

CLEMSON UNIVERSITY

~ URBAN ENTOMOLOGY EXTENSION & RESEARCH ~

Palmetto Pestalk June 2004 Newsletter¹

Dr. Eric P. Benson
Urban Extension Entomologist
Department of Entomology
Clemson University
(864) 656-3111
fax: 656-5065
e-mail: ebenson@clemson.edu

I can't believe I traveled over 1,800 miles to be duped by a squirrel. It all started when I traveled to Phoenix, Arizona last month to attend the National Conference on Urban Entomology. The three-day conference was great, with a lot of new research presented on cockroaches, termites and ants. After the conference, the rest of my family flew out to Phoenix. We spent a week traveling around northern Arizona and the Grand Canyon.

If you've never been to the Grand Canyon, you need to go some day if possible. If you've been to the Grand Canyon, you know what I'm talking about. No photograph, no video, no National Geographic special can capture the grandeur of the Canyon. It is so deep, so wide, so vast, you'll catch yourself saying "WOW" over and over as you gaze about. The Canyon even impressed my teenaged kids, and we all know how hard it can be to impress teenagers!

The high point of our trip was our hike half-way down and then back out of the Grand Canyon on the Kaibab Trail. Kaibab is a native Indian word meaning "mountain lying down." I personally was tempted to lie down several

times during our hike out, but the Kaibab Trail has some of the best overlooks of the canyon, keeping you motivated to hike to the next great view. It was at the Cedar Ridge Overlook at about 6,300 feet, that we encountered THE SQUIRREL.

In the Canyon we saw a lot of animals including a coyote, ravens, vultures, condors, song birds, rabbits, snakes, lizards, insects, and numerous endearing little rock squirrels. At Cedar Ridge, we were met by a particularly appealing rock squirrel with engaging eyes and long mottled fur gently wafting in the breeze. We dropped our packs and followed our new friend, digital cameras in hand, as she skipped over the rocks to the edge of a 300 hundred foot cliff. She stopped, rose on her haunches and posed for a series of glamour shots, as we fired away like paparazzi photographing a movie star. We took super pictures of our cooperative subject in a series of poses with the Grand Canyon as the backdrop. Another WOW moment!

After about a five minute photo shoot, my daughter remarked that we should submit our photos to Vogue Magazine for a feature on Squirrels of "Glam" Canyon. We were still laughing as our glamour squirrel scampered past us to join three of her buddies who had just spent the last five minutes ripping into our abandoned packs to get to our food. My pack, which

contained a nice big bag of nuts, was the prime target. Chagrined, we raced back to shoo the marauders away from our pack as the bag of nuts exploded across the trail during a squirrel tug-of-war. We got very dirty looks from the squirrels, as if to say, "Did you expect those glamour shots to be free?!"

Tourists get duped by locals all the time, but it is embarrassing for a trained professional in pest management to be duped by a squirrel. My wife tells me not to be too embarrassed, that I can always claim I was weakened by the altitude. I guess. But the next time I'm one-on-one with a squirrel in an attic, I'm going to keep one eye looking over my shoulder. And if you're ever in the Grand Canyon at Cedar Ridge, enjoy the view, maybe even go to the edge--but if you see a glamorous squirrel, hide your nuts!

National Conference On Urban Entomology

The ninth biannual National Conference on Urban Entomology was held from May 20 - 22 in Phoenix, Arizona. Approximately 80 presentations were made, mostly on the latest research on cockroaches, termites and ants. A few papers on bed bugs, yellowjackets and effective ways to teach urban entomology were also presented. Ant behavior, cockroach bait aversion problems, termite treatment

strategies and molecular analysis of termite species and colonies were some of the hot topics. Attached are some facts I picked up during the sessions:

- There are probably more native termite species in the genus *Reticulitermes* (this includes our most common species in SC), than are currently recognized.

- Some pest control firms have made thousands of treatments for bed bugs over the last few years.

- Fumigations for drywood termites have greatly increased in the Southwest due to the housing boom and urbanization of desert areas.

- There are about 600 species of ants in North America, but only about 30 are considered pests.

- Structural fumigation has been used for very serious bed bug infestations.

- Contrary to previous thoughts, baiting for white footed ants, especially with liquid baits, is probably the best way to obtain control. (White footed ants have been reported in SC).

- Bait aversion, especially to gel baits, by German cockroaches may exist in 5 to 10% of all commercial accounts in the US.

- Baits containing borates have the added benefit of the borate acting as an anti-fungal agent and preservative, prolonging effectiveness.

- Most Southwestern regions do not have earthworms, making termites the main detritivores in desert areas.

- A revised label for Termidor, allowing for partial termite treatments, based on

efficacy data from around the country, is being reviewed by the EPA.

At the meeting, Clemson University was well represented by Eric Paysen. Eric, a Ph.D. student in our urban program, received one of only two national scholarships from the National Urban Entomology Awards Committee. Eric received \$1,000 and presented a 20 minute symposium on his research: Understanding Ant Community Structure in Urban Environments. His thoughts on understanding and preserving beneficial native ants while controlling pest ants was well received. Eric will be presenting his research findings at the SCPA Winter meeting next February.

Squirming Over Horse Hair Worms

Each spring and early summer, especially after rains, I get calls about horse hair worms. Horse hair worms are long spaghetti-like animals without a distinct head. They are parasites of crickets, grasshoppers and cockroaches. They are fairly common and pose no threat to people or pets.

Horse hair worms get their name from the old belief that they came from horse hairs that had fallen into water. At times they are also called Gordian worms, especially when several worms are found together contorted in knots. According to Greek legend, King Gordius of Phrygia tied a complicated knot that only the future ruler of Asia could untie (like the sword in the stone story). Apparently Alexander the Great wasn't able to untie

the knot so he hacked it apart with his sword and became ruler on his own terms.

Horse hair worms occasionally are found in ponds, swimming pools, puddles, or even on wet floors in buildings. They usually emerge from crickets, grasshoppers or cockroaches that have died in or near a wet area. As they wriggle about looking for a mate, they can cause quite a fright in most folks.

Adults mate in aquatic areas, and the female can produce several million eggs in long gelatinous strings. Depending on the source of water and temperature, the eggs usually hatch within a few weeks to a few months. Within a day of hatching, the newly emerged worms form a cyst on nearby vegetation. If the cyst is eaten by an appropriate insect, a tiny larva will be released and it will bore into the body cavity of the host. In the body, the worm will digest tissue and grow until it kills its host. Some horse hair worms can get to two feet in length. Wow, that almost makes you feel sorry for the poor cricket or grasshopper!

Control of horse hair worms is not practical of advisable. If you encounter horse hair worms, just tell your client the Alexander the Great story and mechanically remove the worms. If necessary, decreasing insect numbers around an account will lower the chances of encountering horse hair worms. For example, reducing mulch and/or plantings near pools or structures will reduce favorable insect habitats.

Exclusion can also help with control. Also, regular servicing of accounts for crickets and cockroaches will help reduce the chances of horse hair worm encounters. *Source: Horsehair worm fact sheet by Lee Townsend, University of Kentucky.*

First Termite School Of 2004 In Two Months

Don't forget about the termite schools if you are interested in registering. The Apprentice Termite Technician (ATT) programs will be held on August 18 - 19 and October 13 - 14. The Master Termite Technician (MTT) programs will be held on September 22 - 23 and November 10 - 1. You should have received registration materials in the last issue of Pestalk and in the mail. Registration forms are also available at our web site: entweb.clemson.edu/urban/EXT-TCHG.HTM. Remember that every year our enrollment exceeds the number of spaces we have available for each class, so if you are interested, please enroll soon. If you have any questions, please contact Jackie Ellis at 864/656-5048 or by email at Jells@clemson.edu.

Great Reads For The Summer

If you are in pest control or an entomologist, two important reference books are being released this year. The ninth edition of the Mallis Handbook Of Pest Control is available through Pest Control Technology Media Group. The regular price is \$135 and can be ordered by calling 800/456-0707 or online at www.mallishandbook.com.

The second reference book is the seventh edition of Borror and Delong's Introduction To The Study Of Insects. This is a classic reference book used in many entomology courses. This book is slated to be released later this year. I found it already listed on Amazon.com at \$75.45. I've been able to get an advance copy, and it appears that they have made a number of updates including listing the newly discovered order of insect: Mantophasmatodea. So if you want to update your library, you may want to check out both of these classic reference books.

Thank You, Thank You, THANK YOU

As most of you know, the status of the state budget has been a serious concern for our Extension programs at Clemson. The roller coaster ride began when the governor proposed cutting approximately 41% of Clemson's Public Service Activity (PSA) Funding, and proposed eliminating or severely reducing any program not directly tied to agriculture.

Over the last few weeks, the SC House and Senate in the General Assembly submitted their own version of the budget and then overrode the Governor's vetoes, keeping the cuts to PSA at about 2% for fiscal year 2004 - 2005! Even though we've had cuts over the last several years and have lost many faculty and staff to retirement, we've been told that we should be able to (once again) absorb the cuts without laying off faculty or staff.

I know many of you supported our programs by contacting your state

representatives and visiting the advocacy web site. THANK YOU! Now we can continue to focus on our work and hope that an improving economy will make for a brighter year when the next budget cycle starts in January 2005.

¹Note: This newsletter is a regular submission to Palmetto Pestalk.

For information concerning this publication contact:

Tom Gochnaur

9721 Dunbarton Drive

Columbia, SC 29223

Phone: 803-788-6699

Fax: 803-788-9698

Email: teegee342@aol.com.