



## COSAM Covalence E-News, January 2010

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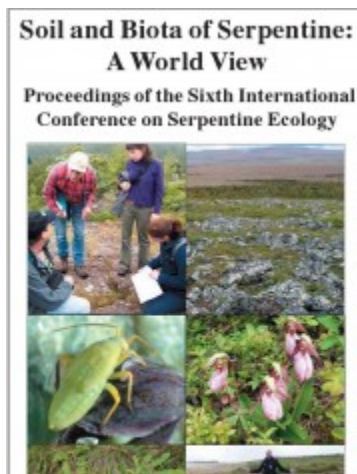
### COSAM Professor Receives International Recognition



When a serpentine rock breaks down, it releases nickel into the soil, creating conditions that make it difficult for the soil to sustain plant life. There is one plant, however, that thrives in soil with large amounts of nickel present: *Streptanthus polygaloides*. Additionally, Dr. Robert S. Boyd, Department of Biological Sciences, has discovered an insect that thrives on *Streptanthus polygaloides*. “Most insects will die if they eat a plant with a lot of nickel in it. Nickel is toxic,” says Dr. Boyd. “Most insects have only a few parts-per-million of nickel present. This one has 800 parts-per-million of nickel present, which is a lot.” Because Dr. Boyd led the research that discovered this nickel-loving insect, the insect was

named after him: *Melanotrichus boydi*.

The discovery of *Melanotrichus boydi* represents a small fraction of the research Dr. Boyd has conducted. In fact, his research in serpentine ecology is so extensive he is recognized internationally as a leading expert in the field. As evidence of his dedication to this area of research, Dr. Boyd was invited to sit on the scientific advisory committee for the last three International Conferences on Serpentine Ecology. The most recent conference, held at the College of the Atlantic (COA) in Bar Harbor, Maine, hosted 93 botanists, zoologists, ecologists, pedologists, geologists, geochemists, molecular biologists, microbiologists, evolutionary geneticists, and conservation biologists from around the world who came together to discuss their research in serpentine ecology.

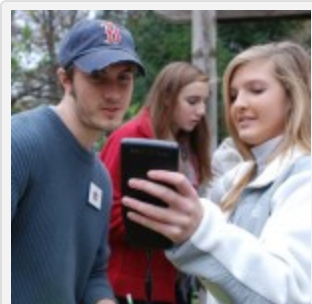


Following the conference, [Dr. Boyd](#), along with Nishanta Rajakaruna, an adjunct professor of Botany and Ethnobotany at COA, co-edited *Soil and Biota of Serpentine: A World View. Proceedings of the Sixth International Conference on Serpentine Ecology*. The book, which is a special edition of *The Northeastern Naturalist*, is a 450-page collection that reflects the week-long conference that was held in 2008. Within its pages, readers will discover an engaging overview of the current state of serpentine research.



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## Arboretum Hosts Local Junior High School



John Kidd, a mathematics instructor in Auburn University's College of Education, during A Day at the Arboretum, checks a graph on a student's calculator.

On Dec. 3, 2009, COSAM's [Donald E. Davis Arboretum](#) held a special event, A Day at the Arboretum, for ninth-grade students of Auburn Junior High School (AJHS). A Day at the Arboretum provided a unique hands-on, interdisciplinary learning opportunity for AJHS students, as all of their classes for the day were held in the Arboretum. The ninth graders engaged in their usual subjects, including biology, mathematics, history, English, and physical education, but utilized the Arboretum as a catalyst for learning.

The natural landscape provided the tools for the English class, as students were asked to write down lists of words that described how their senses were affected in the Arboretum. The teacher asked, "What do you see?" Students responded with descriptions of the grey sky, a green leaf, a bug. Participants then wrote haikus, based on the descriptions they had gathered.

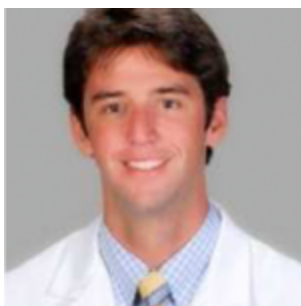
Across the Arboretum, another group of AJHS students participated in a math class that required them to use motion detectors to learn about slope and intercept. The Arboretum staff provided the physical education portion of the day by sponsoring a scavenger hunt. Among other tasks, students had to search in groups for various leaves, examples of food that wildlife eat, and provide a living

specimen in order to complete the scavenger hunt. In biology, the students used an Alabama water quality monitoring kit to test the water in the Arboretum pond. Creek Indians were the subject of the history class, as state archeologist, Stacye Hathorn, gave a presentation on their rich culture. During lunch, students were entertained with a Raptor Show from the Auburn University Southeastern Raptor Center.

"Students were able to see, hear, touch, draw, write and measure the outdoors using the skills they had acquired in the classroom," says Rebecca Balcom, a ninth-grade teacher at AJHS and organizer of the event. "The experiences at the Arboretum are still being discussed in class by students to explain their ideas, hopes and dreams for the future."

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## COSAM Alum Serves as FMA Parliamentarian



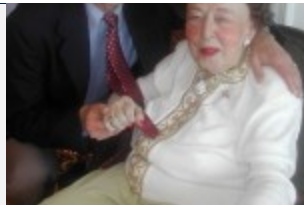
Matthew Tufts, Biomedical Sciences '09, was recently elected 2009-2010 parliamentarian of the Florida Medical Association. The Tampa, Fla., native is in his first year at the University of South Florida College of Medicine. Tufts has said he believes that it is imperative to be involved in the formulation of policies that will one day govern the way he and his classmates practice medicine.

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## COSAM Remembers Longtime Supporter



COSAM remembers the life of Mary Virginia Allsup Luker who died Dec. 31, 2009, at the age of 95. The Gadsden, Ala., resident, a longtime supporter of the college, funded the Dr. H. William Allsup Endowed Scholarship. Luker established the scholarship in memory of her brother who was a COSAM alum. This endowment



COSAM Dean Stewart Schneller and the late Mary Virginia Luker

provides financial support for COSAM undergraduate and graduate students.

Luker was a beloved teacher for 39 years and a member of many community organizations including the First United Methodist Church of Gadsden.

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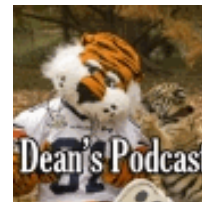
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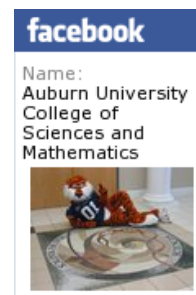
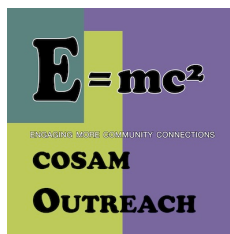
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