



North Carolina Entomological Society

NEWSLETTER

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Website/Publications
Steve Toth

Resolutions Lew Dietz

Dr. Rick Brandenburg Awarded William Neal Reynolds Professorship



Dr. Rick Brandenburg, professor of entomology and a North Carolina Cooperative Extension entomologist was recently named a William Neal Reynolds Professor in the College of Agriculture and Life Sciences at North Carolina State University. The William Neal Reynolds Professorship is one of the highest distinctions available to N.C. State University faculty members.

Dr. Brandenburg's work in extension

See Award, pg. 2

Not a member of the North Carolina Entomological Society?

Visit our website

<http://cipm.ncsu.edu/ent/ncentsoc>

to learn how to join.

SAVE THE DATE Annual Meeting and Awards Banquet November 2

The North Carolina Entomological Society Annual Meeting and Awards Banquet will be held on November 2, 2007 at the Joyner Visitors Center at North Carolina State University in Raleigh, NC.

The evening festivities will begin with a cocktail social and poster session starting at 5:30PM. The poster session is open to all society members. Awards will be given to the top posters from graduate students. Following the social, a buffet dinner will be served at 7PM.

There will be an insect photography contest and awards for the Outstanding Contribution to Entomology, Outstanding Graduate Student (M.S. and Ph.D.) and Outstanding Elementary or Secondary School Teacher.

The F.R. Lawson Memorial Lecture will be given by Dr. Ron Stinner, Research Director of Integrated Pest Management on the NC State University Campus.

The evening will conclude with the Society's annual business meeting and election of officers for 2007-08.

Welcome new and returning members:

Sarah Thompson ● Fred Gould ● Shannon Morsello ● Anirudh Dhammi ● Rachel Katz ● Steve Toth ● Andy Deans ● Alonso Suazo-Calix ● Yasmin Cardoza ● Jack Bacheler ● James Harper ● Fred Hain ● Harry Moore ● Rebecca Baumler ● Eric Blinka ● Carol Berger ● Amanda Beaudoin ● Mariah Bock ● Sayed Khalil ● Mike Roe ● Steve Bambara ● Jessica Lawrence ● Rocio Del Milagro Davila ● Alan Stephenson ● Jacob Van Kretschmar ● Brooke Witting ● Michael Smith ● Charles Apperson ● George Kennedy ● Wayne Brooks ● Stan Balducci ● Ron Stinner ● Laura Hunnicutt ● Bill Campbell ● Clyde Sorenson ● Lynda Collins ● Charles Wright ● Toni Bucci

Award, from pg. 1

focuses on insect pest management in peanuts and turf. He serves as co-director of the North Carolina Center for Turfgrass Environmental Research and Education, which is designed to promote the environmentally benign management of the state's 2.2 million acres of turfgrass. Brandenburg also leads the U.S. Agency for the International Development-funded Peanut Collaborative Research Support Program that sponsors research in Thailand, the Philippines and Ghana. Brandenburg's work in Ghana is credited with increasing peanut yields two to three fold and dramatically increasing peanut acreage.

The Reynolds Professorships were established in 1950 by William Neal Reynolds, long-time president and board chairman of the R.J. Reynolds Tobacco Company, to recognize and support outstanding faculty achievement in research, teaching and extension. According to the endowment agreement, the professorships "will be for the purpose of selecting and retaining in the College's faculty and staff great scholars, great teachers, great scientists and great interpreters."

-From NCSU press release

Got News?

This is **your** newsletter.
Like what you see? Let us know.
Have a suggestion? Let us know.
Please send your submissions on

Research Events
People in the News
Awards Trivia

to Dawn Calibeo-Hayes, Secretary
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Research Triangle Park, NC 27709
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2006 Photo Contest Winner by Nigel Armes
Unusual, extreme or close-up category

Did you Know?

The world's largest statue of a mosquito is a roadside attraction in Komarno, Manitoba. Sculpted in 1984, it is made of steel and has a wingspan of 15 feet. It is also a weathervane.

Mosquitoes do not bite. They suck.

It would take 1, 200, 000 mosquitoes, each sucking once, to completely drain the average human of blood.

Student Spotlight *Kevin Donahue*

Mr. Kevin Donohue is a second year Ph.D. student in the laboratory of Dr. R. Michael Roe, in the Department of Entomology at NC State University. Kevin is a native of Albany, New York and received his B.S. degree in 1996 in the field of Forest Resources Management from the College of Environmental Sciences and Forestry, State University of New York at Syracuse. Kevin had an interesting career as a touring guitarist after his B.S. degree. His interest in entomology, however, eventually resulted in a move to the Raleigh area where he volunteered to work in the NCSU insectary with the hope of eventually entering graduate school. For several months he worked as a volunteer in the NCSU insectary and later as a research assistant with Dr. Lewis Dietz in insect systematics. For his masters, he joined the Roe laboratory at NCSU and participated in a joint project with Dr. Mohamed Bourham, a professor in Nuclear Engineering, to investigate the use of atmospheric pressure plasma discharges as a new method of insect control. His research involved studying how plasma might be used for the control of insects of importance to agriculture and medical entomology, optimization of atmospheric plasma discharges and different devices for insect killing and determining the mode of action of plasma on insects. His M.S. research led to the development of several NCSU intellectual property disclosures, 7 presentations at scientific meetings, the publication of 8 scientific papers and the submission of three SBIR grants to NIH and USDA.



The major emphasis of Kevin's Ph.D. thesis research is the physiology and molecular biology of tick development and reproduction. In his first paper for his Ph.D., Kevin describes the novel sequence of a carrier protein (CP) found in ticks at all stages of development and in all tissues and which he cloned and sequenced in full. It appears from his evolutionary analysis of the CP nucleotide and amino acid sequence that this protein is novel to the currently known animal proteins and is a critical prerequisite for the evolution of hematophagy (blood-feeding) in hard ticks. CP is required for the detoxification and storage of heme obtained during tick blood feeding and permits ticks to survive for extended periods between feeding by providing a source of heme for general metabolism. Because of CP and its ability to store heme, ticks have lost the ability to synthesize heme. Kevin's current work is to express a novel male protein pheromone which he cloned and that regulates female reproduction in ticks, sequence the expressed genes in the tick brain during reproduction, and examine the role of the male reproductive pheromone on brain gene expression. To date, Mr. Kevin Donohue has published 19 papers and presented 14 scientific papers at regional, national and international meetings. He has been active in outreach and has trained several researchers in the department on GC-MS analysis. His other side projects include the study of the insect repellent BioUD and its use in textiles, the study of the regulation of reproduction in mites, and the development of bioassay techniques for resistance diagnosis.