced by the numerous LRGVNWR tracts from which it has been recorded and by my finding it in all four lower valley counties.

Mexican Burrowing Toad

Rhinophrynus dorsalis

This is an exceptionally rare anuran in the United States, having been recorded only in the Chihuahuan Thorn Forest of Starr and Zapata counties, Texas. This frog is strictly fossorial. It is seen on the surface only after heavy rains have induced it to emerge from burrows to form breeding choruses (Conant and Collins 1991). Ken King (Weslaco, Texas) showed me several known breeding sites in Starr County, which held little if any water at the time, even though there had been some substantial rains in the area just a few days prior to our visit. While observing one known breeding site on the west edge of Rio Grande City, we found a desiccated sub-adult Rhinophrynus on the edge of the highway, immediately adjacent to the breeding site. This toad is listed as Threatened by the TPWD. It is currently threatened by housing and commercial development along the arroyos where it breeds in the Rio Grande City area. It has not been recorded from any LRGVNWR tracts at this time.

Couch's Spadefoot Scaphiopus couchii

I located a breeding chorus of this frog in a rain-filled ditch, in the middle of plowed fields, just northeast of SANWR on 29 June. This frog is infrequently seen due to its fossorial habits, but it is probably more common than appears, in view of its ability to exist in industrialized monocultural habitats.

Plains Spadefoot Spea bombifrons

I found two specimens of this frog in southwestern Hidalgo County, as they were turned up by a tree seed planting chisel. These two specimens were the first of this species to be recorded from any LRGVNWR tracts.

REPTILES

TURTLES

Slider

Trachemys scripta

This is the most commonly seen aquatic turtle in the valley and must be considered abundant. Not only is this species observed in nearly any aquatic situation — irrigation ditches, resacas, ponds, and the Rio Grande River — but it is frequently seen crossing county roads and highways near water. This turtle has now been recorded from 20 LRGVNWR tracts, eight of which were added during this survey.

Spiny Softshell

Apalone spinifera

Of the nine LRGVNWR tracts from which this turtle has been recorded, four were additions due to my observations or trapping. I observed several DOR and AOR examples of this turtle in Hidalgo and Cameron counties, and consider it to be a common species. It uses irrigation ditches, resacas, ponds, and the river as habitats.

Texas Tortoise

Gopherus berlandieri

This turtle was encountered on many LRGVNWR tracts that contained substantial amounts of native habitat. I added this species to five tract species lists, bringing the total to 30 LRGVNWR tracts which contain this species. I observed this turtle or saw evidence of its presence in a variety of habitats, from the Loma/Tidal Flats of Cameron County, the Woodland Potholes and Basins of Willacy County, to the Chihuahuan Thorn Forest of Starr County. In addition. I observed several specimens of this common turtle on SANWR. While on SANWR in early August I observed an adult male eating the soil around the entrance of a harvester ant mound. The reasons for this behavior are unknown. It is possible that the soil contained salts or other minerals which the tortoise required. The Texas Tortoise is a Threatened Species and is protected by TPWD.

Yellow Mud Turtle Kinosternon flavescens

I found only two specimens of this turtle during my study. One was the shell of an adult male, found on the edge of a pond at SANWR. The other specimen was a very large adult male which was seined from a pond on the Schaleben tract, LRGVNWR. This was an addition to the tract species list and brings the total to six LRGVNWR tracts which

provide habitat for this turtle. I consider this turtle as uncommon in the valley.

LIZARDS

Green Anole

Anolis carolinensis

This lizard has been recorded from only one LRGVNWR tract. I observed the species only once in the valley—an adult which was basking and foraging in a low shrub in a residential area of Weslaco, Texas. I have no information as to the abundance of this lizard in its natural habitat in the valley.

Texas Spotted Whiptail

Cnemidophorus gularis

The Texas Spotted Whiptail is by far the most common lizard in the valley. I observed this lizard in all four counties of the lower valley. Any habitat which has open, sunny areas will likely harbor this species, from empty city lots to native brush habitats. I added 12 LRGVNWR tract records to the 26 current tracts which list this species.

Laredo Striped Whiptail

Cnemidophorus laredoensis complex

This lizard was commonly seen on tracts which border the Rio Grande River. I made five additional sightings on LRGVNWR tracts, bringing the total to 23 tracts where this lizard occurs.

Six-lined Racerunner

Cnemidophorus sexlineatus

The Six-lined Racerunner is found on lands which are well removed from the immediate floodplain of the Rio Grande River, where the Laredo Striped Whiptail is found. This lizard inhabits areas of the Woodland Potholes and Basins, Coastal Brushland Potholes, and Mid-Delta Thorn Forest communities. I observed this species only in Willacy County where I added it to the East Lake tract, LRGVNWR, fauna list.

Texas Horned Lizard

Phrynosoma cornutum

I noted the presence of this species on the Kepler tract, LRGVNWR, by scats which were composed entirely of the dark red chitinous exoskeletons of harvester ants. I made four additions to the LRGVNWR tract species lists for this species. This lizard is protected by the TPWD since it is designated as a Threatened Species. Judging from my

observations and the number of LRGVNWR tract species lists that contain this lizard, I consider *Phrynosoma* to be moderately common in the valley.

Texas Spiny Lizard

Sceloporus olivaceus

Walking along the trails of SANWR almost guaranteed the observation of at least two or three of these lizards. They were abundant on SANWR and I noted that this species appeared to be common on several LRGVNWR tracts in Hidalgo County.

Blue Spiny Lizard

Sceloporus serrifer

This uncommon lizard has a limited range in Texas, and is found only in Starr County in the lower valley. I observed this species on two LRGVNWR tracts, thereby doubling the number of tract records for this species. I also observed several individuals basking on the large rip-rap boulders below the Falcon Dam spillway. This lizard uses trees and boulders as established territories, and will defend any intrusions on that tree or boulder by other lizards. I observed this species in a dead cedar-elm tree as high as ca. 10 meters.

Rosebelly Lizard

Sceloporus variabilis

The Santa Ana National Wildlife Refuge seems to be the only place where this lizard occurs in the valley. Although it ranges well into central Texas, I observed this species only on SANWR. It is abundant on SANWR, for I saw several individuals nearly every time I walked the trails on the refuge. There are no records of this species from any LRGVNWR tracts.

Reticulate Collared Lizard

Crotaphytus reticulatus

This lizard is found in ten counties in southern Texas (Dixon 1987), and is considered a Threatened Species by the TPWD. I collected one DOR adult male northwest of Rio Grande City in the Ramaderos habitat and observed an AOR adult east of Rio Grande City in the caliche hills of the Barretal habitat. This is the largest lizard in the valley and probably more uncommon than the Blue Spiny Lizard. This species has been found in the valley only in Starr County and the extreme southwestern edge of Hidalgo County. There are only two LRGVNWR tract records for this species.

Great Plains Skink

Eumeces obsoletus

The only specimens I observed of this species were captured in the grassland pitfall arrays on the La Coma tract, LRGVNWR. This skink has been recorded from four LRGVNWR tracts. I consider this skink to be uncommon in the valley.

Four-lined Skink

Eumeces tetragrammus

The Four-lined Skink is common on SANWR and the La Coma tract, LRGVNWR. It was readily trapped at both of these locales, in marshy or moist climax floodplain forest habitats. I also observed this common species on a few other tracts within the Mid-Delta Thorn Forest community.

Mediterranean Gecko

Hemidactylus turcicus

The only introduced species of amphibian or reptile in the valley is the Mediterranean Gecko. This lizard prefers to live in and around buildings. I counted over a half a dozen individuals on the walls and porch roof of my home on SANWR, in one evening. This species is well established throughout southern Texas and could be considered now as a permanent resident. It has been recorded from two LRGVNWR tracts.

SNAKES

Texas Blind Snake

Leptotyphlops dulcis

The only specimens of this serpent were found in pitfall arrays on the La Coma tract, LRGVNWR. This species has been recorded from only four LRGVNWR tracts. This species is probably uncommon in the valley.

Glossy Snake Arizona elegans

This snake appears to be common in the native brush habitats of central Starr County. I picked up several DOR specimens in one evening of road cruising in this area. However, it has been recorded from only one LRGVNWR tract

Racer

Coluber constrictor

Racers seem to be a relatively common species and I observed them DOR on several occasions in Hidalgo and Cameron counties. I added one tract record for this serpent.

Black-striped Snake

Coniophanes imperialis

The Black-striped Snake is found in the United States only in Cameron, Hidalgo, and Willacy counties of Texas. I observed this species on five occasions, as follows: I trapped one in a funnel trap, observed one crossing the road, and collected one along a trail, all on SANWR, plus I picked up a fresh DOR specimen on the Resaca del Rancho Viejo tract (which was a tract species addition) and observed one basking along a trail on the Santa Maria tract, both on LRGVNWR. Martin Bray, LRGVNWR Biologist, observed a Black-striped Snake on the doorstep of a home on the edge of the town of Weslaco, Texas. This snake is seemingly quite adaptable to the alteration of its habitat, using the lawns of suburban homes and nearby canal edges as foraging areas. This edificial adaptability can also be noted in the Rio Grande Chirping Frog, upon which Coniophanes readily feeds. This snake is listed as a Threatened Species by the TPWD, though I would consider it to be a moderately common species and in no immediate danger of being extirpated.

Indigo Snake

Drymarchon corais

This large diurnal snake appears to range throughout the valley, as it has been recorded from 27 LRGVNWR tracts. Even though it is listed as a Threatened Species by the TPWD I consider it to be a common snake. I captured five individuals in funnel traps and found one DOR subadult on SANWR. I also observed a very large (ca. 1.8 m long) individual which was basking on a log on the bank of the Rio Grande River, just below the Falcon Reservoir dam in Starr County. This snake has been documented from all four valley counties. As long as there are extensive tracts of undisturbed native habitat, this snake is not in danger of disappearing from the Lower Rio Grande valley.

Corn Snake Elaphe emoryi

This snake appears to be quite common in Cameron and Hidalgo counties, even though it has been reported from only five LRGVNWR tracts. I captured six individuals in funnel traps on SANWR. I also collected or observed over half a dozen DOR specimens in Cameron and Hidalgo counties, in areas under intense cultivation.

Mexican Hooknose Snake

Ficimia streckeri

The Mexican Hooknose Snake ranges well into south Texas, but I was only able to find one specimen of this species. It was a DOR adult male taken north of Rio Grande City in an area of Ramadero habitat. Patrick Burchfield (Brownsville, Texas) informed me that he had found this species within the city limits of Brownsville.

Night Snake

Hypsiglena torquata

I found one DOR specimen of this species near Falcon Reservoir in Starr County. It is a wide ranging and common animal throughout much of the southwestern United States. It has been reported from only two LRGVNWR tracts.

Common Kingsnake

Lampropeltis getula

An AOR adult male of this species was collected northeast of Rio Grande City, while road cruising through native habitat. It is a common species and ranges from coast to coast within the United States, yet it has been recorded from only one LRGVNWR tract.

Coachwhip

Masticophis flagellum

I saw only one specimen of this species from the valley. It was a very large (ca. 2 m long) DOR male, collected in western Hidalgo County by Martin Bray, LRGVNWR Biologist. Although this species is common in some parts of its range in the southeastern and southwestern United States, I consider it to be an uncommon species in the valley. It has been recorded from two LRGVNWR tracts.

Striped Whipsnake

Masticophis taeniatus

This relatively common snake of open terrain was observed or collected in both Hidalgo and Starr counties, AOR and DOR. I funnel-trapped one adult male and observed another foraging in a hollow log on SANWR. It has been recorded from seven LRGVNWR tracts.

Diamondback Water Snake

Nerodia rhombifer

I observed this abundant snake in Cameron, Hidalgo, and Starr counties. It inhabits the Rio Grande River, irrigation ditches, ponds, and resacas. It seems to be common wherever there is a continuous supply of water to support the fish and frogs upon which it feeds. It has been reported from ten LRGVNWR tracts.

Rough Green Snake

Opheodrys aestivus

I observed one exceptionally large specimen of this uncommon species as it crossed the road on the Resaca del Rancho Viejo tract. This was the first record of this species from this tract and it was the third record for all LRGVNWR tracts.

Gopher Snake

Pituophis catenifer

I observed Gopher Snakes on LRGVNWR tracts in Cameron, Hidalgo, and Starr counties. All sightings were the first reports of this species from each of the various tracts. This brings the total to 15 LRGVNWR tracts which harbor this species. The LRGVNWR tracts all contained good stands of native vegetation, but I felt it was unusual to find a large (1.5 m long) specimen DOR, 3 km east of the SANWR in a heavily cultivated habitat. I consider this species moderately common in suitable habitat.

Longnose Snake

Rhinocheilus lecontei

This snake was found to be common in Starr County, where I collected several specimens while road cruising through native habitat. It is a common snake in the proper habitat throughout its range, yet it has been reported from only two LRGVNWR tracts.

Ground Snake

Sonora semiannulata

This is a very common snake in certain parts of its range, yet to date there are no records of this species occurring on any LRGVNWR tracts. However, I am certain it does occur on several LRGVNWR tracts as suitable habitat exists. I collected one DOR adult male in central Starr County.

Plains Blackhead Snake

Tantilla nigriceps

The Plains Blackhead Snake has been found on only one LRGVNWR tract. I collected a DOR specimen in Starr County in native brush habitat. It is probably a common snake in suitable habitat.

Checkered Garter Snake

Thamnophis marcianus

I found ten specimens, both DOR and AOR, while road cruising in Jim Hogg, Starr, and Hidalgo counties, on

three different evenings. This appears to be a common snake in native habitat. There are six records of this species from LRGVNWR tracts.

Ribbon Snake

Thamnophis proximus

This snake is abundant on SANWR, where I trapped or observed over 15 individuals. I found several other specimens, both AOR and DOR, in Starr, Willacy, and Cameron counties, in both native and agrarian habitats. I consider this to be a common species, yet it has been recorded from only five LRGVNWR tracts.

Coral Snake

Micrurus fulvius

The only two specimens I found of this snake were located on SANWR. Both were adult males, encountered as they were crossing roads in early morning when the humidity was high and the temperature was in the upper 70's F. I consider this snake to be an uncommon species. There are only four LRGVNWR tract records for this serpent.

Western Diamondback Rattlesnake

Crotalus atrox

All specimens of this snake were found in Starr County where the most extensive areas of native brush habitat remain. A total of five individuals were found, either AOR or DOR, while road cruising. This species is becoming less common due to human persecution and habitat destruction. There are seven records for this serpent from LRGVNWR tracts.

SUMMARY

During the course of my three month study in the lower Rio Grande valley area I was able to collect or observe 49 of the 84 species of reptiles and amphibians which occur there. This is approximately 57% of the known herpetofauna. I made 56 additions to the reptile and amphibian species lists for LRGVNWR tracts. The lower Rio Grande valley is a unique area where southern United States species mix with subtropical species from Mexico, many of which are found nowhere else in the United States. The flora and fauna of the valley are under heavy pressure from agricultural practices, suburban development, and land clearing for grazing. Fortunately, with the establishment of the Lower Rio Grande Valley National Wildlife Refuge, these species will continue to have a place to reside in this subtropical region of south Texas.

ACKNOWLEDGMENTS

My stay at LRGVNWR was made possible through the Student Conservation Association volunteer program. I would like to thank Chris Best, LRGVNWR Plant Ecologist, for allowing me to participate in the program. As my immediate supervisor, Chris permitted me the freedom to pursue my studies of the valley herpetofauna, and was most patient with me in my preoccupation of these non-floral components of the valley biota. Martin Bray, LRGVNWR Biologist, unstintingly gave of his time, humor, knowledge, and expertise in the field and I wish to extend my sincere gratitude and thanks for his efforts on my behalf. I thank Dennis Prichard, SANWR Refuge Manager, for making equipment and facilities in his care available for my use. My thanks to Justin Roach, LRGVNWR Assistant Manager, who was most helpful in providing pertinent data and field assistance. I would also like to thank all of the employees at LRGVNWR and SANWR who helped me in many different ways and made my stay much more enjoyable. To Ken King, of Weslaco, Texas, my thanks are due for sharing his knowledge of the flora and fauna of the valley. To Patrick Burchfield, Rose Farmer, and Pauline James, my thanks for sharing pertinent information. I would be remiss if I did not thank my mentor and friend, Joe Collins, for innumerable courtesies and assistance over the years, and especially for expediting my scientific collecting permit application.

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AN HISTORY OF THE KANSAS HERPETOLOGICAL SOCIETY NEWSLETTER

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The first issue of the Kansas Herpetological Society Newsletter appeared in June, 1974. It was just three pages long, including a questionnaire. The big news announcement was that the officers of the newly formed society were president Eric Rundquist, president-elect George Pisani, treasurer Mary Dawson, and secretary Richard Lattis.

The newsletter started off with an ambitious publication schedule of an issue every other month. Joe Collins served as the first editor (Table 1).

From the first issue, the newsletter has been assisted by the Division of Herpetology of the Natural History Museum at the University of Kansas, thanks to the support of the curators, KHS members William E. Duellman and Linda Trueb. The publications in the division library have been extensively used as sources of illustrations and news items, the division provides a permanent mailing address for the newsletter, and for years the division equipment (first typewriters, then computer terminals, then computers and printers) was used to produce the newsletter. For those of you interested in ancient history, the Division of Herpetology Library maintains a complete set of the newsletter.

By issue #4 (December 1974) the newsletter had grown to nine pages and added an associate editor, Jan Perry. This issue contained an announcement about the opening of the "new herpetarium" at Sedgwick County Zoo, and the first KHS "Triple -H-Award", better known as the Hopping Hemipenis of Horror. It went to "all those people (?) taking part in the 'rattlesnake roundups' held in Oklahoma, Texas, and other backward states which permit this insane and stupid exploitation of wildlife to continue. Congratulations to all you machos whose ego is satisfied by participating in this destruction of an integral part of our fauna." How sad that Kansas now ranks as a backward state with its own rattlesnake roundup.

With issue #5 (February 1975) Jan Perry became editor, and Joe Collins associate editor. David Grow became associate editor with issue #7. Under Jan's leadership, the newsletter expanded to include reviews of the scientific literature and the ever popular herps-in-thenews. Jan also added illustrations. Issue #9 (October 1975) included a joint publication sponsored by the KHS and the Society for the Study of Amphibians and Reptiles -- A Brief

Outline of Suggested Treatments for Diseases of Captive Reptiles by James B. Murphy (SSAR Herpetological Circular No. 4). KHS president George Pisani was responsible for this "first" for a regional herpetological society. Also in this issue was the first lengthy original research paper published in the newsletter, Observations on the Alligator Snapping Turtle in Kansas, by frequent contributor Marty Capron, as well as Marty's first piece of signed artwork to appear in the newsletter (what else but a drawing of an Alligator Snapping Turtle?).

Issue #12 (June 1976) marked another first -- it included the KHS Field Check List of Amphibians and Reptiles in Kansas. This was a radically new concept for herpers -- instead of just going out to catch and keep, KHS was asking people to record qualified observations on the herpetofauna of the state. The idea had started with the first KHS field trips, and grew rapidly from there. I doubt that any other society can boast of the level of contribution to the herpetology of a geographic region that the KHS membership has made over the years on its annual field trip surveys.

Another big change was in store with issue #17 (February 1977). The newsletter acquired a color cover (green), with the famous Marty Capron drawing of the alligator snapper from issue #9, this time sitting on a map of Kansas. The newsletter had grown to 16 pages and was quite professional in appearance. In fact, with almost every issue, Jan managed to add another new feature to the newsletter. Issue #20 (August 1977) contained *The Kansas Herpetological Society: A Brief History* as well as the reprinting of a long out-of-print article on Kansas herpetofauna (from 1931, the first record of *Bufo punctatus* in Kansas).

With issue #21, Rose Etta Kurtz joined the newsletter staff as associate editor. A species index to newsletters 1-22 was published in issue #24. It took up five and one half pages. The KHS membership was growing, making the production, labeling, and mailing of the newsletter ever more time consuming. For issue #29 (February 1979), Jan added two more managing editors, Chris Stammler and John Tollefson. They can probably still taste the glue from licking all those stamps.

Jan retired as newsletter editor with issue #30 (April 1979), but only because a job opportunity called her away to the Dallas Zoo. James Knight agreed to take over the editorial reins, but suddenly, the lure of employment took him, too, to a faraway state, so issue #31 saw another new editor, Hank Guarisco. Clever Jan, however, had such a large stock of those green covers in store that her name continued to appear inside the cover as editor until issue #34.

Improvements continued to be made to the newsletter. Hank spent a lot of time in the library, and the range of news items and summarized scientific literature reflect his wide interests and keen eye for a good story. It wasn't until issue 35 (February 1980) that Hank got rid of those pesky green covers, and moved on to sky blue, this time with a drawing of a Northern Spring Peeper by Tom Johnson.

Issue 37 (June 1980) found the KHS filing a petition with the Kansas Fish and Game Commission to designate five amphibians as endangered. The candidates were the Northern Spring Peeper (Hyla c. crucifer), Strecker's Chorus Frog (Pseudacris s. streckeri), Eastern Narrowmouth Frog (Gastrophryne carolinensis), Northern Green Frog (Rana clamitans melanota), and Western Green Toad (Bufo debilis insidior).

Issue 39 (October 1980) was dedicated to a very famous Kansas herpetologist, Dr. Henry S. Fitch. on the occasion of his "retirement" (those who have the privilege to know Dr. Fitch know his retirement is a mere technicality). The issue included a comprehensive bibliography of Dr. Fitch's publications.

Creamy-yellow covers appeared on Issue 41 (February 1981). It contained the first poem published in the newsletter, "Snake" by D.H. Lawrence. Asecond Lawrence poem ("Baby Tortoise") appeared in issue 44 (August 1981). Some of us began to suspect that Hank was a secret English major, given his inclination to D.H. Lawrence. An article in this issue also reported on the theft of three milk snakes from the live snake exhibit at the Natural History Museum at KU. In a statement to the press, Joe Collins estimated their retail value at about \$125.

In the December, 1981 issue (#46), Hank provided us with the following bit of wisdom: REPTILIAN LOGIC...is dedicated to the following precepts: When you are hot, find shade. When you are cool, lie in the sun. When you are hungry, eat something. When you are tired, sleep.

Many of us are living by these precepts yet.

Gold covers debuted with issue 47 (March 1982). What makes this issue most memorable, however, is the inclusion of the wonderful, four-page insert on endangered and threatened amphibians and reptiles of Kansas. This excellent pamphlet had range maps, color photographs, and descriptions of six species. It was widely distributed to an eager audience. This was the last issue for Associate Editor Rose Etta Kurtz, who after years of hard work, gave

her position to Ray Loraine.

Issue 48 (June 1982) included a photograph, by Larry Miller, of a tornado on the KHS field trip to Atchison County State Lake (when I first saw the photo, I mistook it for the dust cloud raised by the frantic collecting activities of loyal KHS members). Issue #49 (September 1982) marked the end of an era for the newsletter, as editor Hank Guarisco stepped down to pursue training at the Jersey Wildlife Preservation Trust. Under Hank's management, the newsletter focus had expanded greatly. John Simmons was appointed as the next editor, and Ray Loraine continued as Associate Editor. John and Hank worked together on issue 49, which was noteworthy for the launching of a KHS Newsletter editor's tradition -- the use of pseudonyms. On a whim, some articles in this newsletter were signed by Irving Street (Simmons) and Crystal Evans (Guarisco). Subsequent KHS newsletters have occasionally included other pseudonyms, but their origin is still cloaked in mystery.

Issue #50 (December 1982) contained a popular feature: a "reprint" of a fictitious regional herpetological society newsletter, cleverly called Regional Herpetological Society News. We were surprised (and somewhat gratified) by the number of readers who thought it was a real newsletter. Personally, I thought readers would figure it out when they got to the meeting announcement which read, "The speaker will be Dan McMann of the Regional Chapter of the Pet Suppliers International Fraternity who will speak on stupid restrictions on wildlife and how he can get you an anaconda anyway." There was also a classified ad reading "FOR SALE: Tuataras. Real cute babies, captive born", which at least one Famous Herpetologist thought was real and tried to answer.

Issue 51 contained the first original poem published in the newsletter, *Big Wind in the Herp Room*, by someone named Martinez Caprinio. This issue is notable for two other reasons as well. First, it was late. Second, it was the first issue produced on a computer. Prior issues of the newsletter had been tediously typed out and pasted together, but this issue marked the entrance of KHS into the computer age. It was not the neat, nifty desk-top publishing job seen today -- this was computer production involving a large mainframe computer and very cumbersome word processing procedures -- but it was state-of-the-art.

Graduate school called Ray Loraine away, so Linda Dryden took over as Associate Editor with issue 55 (March 1984). Issue 56 (June 1984) contained a hilarious article from one of those supermarket tabloids titled *I Was Eaten by a Giant Snake* (the article was contributed by that Martinez Caprinio fellow). The article was seen by the editor of Kansas Wildlife, and the gist of it repeated in the September/October issue of that magazine in the "Nature" column -- crediting KHS as the source! A letter to the editor of Kansas Wildlife was necessary to straighten the mess

out. Also in issue 56 was an article by Joe Collins, *New Records of Fishes, Amphibians and Reptiles in Kansas for 1983*. This has grown, of course, to become a regular and important feature of the newsletter since then.

Newsletter 61 (September 1985) contains an article by Olin Karch called "Summertime in Emporia--A Short Melodrama in 10 Acts," which tells the story of a murdered boa constrictor in Emporia. It is both funny and poignant in its tale of reptiles loved and hated in Kansas, as elsewhere. Issue 62 (December 1985) contained an innocent note about a sixth grade class in Caldwell, Kansas, who asked that the Ornate Box Turtle be made the State Reptile of Kansas. Perhaps we should have paid more attention to the lessons in Olin's article, but in fact, nobody predicted what would ultimately happen. The KHS Newsletter carefully documented the course of the box turtle bill through the legislature and to the desk of the governor (where it was

signed). A summary of the entire episode is in issue #64 (June 1986). Unfortunately, the newsletter also had to report on a nasty backlash reaction, which included such barbaric acts as box turtles intentionally being run over, a spate of anti-box turtle graffiti, and a well-known and beloved teacher losing his job in Caldwell.

By issue #71 (March 1988) the entire newsletter was being produced desktop, and Joe Collins replaced Linda Dryden as Associate Editor. Joe soon had the newsletter well formatted and beautifully printed on his Macintosh, and even included a digitized frog icon for the cover. Jeff Whipple came on board as an Associate Editor, taking over the onerous mailing chores.

Throughout its existence, the newsletter has printed an ever-growing number of original articles from KHS members (and sympathizers). This has played a big role in

Table 1. Editors and Associate Editors of, and Years of Service to the Kansas Herpetological Society Newsletter

KHS Newslette number	Editor	Associate Editor(s)	Years
1-3	Joseph T. Collins		1974-75
4	Joseph T. Collins	Janice Perry	1974-75
5-6	Janice Perry	Joseph T. Collins	1975
7-20	Janice Perry	David Grow	1975
21-22	Janice Perry	David Grow	1975-77
		Rose Etta Kurtz	
23-28	Janice Perry	Rose Etta Kurtz	1978-78
29	Janice Perry	Rose Etta Kurtz	1979
#####################################		Chris Stammler	
		John Tollefson	
30	James Knight	Rose Etta Kurtz	1979
		Chris Stammler	
		John Tollefson	
31-40	Hank Guarisco	Rose Etta Kurtz	1979-80
		Chris Stammler	
		John Tollefson	
41-46	Hank Guarisco	Rose Etta Kurtz	1981
47-48	Hank Guarisco	Ray Loraine	1982
49-54	John E. Simmons	Ray Loraine	1982-84
55-70	John E. Simmons	Linda Dryden	1984-88
71-73	John E. Simmons	Joseph T. Collins	1988
74-78	John E. Simmons	Joseph T. Collins	1988-90
		Jeffrey Whipple	
79-93	Eric Rundquist	Martin B. Capron	1990-93
		Jeffrey Whipple	
94	Eric Rundquist	Martin B. Capron	1993
		David L. Reber	
95-100	Eric Rundquist	Martin B. Capron	1994-95
	•	David L. Reber	
		Ann F. Rundquist	

making the KHS Newsletter one of the leading regional society newsletters in the U.S.

More innovation was ahead with issue #78 (November 1989). It included, as an insert, a full page color photograph, by Suzanne L. Collins, of the Northern Crawfish Frog (Rana areolata), poster frog for the Kansas Department of Wildlife and Parks Chickadee Checkoff program. Issue #79 (February 1990) saw a major turnover in editorial staff. Eric Rundquist took over as newsletter editor, assisted by associate editors Marty Capron and Jeff Whipple. KHS purchased its own computer for the production of the newsletter and for other KHS business. Eric moved to an easier-to-read, space-saving two column format with issue #81 (August 1990)

By the time issue #85 (August 1991) was published, the newsletter was expanding its coverage of some critical Kansas conservation issues, reporting on the controversy over the composition of the Kansas Endangered and Threatened Species list, and on attacks on the Kansas Endangered and Threatened Species Act by the Farm Bureau. The newsletter included a reporting form for participating in a nation-wide amphibian population survey.

Issue 90 (November 1992) began another phase of KHS's continuing coverage of rattlesnake roundups. But this time, the roundups were close to home -- Sharon Springs. The coverage has included original scientific research, eye-witness accounts of the roundups, news reports, and letters to the editor.

Dave Reber joined Eric and Marty on the editorial staff with issue #94 (November 1993), and Ann Rundquist came on board with issue #95.

There was one herpetological story in Kansas not covered by the newsletter, and that was when a group of environmentally concerned citizens ran a Northern Crawfish Frog for the Douglas County Commission in Lawrence, Kansas, to attract attention to a wetland area threatened by a planned highway. The frog (Agnes T. Frog) won 28% of the vote as a write-in candidate in the 1987 election. The reason the story was not covered by the newsletter was that the editor was involved with the Agnes campaign, and felt that printing it would have been a conflict of interest.

The reputation of the KHS Newsletter was such that in 1985, the editor was invited to participate in the 9th Annual Regional Society Conference, "Methods to Enhance the Regional Societies," sponsored by the Society for the Study of Amphibians and Reptiles. The topic addressed was "Newsletter Techniques used by the Kansas Herpetological Society."

The KHS Newsletter remains, fundamentally, what the membership wants it to be. No matter who the editor is, or how hard the editor works, the newsletter will succeed or fail depending on what the KHS membership contributes to it. Being newsletter editor has its rewards, but it has its frustrations, too. It is an opportunity to develop a deep, personal relationship with the staff of your local all-night copy center. You learn to cut-and-paste in a moving car. You discover that you are more likely to hear from unhappy readers than happy ones. As much as I enjoyed editing the newsletter, I am also enjoying not having to do it.

But you know, I saw something on the Internet just the other day about a museum in Galena, Kansas, which is supposed to have information about "a local woman who gave birth to an amphibian." Wonder if that would be a good item for the newsletter?



IN MEMORIAM

Gene David Trott January 18, 1941-March 24, 1995

A longtime member and good friend of the Kansas Herpetological Society has left us. To the fading melody of *Amazing Grace*, Gene Trott was borne by his sons and brothers and friends from South Haven Christian Church to his final resting place at nearby Rose Hill Cemetery.

Gene was born in Bangor, Maine, but moved to Kansas shortly thereafter and lived in the Hunnewell-Caldwell area for the last twenty-five years of his life. He joined the KHS in 1976 while attending (with his two young sons, Jody and Toby) a March meeting held during the day in Caldwell, Kansas, and followed by a memorable campout on a cold night along the Arkansas River in Cowley County to the east. Gene's involvement in the Society was spurred in part by his friendship with one of us (LM) and his growing concern over the careless application of agricultural chemicals by spray planes in the Caldwell-Hunnewell-South Haven area. At that time, spray planes were wreaking tremendous environmental damage in southcentral Kansas, killing millions of fishes, amphibians, reptiles, birds, and mammals, and causing distress, both physical and mental, to many longtime residents amongst the human population. Gene's skill at photography proved invaluable in documenting the misuse of these sometimes deadly chemicals. His photographs often assisted personnel from the Kansas Department of Health and Environment and the Kansas Department of Wildlife and Parks in apprehending and fining farmers and sprayers that flaunted the regulations on chemical spraying

In the spring 1977, Gene joined with Marty Capron and one of us (LM) in organizing the first annual Chikaskia River Wildlife Study, an outdoor experience for young people from Sumner County and other nearby communities in Oklahoma and Kansas. He soon became the major organizer for this educational event, and remained so until the last one was held in 1986. The *River Study* sensitized many children (and adults) to the beauty of the Chikaskia River, which remains to this day unfettered by dams and other cultural impacts, one of the last Kansas rivers to run free and natural.

In 1986, Gene Trott became involved with the 6th Grade students at Caldwell Elementary School in their campaign to designate the Ornate Box Turtle as the official state reptile of Kansas. His commitment took up most of his time that year, as he passed out turtle buttons and button-holed anyone who would listen to his persuasive arguments that this placid, mild-mannered creature deserved the stature of a state symbol. The Caldwell students were successful, and Gene joined them and Governor John Carlin at their school on April 14th for the official signing

of the bill. Later, in 1993 and 1994, Gene again added his support to the equally successful campaign to designate the Barred Tiger Salamander as our state amphibian. He wrote letters, presented the case for the salamander to all who would listen, and bought salamander T-shirts to give as gifts.

In 1987, Gene Trott joined one of us (LM) in the initial KHS Sumner County herp count, and recently videotaped the 1994 count as students from Topeka Collegiate School swarmed the hillsides in search of amphibians and reptiles. He was helping organize the 1995 count before his untimely death.

Photography was one of Gene Trott's interests and he derived much enjoyment and satisfaction from it. Given his involvement with the KHS, he naturally took many shots of amphibians and reptiles. His color image of a Bullfrog, taken *in situ* along the edge of a pond, graces a page in *Natural Kansas* (edited by JTC). During 1991, he helped organize a Mid-America Photographers Weekend in South Haven, and traveled north the following year to participate in the Topeka Collegiate School Photography Day.

In 1994, Gene Trott turned his interest to Explorer Scout Post 303 in Wellington, Kansas, where he once again volunteered his efforts to help young folks (and adults).

But listing his many interests and accomplishments simply cannot do justice to Gene Trott. He will be missed, sorely missed, because he was a kind and gentle soul, with an abiding interest in young folks and teaching them about wildlife. He set an example of congenial demeanor to which most of us can only aspire. His quick and friendly grin, and calm in the midst of rough, was a sure and steady source of comfort to the numerous youngsters that always seem gathered about his feet. His passing is a terrible loss to us, and to the KHS.

Larry Miller 840 SW 97th Street Wakarusa, Kansas 66546

and

Joseph T. Collins Natural History Museum The University of Kansas Lawrence, Kansas 66045

Contributions on behalf of Gene Trott can be made to the Explorer Scout Post 303 Memorial Fund, and sent to Frank Funeral Home, 417 North Washington, Wellington, Kansas 67152.

IN MEMORIAM

Eric McCarrier

KHS member Eric McCarrier participated in the first Cowley County Herp Count led by Al Volkmann in 1989. He took part in every annual survey conducted on the Cowley County site since then and his assistance was a major factor in the consistency of the data collection. He also provided much of the muscle required to lift those particularly productive monster rocks.

Eric McCarrier died on his 23rd birthday, 15 December 1994, in an industrial accident in Wichita, Kansas. Eric was a recent graduate in chemistry from The Wichita State University and had been employed as a chemist by the company where the accident occurred. He is survived by his wife, Cindy, his father, and one brother. The KHS Executive Council extends its deepest sympathy and condolences to his family.

— Al Volkmann 1650 Melrose Lane Wichita, Kansas 67212

NEW RECORDS OF AMPHIBIANS AND REPTILES IN KANSAS FOR 1994

JOSEPH T. COLLINS

Natural History Museum The University of Kansas Lawrence, Kansas 66045

The Center for North American Amphibians and Reptiles 1502 Medinah Circle Lawrence, Kansas 66047

The 26 new county records and two maximum size records listed below are those accumulated or brought to my attention since the publication of records for 1993 (Collins, 1994). Publication of these new records permits me to give credit and express my appreciation to the many individuals who collected or obtained specimens and donated them to me for deposition in an institutional collection. Further, recipients of this list are permitted an opportunity to update the range maps and size maxima sections in Amphibians and Reptiles in Kansas Third Edition (Collins, 1993). Finally, these new records represent information that greatly increases our knowledge of the distribution and physical proportions of these creatures in Kansas, and thus gives us a better understanding of their biology. This report is my twentieth in a series that has appeared annually since 1976, and the data contained herein eventually will be incorporated into the fourth (revised) edition of my book.

The Kansas specimens listed below represent the first records for the given county based on a preserved, cataloged voucher specimen in an institutional collection, or represent size maxima larger than those listed in Collins (1993). Any information of this nature not backed by a voucher specimen is an unverifiable observation. All new records listed here are presented in the following standardized format: standard common and current scientific name, county, specific locality, date of collection, collector(s), and place of deposition and catalog number. New size maxima are presented with the size limits expressed in both metric and English units. Common names are those now standardized for North America, as compiled by Collins (1990), and are given at the species level only.

The records listed below are deposited in the herpetological collections of the Natural History Museum, The University of Kansas, Lawrence (KU). I am most grateful to the members of the Kansas Herpetological Society, and to the staff of the Kansas Department of Wildlife and Parks, who spent many hours in search of some of the specimens reported herein. Some of the records contained herein resulted from field studies sponsored by funds from the Kansas Department of Wildlife and Parks' Chickadee Checkoff Program. John E. Simmons, highly esteemed Collection Manager for the Division of Herpetology, Natural History Museum, The University of Kansas, diligently assigned catalog numbers to the specimens listed below, and to him I am indebted. Thanks are due also to Philip S. Humphrey, Director, and William E. Duellman, Curator of Herpetology, of the Natural History Museum, The University of Kansas.

NEW COUNTY RECORDS

WOODHOUSE'S TOAD (*Bufo woodhousii*)

Osage Co: Overbrook. 16 July 1994. James Gubanyi and Keith Coleman (KU 221777).

NORTHERN CRICKET FROG (*Acris crepitans*) **H**ODGEMAN Co: State Wildlife Area, Sec. 14, T23S, R23W.

22 May 1994. Travis W. Taggart (KU 222237).

BULLFROG (Rana catesbeiana)

SMITH Co: Cedar Creek at Ks. Rt. 9, 1.1 mi E Cedar, SE Sec. 32, T4S, R14W. 20 May 1994. Travis W. Taggart (KU 222239).

GROUND SKINK (Scincella lateralis)

ELK Co: Sec. 5, T31S, R13E. 2 June 1994. Travis W. Taggart (KU 222243). WYANDOTTE Co: 121st Street, N of Ks. Rt. 32 across from Camp Naish entrance. 9 July 1994. John Ahrens (KU 221782).

SNAPPING TURTLE (*Chelydra serpentina*) **ELK Co**: 2 mi N and 0.5 mi W Grenola, East Fork Caney River, Sec. 7, T31S, R9E. 2 June 1994. Travis W. Taggart (KU 222260).

FALSE MAP TURTLE (*Graptemys pseudogeographica*) LINN Co: Marais des Cygnes River, Sec. 22, T20S, R24E. 18 June 1994. Kelly J. Irwin, Suzanne L. Collins and Joseph T. Collins (KU 222268).

RIVER COOTER (Pseudemys concinna)

LINN Co: Marais des Cygnes River, Sec. 22, T20S, R24E. 18 June 1994. Kelly J. Irwin, Suzanne L. Collins and Joseph T. Collins (KU Color Slide 11136).

GREAT PLAINS SKINK (Eumeces obsoletus)

HODGEMAN Co: State Wildlife Area, Sec. 14, T23S, R23W. 26 April 1994. Travis W. Taggart (KU 222240). Ness Co: Goodman State Lake and Wildlife Area, Sec. 22, T19S, R23W. 17 May 1994. Travis W. Taggart (KU 222241).

BROADHEAD SKINK (Eumeces laticeps)

LINN Co: Marais des Cygnes National Wildlife Refuge, NW 1/4 Sec. 20, T21S, R25E. 16 April 1994. Kelly J. Irwin, Suzanne L. Collins and Joseph T. Collins (KU 222264).

WESTERN SLENDER GLASS LIZARD (Ophisaurus attenuatus)

KIOWA Co: Anchor D Ranch, Sec. 2, T30S, R16W. 30 May 1994. Garrett Jantz (KU Color Slide 11132).

WESTERN WORM SNAKE (Carphophis vermis)

ELK Co: Sec. 5, T31S, R13E. 2 June 1994. Travis W. Taggart (KU 222245). **LABETTE Co**: Big Hill Lake, Sec. 6, T32S, R18E. 1 June 1994. Travis W. Taggart (KU 222247).

FLATHEAD SNAKE (Tantilla gracilis)

LABETTE Co: Big Hill Lake, Sec. 6, T32S, R18E. 1 June 1994. Travis W. Taggart (KU 222257). Neosho Co: 1 mi N and 2 mi E Erie, Sec. 27, T28S, R20E. 31 May 1994. Travis W. Taggart (KU 222255).

RACER (Coluber constrictor)

THOMAS Co: 1 mi N Oakley on U.S. Rt. 83, Sec. 35, T10S, R32W. 12 May 1994. Travis W. Taggart (KU 222249).

RAT SNAKE (*Elaphe obsoleta*)

Kiowa Co: Anchor D Ranch, Sec. 2, T30S, R16W. 30 May 1994. Garrett Jantz (KU Color Slide 11133). Lincoln Co: NW Sec. 29, T12S, R8W. 19 May 1994. Travis W. Taggart (KU 222251).

COACHWHIP (Masticophis flagellum)

SMITH Co: 2.5 mi E Claudell on Ks. Rt. 9, Sec. 35, T4S, R15W. 21 May 1994. Travis W. Taggart (KU 222250).

GRAHAM"S CRAYFISH SNAKE (Regina grahamii)
ALLEN Co: along Neosho River at Humboldt, Sec. 4, T26S,

R18E. 31 May 1994. Travis W. Taggart (KU 222253).

BROWN SNAKE (Storeria dekayi)

STAFFORD Co: Sec. 20, T21S, R11W. 14 October 1990. Harry Gregory (KU 221785). NEOSHO Co: county road on E side of Neosho Waterfowl Refuge, Sec. 29, T29S, R21E. 31 May 1994. Travis W. Taggart (KU 222254).

COMMON GARTER SNAKE (Thamnophis sirtalis)
SHERIDAN Co: 10 mi N Hoxie on Ks. Rt. 23, Sec. 27, T6S, R28W. 24 May 1994. Travis W. Taggart (KU 222258).

LINED SNAKE (Tropidoclonion lineatum)

LINN Co: between Beagle and Cadmus. 31 April 1993. Roy Engeldorf (KU 221490).

WESTERN RATTLESNAKE (*Crotalus viridis*) SMITH Co: 12 mi N and 1 mi E Lebanon on U.S. Rt. 281, Sec. 11, T1S, R11W. 20 May 1994. Travis W. Taggart (KU 222259).

NEW MAXIMUM SIZE RECORDS

BROADHEAD SKINK (Eumeces laticeps)

LINN Co: Marais des Cygnes National Wildlife Refuge, Sec. 11, T21S, R25E. 7 May 1994. Kelly J. Irwin, Emily Moriarty, Suzanne L. Collins, and Joseph T. Collins (KU 222265). SVL = 116 mm, total length = 287 mm (11 1/4 inches). Male.

SOUTHERN PRAIRIE SKINK (*Eumeces obtusirostris*) SUMNER Co: Sec. 15, T35S, R3W. 16 April 1994. Larry Miller (KU 221779). SVL = 74 mm, total length = 201 mm (7 15/16 inches). Male.

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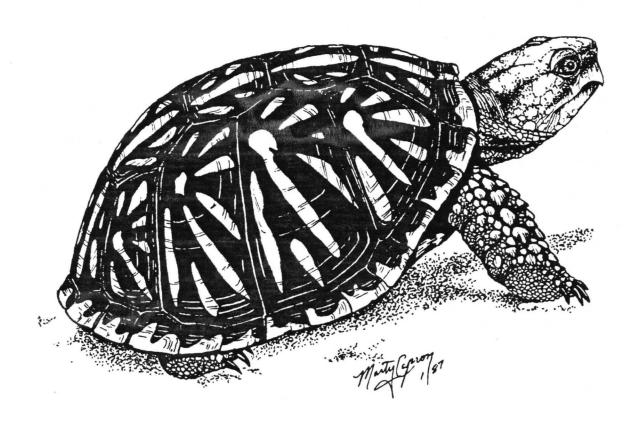
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First Known Occurrence of Amphibian Species in Kansas

EMILY C. MORIARTY 1230 Wagonwheel Road Lawrence, Kansas 66049

JOSEPH T. COLLINS

The Center for North American Amphibians and Reptiles
1502 Medinah Circle
Lawrence, Kansas 66047

The following list documents the earliest date of collection for 29 of the 31 species of amphibians known to occur in Kansas, based on Collins (1993). Two complexes, the Western Chorus Frog and Gray Treefrog, each consist of two species that are extremely difficult to distinguish from each other, and this was not attempted. Locality, collector (where known), and location and catalogue number of voucher specimen are also given for each species. Common and scientific names follow those of Collins (1990). Species are listed in the same sequence as they appear in Collins (1993). KU = University of Kansas Natural History Museum herpetology collection; UMMZ = University of Michigan Museum of Zoology herpetology collection; USNM = U.S. National Museum of Natural History herpetology collection. Text in brackets [] is that previously published for the specimen, either where it does not agree with collection data or when such data is not available from collection records.

SALAMANDERS

 ${\bf Small mouth \ Salamander} \ (Ambystoma \ texanum)$

Locality: Douglas Co: Haskell Bottoms

Date collected: 12 March 1904 Collector: F. A. Hartman

Collection voucher number: KU 952

Tiger Salamander (Ambystoma tigrinum)

Locality: Douglas Co: no other data

Date collected: 1907 Collector: Unknown

Collection voucher number: KU 1024

Eastern Newt (Notophthalmus viridescens)

Locality: Miami Co: Pigeon Lake area

Date collected: 21 August 1928 Collector: Howard K. Gloyd

Collection voucher number: UMMZ 68385

Longtail Salamander (Eurycea longicauda)

Locality: Cherokee Co: Galena, Shoal Creek

Date collected: 8 September 1926

Collector: R. A. Stirton

Collection voucher number: KU 6387

Cave Salamander (Eurycea lucifuga)

Locality: Cherokee Co: E of Baxter Springs [1.25 mi S

Galena]

Date collected: 21 October 1945

Collectors: Claude W. Hibbard, Horr, & Hobart M. Smith

[E. W. Jameson, Jr.]

Collection voucher number: KU 23193

Many-ribbed Salamander (Eurycea multiplicata)

Locality: Cherokee Co: 3 mi S Galena

Date collected: 26 April 1967 Collector: Patrick H. Ireland

Collection voucher number: KU 153033

Grotto Salamander (Typhlotriton spelaeus)

Locality: Cherokee Co: near Riverton [3-5 mi N Baxter

Springs near Spring River]
Date collected: [3–5 April] 1931

Collectors: [Hobart M. Smith, Edward H. Taylor, William

K. McNown, & H. W. Lane]

Collection voucher number: USNM 134296

Mudpuppy (Necturus maculosus)

Locality: Franklin Co: Marais des Cygnes River

Date collected: March 1911 Collector: Edward H. Taylor

Collection voucher number: KU 805

Red River Mudpuppy (Necturus louisianensis)

Locality: Greenwood Co: 1 mi W Fall River

Date collected: 10 April 1932 Collector: Claude W. Hibbard

Collection voucher number: KU 16913

FROGS AND TOADS

Plains Spadefoot (Spea bombifrons)

Locality: Morton Co: 18 mi N Elkhart Date collected: 10 August 1926

Collectors: Theodore E. White & Edward H. Taylor

Collection voucher number: KU 5211

American Toad (Bufo americanus) Locality: Douglas Co: Lawrence Date collected: 25 April 1904 Collector: F. A. Hartman

Collection voucher number: KU 6343

Great Plains Toad (Bufo cognatus) Locality: Trego Co: no other data Date collected: July 1909

Collector: University of Kansas Biological Survey Staff

Collection voucher number: KU 5899

Green Toad (Bufo debilis)
Locality: Grant Co: no other data
Date collected: August 1911
Collector: F. X. Williams

Collection voucher number: KU 5642

Red-Spotted Toad (Bufo punctatus)

Locality: Morton Co: 12 mi. N of Elkhart, ca. Walsh's

Ranch

Date collected: 25 June 1927

Collectors: William H. Burt & H. C. Parker Collection voucher number: KU 9100

Woodhouse's Toad (Bufo woodhousii) Locality: Douglas Co: Lawrence, Mt. Oread

Date collected: 17 May 1904 Collector: F. A. Hartman

Collection voucher number: KU 6386

Northern Cricket Frog (Acris crepitans)

Locality: Douglas Co: Lawrence Date collected: 19 March 1904 Collector: F. A. Hartman

Collection voucher number: KU 7918

Gray Treefrog (Hyla chrysoscelis, H. versicolor)

Locality: Douglas Co: 7.5 mi SW Lawrence

Date collected: 7 June 1923 Collector: R. A. Stirton

Collection voucher number: KU 10717

Spotted Chorus Frog (Pseudacris clarkii)

Locality: Rush Co: Nekoma Date collected: 12 August 1927 Collector: Theodore E. White

Collection voucher number: KU 4509

Spring Peeper (Pseudacris crucifer)

Locality: Miami Co: no other data [Pigeon Lake area]

Date collected: 19 March 1927 Collector: Howard K. Gloyd

Collection voucher number: KU 55472

Strecker's Chorus Frog (Pseudacris streckeri) Locality: Harper Co: 2 km W & 9 km S Anthony

Date collected: 23 April 1977

Collectors: Eddie Stegall, David Grow, Ed Byrne & Peter

Gray

Collection voucher number: KU 174370

Western Chorus Frog (Pseudacris maculata, P. triseriata)

Locality: Douglas Co: Twinmound Date collected: 27 July 1911

Collector: Unknown

Collection voucher number: KU 8072

Crawfish Frog (Rana areolata)

Locality: Anderson Co: no other data

Date collected: August 1910 Collector: Edward H. Taylor

Collection voucher number: KU 9275

Plains Leopard Frog (Rana blairi)

Locality: Douglas Co: Lawrence Date collected: 12 March 1904

Collector: F. A. Hartman

Collection voucher number: KU 9556

Bullfrog (Rana catesbeiana)

Locality: Dickinson Co: Talmage Date collected: 5 September 1905

Collector: W. R. Robertson

Collection voucher number: KU 8619

Green Frog (Rana clamitans)

Locality: Miami Co: Marais des Cygnes River, ca.

Osawatomie

Date collected: 11 July 1911 Collector: Unknown

Collection voucher number: KU 9281

(Note: this voucher specimen is missing and presumed

lost)

Pickerel Frog (Rana palustris)

Locality: Crawford Co: Pittsburg [along Cow Creek]

Date collected: Summer 1911

Collector: Unknown

Collection voucher number: KU 9488

Southern Leopard Frog (Rana sphenocephala)

Locality: Miami Co: Osawatomie

Date collected: 17 June 1911

Collector: Unknown

Collection voucher number: KU 9625

Eastern Narrowmouth Toad (Gastrophryne carolinensis)

Locality: Cherokee Co: 4 mi N Baxter Springs

Date collected: 27 April 1947

Collector: E. Beasley

Collection voucher number: KU 24414

Plains Narrowmouth Toad (Gastrophryne olivacea)

Locality: Labette Co: 12 mi SW Oswego, Hackberry Creek

Date collected: 9 July 1915 Collector: Victor H. Householder Collection voucher number: KU 9904

We thank Kelly J. Irwin (Texas A&M University) for his timely help in obtaining the names of many of the collectors. John E. Simmons (University of Kansas Natural History Museum) generously provided us with the database used in this project.

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THE SHARON SPRINGS RATTLESNAKE ROUND-UP: A REPORT

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478-1131

It started three years ago. It was held in Sharon Springs, Kansas. Many attended. It featured an infamous Fangs and Rattlers Show. What was it? What is it? Its the only Rattlesnake Round-up in Kansas.

The decision to hold a Kansas Rattlesnake Round-up was influenced by many people, mostly in states to the south of us. A man named James White helped get them started in the Sunflower State.

In September 1992, the first Kansas rattlesnake hunt was held. In this initial spectacle, 2000 people attended to see the 75 frightened rattlesnakes that were collected. During the hunt, numerous laws were apparently broken. The then-current possession limit of five rattlesnakes was violated frequently. And it was rumored that some hunters even poured gasoline into small mammal burrows, possibly killing all manner of harmless wildlife, from Tiger Salamanders to Ornate Box Turtle (both official state symbols) and even endangered or threatened species such as the Green Toad, and such bystanders as the Burrowing Owl. If this occurred, it was in violation of another Kansas law that prohibits the deliberate pouring of chemicals onto or into the ground because such substances can kill crops, damage ground water, and fundamentally degrade our Great Plains eco-system.

To hold a rattlesnake hunt, you must have land. To get and use land for a round-up, permission from the owner is needed. Some residents agreed to let their land be used for the rattlesnake round-up. But some of those who didn't grant such permission often were misrepresented, with sponsors and participants of the round-up claiming that these folks maintained rattlesnake preserves in order to ensure that all the snakes would not be collected. What hogwash.

During the Fangs and Rattlers Show at this first gathering, rattlesnakes were tortured. They were kept in corrals and piled on top of each other because of lack of space. Some died from this mistreatment, and were just thrown away after the event. This is gross cruelty to animals. Another event featured a balloon on the end of a stick, held by a participant/sponsor who harassed the snake until it struck the balloon. Still another event featured a round-up employee with a balloon in his mouth, harassing rattlesnakes on a table until it struck the balloon—a few of the round-up employees did this blind-folded, thereby demonstrating to children in attendance an appalling disregard for personal safety.

Sometimes the sponsors of the round-up held "contests" with volunteer participants from the sparse audience (apparently the volunteers were individuals so starved for attention they would do anything to get center stage). One such event featured an intellectually-challenged person lying on a mat in the "rattlesnake corral." "Professional rattlesnake handlers" then rolled rattlesnakes into a ball and placed them in a line on the volunteer from his feet to his head. Aside from the fact that it is extremely dangerous to have a irritated and disoriented rattlesnake atop any human, a venomous strike to the head would, at the least, require a tourniquet around the neck of the volunteer, with possible terminal results from the bite or tourniquet, or both. Another "contest" dealt with more volunteer participation, in which a person would climb into a sleeping bag and the "professional" round-up employees would then stuff rattlesnakes into the bag one by one. The objective of the "contest" was to see how many rattlesnakes could be put into the bag. The volunteer could stop the contest at any time, but usually did only after being bitten—a prize is often so alluring that it numbs common sense. The educational value of these demonstrations was underwhelming the safety messages were incredulous

After the rattlesnakes were caught and forced to undergo these heinous demonstrations, most were rewarded by being beheaded and butchered for meat. During the first hunts, rusty hatchets were used. Then one of the more greedy sponsor/participants decided to allow those attending the opportunity to pay money for the thrill of chopping the head off a rattlesnake—nice educational experience for a young mind. Apparently this disgusted a few attendees, so at the most recent round-up a paper cutter was employed and only the butchers were permitted to cut off the heads of these environmentally useful and valuable serpents. After butchering, the rattlesnakes were skinned. Presumably they were dead, but rumors persist that sometimes they were skinned alive. Great conservation ethic. Humanity in action. Rattlesnakes not butchered were bought and sold by the pound, and transported away in a "cage" (usually a metal oil barrel). The stress these snakes underwent was more prolonged because, if fed at all, they were given just enough to keep them alive. Even by the time these rattlesnakes were sold, their condition had undoubtedly deteriorated greatly and they probably weighed much less (because they got no exercise and little food throughout this terrible ordeal). Thus, the buyers of these snakes probably

lost money when they re-sold them (snakes weighed less X price per pound = less money; hey, folks, we didn't say these people were successful capitalists, just capitalists).

Finally, the first Kansas Rattlesnake Round-up came to a close, and featured a few snakes, poor weather, and a noneducational carnival atmosphere that did little to place these reptiles in proper environmental perspective. The round-up sponsors didn't like the limit of five snakes per person. They allegedly told former State Senator Sheila Frahm to get the limit eliminated. Frahm, as Senate President, persuaded the Kansas legislature, in the face of massive evidence that it was environmentally unsound, to pass the infamous law pushing the possession limit up to thirty rattlesnakes. Personnel from the Kansas Department of Wildlife and Parks, the Kansas Herpetological Society, and many other conservation organizations, strongly opposed the bill, but did not prevail. Committing one of the most anti-environmental acts ever by a Kansas Governor, Joan Finney signed the bill into law in April 1993.

At the second Rattlesnake Round-up in 1993, only 1500 people attended but the number of rattlesnakes collected doubled, thanks to the anti-environmental Frahm-Finney legislation. By the time this round-up was held, the Kansas Department of Wildlife and Parks had succeeded in lowering the limit from thirty to twenty snakes (Ed. note: Again against the recommendations of many professional biologists and conservationists who proposed adhering to the original five snake limit).

The third Rattlesnake Round-up in 1994 had only 1200 in attendance, but again the number of rattlesnakes collected doubled from 150 to 300, even though the limit had been lowered. It was strongly rumored that this occurred because hunters would go out much earlier than the date of the round-up, and catch twenty rattlesnakes, sell them to someonewho was not participating, and continue doing this until the round-up began. More violations of Kansas law.

Today, a biological concern that is receiving more attention in Kansas (because of the Rattlesnake Roundups) is the recruitment rate of Western Rattlesnakes. Most of the snakes collected at rattlesnake round-ups are around two or three years old. Rattlesnakes cannot reproduce until they are at an age of about four or five years. Because of this, those rattlesnakes in overhunted areas may become extirpated.

The 1995 version of the Sharon Springs Rattlesnake Round-up recently ended. Apparently only about 60 rattlesnakes were caught. The brochure for this round-up said they are "fun, exciting, entertaining, and educational." This was so incorrect that it probably violates federal "truth in advertising" statutes. Killing nongame wildlife is not fun or entertaining, and lacks any educational value. Also, on the handout there was a section pertaining to the grand prizes of the "Prairie Rattle." This section states "Longest

snake—Trophy and \$100.00, 2nd place—Trophy and \$75.00, 3rd Place—Trophy and \$50.00, Longest DIA-MONDBACK—Trophy and \$35.00." The prize for the longest diamondback is bizarre. Diamondback Rattle-snakes aren't found in Kansas. So, the only way to conduct this contest, as advertised, would be to transport Western Diamondback Rattlesnakes from some place that has them to Kansas, which may be illegal.

Paul Willis, a well known educator, teacher, and member of the Topeka Audubon Society, made some observations cogent to this report. He believes that such hunts shouldn't be allowed. When asked why Rattlesnake Roundups are held, he stated that the "real reason is not for the educational value as the flyer states. It is exploiting the natural environment for the sake of making money." He also believes that "Legislators, who generally do not have an understanding of biological ecosystems, granted permission [to hold the round-ups with increased bag limits] against the wishes of Kansas Department of Wildlife and Parks game biologists. Willis goes on to say that "rattlesnakes are part of the intricate web of life in the ecosystem. No one knows the long-term results of decreasing or wiping out their populations. There is little doubt in my mind," he continues, that "other species of snakes as well as other forms of wildlife are negatively impacted by rattlesnake hunts." He concludes that "sensationalizing humans' relationship with rattlesnakes (or other wildlife) has negative educational value. It gives people wrong ideas rather than a better understanding and awareness of the natural world."

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