

Station News A PROGRESS REPORT for staff and Friends of America's first Agricultural Experiment Station

Departmental News

PRESENTATION ON MOSQUITOES AT THE BENJAMIN JEPSON INTERDISTRICT MAGNET SCHOOL IN NEW HAVEN



Mr. Michael Thomas with some students

On May 12, 2008, Michael Thomas and John Shepard made a presentation on mosquitoes, insects and backyard wildlife to an after-school gardening program (20 students, grades K-2) at Benjamin Jepson Interdistrict Magnet School in New Haven. John presented information about mosquitoes and their biology, highlighting their developmental stages. The students were able to examine adult and larval mosquitoes under the microscope, getting views they had never been able to see before. Mike spoke to about backyard insects and displayed pinned insect specimens from the Station collection. The children especially enjoyed the live specimens Mike had collected including; green frogs, tadpoles, a red backed salamander, and dragonfly larvae.

RIDGE AND WILLIAMS BOTH RECEIVED PH.D.'S FROM THE UNIVERISTY OF CONNECTICUT IN MAY



Dr. Gale E. Ridge and Dr. Scott C. Williams

For the first time in the history of the Experiment Station, two employees successfully defended their dissertations, not only in the same year, but the same month, April. Gale Ridge and Scott Williams both received Ph.D.'s from the University of Connecticut on 10 May 2008. Gale was a member of the Department of Ecology and Evolutionary Biology and her advisor was Dr. Carl Schaefer, while Scott was in the Department of Natural Resources Management and Engineering under the tutelage of Dr. Morty Ortega. While both fields were pertinent to the mission of the Experiment Station, their research interests were considerably different; Scott worked on white-tailed deer behavior while Gale studied insect morphology.

Gale's research was with the thoracic endoskeleton of adult Heteroptera (Insecta: Hemiptera) in a family-level study. She examined specimens from 39 out of 75 families from 19 countries on 5 continents creating 598 scanning electron micrographs, 47 pen and ink drawings in a 950 page thesis. She standardized

an endoskeletal nomenclature with 32 new characters that showed usefulness in taxonomic and systematic research. She made numerous morphological discoveries. Based on the information obtained from these characters, she suggests that Aradidae (The flat bugs) be elevated from family level to morpha level as Aradidomorpha supporting Sweet and Schaefer's position. The phenogram generated from 403 non-polarized characters states followed closely family groupings generated cladistically by others. Though a preliminary study, the heteropteran thoracic endoskeleton proved to be a region of high dynamic complexity, long understudied and in need of further exploration.

Scott used geographic information system software to interpret movement data gathered from global positioning system collars from two white-tailed deer herds (n = 40) subjected to two different forms of reduction; controlled hunting and sharpshooting. As lethal control of deer is becoming more socially accepted due to increased human/deer conflicts, it is important to understand the ecological and behavioral repercussions of deer remaining post-reduction. Remaining deer substantially increased home range occupation during harvest, but did not cross roadways more frequently, invalidating anecdotal claims that deer under duress from hunting pressure will be more susceptible to collisions with motor vehicles. White-tailed deer engage in a matriarchal social structure, in that female offspring establish home ranges adjacent to and often overlapping that of their mother. Social groups usually consist of a matriarch and her offspring and siblings. He was able to show that in the absence of this matriarchal social network, unrelated individuals would tend to abandon known ranges to accommodate a new social network, contrary to previous reports. Scott plans to continue to analyze these data in a more refined capacity in cooperation with members of the Department of Natural Resources Management and Engineering at the University of Connecticut.

STATION PARTICIPATED IN THE SECOND ANNUAL NORWALK TREE FESTIVAL

Several Experiment Station staff braved cold winds and dark gray skies at the shore of Sandy Beach in Norwalk to teach children and their parents about trees and bees on Saturday, May 3,

2008. Drs. Sandy Anagnostakis, Doug Dingman, Sharon Douglas and Ira Kettle distributed Station bulletins, publications, and coloring books to attendees. Children marveled at the honey bees, which were clustered together in a large ball to keep warm! Over 75 adults and 150 youths attended the event.



The Experiment Station Booth was selected as a "Kids Coloring" site. Sandy, Doug, and Ira answer questions.



Coloring pages of the CAES Coloring Book for Kids.



Children were fascinated by the "ball of bees."



The Station's booth was busy throughout the day. The cold gray harbor is visible in the background.



Dr. Douglas Dingman, Dr. Sharon Douglas, and Mr. Ira Kettle under the Station tent.



Dr. Sandra Anagnostakis tells visitors about upcoming Plant Science Day and Dr. Douglas Dingman keeps the bees from blowing over in the wind.

Administration

DR. LOUIS A. MAGNARELLI spoke to 40 Experiment Station Associates in New London about Station research programs (May 15) and was interviewed by Abe Katz of the New Haven Register about synthetic artificial turf (May 16).

Grants and Fundraising Office

MS. TESS FOLEY organized the CAES participation at the 2008 Sikorsky Earth Day event. This event was held at the new Sikorsky CH-53K Development Center in Stratford. Station scientists presented information on community gardens, arsenic in lumber, phytoremediation, ticks and Lyme disease, and chestnut tree research. Participating were: Dr. Sandra Anagnostakis, DR. DAVID STILWLL, MS. ROSE BONITO, and MS. TESS FOLEY (participants 250 people) (May 1) and attended the American Chemical Society, New Haven Chapter, Awards Dinner for the "Celebrating National Chemistry Week Student Poster Contest." I presented two students with special recognition awards from the office of the CEO of Gibson Guitars in Nashville, Tennessee, for their creative posters celebrating "the chemistry of the guitar." (attendance 100) (May 29).

Analytical Chemistry

DR. WALTER J. KROL discussed the CAES biofuels and pesticide monitoring programs with Hank Gruner of the Connecticut Science Center (May 6); served as a Special Judge in the New Haven Science Fair held at Yale University Commons in Woolsey Hall. A project by Andrew Suzuki, a 7th Grade Student from Worthington Hooker School, entitled 'The Duel of Fuels' was selected to receive an honorarium from The Connecticut Agricultural Experiment Station (May 13-14); presided as Secretary at the New Haven Section American Chemical Society Executive Board Meeting (May 15); and hosted the May meeting of the New Haven Section of the American Chemical Society in the Jones Auditorium. Awards were presented to students participating in the ACS sponsored poster contest and Chemistry Olympiad. Approximately 85 students, parents, teachers and ACS members were in attendance. Dr. Walter Krol was presented with two separate ACS awards for his work in the New Haven Section. The ceremony concluded with a talk entitled 'Aquaculture and Shellfisheries in Connecticut: Past, Present and Future' presented by Tessa Getchis of the University of Connecticut Sea Grant (May 29).

Entomology

MS. ROSE BONITO participated, with other members of the Station, in the Sikorsky Earth Day event in Stratford with an exhibit about the Station and its research (250+ visitors to our exhibit) (May 1).

MS. ROSE HISKES gave a talk on "Don't Move Firewood" to the Connecticut Campground Owner's Association at Cabela's in East Hartford (May 13); gave a talk on "Integrated Pest Management in the Home Landscape" to the Down to Earth Garden Club in South Windsor (May 14); and participated in a Connecticut Invasive Plant Working Group Symposium planning committee meeting in Windsor (May 19).

DR. VICTORIA SMITH participated in a workshop, sponsored by the Northeast Area Field Office of the US Forest Service and held at the Urban Forestry Center, Portsmouth, NH, on the use of the Digital Aerial Sketch Mapper; approximately 15 participants (May 22).

DR. KIRBY C. STAFFORD, III spoke on tick management and tick-associated diseases at the Japanese Barberry Control Workshop at Lake Gaillard, CT (30 attendees) (May 3); attended the University of Connecticut Graduate Commencement for Gale E. Ridge and Scott C. Williams (May 10); interviewed by Abram Katz, New Haven Register, about ticks (May 14). Interviewed by Jane Tillman Irvins, WCBS Radio, about the emergence Brood 14 of the Periodical Cicada (May 20); hosted and interviewed a candidate for the IPM Coordinator Position at the Valley Laboratory (May 22-23); interviewed by Jennifer Duval, Connecticut Post, about ticks received for testing (May 23); and interviewed by George Krinsky, Republic American, about ehrlichiosis in Connecticut after a patient was diagnosed in Cornwall (May 27).

DR. KIMBERLY A. STONER chaired a meeting of the Organic Land Care Committee, Valley Laboratory, 8 people (May 13); participated in a meeting of the CT NOFA Board of Directors, Old Solar Farm, Oxford, CT 12 people (May 18); interviewed by Mike Puffer, reporter for the Waterbury Republican-American, about community farming and a community farm in Cheshire, started by the Friends of Boulder Knoll (May 21); spoke to the Cheshire-Wallingford chapter of the League of Women Voters on "Managing Open Space for a Changing World," about the importance of preserving and increasing local agriculture as the situation with climate change and rising fuel prices becomes more uncertain 50 people (May 21); interviewed by Brian Koenig, reporter for the Meriden Record-Journal, about the interest in community gardening, community farming, and local food in Connecticut (May 23); and interviewed, along with MR. . IRA KETTLE, state bee inspector, and Ted Jones, president of the CT Beekeepers Association by reporter Mike Sabo of the New Haven Advocate about the current status (May 29).

MS. TRACY ZARRILLO collected and identified *Lonicera pilicornis* Fabricius (Carabidae:Coleoptera), which is a first state record. The specimen was retrieved from a pitfall trap on April 19, 2002 in a field of fall oats/spring rape. The identification was confirmed by Dr. William Krinsky (May 1).

Forestry and Horticulture

DR. JEFFREY WARD spoke on "Japanese barberry control" at the Japanese Barberry Control Workshop in North Branford (25 attendees) (May 3); participated in the Connecticut Urban Forest Council meeting in Berlin (May 28) and spoke on "Precommercial crop tree release - a new management strategy" at the Connecticut Society of American Foresters spring workshop in Naugatuck (32 attendees) (May 29).

DR. MARTIN GENT gave a talk to the Experiment Station Associates on Ebb and Flow watering of potted ornamental greenhouse plants during their bus trip to Fort Griswold in New London and Pichbeck Rose Growers in Guilford (May 15).

DR. ABIGAIL MAYNARD assisted in Biology research projects at Hamden Hall Country Day School (24 students, 1 teacher) (May 14).

DR. WILLIAM NAIL visited with Harriet Niece and offered pruning advice for a grape arbor in Woodbridge (May 20) and met with Jerry Savino at Savino Vineyards in Woodbridge to discuss nutrient management and pest control (May 20).

DR. SCOTT WILLIAMS received his Ph. D from the University of Connecticut (May 10); spoke on "Barberry control, mice, and ticks" at the Japanese Barberry Control Workshop in North Branford (25 attendees) (May 3); and appointed to the Connecticut Urban Forest Council at a meeting in Berlin (May 28).

MR. JOSEPH P. BARSKY spoke on "Propane torch safety" at the Japanese Barberry Control Workshop in North Branford (25 attendees) (May 3) and provided forestry updates at the Connecticut Society of American Foresters spring workshop in Naugatuck (32 attendees) (May 29).

Plant Pathology and Ecology

DR. SANDRA L. ANAGNOSTAKIS stood by a table display of CAES chestnut research at an Earth Day event at Sikorsky in Stratford (250 adults attended) (May 1); participated in the CAES booth at the 2nd Annual Norwalk Tree Festival at Shady Beach in Norwalk (75 adults and 150 youths attended) (May 3); was visited by William Calvert, who is a nephew of Arthur Graves. Mr. Calvert was interested in the chestnut research started by his uncle (May 6); and hosted the Annual Meeting of the Fagaceae Genetics Project sponsored by NSF twenty people met in the Cottage at Lockwood Farm and toured the chestnut plantings there between talks (20 attendees) (May 9-10).

DR. BOTOND BALOGH attended the Northeast Sustainable Agriculture Research and Education Grant Writing Workshop in Manchester, NH (May 9).

DR. SHARON M. DOUGLAS participated in the CAES booth at the 2nd Annual Norwalk Tree Festival at Shady Beach in Norwalk (75 adults and 150 youths attended) (May 3); met with Hank J. Gruner, Vice President of Programs at the Connecticut Science Center, to discuss ways the Experiment Station can contribute to and work with exhibits at the new center (May 6); gave a presentation entitled "Identification and management of common vegetable diseases" to members of the Heritage Village River Garden Club and answered general questions on diseases of ornamentals in Southbury (78 adults attended) (May 21); was interviewed by Mara Dresner of Life Publications about the Station and being a plant pathologist (May 22); and was interviewed about last year's chrysanthemum white rust outbreak by Dr. Jane Trolinger, Chief Plant Pathologist at Yoder Brothers (May 22).

DR. WADE H. ELMER gave a presentation entitled "Taxonomy and phylogeny of pathogenic and nonpathogenic *Fusarium* species to *Spartina alterniflora*" at the Spring Meeting of the New England Estuarine Research Society in Portsmouth, NH (May 1-3); presented two talks on "Plant parts and their diseases" to two preschool classes at First Church of Christ in Wethersfield (2 adults and 26 youths attended) (May 7); and presented five talks on "Plant parts and their diseases" to five first grade classes at Doolittle School in Cheshire (5 adults and 81 youths attended) (May 9).

DR. ROBERT E. MARRA participated with three other advisers in a graduate student's Advisory Committee meeting in the Department of Plant, Soil, and Insect Sciences at the University of Massachusetts at Amherst. The student's research focuses on variation in distribution of *Armillaria* species as they occur in different forest types in the Northeast. In attendance were the student, the Committee Chairman, Robert Wick, and two other faculty members from the university (May 30).

Valley Laboratory

DR. JAMES A. LAMONDIA was interviewed about biodiesel research in Connecticut by Bill Weir of the Hartford Courant (May 6); was interviewed about the need for a SLN label for Manzate by Steven Kenyon of the Massachusetts Department of Agricultural Resources (May 6); and spoke about tobacco blue mold and testified about the need for a 24c registration for Manzate fungicide to the Pesticide Registration Subcommittee at the Massachusetts Department of Agricultural Resources in Boston (May 21).

Journal Articles Approved May 2008

Cowles, Richard S., et al. Insights into managing annual bluegrass weevils. *Golf Course Management*.

Elmer, Wade H. Biological and biorational fungicides. *Nursery Management & Production (NMPRO)*.

Johnson, C. S., E. A. Wernsman, and James A. LaMondia. Effect of the Php gene for resistance to *Phytophthora nicotianae* on reproduction of tobacco cyst nematodes. *Plant Disease*.

Maynard, Abigail A. Mulches. *Station Fact Sheet*.

Maynard, Abigail A. Personal-sized watermelon trials 2005-2007. *Bulletin*.

Pignatello, Joseph J. Bioavailability of contaminants in soil. Book Series: "Advances in Applied Bioremediation" in "Soil Biology" Series from Springer, Germany.

Simakova, A. V., Charles R. Vossbrinck, and Theodore G. Andreadis. Molecular and ultrastructural characterization of *Andreanna caspii* n. gen.n., n. sp. (Microsporidia: Amblyosporidae), a parasite of *Ochlerotatus caspius* (Diptera: Culicidae). *Journal of Invertebrate Pathology*.

Ward, Jeffrey S., T. E. Worthley, Scott C. Williams. Controlling Japanese Barberry (*Berberis thunbergii* DC) in Southern New England. *Forest Ecology and Management*.

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