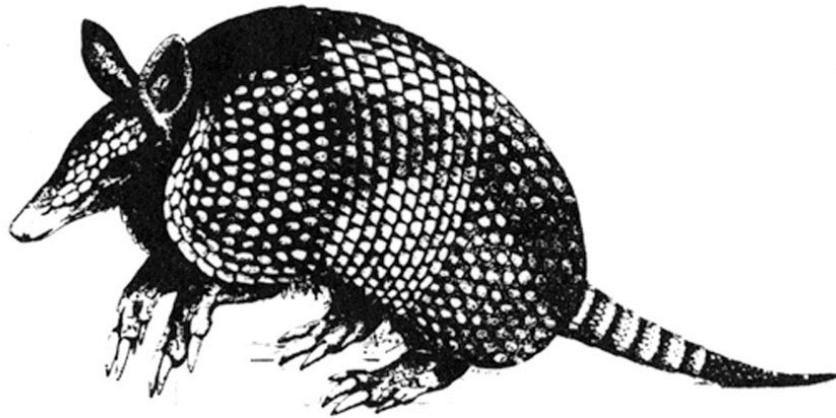


Texas Society of Mammalogists



Newsletter

2005

Celebrating the 23rd annual meeting

Table of Contents

Announcements and Business

Notes from the Newsletter Editor	2
Patronage of the TSM	2
Seeking nominations for honorary membership	2
Announcement: Texas Bat Working Group	2
Funding Opportunities	4
Minutes of the 22 nd Annual Business Meeting	4

Comments and Articles by Rollin H. Baker

Matters Worrisome To Texas Mammalogists	5
Do Hungry Barn Owls Favor Graminivores?	5
Are Any Texas Mammals Becoming Extirpated?	6
Barriers To Texas Mammals	7

Information on Programs of TSM Members	8
---	----------

Notes from the Newsletter Editor, Russell Pfau

During last year's meeting, President Ron Van Den Bussche informed me that I had accepted the nomination to serve as TSM newsletter editor in order to fill the vacancy left by the outgoing editor David Ribble. Being that Ron stands at least a foot taller than I and wears rather large, pointy cowboy boots, I gladly agreed to accept the nomination. All kidding aside, David has done an excellent job as editor over the past several years, so you won't be seeing any major changes here. I continue to encourage members to contribute to the content of the newsletter. If you have an announcement of interest to Texas mammalogists, please let me know by email (pfau@tarleton.edu).

There *have* been changes in the TSM website, however--new URL, new look: <http://www.tarleton.edu/~biologyweb/tsm/>. Information about the society, committees, membership, and meetings can be found here along with meeting registration forms and current and past newsletters. I hope the new website serves the society well. If anyone has comments, suggestions, or corrections don't hesitate to let me know in person or by email (pfau@tarleton.edu).

Patronage of the Texas Society of Mammalogists

Please consider becoming a Patron member of our society. Cost is \$100. Contact the Secretary/Treasurer (Ann Maxwell <toucantoad@mac.com>) for details.

Honorary Membership

The Executive Committee is seeking nominations for honorary membership in the Texas Society of Mammalogists. Nominations are brought before the Executive Committee at the annual meeting, and those selected are notified of the award and presented with a plaque at the following year's annual meeting. This year we will be recognizing Ira Greenbaum and Robert Martin, Honorary Members from the Class of 2004, for their longstanding service to the Society and their contributions to the science of mammalogy. If you would like to nominate individuals for this award, please contact Phil Sudman (sudman@tarleton.edu; 254-968-9154) or any other member of the Executive Committee.

Texas Bat Working Group

This new working group will be administered by Texas Parks and Wildlife Department bat biologist, Meg Goodman and will be comprised of agencies, organizations, and individuals interested in bat research, management, conservation and education in Texas. The working group will be a part of the larger Coalition of North American Bat Working Groups under the auspices of the North American Bat Conservation Partnership (www.batcon.org/nabcp/newsite). The goals of this group will be the same as the Western Bat Working Group which are 1) facilitate communication among interested parties and reduce risk of species decline or extinction; 2) provide a mechanism by which current information regarding bat ecology, distribution, and research techniques can be readily assessed and; 3) develop a forum in which conservation strategies can be discussed, technical assistance provided, and education programs encouraged.

Meg has been participating as an active member of the Western Bat Working Group through bimonthly conference calls. During these conference calls, state bat coordinators from the western states discuss regional projects, news etc. Through the Texas Bat Working Group, a more complete state report could be provided. Quarterly newsletters of the Texas Bat Working Group will be sent out through email and will include information on state issues, national and regional updates (including minutes from Western Bat Working Group conference calls), help wanted, funding opportunities, and misc. /announcements.

Please let me know if you would like to be added to the working group list or have anything that you would like to announce to the group at this time. Please send information to Meg at meg.goodman@tpwd.state.tx.us.

Funding Opportunities: Annual Report of the Conservation Committee, February 2004

This year's report consists primarily of a compilation of funding opportunities that support research related to conservation of mammals occurring in Texas. Brief summaries are presented for both governmental and nongovernmental organizations. Included are web URLs that can be consulted for more details on eligibility, submission dates, etc. The report can be accessed from the TSM website.

Minutes of the 22nd Annual Business Meeting

The meeting was called to order at 5:05 pm by President Ronald A. Van Den Bussche. The minutes of the 2003 Annual Business Meeting as written in the 2004 Program were approved.

Officers' Reports:

Secretary-treasurer Ann Maxwell summarized the Treasurer's Report for 2003, stating that the Society is not making much income from money in the Certificate of Deposit, but that we did have a net income of \$4,828.99 for the year 2003. One thousand dollars of that was donated by Clyde and Mary Ann Jones. Total assets of TSM as of the 25th of December 2003 were \$18,261.25. The Treasurer's Report was approved.

Tom Lee, Permanent Secretary, reported that all TSM archives are going to be transferred to the Southwest Collection in Lubbock.

Newsletter Editor, David Ribble, was not present. President Van Den Bussche reported that David was stepping down from that position. He announced that Russell Pfau of Tarleton State University had agreed to be nominated. There were no other nominations. Unanimously approved, Russell Pfau is the new Newsletter Editor.

Standing Committees' Reports:

Honorary Members Committee chair, Tom Lee, announced that Art Cleveland would be honored at the Saturday evening banquet and that two more names would be announced at that time.

Conservation Committee chair, Ken Wilkins, provided handouts that summarized funding opportunities from Parks & Wildlife and non-governmental sources as well as other pieces of

information about conservation issues that might concern the society. He suggested that the society might be interested in developing resolutions and recognizing other organizations for their work in conservation.

Student Honoraria chair, Loren Ammerman, stated that the winners of the student awards would be announced at the Saturday evening banquet. After the banquet, the 2005 awards for oral presentations were given as follows: the Robert L. Packard Award (certificate and \$150 for best overall presentation) went to Mindy L. Walker (TAMU), the Rollin H. Baker Award (certificate and \$100 for the best undergraduate presentation) went to Lisa F. G. Smith (ASU), the TSM Award (certificate and \$100 for the best presentation in the molecular category) went to Sarah E. Weyandt (OSU), and the William B. Davis Award (certificate and \$100 for the best presentation in the ecological/organismic category) went to Rene M. Fonseca (TTU). Awards for poster presentations were given as follows: the Clyde Jones Award (certificate and \$100) went to Kristen M. Holmes (WTAMU) and the Vernon Bailey Award (certificate and \$100) went to Joel G. Brant (TTU).

Government Liaison Committee chair, Robert Dowler, reported that due to conflicting schedules of the TSM meeting and the wildlife meetings this year, TPW spokesperson Paul Robertson (who usually gives a summary of the present state of affairs with regard to the state), would not be present.

Twenty-fifth Anniversary Committee chair, Robert Baker, asked for volunteers to help with the planning of a spectacular celebration. He reported that the history of the society has been begun by himself and Clyde Jones, and they hope to have it ready for the anniversary meeting in 2007.

President Van Den Bussche presented two nominees chosen by the Executive Committee for President-Elect – David Ribble and Tom Lee. No other nominations were made. Tom Lee won by a majority vote. Ann Maxwell was re-elected by the members to continue as Secretary-Treasurer.

New Business:

The members approved that the 2005 annual meeting of TSM be held at the TTU Center at Junction on the weekend of 18-20 February.

Loren Ammerman suggested that for the 2005 meeting, we have a single poster session Friday evening after dinner. It was also announced that the Executive Committee had decided to limit the number of oral presentations in 2005 to 20 and that each student may make only a single – one poster or one oral – presentation. The number of poster presentations is unlimited at this point in time. It was also announced that the deadline for sending in abstracts (for both paper and poster presentations) for the 2005 meeting will be moved back one week to facilitate preparations for the program and meeting. The deadline for 2005 will be 4 February.

The meeting was adjourned at 5:50 pm.

Comments and Articles by Rollin H. Baker

MATTERS WORRISOME TO TEXAS MAMMALOGISTS

As beginners, mammalogists frequently deal largely with specifics. Why? Because they can grind out lots of papers to fatten their résumés! As old-timers, mammalogists often tend to deal with generalities. In short to use a well-worn expression the freshmen may look more at the trees and the seniors more at the forest. Seniors might worry why mammals in their quest to dominate life on earth don't do like mammalogists think they should, if they are indeed products of natural selection. Check out the following worrisome situations not at all new but perhaps not grouped together in this way before:

- (1) Why do some leporids have altricial young while others have precocial young?
- (2) Why are there fewer small mammals in forested East Texas as compared with those in Trans Pecos deserts?
- (3) Why do some mammals use latrines and other don't?
- (4) Why do gray-footed chipmunks and Mexican voles thrive in the Guadalupe Mountains and not vagrant shrews?
- (5) Why are long-tailed weasels scarce in most parts of Texas?
- (6) Why haven't bovids with energy-inexpensive horns replaced cervids with energy-expensive antlers?
- (7) Why are there many more species of seed-eating rodents than grass-eating rodents in grasslands?
- (8) Why isn't either delayed implantation or delayed fertilization more prevalent among Texas mammals? Seems like bears ought to try one of these procedures.
- (9) What environmental factors have caused the range expansions of northern pygmy mouse, tawny-bellied cotton rat, prairie vole, and porcupine?
- (10) Are eastern moles still among the living in western Texas?
- (11) Has the intruding nutria finally concluded its explosive and habitat-altering population state and now leveled off as a 'semi-compatible' member of wetland communities?

DO HUNGRY BARN OWLS FAVOR GRAMINIVORES?

Barn owls and field mammalogists have a common interest. They both are concerned with the kinds, densities, and distributions of small mammals in their foraging/studying areas. In sharing, each group gathers data about small mammals in its own special way. In the case of barn owls, it's a life-supporting necessity. These birds must capture on their nightly forays a sufficient number of small mammals within their foraging areas in order to provide for their own welfare and livelihood and for, as the case may be, that of their developing progeny.

Unknowingly, these specialized birds share some of their findings unilaterally with mammalogists. This is accomplished when mammalogists visit barn owl roosts and gather ejected pellets containing evidences of small mammalian prey caught and eaten by the roosting owls. Mammalogists can dissect these materials and identify cranial and other skeletal parts as to species, age, etc. No manner what means mammalogist may use to inventory small mammals in a given area, it's usually true that the owl foraging in the same area may come up with a slightly different inventory.

In his rather extensive fieldwork in the Mexican state of Coahuila, for example, your scribe confesses that he and his field colleagues never trapped or hand-caught a single shrew of the genus *Notiosorex*. On the other hand, he identified remains of this shrew in pellets of barn owls foraging in his trapping areas, as in the vicinity of Cuatro Ciénegas.

It is your scribe's notion, from personal field experience and from viewing published reports, that barn owls tend to catch more cotton rats and/or voles, the graminivores, than they do deer mice, harvest mice, pocket mice, etc., the granivores. If this is basically true, why is it?

I don't rightly know if voles and cotton rats are equally active at night as they are in daylight, but they are sufficiently active at night for hungry owls to pounce on lots of them. That they are creatures of habit and use runways may work to their disadvantage. Is it possible that owls from their aerial vantage points can actually see thinly-covered rodent runways and follow them until they find cotton rats or voles using them? On the other hand, associated granivores, being less concentrated in runway systems, especially in their seed-gathering activities, may be less handy for owls to catch in similar amounts.

Anyhow such speculations do stimulate the gray matter. For instance, one might wonder what are the advantages for granivores to be both diurnal and nocturnal and for associated graminivores to be generally only nocturnal? Since cotton rats and voles eat vegetation often low in nutrients, maybe they need more forage time, perhaps requiring both day and night action, in order to get their fill. On the other hand their associates, the graminivores, eating seeds that hold concentrated nutrients don't need to eat as much bulk and can get their fill by eating only at night.

Shall we pity the dilemma of the granivores – the owls catch them at night, and the hawks catch them by day. These small mammals need unusual survival abilities with strong-taloned aeronauts after them almost constantly.

ARE ANY TEXAS MAMMALS BECOMING EXTIRPATED?

We have no knowledge of the status of Texas mammals in 1805, but one hundred years later, in 1905 and thanks to the work of Vernon Bailey, we gained a fair inventory, and now another hundred years later, in 2005, we have an even better notion of the kinds and their distributions. After 1805 and prior to Bailey's investigations, we can't be certain if any mammals were extirpated, like possibly southeastern shrew, woodchuck, eastern chipmunk. However, we know from comparing Bailey's findings with our current ones that we have lost several large species – grizzly, jaguar, wapiti, bison – and small ones – prairie vole in the southeast, black-footed ferret. Otherwise, the 1905 and 2005 lists are comparable.

For large species we've done a good job of maintaining populations of our two species of deer and especially our pronghorn and mountain sheep. Likewise we are doing our best to preserve.

Worrisome to many of us, however, is the status of the smaller and less conspicuous mammals. As we abundantly know, human land-use practices, progressively more thorough, have greatly disturbed habitats favorable to the larger species. We've been doing something about that in the case of game species and viable populations of ocelot and possibly jaguarundi in the lower Rio Grande Valley. However, we are allowing our small rodents and insectivores to go unattended. We don't know for sure which of these species are resistant to the degradation of their environments and which are

sufficiently ubiquitous to survive these changes. It could be tough for change-sensitive small mammals to survive in Texas.

BARRIERS TO TEXAS MAMMALS

Some time ago, I pointed out, as others had done, that mammals reproduce geometrically and their tendencies, as their populations thrive, are to push outwardly in search of new living spaces, with these efforts retarded and ultimately blocked by barriers. Some of these have been carefully examined by such workers as William B. Davis, whose doctoral dissertation concerned the effects of the Snake River on mammalian speciation.

Some barriers are grandiose like the Mediterranean Sea that separated the recently extinct North African brown bear (*Ursus arctos crowtheri*?) from visiting with relatives in Europe. Others are much more narrowly abrupt like the swift-flowing Detroit River that prevents Michigan fox squirrels (*Sciurus niger*) from enjoying life in like environments in Ontario. And of course there are situations that bar the spread of some mammals like the kit fox (*Vulpes macrotis*) but appear like avenues with no stop signs for others like the gray fox (*Urocyon cinereoargenteus*). All of these goings-on make analyzing geographic distributions most fascinating.

Probably some biogeographer has given special names for different kinds of barriers that exist, and Texas with its large size and diverse habitats seems to be loaded with many of them. For this comment, I'll characterize Texas barriers as either bleeders or abrupters.

Bleeders – Texas has a lot of so-called lowlands with variable climatic and edaphic conditions. The transitions between these habitats are often broad with their features gradually bleeding into each other [=interdigitating], usually in an east-west or in a north-south direction. Among small mammals, the white-footed mouse (*Peromyscus leucopus*) and to a lesser extent the hispid pocket mouse (*Chaetodipus hispidus*), the fulvous harvest mouse (*Reithrodontomys fulvescens*), and the deer mouse (*Peromyscus maniculatus*) seem unbothered by these barriers. However, the distributions of other small mammals tend to bleed in with each other. Examples are: the northern-derived plains pocket mouse (*Perognathus flavescens*) and the newcomer prairie vole (*Microtus ochrogaster*), the eastern-derived eastern harvest mouse (*Reithrodontomys humulis*) and eastern woodrat (*Neotoma floridana*), the southern-derived Mexican spiny mouse (*Liomys irroratus*) and northern pygmy mouse (*Baiomys taylori*), and the western-derived plains harvest mouse (*Reithrodontomys megalotis*) and the northern grasshopper mouse (*Onychomys leucogaster*).

Abrupters – Texas has only a modest number of barriers that abruptly bar the expansion of species into other habitats. Some may be biotic like East Texas forests where denizens like the cotton mouse (*Peromyscus gossypinus*) and the golden mouse (*Ochrotomys nuttalli*) thrive but don't venture into prairie habitat next door. Another abrupt barrier is physical like the deeply-channeled Río Grande that stops Coahuila's Nelson kangaroo rat (*Dipodomys nelsoni*) from invading like habitat in the Texas Big Bend. A third kind of an abrupt barrier incorporates biotic, environmental, and physiographic factors that are featured in Trans Pecos where small islands of boreal and suboreal habitat are surrounded by alien desert. These situations effectively ban highland-dwelling yellow-nosed cotton rats (*Sigmodon ochrogaster*) and Mexican voles (*Microtus mexicanus*) from invading lower altitudes and likewise discourage the cactus mouse (*Peromyscus eremicus*) and the Mearns grasshopper mouse (*Onychomys arenicola*) from invading higher altitudes. Finally there are scattered habitats such as rocky exposures to which the white-ankled mouse (*Peromyscus pectoralis*) and the Texas mouse

(*Peromyscus attwateri*) are adapted. The quality of the substrate can figure in the distribution of other still other mammals.

Maybe this brief discussion will whet the appetite of some of our mammalian scholars to look a little closer at how distributional patterns of Texas came into being and how they influence mammalian life?

Information on Programs of TSM Members

The following accounts are alphabetized by institution, department, and researcher. Any errors or inaccuracies are unintentional.

Abilene Christian University
Department of Biology, Box 27868, Abilene, Texas 79699

Thomas E. Lee, Jr.

Phone: 325-674-2574

Fax: 325-674-2009

E-mail: lee@biology.acu.edu

Research Interests, Projects, and Grants: Abilene Christian University Math/Science Grant will (hopefully) be used to survey the Mammals of the Eastern Andes in Ecuador. We will study the middle elevations of the eastern slope of the northern Andes, a densely forested region approximately 2 km high and 1500 km long that currently remain a mammalogical terra incognita. If funding and permits are timely we will be working in the Andes this summer in this understudied area.

We have been tracking the rodent populations of a relic prairie site for nine years and there are many interesting correlations that can be made with other sites in the southwest. This study is being conducted in Taylor County Texas.

Au Sable Institute funded a study of the population dynamics of an old growth forest/bog site and research is progressing. Old growth white pine once dominated Michigan but is almost gone today. The patch of old growth pine gives us a rare opportunity to study the mammals, herps, and birds of this vanishing habitat.

Undergraduate Students and Their Research:

Leesa Paterson: Rodent population dynamics at a Relic Texas Prairie Site.

Neal Platt: Elevation gradient analysis of mammals in the eastern Andes of Ecuador.

Johanna Williams: Mammalian population dynamics in fragmented old growth white pine forests of Michigan.

Additional Information: Abilene Christian University Natural History Collection continues to grow and is a valuable research tool.

Angelo State University

Department of Biology
San Angelo, TX 76909

Loren K. Ammerman

Phone: (325) 942-2189 ext. 243

Fax: (325) 942-2184

E-mail: loren.ammerman@angelo.edu

URL: <http://www.angelo.edu/faculty/lammerma/>

Research Interests, Projects, and Grants:

- Molecular systematics of Molossidae using both nuclear and mitochondrial markers
- Genetic variability among populations of *Eumops glaucinus* based on cytochrome b (with Robert Timm, Robert Baker, and Hugh Genoways)
- Long-term changes in community structure and relative abundance of bat species in Big Bend National Park using mistnet and acoustic recording techniques
- Roosting/feeding ecology of bats in Big Bend National Park
- North American Bat Conservation Partnership grant with Tom Kunz to use thermal imaging techniques to census *Leptonycteris nivalis* in summer 2005
- USDA Rio Grande Corridor grant with Robert Dowler to conduct a mammal survey of the Terlingua Creek drainage, Brewster County, Texas

Graduate Students And Their Research:

Amy Vestal - Genetic variation among populations of the Davis Mountains cottontail rabbit, *Sylvilagus floridanus robustus*, in the mountains of Trans-Pecos, Texas. Carr Research Scholar and M.S. student, co-advised with Robert Dowler.

Scott Clement – Taxonomic affinity of endemic rodent species of the Galapagos. Co-advised with Robert Dowler, graduated with M.S. in December 2004.

Dawn Weir – The effect of outgroup selection on the phylogenetic relationships of molossid bats, graduate research project.

Undergraduate Students And Their Research:

Amy Bishop – Taxonomic affinity of the African molossid genus *Myopterus* based on 16S/ND1 sequence

Courtney Cline – Relationships of African shrew genera based on cytochrome b and 16SrRNA (in collaboration with Robert Baker).

Additional Information:

Currently, I am looking for motivated students that would like to earn their Master of Science degree in mammalogy/systematics using either field or laboratory techniques (or a combination of both).

Robert Dowler

Phone: 325/942-2189 x239

Fax: 325/942-2184

E-mail: robert.dowler@angelo.edu

URL: <http://www.angelo.edu/dept/biology/Faculty/rcd/rcd.htm>

Research Interests, Projects, and Grants: My current research in Texas includes ecological studies of three skunk species, funded through Texas Parks and Wildlife Department, and methods for assessing populations of medium-sized mammals. In addition, I am co-PI with Loren Ammerman on a USDA grant to assess mammal populations on the Rio Grande Corridor. My international research continues in the Galapagos Islands, with plans to look for endemic mammal populations on Volcan Wolf on the Island of Isabela.

Graduate Students and Their Research: Three students, Scott Clement, Zane Laws, and Sean Neiswenter completed requirements for the M.S. degree in December. Scott is teaching at Western Texas College, Zane is teaching high school in May, Texas, and Sean has begun work on a Ph.D. at University of Nevada, Las Vegas.

Carla E. Ebeling -- Carla is beginning thesis research on comparison of survey methods for medium-sized mammals in arid environments with emphasis on skunk species. She will be using two kinds of track plates and Trailmaster camera systems.

Joshua B. Coffey -- Josh is completing the final stages of a radio-telemetry study of *Mephitis mephitis*. He studied den sites and movements of skunks near Junction, Texas.

Amy L. Vestal -- Amy has finished analyzing data and is finalizing her thesis on genetic variation and taxonomic status of *Sylvilagus robustus*.

Sharon Ziadeh -- Sharon is beginning a behavioral study of caching behavior in *Spermophilus mexicanus* in San Angelo and will be collecting data beginning in early spring.

Baylor University
Department of Biology
Waco, TX 76798-7388

Kenneth T. Wilkins

Phone: 254-710-2911

Fax: 254-710-2969

E-mail: Ken_Wilkins@Baylor.edu

URL: <http://www.baylor.edu/biology/splash.php>

Research Interests, Projects, and Grants: Our projects generally relate to ecology and distribution of small mammals at the species and community levels. More specifically, we are examining effects of invasive species (red imported fire ants) on demographics of rodents in native settings, and roosting ecology of bats in urban settings. Recent and/or current funding is from the Nature Conservancy of Texas, Texas Parks & Wildlife Department, American Museum of Natural History (Theodore Roosevelt fund), and assorted private foundations.

Graduate Students and Their Research:

Cathy Early, Ph.D. candidate. Effects of an invasive species (red imported fire ants, *Solenopsis invicta*) on demographics of small mammals in a native tallgrass prairie. Anticipated graduation, May 2005.

Amy Wilhelm, M.S. candidate. Feeding enrichment in captive African elephants. Graduated May 2004.

Sarah Epperson, M.A. (non-thesis) candidate. Graduated, May 2004.

Additional Information: Opportunities are available for graduate study in the Department of Biology, Baylor University. Graduate assistantships are available beginning Fall 2005 in our doctoral program. Program emphases are in (1) Ecology and Environmental Science, and (2) Genetics, and, of course, includes Mammalogy. The institutional financial package is generous and includes support as a graduate teaching assistant (12-month support @ approximately \$1,250 monthly), tuition scholarship, and University-subsidized health insurance.

I am particularly interested in attracting applications from individuals interested in mammalian biology, especially field-oriented ecological studies focusing on small mammals (rodents, bats). Lab instruction duties for this graduate TA would be primarily in Comparative Chordate Anatomy, Mammalogy, and Vertebrate Natural History under my Supervision.

During summer 2004, we moved into an incredible new sciences facility . . . lots of new space for research and teaching and for grad student offices. Check out this URL for more information on the Baylor Sciences Building: <http://pr.baylor.edu/story.php?id=005217>

Centers for Disease Control and Prevention

NCID/DVRD/ Poxvirus Program
1600 Clifton Rd, Building 3SB10
Atlanta, Georgia 30333

Darin Carroll

Phone:404-639-1719

Fax:404-639-3111

E-mail: dcarroll@cdc.gov

Research Interests, Projects, and Grants: Ecology and evolution of mammal-borne zoonotic diseases.

Humboldt State University, California

College of Natural Resources and Sciences
Arcata, CA 95519

Steve Smith

Phone: 707 826-5475

Fax: 707 826-3562

Email: steven.smith@humboldt.edu

Research Interests, Projects, and Grants: Interests are vertebrate natural history and conservation

McMurry University

Department of Biology
Abilene, TX 79697

Robert E. Martin

Address after 1 June 2005: Box 1088, Fort Davis, TX 79734

Phone: 325-793-3870 [After June 1, 2005: 432-426-2061]

E-mail: rmartin@mcm.edu

Additional Information: I'm retiring from McMurry at the end of the current academic year. There is a current search underway for a vertebrate biologist to cover the courses that I teach. For more information check the Chronicle of Higher Education web site for jobs or contact Dr. Thomas Benoit, Chairperson, Dept. of Biology, McMurry University, McMurry University, Abilene, TX 79697; e-mail, tbenoit@mcm.edu.

Midwestern State University

Department of Biology
Wichita Falls TX 76308

Frederick B. Stangl, Jr.

Phone: 940-397-4408

Fax: 940-397-4831

E-mail: frederick.stangl@mwsu.edu

Research Interests, Projects, and Grants:

- A variety of topics on mammals of Texas Rolling Plains and Trans-Pecos
- Early Holocene mammals of Squirrel Cave, northern Nevada

Graduate Students and Their Research:

Ngan Nguyen - discrimination of Texas *Perognathus*

Karie Knight - morphometrics of Trans-Pecos *Peromyscus boylii*

Heather Escalante - mineral composition of rodent incisors

Undergraduate Students and Their Research:

Desiree Early - characterization of dorsal skin gland in *Dipodomys elator* (with M. Shipley and J. Goetze)

Chris Shelton - mammal remains from owl pellets in southern Oklahoma

Navarro College, South

901 N. MLK Hwy
Mexia, Texas 76667

Lynn A. Simpson

Phone: 254-562-3828 ex 205

Fax: 254-562-6613

E-mail: lynn.simpson@navarrocollege.edu

Research Interests, Projects, and Grants: Mammal and plant distribution, Plants of Howard Co., Texas.

Oklahoma State University

Karen McBee

Department of Zoology
430 Life Sciences West
Stillwater, OK 74078

Phone: 405-744-9680

Fax: 405-744-7824

E-mail: mcbee@okstate.edu

URL: http://zoology.okstate.edu/zoo_fclt/mcbee.htm

Research Interests, Projects, and Grants: My lab uses several techniques to investigate relationships between exposure to environmental pollutants and detrimental effects in wildlife species and to explore how induced genetic damage may translate into long-term population demographic effects. I also am interested in mammalian systematics, evolution, and ecology and am Curator of Vertebrates for the Oklahoma State University Collection of Vertebrates.

Graduate Students and Their Research:

Kimberly Hays (M.S.): Kim is using a combination of flow cytometry, atomic absorption spectrophotometry, mark-recapture, and a neurobehavioral response assay to determine effects of heavy metal contaminants on population structure, genetics, and behavior in slider turtles at the Tar Creek Superfund Site.

Kendra Phelps (M.S.): Kendra is examining population structure, home range size, and microhabitat selection in small mammals at the Tar Creek Superfund Site.

Brandon Perry (M.S.): Brandon is investigating the use of Keystone Dam by *Eptesicus fuscus*.

April Hart (M.S.): April will be working on ecology of bats near an old munitions dump.

Undergraduate Students and Their Research:

Maria Harrington (Sr. Wentz Research Fellow)--G-band analysis of chromosomal damage in *Sigmodon hispidus* from abandoned strip mines.

Amanda Penner (Sr. Wentz Research Fellow)--Standard karyotype analysis of chromosomal damage in *Sigmodon hispidus* from abandoned strip mines.

Ron Van Den Bussche

Phone: 405-744-9679

Fax: 405-744-7824

E-mail: ravdb@okstate.edu

URL: <http://www.okstate.edu/artsci/zoology/ravdb/>

Research Interests, Projects, and Grants: My research interests primarily focus on molecular systematics and population/conservation genetics.

Graduate Students and Their Research:

Zac Roehrs - PhD student - Zac is continuing with my long-term plans to elucidate the higher level relationships within Vespertilionidae. Zac is focusing his research on questions relating to taxa within Vespertilioninae. To address these questions, Zac is using 7 nuclear genes and these data will eventually be combined with mtDNA data for these same taxa previously generated in my lab.

Lynne Gardner - Santana MS student - Using non-invasive hair sampling to estimate population numbers of black bears in eastern Oklahoma. Once hair samples are collected, Lynne is genotyping all samples at 10 microsatellite loci and sexing all samples.

Joe Hackler - MS student (co-advised with Dr. Stanley Fox) - Joe is using mtDNA and microsatellite loci to evaluate genetic variation in native and captive populations of alligator snapping turtles throughout their range.

Deanna Martinez - MS student - In collaboration with Drs. Mike Mares and Janet Braun of the Sam Noble Museum of Natural History, Deanna is examining intraspecific mtDNA variation of white-backed hog-nosed skunks (*Conepatus*) throughout Argentina.

Dustin Loftis - MS student (co-advised with Dr. Tony Echelle) - Dustin is examining genetic variation within and among native populations of desert pupfishes via microsatellite analysis.

Sam Houston State University

Department of Biological Sciences
PO Box 2116
Huntsville, TX 77341

Monte L. Thies

Phone: 936-294-3746

Fax: 936-294-3940

E-mail: woodrat@shsu.edu

URL: http://www.shsu.edu/~bio_mlt/

Research Interests, Projects, and Grants: Small mammal ecological studies, including surveys of Camp Swift and Fort Wolters for the Texas Army National Guard; ecological and toxicology studies of the Brazilian free-tailed bat, currently focusing on an east Texas maternity colony in Huntsville, Walker County; disease vectors/hosts associated with Leishmaniasis and West Nile Virus, with special interest in southern plains woodrats (*Neotoma micropus*).

Sheldon Jackson College, Alaska
801 Lincoln, Sitka, Alaska 99835

Art Cleveland

Phone: 907-747-5222

Fax: 907-747-2594

E-mail: acleveland@sj-alaska.edu

Research Interests, Projects, and Grants: This first year as president has proved to be a full one...learning the culture, people and area in southeast Alaska. My graduate student Jenny is completing our funded work with the state of Georgia on factors influencing the location and numbers of bats under bridges in that state. I have noticed that no one has ever initiated a study of the mammals of Baranof Island...so, that sounds like a good project to keep me and some students here busy for a while.

Graduate Students and Their Research:

Jenny Jackson will complete her thesis work on bats under bridges in May 2005 (Columbus State University).

Michelle Smith completed her work (MS Environmental Science...pesticide levels in bats) and is looking for an opportunity to begin doctoral work.

Undergraduate Students and Their Research:

Limor Raz will complete her undergrad research on factors influencing survival in Tardigrades this spring (CSU).

David Brooks will complete his undergraduate research this spring on a comparison of ectoparasites in two species of bats (CSU).

Additional Information: Vicki and I are loving Sitka. The Halibut and salmon are superb. The views from our home of the Pacific and the mountain range on Baranof Island are spectacular. Whales, otters, sea lions, bears, puffins, northern lights...it is a tough life but someone has to do it. I am reviewing a deer manuscript for an old friend of Rollin Baker, Tarleton Smith, who lives here.

Tarleton State University
Department of Biological Sciences
Stephenville, TX 76402

Russell Pfau

Phone: 254-968-9761
Fax: 254-968-9157
E-Mail: pfau@tarleton.edu
URL: <http://www.tarleton.edu/~biology/pfau>

Research Interests, Projects, and Grants: I'm interested in molecular ecology and evolution, particularly at the population-species interface. My current research efforts use microsatellite, AFLP, and mitochondrial DNA sequence analysis to infer patterns of genetic diversity and divergence in a variety of taxa. Projects other than those listed below include comparing levels of genetic diversity in island and mainland populations of *Peromyscus maniculatus* from southern California and Baja California, Mexico (in collaboration with Adam Richman at Montana State University) and.

Graduate Students and their Research:

- Kristin Denton - Molecular evolution of an immune response gene (MHC-DQA) in two species of *Peromyscus*.
- Caleb Phillips - Patterns of genome-wide genetic diversity in the hispid cotton rat (*Sigmodon hispidus*) using AFLP analysis.
- Christi Brown - Isolation and characterization of microsatellite loci from the hispid cotton rat (*Sigmodon hispidus*).

Undergraduate Students and their Research:

- Valeska Valderas - Genetic diversity of the Piñon mouse *Peromyscus truei* from the Texas and Oklahoma panhandles.
- Calvin Henard - Genetic diversity of the threatened Mexican axolotl salamander *Ambystoma mexicanum* from the vicinity of Mexico city (in collaboration with Gerardo Herrera at Universidad Nacional Autónoma de México).
- Terry Johnson - Phylogeography of the Texas mouse (*Peromyscus attwateri*) across its entire geographic distribution using AFLP analysis.
- Jennifer Linkenauger - project yet to be decided.
- Yvette Vaughn - project yet to be decided.

Phil Sudman

Phone: 254-968-9154
Fax: 254-968-9157
E-mail: sudman@tarleton.edu
URL: <http://www.tarleton.edu/~sudman>

Research Interests, Projects, and Grants: I continue to examine relationships within taxa of *Geomys*. I also have interests in Attwater's Prairie Chicken genetics, and have recently been invited to participate in a human genetics project aimed at looking at the effects of introgression into an isolated village in Oaxaca, Mexico.

Graduate Students and Their Research:

- Chad Stasey - microhabitat association of *Dipodomys elator*.
- Lauri Heintz – effects of habitat restoration on small mammal populations in Somervell Co., TX.
- Jana Caldwell – Microsatellite comparison between Attwater's and Greater Prairie Chickens.

Undergraduate Students and Their Research:

Mackinzie Campbell-Furtick - genetics of *Geomys attwateri* and *Geomys knoxjonesi*

Texas A&M University
Department of Biology
College Station, Texas 77843-3258

Ira F. Greenbaum

Phone: 979-845-7791

Fax: 979-845-3114

E-mail: i-greenbaum@tamu.edu

URL: <http://www.bio.tamu.edu/FACMENU/faculty/greenbau.htm>

Research Interests, Projects and Grants: The research in this laboratory addresses questions concerning mammalian evolution, cytogenetics and systematics, and is currently focused on resolving the systematics and processes of evolution of the *P. maniculatus* species group. Our current studies include analyses of: mtDNA variation in relation to the phylogeography of the western coastal deer mice including *P. keeni*, *P. sejugis*, and *P. maniculatus* and among and between the species in the *P. maniculatus* and *P. leucopus* species groups. We hope to soon reinitiate our studies of the evolution of chromosomal fragile sites in these two species groups.

Graduate Students and Their Research:

Mindy Walker. Doctoral Student. Phylogeography of *Peromyscus maniculatus* from the western United States.

Julie Hayes. Doctoral Student. TBA

Texas A&M University-Kingsville
MSC 218, Caesar Kleberg Wildlife Research Institute,
Kingsville, TX 78363

Scott E. Henke

Phone: 361-593-3689

Fax: 361-593-3788

E-mail: scott.henke@tamuk.edu

URL: www.ckwri.tamuk.edu

Research Interests, Projects, and Grants: Effects of introduced species on native fauna, predator-prey relationships, wildlife disease

Graduate Students and Their Research:

Amy Kresta: *Baylisascaris procyonis*: Habitat characteristics, food habits, potential routes of transmission in infected raccoons (Ph.D.)
Cynthia Massengale: Longevity of *Baylisascaris* eggs in selected solutions and environments (M.S.)
Denise Ruffino: Ecology of striped skunks in rabies endemic areas (Ph.D.)
David Long: Comparison of the rodent and insect communities between native and exotic grasslands (M.S.)
Christy Wyckoff: Movements, habitats, interactions, and disease prevalence of feral swine in Texas (M.S.)
Antonio Cantu: White-tailed deer and nilgai as reservoirs for Texas tick fever (Ph.D.)

Undergraduate Students and Their Research:

Brandi Hopkins, Jen Belyou, Justinn Jones: Use of GIS as a decision-making tool for rangeland restoration
Scott Harton: Development of a web-based curriculum for the Wildlife Alliance for Youth program

Michael Tewes Feline Research Program

Phone: 361-593-3972

Fax: 361-593-3924

E-mail: michael.tewes@tamuk.edu

URL: www.ckwri.tamuk.edu/feline

Research Interests, Projects, and Grants:

We have the following research interests/projects in addition to the graduate student projects listed below:

- Conservation genetics of jaguarundi, bobcat, and mountain lion and Thai cats
- Impacts of highways and roads on wild cats
- Use of non-invasive censusing techniques (cameras, genetics) for wild cats
- Ecology and genetics of wild cats in Mexico

Graduate Students and Their Research:

Jan Janecka (Ph.D.): Conservation genetics of ocelot in Texas

Aaron Haines (Ph.D.): Population and habitat viability analysis of ocelot in Texas

John Young (Ph.D.): Modeling habitat use by mountain lions in Texas

Arturo Caso (Ph.D.): Overlap and interactions of ocelot and jaguarundi in Mexico

Lon Grassman (Ph.D.): Ecology and interaction of leopard cat, clouded leopard, Asiatic golden cat and marbled cat in Thailand

Mei-Ting Chen (M.S.): Habitat use and activity patterns by viverrids in Taiwan

Jennifer Mock (M.S.): Spatial patterns and habitat use by an unexploited bobcat population on Aransas Refuge

Undergraduate Students and Their Research:

N/A. The Feline Research Program only conducts graduate research.

Additional Information:

Our research on wild cats began in 1981 and the Feline Research Program is coordinating a variety of felid research projects. Although the geographic emphasis is Texas and Mexico, we have projects in other locations (e.g., Thailand, Taiwan).

Texas A&M University-Texarkana

Department of Biology
Texarkana, TX 75505

Chris T. McAllister

Phone: 903/223-3133

Fax: 903/223-3120

E-mail: chris.mcallister@tamut.edu

URL: <http://www.tamut.edu/~mcallister/mcallister.html>

Department URL: <http://www.tamut.edu/~allard/Biology/biology.html>

Research Interests, Projects, and Grants: Our laboratory is interested in three main research projects: (1) Coccidia of Vertebrates, With Emphasis on those Infecting Amphibians, Reptiles, and Small Mammals, (2) Geographic Distribution of Millipedes and Centipedes West of the Mississippi River, and (3) Endoparasites of Amphibians and Reptiles of the Ark-La-Tex. Dr. McAllister received a 2004-2005 TAMU-T Faculty Senate Research Enhancement Grant (\$2,000) to study millipeds and centipedes west of the Mississippi River. This is the fourth consecutive year funding has been approved for this research with grant monies totaling \$10,464.00. In addition, no less than 10 publications on this research have appeared in various refereed journals during that time.

Dr. McAllister continues collaboration with various colleagues on research projects, including Drs. Rowland Shelley (NC State Museum of Natural History, Raleigh, NC), Stan Trauth (Arkansas State University, Jonesboro, AR), Chuck Bursey (Pennsylvania St. University-Shenango, PA), Mike Forstner (Texas State University, San Marcos, TX), and Henry Robison (Southern Arkansas University, Magnolia, AR).

Graduate Students and Their Research: TAMU-T Biology is undergraduate only. Graduate degrees are offered in other fields of study. For more information, visit our website: <http://www.tamut.edu/>.

Undergraduate Students and Their Research:

Stephanie Barclay-The Flier, *Centrarchus macropterus* in southwest Arkansas (Paper in press in Journal of the Arkansas Academy of Science 58:2004); Fishes of Miller County, Arkansas; Ecology of the Blackspot Shiner, *Notropis atrocaudalis*, in Arkansas and Texas.

Angela Burns-Gastrointestinal Helminths of Rafinesque's Big-Eared Bat, *Corynorhinus rafinesquii* in Arkansas (Paper in press in Comparative Parasitology 72:121-123, 2005).

Michelle Cameron-The Centipede, *Theatops posticus*, in the Ark-La-Tex (Paper in press in Proceedings of the Oklahoma Academy of Science 84:2004); Continuation of Research on Geographic Distribution of Centipedes (Chilopoda: Scolopendromorpha) in Texas

Kelly Collins-Coccidia of the Pine Vole, *Microtus pinetorum* in Northeast Texas

Jon Fuller- Genetics and Ecology of the Southern Painted Turtle, *Chrysemys dorsalis* in Northeast Texas (Paper submitted to Texas Journal of Science); Coccidia of Rice Rats, *Oryzomys palustris*, in southwestern Arkansas

Zachary Ramsey-Coccidia (Apicomplexa: Eimeriidae) of Bats of the Ark-La-Tex (Paper submitted to Journal of Parasitology)

Additional Information: Undergraduate student Zachary Ramsey received two research grants in 2004, one from the Texas Academy of Science to study milliped distribution in the Ark-La-Tex, the other from the Southwestern Association of Parasitologists to study coccidians of bats of the Ark-La-Tex.

Dr. McAllister and students Stephanie Barclay and Michelle Cameron attended the third annual bat blitz in the Piedmont region of North Carolina in August 2004. An abstract of that event is to appear in volume 84 (2004) of the Proceedings of the Oklahoma Academy of Science. The fourth annual bat blitz will be July 31-August 4, 2005 in the Ouachita National Forest of northwestern Arkansas. To receive further information please contact Frances Rothwein at (479) 675-3233 or by e-mail at frothwein@fs.fed.us.

Dr. McAllister and several TAMU-T students took part in the annual Oklahoma Bioblitz in Okmulgee County, Oklahoma, Sept. 10-11, 2004.

Jon Fuller and Michelle Cameron presented posters of their research at the 2nd annual TAMU Pathways Symposium in Corpus Christi, Oct. 15-16, 2004.

Dr. McAllister, Michelle Cameron, Jon Fuller, and Stephanie Barclay presented papers at the annual meeting of the Oklahoma Academy of Science, Edmond, Oklahoma, Nov. 5, 2004.

Dr. McAllister presented an invited paper at the Fort Worth Zoo during the "Discussions in Herpetology" Symposium, Oct. 15-16, 2004. BSC 405 (Vertebrate Field Biology) will be offered by TAMU-T in Summer I of 2005 and taught by Dr. McAllister. It is a 6-hour undergraduate biology course that meets for 5 weeks (June-July) and involves fieldwork and collections of fishes, amphibians, reptiles, and mammals.

Dr. McAllister continues duties as Managing Editor for the Journal of the Arkansas Academy of Science. For consideration of publication, papers must be presented orally at the annual meeting and submitted at that time (<http://cotton.uamont.edu/~aas/journal.html>). The 89th annual meeting of the AAS will be at Hendrix College, Conway, Arkansas, April 8-9, 2005. For more information, please see: <http://cotton.uamont.edu/~aas/meetings.html>.

TAMU-T has been approved for downward expansion and plans to start the move to our new campus on Bringle Lake in 2008. President Hensley has said, "A new campus will allow us to increase learning opportunities for students, in addition to offering freshman and sophomore classes which will mirror a traditional four-year institution."

Texas Parks & Wildlife Department

3000 IH 35 South Suite 100
Austin TX 78704

Meg Goodman
TPWD bat biologist

Phone: 512-912-7042

Fax: 512-912-7058

E-mail: meg.goodman@tpwd.state.tx.us

URL: <http://www.tpwd.state.tx.us/nature/wild/mammals/bats/>

Additional Information: I am the Texas Bat biologist for Texas Parks and Wildlife. I work with partners throughout the state to promote bat conservation, research, management and education. If anyone wants to partner for any bat related projects, please let me know.

John H. Young

Phone: 512-389-8048

Fax: 512-912-7058

E-mail: john.young@tpwd.state.tx.us

Research Interests, Projects, and Grants: Mountain lion, skunk ecology, prairie dog ecology, ocelot habitat restoration

Texas Tech University

Department of Biology and Museum of Texas Tech University
Lubbock, TX 79409

Robert J. Baker

Phone: 806-742-2702

Fax: 806-742-2963

E-mail: rjbaker@ttu.edu

URL: www.biology.ttu.edu and www.nsrl.ttu.edu

Research Interests, Projects and Grants: Robert J. Baker's interests encompass the ability to dissect the genome in an effective way to provide resolution to problems concerned with systematics, conservation, biodiversity, genotoxicology, agriculture, etc. Major projects in the lab include understanding the biological consequences of the meltdown of the nuclear reactor at Chernobyl, understanding chromosomal evolution (especially using fluorescent in situ hybridization), providing genetic markers for cultivars of cotton, and my first love, determining the systematics of the New World leaf-nosed bats (Family Phyllostomidae). We finally published the trees based on DNA sequence data and provide a new classification that recognizes 11 subfamilies (2003. Occasional Papers of the Museum of Texas Tech. i+1-32). We will gladly give you a hard copy if you want one or you can access it online at <http://www.nsrl.ttu.edu/pubs/opapers/ops/OP230.pdf>. The Chernobyl project is part of a larger project headed by Dr. Ron Chesser. We have received a DOE grant over \$1.2 million for three years to study gene regulation responses in laboratory mice in the Chernobyl environment. Brenda Rodgers is the PI for this grant and Ron and I are co-PIs. Steve Hooper has transferred from the Low Dose Chernobyl project to the Biodiversity Studies program, which is working primarily on systematics.

This past summer, we took an eight-week field trip to Ecuador to sample the biodiversity from the western part of the Andes. The students who participated in this trip were Rene Fonseca, Juan Pablo Carrera, Peter Larsen, Adam Brown, Sergio Solari and Carl Dick. We collected 1500 specimens representing more than 70 species. That is more than was known from the western side prior to our Sowell Expedition of 2004. The lab is busy sorting out the molecular genetics of this diversity.

We also took a two week trip to Ukraine and Crimea. The participants in this trip were Steve Hooper and Heather Meeks. We collected a lot of neat things on this trip, including hedgehogs and hamsters. We are trying to work out the genetic diversity in these collections as well.

The news that has devastated the lab was the death of Rene Fonseca in August 2004. He was killed in a car wreck near Quito, Ecuador while traveling with his mother and brothers. Rene received his Master's degree posthumously December 2004. The title of his Master's thesis is "Morphological differentiation among three species of Phyllostomid bats: implication to the role of the Andes in speciation and South American mammalian biodiversity." Rene directed the eight-week Sowell 2004 Expedition to western Ecuador. All of us that participated in that trip were amazed at how organized and logistically efficient was the expedition. Rene had such a bright future and was a friend to all of us. We miss him.

Post Docs, Graduate Students, And Their Research:

Steven R. Hooper joined the lab in February 2003 as a post-doctoral research associate. His research interests include systematics, biogeography, and population genetics of mammals. srhooper@hotmail.com

Adam Brown is a second year Masters student. He is a member of the Chernobyl Low Dose research team. Adam's main focus is the expression profiling of certain DNA repair pathways and free radical scavenging mechanisms upon exposure to chronic low levels of ionizing radiation. adam.d.brown@ttu.edu

Juan Pablo Carrera joined the team in January 2004 and his interest is Museum Science and systematics and biodiversity of the Neotropical fauna. His degree will be in Museum Science. Juan is sorting out the biodiversity of the Ecuador collection. juan.p.carrera@ttu.edu

Michelle Knapp is a first year doctoral student. She graduated in June from Harvard with a bachelor's degree in biology. Michelle is studying the molecular phylogenetics of Neotropical Myotis using cytochrome b. Her dissertation work will be to use forensic science methodology to gather DNA sequence from museum specimens. Dr. Kim Nelson, who works with Mitotyping, a research business that works in forensics, will direct Michelle in developing these technologies. michelle.knapp@ttu.edu

Peter Larsen is a second year Masters student who joined the lab in August 2003. He is from Beresford, South Dakota and graduated from South Dakota State University with a major in Biology. After several field trips to the Lesser Antilles, Peter has developed interests in biogeography, phylogeography and systematics of bats within the Caribbean. He is currently researching the systematics of the genus Artibeus throughout the Caribbean and Central and South America using both the Cytochrome-b gene and microsatellites. plarsen01@yahoo.com

Heather Meeks is a first-year graduate student at TTU with an interest in environmental and evolutionary toxicology. She is working on sequencing Eptesicus species from Ecuador to better understand the biodiversity that is present in that sample. Heather is also working on the micro-/minisatellite project (comparing rates of mutation between reference and exposed populations of Clethrionomys glareolus, Apodemus sylvaticus, and Apodemus flavicollis). hnmeeks@yahoo.com

Hugo Mantilla Meluk joined our program for a PhD degree in August 2002. He has been working on mammalian diversity and ecology in different countries of the Neotropics including Colombia, Peru, Costa Rica, and Panama. Hugo is a native of Colombia and received his degree under the direction of Alberto Cadena at the Universidad Nacional de Colombia. His interests include a variety of aspects of ecology, systematics, and patterns of diversity of mammals of the Neotropics. His research is focused on two

groups: Primates of the Colombian Amazon Region, working under the direction of Thomas R. Defler, and Neotropical bats. He has worked for the Organization for Tropical Studies at Duke University campus as a visiting scholar. His goal is to combine the macro and micro evolutionary approaches to contribute to the knowledge of patterns of biodiversity in the Neotropics. Besides this work, he is interested in modeling patterns of biodiversity in Colombia, using GIS based methods, and he is in charge of the Colombian data set for the MaNIS project. Hugo received the Karl Koopman award from the North American Bat Research group for his presentation on the ecological information relative to speciation in *Uroderma bilobatum*.
hmantill@ttacs.ttu.edu.

Sergio Solari is a third year Ph.D. student from Peru. His research is focused on the assessment of congruence between morphological characters and phylogenetic analyses of molecular data for several genera of small mammals, some of them being part of the research by other students in the lab. Part of his previous research on the systematics of Neotropical Didelphidae (genera *Thylamys* and *Monodelphis*) was published last years. Now, he is working on the taxonomy and systematics of bats of the genera *Carollia*, *Thyroptera*, and *Dermanura*, and also opossums of the genera *Marmosa* and *Marmosops*. His current research involves (a) the phylogeography of a species-group of short-tailed opossums (*Monodelphis*), using the cytochrome b gene, and (b) the morphological diagnoses of the resulting clades, some of which may represent new species. sergio.solari@ttu.edu

Vicki Swier is a doctoral student studying the role of LINEs in the mammalian genome, particularly in Oryzomine rodents where LINEs may be extinct. She is also creating karyograms of the animals collected in the recent Sowell Expedition to Honduras and Ecuador.

Undergraduate Students And Their Research:

Robert Bull, Jim Bull's son, is a freshman undergraduate working in the labs on the systematics of *Lasiurus* collected from western Ecuador. Currently he is deciding whether to pursue a major in Biology of Biochemistry. junglebalistic@hotmail.com

Genevieve Kendall is a sophomore Biology major, and has been a member of Baker's lab for two years. She was accepted into the Howard Hughes Fellowship program at the beginning of the fall semester. Genevieve is working on the micro-/minisatellite Chornobyl mutation rate project with Heather Meeks. genevieve.kendall@ttu.edu

Former Students:

Yelena Dunina-Barkovskaya is currently enrolled in a PhD program in Biotechnology from Texas Tech University's Health Sciences Center.

Matt Bozeman was accepted to Medical school at Texas Tech University's Health Sciences Center. He has currently finished his first semester there.

Additional Information:

A significant event in our mammalogy and museum science program here at Tech is the new wing of the Natural Science Research Lab that is expected to be finished in January or February of 2005. This building resulted from a gift of \$5 million from the Ben E. Keith Company. The mammal range will be moved into the new wing where they will be archived on compactors, which will allow us to triple our holdings of mammal specimens. We are currently over 100,000 specimens. Part of the contract for the addition of the new building includes tripling of the space available for the genomic resources (new big name for the frozen tissue) collection. The additions to this part of the NSRL will

result in greater security and electronic surveillance. Additional space will allow us to accept orphaned collections as well as substantial new growth. While we are excited about the addition of the new wing, please understand that this will result in some time that we will not be as responsive to loans and tissue request.

Robert D. Bradley

Phone: 806-742-2725

Fax: 806-742-2963

E-mail: robert.bradley@ttu.edu

URL: Biology - <http://www.biol.ttu.edu/>
Museum - <http://www.nsrl.ttu.edu/>

Research Interests, Projects, And Grants: My research interests include systematic relationships, molecular evolution, and natural history of mammals, particularly in geomyoid and sigmodontine rodents. Examination of hybrid zones between genetically distinct taxa; including isolating mechanisms and the dynamics of genetic introgression. Examination of the origin and evolution of rodent-borne viruses; especially in the use of rodent phylogenies and genetic structure to predict the transmission and evolution of viruses. Modeling and predictions associated with epidemiology. Growth and utilization of natural history collections, especially those pertaining to mammals. Natural history and distribution of mammalian species.

Current Projects:

- Systematics and phylogenetic studies of *Peromyscus boylii*.
- Phylogenetic relationships of Neotomine and Peromyscine rodents.
- Study of hybridization between chromosomal races of *Geomys*.
- Study of hybridization between two species of *Neotoma*.
- Systematics and phylogenetic studies of the genus *Sigmodon*.
- Systematics and phylogenetic studies of the genus *Neotoma*.
- Systematics and phylogenetic studies of the genus *Geomys*.
- Ecology of emerging hanta- and arenaviruses in the southwestern US.

Graduate Students And Their Research:

Brian R. Amman (PhD student), is in his fourth year. Dissertation topic involves - Systematics of the *Peromyscus boylii* species group based on the nuclear gene sequences from the alcohol dehydrogenase locus. Currently Brian is working at CDC in Atlanta while writing his dissertation.

John Hanson (PhD student), is in his third year. Dissertation topic will involve - molecular systematics of Oryzomyines.

Michelle Haynie (PhD) student, is in her fourth year. Dissertation topic involves - Population genetics of four species of *Neotoma* using microsatellite data.

Francisca Mendez-Harclerode (PhD student), is in her fifth year. Dissertation topic involves - Populations genetics of *Neotoma micropus* and how geneology predicts susceptibility/resistance to arenavirus.

Denate Baxter (Masters student), is in her second year. Thesis topic involves - Population genetics of *Neotoma micropus* collected from midden sites.

Undergraduate Students And Their Research:

Nevin Durish (Senior), fourth year in the Howard Hughes Medical Institute Program. Research topics involve - Molecular systematics of the *Peromyscus truei* group, GIS based research on woodrats and arenaviruses, and others.

Additional Information:

Lisa Longhofer (Masters student), finished her thesis and graduated in December 2004. Her thesis was titled "Molecular systematics of the genus *Neotoma* based on nuclear DNA sequences from Intron 2 of the Alcohol Dehydrogenase Gene". Lisa is in medical school at Texas Tech University.

Clyde Jones

Paul Whitfield Horn Professor Emeritus

Address: 3403 Canyon Road, Lubbock, Texas, 79403

Phone: 806-744-3535

E-mail: cjmajones@aol.com

Research Interests and Grants:

- Mammals of the Big Bend region of Texas, and northern Mexico.
- Long-term monitoring of mammals of Big Bend Ranch State Park
- Mammals of the Chinati Mountains State Natural Area
- Financial support from the Texas Parks and Wildlife Department

Graduate Students:

Robert S. DeBaca - Mammals of the Davis Mountains, Texas

Joel G. Brant - A comparison of the rodent faunas in sandhill habitats from the northern Chihuahuan Desert in Texas

Additional Information:

Although retired, I am still active in research and participation on several committees of graduate students.

Robert D. Owen

Phone: 806-742-3232 (Owen Office), 806-742-3039 (Graduate Students)

Fax: (806) 742-2963

E-mail: robert.owen@ttu.edu

Research Interests:

- Mammalian systematics, zoogeography, and evolution with emphasis on Neotropical fauna.
- Multivariate statistical methods in systematics and evolution.
- Philosophy and methodology of vertebrate phylogenetics.
- Systematics and biogeography of small mammals in the western Transverse Volcanic Belt region of Mexico.
- Systematics, biogeography, ecology, and conservation of Paraguayan mammals.
- Evolution, systematics, and ecology of hantavirus and other mammalian-borne viruses.

Current Projects and Grants:

- “Hantavirus in the Americas: the role of natural and anthropogenic disturbance.” New Mexico State University, 2003-2004.
- “The Impact of Rapid Anthropogenic Land Cover Change in the Chaco and Interior Atlantic Forest in Paraguay on Hantavirus Ecology. 2004. National Institutes of Health, as subcontract from Southern Research Institute.
- “CREST Center for Excellence in Bioinformatics and Computational Biology. National Science Foundation, as subcontract from New Mexico State University.

Graduate Students and Their Research:

Carl W. Dick is in the fifth and final year of his Ph.D. program, and plans to defend in early 2005. His research involves bat ectoparasites, host-parasite collection issues and host specificity, and the ecology of competition and coexistence of multiple parasite species on their hosts. Carl spent most of the summer in western Ecuador, accompanying the Sowell/PUCE expedition, led by Robert Baker and Rene Fonseca. During this expedition the team captured nearly 1,500 small mammals and Carl collected ectoparasites from nearly 1,100 of the mammals. Carl continues to work on a book, co-edited by Bruce Patterson, entitled "Ectoparasites of Manu Biosphere Reserve, Peru." Carl has accepted a 2-year post-doctoral research position at the Field Museum of Natural History, and will begin that work after defending his dissertation.

Tyla Holsomback is in the third year of her graduate work. Her research focuses on mammal-borne viruses and their interaction with unicellular organisms.

Alisa Abuzeineh is in her second year of graduate work. Her research focuses on interspecific competition within the genus *Baiomys*. Specifically, her project is a geometric morphometric study of character displacement among the two species throughout their allopatric and sympatric ranges.

Noé de la Sancha is in his second year of graduate work. He is examining ecological, distributional, and community aspects of small marsupials in Paraguay. He spent the summer of 2004 in Paraguay, conducting field work and developing collaborative relationships with several non-governmental organizations.

Trinity University
Department of Biology
One Trinity Place
San Antonio, TX 78212

David Ribble

Phone: 210-999-8363

Fax: 210-999-7229

E-mail: dribble@trinity.edu

URL: www.trinity.edu/dribble

Research Interests, Projects, and Grants: I am interested in the behavioral ecology of mammals, and work primarily with *Peromyscus* and most recently elephant-shrews (*Macroscelidea*). In the second half of 2005 I will be working with Dr. Victor Sánchez-Cordero on the social behavior of *Neotomodon*

alstoni. I also continue to work with Trinity University undergraduates on the ecology, natural history, distribution, and conservation of mammals in Bexar County (Government Canyon State Natural Area and San Antonio Missions National Historic Park).

Undergraduate Students and Their Research:

Samantha Hammer - Paternity in Eastern Rock Sengis (*Elephantulus myurus*).
Justin Ng - Bats of Cathedral Park, San Antonio, Texas.

University of North Texas

Department of Biological Sciences & Institute of Applied Sciences
Denton, TX 76203

Earl G. Zimmerman

Phone: 940-565-3223

Fax: 940-565-3821

E-mail: ezim@unt.edu

URL: www.cas.unt.edu/~ezim

Research Interests, Projects, and Grants:

- Mammalian biodiversity on the Colorado Plateau
- Genetic diversity in metapopulations of prairie dogs in Texas.
- Long-term population dynamics in prairie dogs.
- Mitochondrial DNA and phylogeography of black-tailed prairie dogs

Graduate Students and Their Research:

Cindy Biggs; PhD student; Applications of microsatellite DNA variation to studies of gene diversity in metapopulations of prairie dogs.

April English; MS student; thesis topic not determined

Mercy McBrayer; MS student; thesis topic not determined

Robin Aiken; MS student; Applications of GPS technology and GIS to the determination of habitat preferences and movements of pronghorn in the lower rolling plains of Texas

University of Texas at Austin

Texas Memorial Museum
2400 Trinity St., Austin, TX 78705

Pamela R. Owen

Phone: 512-232-5511

Fax: 512-471-4794

E-mail: powen@mail.utexas.edu

URL: Texas Memorial Museum - <http://www.tmm.utexas.edu/>

URL: Digital Morphology Group - <http://www.digimorph.org/about/pamelaowen.phtml>

Research Interests, Projects, and Grants:

- Evolutionary history of American badgers (Taxidiinae)
- Morphology, evolution, and systematics of Carnivora
- Late Cenozoic Mammalian faunas
- Utilization of high-resolution X-ray computed tomography in morphology studies

Additional Information:

I am currently serving as the Fossil Editor for Mammalian Species. As one of the Texas Memorial Museum's Museum Express staff, I have been presenting "Bones, Teeth, Horns, and Antlers", a new K-6 outreach program exploring mammal skulls. The program has been popular and I am encouraged by the number of kids interested in science, especially mammalogy.

West Texas A&M University

Department of Life, Earth, and Environmental Sciences
Box 60808
Canyon, TX 79016

Raymond S. Matlack

Phone: (806) 651-2583

Fax: (806) 651-2928

E-mail: rmatlack@mail.wtamu.edu

URL: <http://www.wtamu.edu/~rmatlack/>

Research Interests, Projects and Grants: I have been at WTAMU since fall of 2002 but have numerous research projects underway. My background and current research interests focus on the ecology of small mammals.

Our main research site is Cañoncita Ranch, a newly acquired portion of Palo Duro Canyon State Park. We have initiated a long-term study to determine the composition of the small mammal community, examine temporal and spatial variation in the small mammal community, and examine the influence of topography on small mammals. We are especially interested in the ecology of the Palo Duro mouse, a state threatened species that occurs only in the canyons of the Panhandle of Texas.

We are in the process of implementing a large-scale replicated study of the influence of burning on plants and vertebrates in shortgrass prairie. The study will be conducted at the Crossbar Ranch (managed by the Bureau of Land Management) and consists of 9 large experimental (average size of plot ~ 300 acres) plots with 3 plots receiving frequent fire, 3 plots receiving moderate fire frequency, and 3 plots serving as long-term unburned controls. We are sampling mammals, reptiles, amphibians, and birds in each of the plots to determine their response to fire and fire frequency.

Graduate Students and Their Research:

Greg Lewellen – Influence of topography on the composition and distribution of the plant and small mammal communities of Palo Duro Canyon

Karah Gallagher – Ecology of the small mammal community of the canyons and grasslands of Palo Duro Canyon

Undergraduate Students and Their Research:

Steven Grant – A survey of the free-tailed bats of Clarity Tunnel: population size, ecology, and establishing monitoring protocol

Matt Poole – Distribution of prairie voles in the Texas Panhandle based on remains found in owl pellets

Brenda E. Rodgers

Phone: 806-651-2283

Fax: 806-651-2928

E-mail: brodgers@mail.wtamu.edu

Research Interests, Projects and Grants: My research Program is currently funded by the U.S. Department of Energy's Low Dose Radiation Research Program (<http://lowdose.tricity.wsu.edu/>). In collaboration with the laboratories of Drs. Ron Chesser and Robert Baker (Texas Tech) and Dr. Jeffrey Wickliffe (UTMB) we are examining the effects of exposure to low doses of ionizing radiation at the cellular and molecular level.

In addition to the Chernobyl project, our laboratory is collaborating with Dr. Ray Matlack's small mammal research in Palo Duro Canyon. Our role in this project is karyotyping and tissue archival of the specimens collected.

Graduate Students and Their Research:

William Osorio - M.S. Fall 2003 to present - Thesis: Determination of Hprt Mutation Frequencies in BALB/c mice Exposed to Low Dose Rate Low-LET radiation.

Kristen Holmes - M.S. Spring 2004 to present - Thesis: Investigation of in utero exposure to low dose rate radiation.

Erin Littlejohn - M.S. Spring 2005 to present - Thesis: to be determined

Drew Watson - M.S. Spring 2005 to present - Thesis: to be determined