ANNUAL MEETING ANNOUNCEMENT
AND
CALL FOR PAPERS

57th ANNUAL MEETING
SOUTHWESTERN ASSOCIATION OF NATURALISTS
APRIL 22-24, 2010

Hosted by Texas Tech University,
Llano River Field Station,
Junction, Texas
The Southwestern Association of Naturalists is pleased to announce its 57th Annual Meeting for April 22nd – April 24th, 2010. The meeting will be hosted by the Texas Tech University Llano River Field Station at Junction, with most activities centered at the beautiful campus and near the headwaters of the South Llano River (http://www.depts.ttu.edu/hillcountry/research/index.php). The Local Committee, Station staff and the entire Junction community are excited to serve as hosts.

Contact Information (Local Committee Chairs):

Dr. Christopher Taylor, Department of Natural Resources Management, Texas Tech University, Box 42125, Lubbock, TX 79409. Phone: 806-742-1983; Email: cm.taylor@ttu.edu

Dr. Tom Arsuffi, Director, Llano River Field Station, Texas Tech University Center at Junction, 254 Red Raider Ln., P.O. Box 186, Junction, TX 76849. Phone: 325-446-2301; Email: tom.arsuffi@ttu.edu

Local Committee: Dr. Loren Ammerman (Angelo State University), Dr. Gad Perry, Dr. Carlos Villalobos, Kathrin Dodds (Texas Tech University).

REGISTRATION AND PAYMENT INSTRUCTIONS

If you work/study in Mexico or Latin America, see the Instructions in Spanish at the SWAN website (www.biosurvey.ou.edu/swan/meet10/registers.php). If you work/study in the United States, use the following instructions. Go to the SWAN website on-line Registration Form in English (www.biosurvey.ou.edu/swan/meet10/register.php). Fill it out on-line and submit it.

THIS YEAR EVERYONE MUST REGISTER ON-LINE FOR THE MEETING. YOU MUST REGISTER ON-LINE.

- Payment by check or money order:
  - Fill out the on-line registration form at www.biosurvey.ou.edu/swan/meet10/register.php and submit it even if you will not be paying by credit/debit card. Print off your completed on-line registration form and send it along with a check or money order for the total registration costs (and payable to SWAN 2010) to:
    - Dr. Christopher Taylor
      Department of Natural Resources Management
      Texas Tech University
      Box 42125
      Lubbock, TX 79409
Save a paper copy of the completed on-line Registration Form to take with you to the meeting as proof of registration.

- Payment by Credit/Debit Card (Visa and MasterCard only):
  - Save a paper copy of the completed Registration Form to take with you to the meeting as proof of registration. From the on-line registration form, proceed to the forms for Secure Payment and pay on-line.

REGISTRATION INFORMATION

Early registration deadline: March 10, 2009

Please use on-line form at SWAN website
http://www.biosurvey.ou.edu/swan/meet10/register.php

YOU MUST REGISTER ON-LINE FOR THE MEETING (SEE LINE ABOVE). DO NOT SIMPLY COPY THE LIST OF COSTS BELOW AND SEND IT TO SOMEONE, YOU MUST REGISTER ON-LINE

**Registration**
- Regular $100.00 US $130.00 US after March 10th
- Student $70.00 US $85.00 US after March 10th

**Banquet** $30.00 US

**Picnic** $15.00 US

**T-shirt** $15.00 US

**Field Trips on Sunday** $50 and $70 US (see options below)
ABSTRACT SUBMISSION

Abstract submission must be in English and Spanish, with a 400-word maximum for both languages combined. The author is responsible for providing the necessary translation.

In addition, all posters presented at the annual meeting should include the title and abstract in English and Spanish at the time of presentation (when the poster is up for viewing). For oral presentations, while not mandatory, authors are encouraged to make their presentation friendly to a bilingual audience where possible (e.g., title, labels on figures, and conclusions of the study in English and Spanish).

Deadline for Abstract and Wilks Awards and Hubbs Awards Entries: January 25, 2010. Deadline for complete application for the Wilks Award to be sent to the President-Elect is 25 January 2010; see http://www.biosurvey.ou.edu/swan/stuainstruceng.htm

Preparation of Abstracts: Titles and abstracts must be in English and Spanish. Please note that the presenting author (oral or poster presentation) must be registered for the meeting. All abstracts will be submitted electronically by either:

- Using the Online Abstract Submission Form located on the SWAN website http://www.biosurvey.ou.edu/swan/meet09/abstract.php Note: please copy and paste abstract using Times New Roman font size 12.
  - Indicate presentation type (Oral or Poster) followed by a request for consideration for competition (Wilks or Hubbs).
  - Indicate one general topic that best describes your presentation (Taxonomy, Systematics, Morphology, Ecology, Behavior, Evolution, Physiology) followed by the taxonomic group of study (Plants, Invertebrates, Fishes, Amphibians, Reptiles, Mammals, Birds).
  - List presentation title in all capital letters in English and Spanish with a slash between them.
  - List author(s) and affiliation(s). If there are multiple authors, indicate the presenting author with an underline. Use numbers to identify institutional affiliations.
  - Abstract limited to 400 words in total for both English and Spanish combined.

Examples:

Poster
Ecology—Invertebrates
SPIDERS OF ASH MEADOWS NATIONAL WILDLIFE REFUGE, NEVADA, USA/LAS ARAÑAS DEL REFUGIO NACIONAL DE VIDA SILVESTRE ASH MEADOWS, NEVADA, USA

Sarah C. Crews¹, and Lawrence E. Stevens²
We studied the spider fauna of Ash Meadows National Wildlife Refuge on six collecting expeditions during October 2004-August 2005. Spiders collected during these field trips produced ≥81 species in 60 genera and 26 families. Faunal diversity was dominated by Salticidae (≥13 species in seven genera), followed by Lycosidae (eight species in seven genera), Araneidae (eight species in seven genera), Gnaphosidae (seven species in seven genera), and Philodromidae (four species in four genera), with Thomisidae, Linyphiidae, Dictynidae, Theridiidae, Miturgidae, Pholcidae, and Tetragnathidae represented by two to seven species in one to three genera each. A total of 14 other families was represented by single species in single genera. The family Lycosidae was at more sites than any other family and it was the family with the largest number of individuals collected. We report an overall landscape-based density of species of only 0.96 species/km² and, although 45.7% of species were represented by single specimens, we conclude that the fauna is depauperate. This is consistent with other low-elevation desert and playa-dominated habitats in North America, and might be attributable to limited formation of soil.

Estudiamos la fauna de las arañas del refugio nacional de vida silvestre Ash Meadows en seis expediciones de colecta de octubre 2004 a agosto 2005. Encontramos ≥81 especies de 60 géneros y 26 familias. La diversidad fue dominada por Salticidae (≥13 especies en siete géneros), seguida por Lycosidae (ocho especies en siete géneros), Araneidae (ocho especies en siete géneros), Gnaphosidae (siete especies en siete géneros), y Philodromidae (cuatro especies en cuatro géneros), con Thomisidae, Linyphiidae, Dictynidae, Theridiidae, Miturgidae, Pholcidae y Tetragnathidae representadas por dos a siete especies de uno a tres géneros cada una. Un total de14 familias fue representado por una sola especie en un solo género. La familia Lycosidae se encontró en más sitios que ninguna otra familia y tuvo los más individuos colectados. En la escala de todo el paisaje, registramos una densidad de especies de sólo 0.96 especies/ km² y aunque 45.7% de las especies fueron representadas por un solo espécimen, concluimos que la fauna es pobre en diversidad. Esto es consistente con otros hábitats desérticos de bajas alturas y los dominados por lagos playas en Norteamérica y quizás se atribuye a la formación limitada de suelo.
We studied the reproductive cycle of *Sceloporus dugesii* from Pátzcuaro, Michoacán, México. Males and females reached sexual maturity at the same snout-vent length (50 mm). Reproductive activity of both sexes was asynchronous, similar to other species of the *torquatus* group. Testicular recrudescence was July-August and the maximum activity was September-December. Vitellogenesis occurred during early September to late March, with ovulation occurring November-December, and embryonic development was observed December-May. Mean litter size was $4.4 \pm 0.34$ neonates. Litter size was not correlated with snout-vent length of females. The reproductive cycle of *S. dugesii* is similar to other montane species of the *torquatus* group. Our study showed that *S. dugesii* shares some reproductive characteristics with its sister species.

Estudiamos el ciclo reproductor de *Sceloporus dugesii* de Pátzcuaro, Michoacán, México. Los machos y las hembras alcanzaron la madurez sexual a la misma longitud hocico-cloaca (50 mm). La actividad reproductora de ambos sexos fue asincrónica, similar a otras especies del grupo *torquatus*. La recrudescencia testicular fue de julio a agosto y la máxima actividad de septiembre a diciembre. La vitelogénesis ocurrió de inicios de septiembre a fines de marzo, con la ovulación entre noviembre y diciembre, y el desarrollo embrionario fue observado de diciembre a mayo. El tamaño medio de la camada fue de $4.4 \pm 0.34$ neonatos. El tamaño de la camada no estuvo correlacionado con la longitud hocico-cloaca de la hembra. El ciclo reproductor de *S. dugesii* es similar al de otras especies de montaña del grupo *torquatus*. Nuestro estudio muestra que *S. dugesii* comparte algunas características reproductoras con sus especies hermanas.

**Preparation of Presentations:**

- **Poster Presentations:** Posters must be no larger than 48 inches (122 cm) wide and 36 inches (92 cm) tall. Posters will be mounted to display boards; the Local Committee will provide necessary supplies.
- **Oral Presentations:** Each presentation room will have a projection system and computer. We strongly encourage presentations in Microsoft PowerPoint saved to a USB data stick. Special requests can be made for alternative audiovisual equipment such as slide projectors and overheads. Presenters will be required to load their presentation on the computer prior to the start of their assigned session (see the session chair).
- **We ask that Student Travel Award winners acknowledge SWAN in the acknowledgements of their presentations.**

**STUDENT AWARDS**

All application materials and information regarding student awards can be found on the SWAN website (www.biosurvey.ou.edu/swan/stuaeng.htm).

- **WILKS AWARD:** The Wilks Award is presented to the student giving the best oral presentation at the Annual Meeting of the Association. Research must be primarily the work of the student, not of the major professor, and the student must be the first author of the abstract. From those submitting written summaries, a judging panel will select up to
four students to make oral presentations (15 minutes in length) in a special plenary session at the beginning of the Annual Meeting. A winner will be selected from this group based on the quality of the oral presentation and the significance of the results. The Wilks Award has a cash award of $1000 US, a certificate, and a set of all available back issues of *The Southwestern Naturalist*. The winner will be announced at the Annual Banquet. **DEADLINE FOR APPLICATION: 25 JANUARY**

- **CLARK HUBBS STUDENT POSTER AWARD:** The Clark Hubbs Student Poster Award is presented to the student or students displaying the best poster at the Annual Meeting of the Association. This award provides a certificate, a cash award of $600 US, and a set of all available back issues of *The Southwestern Naturalist*. Although posters may be coauthored with the major professor, the work presented must be primarily that of the student(s). A panel of judges will select the winner based on the quality of the visual presentation and the significance of the results. **DEADLINE FOR APPLICATION: 25 JANUARY**

- **HOWARD McCARLEY STUDENT RESEARCH AWARDS:** The Howard McCarley Student Research Fund provides up to five awards annually, up to $1000 US each, to support student research. Applicants must be students (undergraduate or graduate) currently enrolled in an institution of higher education, sponsored by a faculty member, and a member of the Southwestern Association of Naturalists. Awards will be made in support of any aspect of research on biota of the southwestern United States, Mexico, and Central America except for travel to meetings. Individuals may receive a maximum of two grants from the Association. All qualified students are encouraged to apply, especially those in developing countries. Grant applications may be in either English or Spanish. Awards will be announced at the Annual Meeting of the Association. Two letters of recommendation must be submitted in support of the application. One must be from the research advisor and the second from someone familiar with the student’s academic career and proposed research project. **DEADLINE FOR APPLICATION: 15 JANUARY**

**AREA MOTELS**

Rates are currently being negotiated for the following motels.

- The Legends Inn (325) 446-8644 www.thelegendsinn.com
- Days Inn Motel (325) 446-3730 www.daysinn.com
- Motel 6 Junction (325) 446-3572 www.motel6.com
- Best Western Dos Rios (325) 446-3700 www.bestwestern.com
- La Vista Motel (325) 446-2191
- Rodeway Inn of Junction (325) 446-4588 www.rodewayinn.com
- Hills Motel (325) 446-2567
- Sun Valley Motel (325) 446-2505
- Lazy T Motel (325) 446-2565
- Econo Lodge (325) 446-2475 www.econolodge.com
ON CAMPUS HOUSING ACCOMMODATIONS – FOR STUDENTS ONLY!

Study units and the New Cabin are lodge style rooms consisting of bunk beds, dressers with storage and mirrors. Two bath facilities (each with 2 sinks, 2 toilets and 1 shower) and a lounge area connect the two wings. Each Unit houses an optimum of 16 persons (2 wings of 8). There are no kitchen facilities located in the study units and food preparation in rooms is not permitted. We can handle about 110 people and our charges are $20 US/night/person.

Screened-in cabins provide rustic quarters at a low cost. Each cabin, shared by up to 12 people, is equipped with electricity, bunks, tables, chairs, chests, ceiling fans and study area. The cabins are served by 2 centrally located bathhouses. Bathhouse #1 has 13 sinks, 9 toilets and 6 showers for women and 13 sinks, 9 toilets, 4 urinals and 6 showers for men. Bath House #2 has 9 toilets, 10 sinks and 11 showers for women and 6 toilets, 3 urinals, 10 sinks and 11 showers for men. Cost is $10 US/person and make sure you bring sleeping bag or equivalent bedding.

To reserve and Pay for this lodging, follow the online links for payment by credit card at the time of online registration.

MEETING FACILITIES AND EQUIPMENT

There are 12 classrooms available for use. These can accommodate groups from 20 persons up to 140 persons, depending on the room setup. The dining hall, which can accommodate up to 150 persons, will also be used as a meeting room. The campus is wireless. The Coke Stevenson Memorial Center in Junction (five minute drive from campus) will accommodate up to 500 persons and will be used for the plenary session, Wilks Award presentations, business meeting, pre-banquet socials, and the banquet.

FOOD SERVICE

Free refreshments (coffee, juices, sodas) and finger food/donuts/cookies/bagels will be provided at the morning and afternoon meeting breaks on Friday and Saturday.

SOCIALS AND BANQUET

We have planned a South Llano River bonfire and munchies at the pavilion, river and amphitheatre for Friday evening. Junction is less than a mile from the station and a variety of restaurants offer additional options for eating. There will be a student-only social before the pre-banquet social on Saturday evening at the Coke-Stevenson Memorial Center.

STUDENT WORKSHOP

A student workshop will be held at lunch on Friday in the dining hall on campus (details will follow). There will be a check-box on the registration form for students to indicate their attendance at the student functions.
RECREATION AND ACTIVITIES

Canoeing, tubing, and fishing on the river, hiking, golf driving range, volleyball, sand volleyball and basketball and swimming are some of the recreational activities available. Our facility also offers a Challenge (Ropes) course. Much of the campus contains natural areas and trails for birding and wildlife observation. The campus has two miles of South Llano River frontage and deer, turkey, armadillos, painted buntings and other wildlife are abundant. The Texas Hill Country abounds in recreational potential and many of Texas' finest State Parks are in this region.

TRAVEL

Texas Tech University’s Llano River Field Station is located near Junction in Kimble County, Texas. For air travel, Austin-Bergstrom airport generally provides the least expensive airfares and most convenient connections, but is a 2.2-hour drive from Junction. San Antonio Airport is another option for air travel and sometimes provides reasonable rates and connections and is a 2-hour drive to Junction. Rental cars are readily available at each location. There will not be a shuttle service between the airport and the field station.

From I-10 West:

Take the Texas Tech University exit to Loop 481. Turn left on RR 2169. The campus is located at the end of RR 2169.

From I-10 East:

Take the HWY 83 exit onto Main Street. At the traffic light, turn right on HWY 377. At the Texas Tech University sign, turn left on Flat Rock Lane. Turn right at the Yield sign onto campus.

FIELD TRIPS AND EXCURSIONS

We have two field trips planned for the meeting, including a tour of 700 Springs and Ranch with kayaking and canoeing to the South Llano River, and Enchanted Rock State Park and the Bamberger-Selah Ranch.

Field Trip 1: 700 Springs and South Llano River Kayak Trip. ($50 US with breakfast and lunch)

Lee Pfluger has kindly granted permission for the Southwestern Association of Naturalists to visit his ranch to view 700 Springs and the rare opportunity to start a kayak trip down to the South Llano River from his ranch. The South Llano River is considered by many to be one of the few remaining pristine rivers in Texas. Participants will get to see spectacular limestone bluffs, waterfalls and beautiful scenery not normally afforded canoers and kayakers of the South Llano River. This video (http://www.700springsranch.com/Video/700S.mov) is promotional for wildlife hunts but show the springs, landscape and trophy wildlife that participants of this field
trip may see. The 700 Springs Ranch is located south of Telegraph and has five miles of river frontage. In addition to wildlife viewing, the ranch offers fishing and kayaking opportunities. The springs are impressive and gush from a number of points on the side of a bluff and from beneath a small lake. Plans are for the trip to be guided by Chad Norris, Texas Parks and Wildlife’s Expert on Springs of Texas, or Tom Arsuffi, and a brief history of 700 Springs will be provided by noted local historian Frederica Wyatt. The trip and kayaking are suitable for the family.

Field Trip 2: Enchanted Rock and Bamberger-Selah Ranch ($70 US with breakfast and lunch)
Enchanted Rock State Natural Area

Enchanted Rock State Natural Area consists of 1644 acres on Big Sandy Creek, north of Fredericksburg, on the border between Gillespie and Llano Counties. It was acquired by warranty deed in 1978 by the Nature Conservancy of Texas, Inc., from the Moss family. The state acquired it in 1984, added facilities, and reopened the park in March 1984, but humans have visited here for over 11,000 years. Enchanted Rock was designated a National Natural Landmark in 1970 and was placed on the National Register of Historic Places in 1984. The Rock is a huge pink granite exfoliation dome that rises 425 feet above ground, 1825 feet above sea level, and covers 640 acres. It is one of the largest batholiths (underground rock formation uncovered by erosion) in the United States.

Selah, Bamberger Ranch Preserve is a 5,500-acre ranch that has been described as the largest habitat restoration project on private land in Texas. The ranch is a working example of sustainable, grass-based agriculture that strives to educate visitors by providing facilities and programs that enhance their experience and encourage appreciation and awareness of the natural and cultural heritage of the region. Visitors of all ages can experience the beauty of nature, learn the importance of good conservation and land stewardship, and leave with a sense of power that the individual can positively impact his or her environment. This will be a guided excursion combining some hiking, scenic, educational, bird watching, and conservation components. It is a whole day trip, returning to Junction at 5 PM and suitable for the entire family.