



# EVS NEWS

Understanding, Protection, Management & Use

## EVS - SUMMER 2003

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### Special points of interest:

- EVS - summer
- New and Ongoing students
- New and "old" faculty updates
- Featured instructor, laboratory and staff
- The R.I.S.E. Program

It's been a fast but productive summer within the EVS Program!

The time was compressed by faculty and graduate student involvement with the ten undergraduate, Research In Science of the Environment (RISE) student interns that arrived on campus in June from all across the US. Their departure in August left behind a heap of friends, memories and stories.

This was all in addition to the usual research activities for summer but with new grants, new faces, and more involvement than ever before. The EVS volleyball games capped off the activities of each week and there's hope that we'll keep the

flame alive throughout Sunday evenings this fall. EVS students were buzzing with their research at various locations, presentations at conferences, manuscripts and training at off-campus laboratories. The EVS program even graduated one of its students in August.

Congratulations are extended to Malcolm McCallum and all who

worked with his dissertation. He has accepted a faculty position at LSU-Shreveport and already moved there with his bride of recent, Jamie Orr. Best wishes to Malcolm in both new avenues of life!



## DIRECTOR'S MESSAGE

"Fish are jumpin' and the cotton is fine." I'll eventually cut with the lyrics in my messages, but just couldn't resist the Gershwin's feel for a Delta swelter. Things have been anything but slow during a summer filled with construction, introductions, reviews, and planning for new alliances. The truly amazing pace that is establishing new programs and people on campus is building an atmosphere of promise for all that we do in the program. The publications, awards, and completed works of our students and faculty this

summer speaks to the growing quality of work on campus. Laboratories have seen a transformation with new equipment, new projects, and federally funded support of student involvement all the way down to undergraduate research. Trickle down economics sometimes happens in a storm event as we've seen the importance of involving our investigations with other universities nationwide, regional programs, and community initiatives. The importance of having an avenue for discussing our accomplishments and plans is a demand



met only by the time of those willing to share what's new and what's working well. Hopefully you'll use the news in this edition to continue the pace of our connections with one another as we build our expertise and interests. Remember, it may be muddy on campus for now, but those tracks can go a long way. I know, it cries for a tune. Keep making that good interdisciplinary music.

## NEW STUDENTS



Heidi McIntyre began her job as the Ecotox Research Facility's Culture and

Maintenance Technician in the beginning of July. She will start taking classes this fall as well as preparing the scope of her research project. She hopes to find a project where she can tie in and utilize her background in agriculture with a current environmental issue.

Katie McKeon has started working with Dr. Buchanan. She has recently attended the 3rd International IEEE Summer School on Biocomplexity from System to Gene at Dartmouth in New Hamp-



shire. Her trip was sponsored by the NSF, IEEE and the Thayer School of Engineering at Dartmouth College. Katie believes that her project will deal with looking at the P13 of the rat and the affect of cigarette smoke on the startle response.

George Ogendi, Ph. D. student, began his research in establishing the linkages between chemical weathering of black shales and metal contamination in aquatic systems in the Little Red

River catchments in June 2003. He has conducted trace element analysis on the ICP-MS, as well as toxicity tests using cladoceran, *Ceriodaphnia dubia*. George is working with Drs. Hannigan and Farris on this NSF – Hydrologic Science Grant. George received his Master's in Environmental Science and Technology from IHE, Delft, Netherlands and is on official study leave from the Egerton University, Kenya, where he is employed as a lecturer in the Department of Natural Resources.



## ONGOING STUDENTS



Sam McCord, is working with Dr. Grippo on a project entitled

"Effectiveness of forestry best management practices in protecting stream ecosystems." He has conducted aquatic invertebrate surveys and collected samples

from the Ozark Highland, Ouachita highland and southern coastal plains ecoregions using an MBACI (before/after; multiple control vs. impact) He presented his research at the 2003 American Fisheries Society's annual meeting.

Aboubakar (Abou) Sako came to Arkansas State University in the fall of 2002. He relocated to Jonesboro from London where he received his mater's degree in water pollution control from Middlesex Univer-

sity. He is currently researching the growth and dynamics of endemic fish species in Lake Tanganyika, Africa.

In late August 2003, he is planning on presenting his research at the International Geochemistry Symposium in Edinburgh, Scotland.



*"EVS...helps create tools for the students to be able to tackle real world problems..."*

## DR. SUSAN ALLEN

Vice Chancellor for Research and Academic Affairs



Dr. Susan Allen is the Vice Chancellor for Research and Academic Affairs. When she took the position in November of 2002 the position and title was redefined to in-

clude the "research" side in order for the university to reach one of its goals in becoming more research oriented. Her office, located in the administration building, serves as a resource to build and create policies and procedures as well as support and equip the faculty and staff by utilizing the university's infrastructure. She works closely with Dr. Donald Cotton to research the goals set both by the offices, but also those set by the university.

Dr. Allen received her Ph. D. from Southern Cali-

fornia University and relocated to Jonesboro from Florida State University where she was employed as Professor of Chemistry, Electrical and Computer Engineering.

Dr. Allen stated "that since the EVS Program is interdisciplinary, it creates a model for the new emerging doctoral programs, Not only a lively intellectual atmosphere, but it also helps create tools for students to tackle real world problems while viewing a single problem from multiple perspectives. "She also

*Dr. Susan Allen Continued*

believes that the ABI and the EVS programs will have overlap, cross-departmental boundaries. From this interaction, new programs will undoubtedly emerge. "We have already experienced the first stages in this process in some of the projects funded through the ABI where members from different departments are

collaborating."

Dr. Allen has brought a graduate student and a visiting faculty member with her from Florida State University; Dr. Sergey Kudryashov ("Dr. K.") from the Moscow Physics Institute who upon his arrival will join the Chemistry & Physics Department. In addition, Dr. Allen has also employed a

graduate and an undergraduate student from ASU.

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## DR. DONALD COTTEN

### Associate Vice Chancellor for Research and Technology Transfer



Dr. Donald Cotten began his position as the Associate Vice Chancellor for Research and Technology Transfer in February 2003. Upon his relocation to Jonesboro from the University of Southern Mississippi, his first impression of Arkansas State University was seeing all the dedicated students utilizing the computer laboratory at all hours of the day and night.

Dr. Cotten's duties include the institutionalization of current research and the university's infrastructure in addition to utilizing resources available to gain a competitive advantage. He seeks funding and support for the university from the private as well as public sectors. His office interacts with both sectors and assists the university community to ensure that researchers are knowledgeable of funding opportunities available. "The university is well positioned and recognized to be able to succeed in these goals," Dr. Cotton stated. He applauds the efforts and accomplishments of all the faculty and students who have received funding from the competitive areas of

public and private sector funding.

"Since, the university is teaching and research oriented, it has a solid base to build upon for advancement. This solid base consists of good quality undergraduate and graduate degrees offered throughout the various colleges." First, the strengths are seen in the classroom environments that provide opportunities for the students to succeed in real world work environments. Second, the strengths of the university lie in engaging students to learn and dedicate themselves to their academics. This is based first on the in-class activities. Dr. Cotten further stated that "the wealth of faculty expertise and skills is a valuable resource to the institution that otherwise could not exist. It is not just the financial resources that matter, but the connectivity and interactions among the academic disciplines and programs that give a university a competitive advantage in the situations outside the university's physical boundaries."

Dr. Cotten concedes that a multidisciplinary program, like the EVS Program, is able to set a model for other rising doctoral programs. "The program produces a quality product - its graduates and does both quantitative and qualitative research in a num-

ber of areas." He also said that under the leadership of Dr. Jerry Farris, the program has gained recognition from many national and federal institutions and laboratories.

The Arkansas Biosciences Institute (ABI), in Dr. Cotten's opinion is a funding source under which more graduate level programs will grow and produce a "research enterprise" that the university community will be proud of. The additional faculty and the recent changes will provide additional resources and add additional quality and stature to the university's teaching and research areas. The ABI will provide additional funding, instructor and project resources the university needs to grow into a more recognized and qualified institution. Dr. Cotton stated that although the university already has the potential and qualifications for outside funding through the ABI, the university will be more competitive in acquiring this funding.

"Through these new developments and the acceptance into the university community, we will be best able to contribute to the mission and goals set by President Dr. Les Wyatt. What you want are professors that are engaged in their disciplines, and therefore appreciated by their students."

*"The wealth of faculty expertise and skills is a valuable resource to the institution..."*

## NEW FACULTY

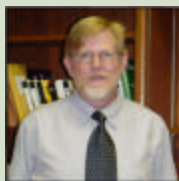


Dr. Hector Flores on a collection trip.

Dr. Hector Flores started his appointment as the Dean of the College of Sciences and Mathematics in the beginning of July, 2003. He received his Ph. D. from

Yale, but came to ASU from Penn State. He is very excited about the possibilities that lie ahead of him. He enjoys the size of ASU because there will be a chance for closer teacher student interactions. Dr. Flores is planning on teaching later this year; courses such as biotechnology, biochemistry, science and creativity and plants and people have been his favorite topics.

Dr. Flores thinks the EVS program has the right idea, about being a multidisciplinary program. He wishes to contribute to the program by making the programs broader and more internationalized. He stated that the students will gain more opportunities and alternatives by having international connection to universities as well as industries. Dr. Flores also believes that links and bridges need to be created and established between the different departments and institutions, such as the EVS and ABI for example. By utilizing these bridges the scope of the university will broaden and therefore the graduate programs the university offers will be strengthened.



Dr. Greg Phillips

Dr. Greg Phillips, Dean of the College of Agriculture, relocated to Jonesboro and Arkansas State

University from New Mexico State University.

Dr. Phillips received his Ph. D. in Crop Science Research from the University of Kentucky. He was employed at New Mexico State University for the past 22 years where he developed and served as the first Interim Director and thereafter the Associate Director of a state funded Plant Genetic Engineering Program. He also

created and served as the second Director of a multidisciplinary graduate program at New Mexico State known as the Molecular Biology Program, which was a collaborative between six departments in the Colleges of Arts & Sciences, Agriculture and Engineering. In addition Dr. Phillips has worked on numerous university committees and conducted research on numerous different plants, such as plant breeding and genetics and plant tissue and cell culture. He has also worked on onion and chili pepper research. Dr. Phillips stated that he was glad to have come to ASU, especially with being able to take part in the beginning stages of the Environmental Sciences Program (EVS) as well as the Arkansas Biosciences Institute (ABI). Dr. Phillips believes that the ABI will bring in additional expertise and knowledge bases to the academic programs. He also stated that through the ABI, additional multidisciplinary graduate programs will be created.

Dr. Phillips is impressed by the number of well-known and established agricultural companies in vicinity of the university and he hopes to build working relationships with each.

Dr. Phillips has plans to introduce and create a seminar series within the College of Agriculture, both for the undergraduates as well as the graduate students, where the students would learn about the scientific process with learning current issues and developments through guest speakers, by doing projects, creating and giving presentations and producing posters.

Dr. Aldemaro Ramero, Chair of the Biology Department, received his Ph. D. from the University of Miami, but relocated to Jonesboro from Minnesota where he was employed as the Director of Environmental Studies at a liberal arts college. Dr. Ramero enjoys Arkansas, the university and especially the interdisciplinary field of study because of the variety of viewpoints that affect a research problem. "For example, a researcher can look at the humanistic and socialistic issues of a problem in addition to viewing it through the numerous disciplines within science."

Dr. Ramero stated that



Dr. Aldemaro Ramero

he would like to improve the communication between departments and people. He is planning on teaching during the

spring this academic year and he hopes to add new courses to the curriculum dealing with marine mammals, speleological studies (the study of caves), and a course on cave fishes.

Dr. Ramero feels that the ABI will be a challenge and was one of the reasons why ASU was appealing to him. He senses that the ABI will prove to be an opportunity for many and he believes that biology will have an impact as well as be impacted by the Arkansas Biosciences Institute. Dr. Ramero stated, "teaching and research will go hand in hand" with the establishment of the Institute."



Dr. Bao-An Li began his appointment as the Interim

Chair of the Chemistry & Physics department in July 2003, but he has been here at Arkansas State University since 1998. He received his Ph.D. in Physics from Michigan State University and conducted post-doctoral research in Berlin, Germany at the Hahn-Maitner Institute & Free University of Berlin. Dr. Li was a research scientist at Texas A&M University before joining the faculty at ASU. During the past years Dr. Li has published a book and numerous articles in peer-reviewed journals, such as Nuclear Physics and Physical Review.

Dr. Li is a strong supporter of the EVS Program. With his colleagues, Dr. Li plans to implement a strategic plan, where the core of the plan is to have his department contribute more to both the ABI and the EVS Programs. One of the first steps is to shortly hire an Environmental Chemist to join two other environmental chemists in the department who can contribute significantly to the EVS Program.

*EVS would also like to welcome the following faculty:*

- Dr. Juliet Hahn—Assistant Professor of Chemistry
- Dr. Fred Higeman—Visiting Professor of Chemistry
- Dr. Sergey Kudryashov—Associate Professor of Chemistry
- Dr. Malathi Srivatsan—Assistant Professor of Biology
- Dr. Richard Maiorino—Assistant Professor of Chemistry

Currently, three faculty members in the Chemistry & Physics Department are supported by the EVS Program. Dr. Li envisions two large, productive groups in environmental chemistry, biochemistry and biophysics in his department. Dr. Li stated that he strongly supports faculty members who have established and / or work for the EVS program.



Dr. Ricky Cliff has been the Engineering Department's Interim Dean since September 2002, but has been teaching at ASU for the past 23 years.

believes that the engineering department is very compatible with the EVS Program and that there has been discussion about adding additional courses to the curriculum to enhance the environmental focus of the program. Currently, a couple of courses are offered that target the EVS students and those interested in environmental engineering, for example Introduction to Environmental Engineering and Engineering Hydrology.

## OLD FACULTY: NEW FEATURES



Dr. Richard Grippo, Associate Professor of Biology, joined ASU in 1995. In addition he serves as adjunct faculty at the University of Memphis. His

teaching curriculum this fall consists of Case Studies in Ecosystem Management and Honors Biological Sciences. He is currently working with two doctoral students Melissa Hobbs and Sam McCord. He is also utilizing the skills and knowledge of his technical staff consisting of a Research Technician, Lora Harding, and two Assistant Technicians, Jeff Hall and Amanda Smith.

Dr. Grippo received his Ph. D. in Ecology from Penn State where he researched the effects of coal mining and acid rain on

aquatic vertebrates and invertebrates. He is currently working on a number of research projects such as the aquatic and riparian effects of stream bank restoration and cattle fencing on the South Fork river, the fate and effect of aquaculture therapeutant potassium permanganate, silvicultural best management practices effectiveness biomonitoring in Arkansas and a recently received ABI grant funding research on the interactions of nicotine and ephedrine on the cardiovascular system.

Dr. Grippo serves as a consultant to Heifer International and is helping the company develop a long-range organizational master plan.

Dr. Hubert Stroud, Professor of Geography, received his Ph. D. in Geography from the University of Tennessee. His main

research interests include amenity land developments, rural and recreational land use, and platted lands. He has published two books as well as numerous journal articles. He currently submitted a manuscript to the Pennsylvania Geographer entitled "Master Plan Review in Resort Development: The Case of Stratton Mountain, Vermont." Dr. Stroud has recently also published a book review of "Retire in Style: 50 Affordable Places Across America" in The Professional Geographer (55:1, pp. 103-104).



Dr. Hubert Stroud

*Dr. Guha: "Graduate students taking this class will research pollution control initiatives... and co-author a research paper"*

## FEATURED INSTRUCTOR : DR. GAURI GUHA

Dr. Gauri S. Guha joined ASU as an Assistant Professor of Economics, specializing in Energy & Environmental Economics, in the Fall of 2002. He teaches several graduate level classes such as Environmental Economics (PhD), Managerial Economics and Management Science in addition to undergraduate micro- and macro-economics classes.

In Fall 2003, he is offering a new class titled Environmental Economics & Policy that students may use as a J/S elective. The class (listed in the catalog as special problems call #10037) will cover environmental services, ecological systems, natural hazards, pollution control, climate change economics as well as environmental laws and adaptation and mitigation. This class will differ

from the traditional "chalk & talk" style of teaching economics, by making extensive use of case videos, discussions and online research. Grad students taking this class will research corporate pollution control initiatives within US industries and co-author a research paper. Dr. Guha has two MBA students and three undergraduate assistants on a project, funded by the ABI, to investigate some of the economic and environmental consequences of the potential development of biopharmaceuticals in Arkansas. In addition Dr. Guha is working on three other environmental projects. First, with summer funding from the EVS program, he researched the contingent valuation of mosquito control in Jonesboro, along with a recent EVS PhD graduate Malcolm McCallum.

Second, he is working on a project with Anil Baral, an EVS candidate, to examine carbon sequestration by bio-engineered forests as a climate change mitigation strategy. Third, he is working on a project to assess earthquake risk potentials in Memphis, funded by the Multidisciplinary Center for Earthquake Engineering Research.



Dr. Gauri Guha, Assistant Professor of Economics

## FEATURED LAB — Optoelectronic Materials Research Laboratory

Dr. Robert Engelken, Professor of Electrical Engineering and Director of Electrical, Computer, and Information Engineering has been affiliated with the EVS Program since its inception. His research group has become active in the field of low toxicity and low environmental impact materials and associated processing, characterization, and applications.

Dr. Engelken directs the Optoelectronic Materials Research Laboratory, which typically also involves 3-6 student research assistants, the majority of which are generally undergraduates, mostly electrical engineering majors, but also has included several other students from other engineering majors, chemistry, and physics, including a handful of graduate students. Dr. Engelken has conducted joint research with Dr. Mark Draganjac, Dr. Bruce Johnson, and Dr. Scott Reeve, as well as both Dr. Hal McCloud and Dr. Lawrence Mink, both retired Emeritus Professors of Physics. His group has collaborated with other universities, such as the University of Missouri-Rolla, the University of Arkansas-Fayetteville, the University of Arkansas-Little Rock, Arkansas Tech. University, and the University of Texas-Arlington, as well as Arkansas small businesses such as the AGL Corp. and InvoTek, Inc.

Mr. Anil Baral, a candidate for the Ph.D. in Environmental Science, will begin his fourth year working for Dr. Engelken this August and plans on finishing his dissertation and degree next May or August. Mr. Baral is working on development

of new, potentially safer solution chemistries for electroplating of chromium ("chrome") metal films. This work was funded through a U.S. Environmental Protection Agency/Arkansas EP-SCoR grant in partnership with the University of Arkansas-Little Rock and more recently through the EVS program. Mr. Baral and Dr. Engelken coauthored the paper "Chromium-based Regulations and Greening in Metal Finishing Industries in the USA", published in 2002 in the journal *Environmental Science and Policy* and they are currently near completion of another manuscript, coauthored by Dr. Patrick Stewart, entitled "Analysis of Regulations Apropos Chromium Pollution Control in Metal Finishing Industries: Stages Heuristic Revisited" to be submitted to the *Journal of Public Policy*.

Dr. Engelken's group has also researched a variety of other environmentally friendly materials, and associated synthesis or film deposition processes. The group has intensively researched low hazard semiconducting sulfides of relatively low toxicity metals such as copper, tin, bismuth, iron, zinc, and indium for optoelectronic applications. The group has also researched oxides of molybdenum and tungsten as safer alternatives to chromium oxide and metal chromate films commonly used in industry for corrosion protection, coloration, and adhesion enhancement on underlying substrate materials. These projects have been funded through agencies such as the Ar-



kansas Science and Technology Authority, the National Science Foundation, the National Institutes of Health, and the NASA/Arkansas Space Grant Consortium.

There have been some recent equipment acquisitions that will benefit the group's work. A new surface profilometer in Dr. Engelken's laboratory will allow precision measurement and lateral spatial profiling of thin film thickness and roughness, as are often critical parameters in modeling of such materials and structures. A new scanning electron microscope with attached energy dispersive X-ray analysis system, and a new atomic force microscope, have been acquired by the university through Arkansas Biosciences Research institute (ABI) funding and will allow high resolution inspection of film surfaces at high magnification and determination of the atomic percentages of the elements in the materials.

A new Ph.D. in Environmental Science candidate, Mr. Hyunkee Bae from Rochester, NY, is expected to join Dr. Engelken's research group in August.

*"Dr. Engelken directs  
the Optoelectronic Material  
Research Laboratory"*

## FEATURED STAFF — SONJA BICKFORD

Sonja Bickford is the featured staff member. She started her position as the Ecotox Laboratory Business Coordinator in March 2003. She has her master's degree in Business Administration (MBA) from Arkansas State University and her B.S. in Business Management from Appalachian State University. She is originally from Finland but has spent much of her child-

hood in the United States. Part of her job for the Ecotox Laboratory and EVS Program is web management (Check out <http://ecotox.astate.edu> & <http://evs.astate.edu>). Although employed through the research at the Ecotox Laboratory Sonja continues to contribute to recruitment and recognition of all research at ASU. One of Sonja's main tasks is recruitment and in

this role she has created a recognition and recruitment plan for both the EVS Program and the Ecotox Laboratory.

Sonja is a licensed falconer and currently flies a red-tailed hawk. In addition, she enjoys training animals, ceramics and crafts.



# THE R.I.S.E. PROGRAM

This summer the first ten undergraduate (Research Internships in Science of the Environment) R.I.S.E. scholars came to different departments within the College of Sciences and Mathematics to participate in the newly established program. The program is funded by the National Science Foundation (NSF) and its goals include diversifying the national science researcher population, helping traditionally under-represented students with summer funding and education about graduate research projects and graduate school opportunities by giving the students a chance to experience hands-on laboratory and field work. This summer the students' projects focused on

relevant issues in environmental science and the projects' scopes ranged from environmental biology to geochemistry.... Six of the ten projects related to the interactions between water chemistry, toxicology, and geology.

The students presented a research project proposal at the beginning of the summer, attended numerous seminars and at

the end of the summer they presented their results to their peers and faculty at ASU. All of these undergraduates will be presenting their research at a National Scientific Meeting (Society for the Advancement of Chicano and Native American Scientists) in late fall and most will publish the results of their research in scientific journals.

During the summer months the students got a chance to get out of the university setting and participate in activities like an Indian pow wow and a float trip on the Spring River. Other recreational activities included the Sunday evening volleyball games and regular barbecues and picnics!



*“ Bill Stephens received first place in the oral presentation category at Mid South SETAC— held at Vanderbilt University“*

## SHORT BUT SWEET - STUDENT NEWS & ACCOMPLISHMENTS

- Mr. Baral was one of two recipients nationwide of a graduate student research grant awarded late this spring by the Institute of Hazardous Materials Management (Rockville, MD). This \$10,000 grant supplements support for his work provided through the EVS program, the College of Engineering, and the initial EPA EPSCoR grant.
- Nate Bickford submitted a manuscript to the Environmental Geosciences Special Edition, his research was presented at the Gordon Conference in New Hampshire.
- Jennifer Bouldin received 2nd place oral presentation award at Mid South SETAC in Nashville, TN and submitted manuscripts to Aquatic Botany and Chemosphere.

- Malcolm McCallum is the Assistant editor of the Amphibian and Reptile Conservation Journal., married Jamie Orr on July 11, 2003. and graduated on August 1st. - Congratulations.
- Jonathan Maul gave a presentation on his research at the Mid South SETAC meeting and submitted a manuscript to Archives of Environmental Contamination and Toxicology.
- Bill Stephens, Ph. D. candidate, received 1st place in the oral presentation category at the Mid South SETAC meeting and his manuscript entitled “Instream Community Assessment of Aquaculture Effluents” was accepted for publication by the Journal of Aquaculture.
- Joy Trauth received the Randall Mathis Scholarship for

Environmental Studies (2003-2004) and she was trained at the U.S. Army Corp of Engineers Waterways Research Station in Vicksburg, MS to use fluorescently tagged primers to run Amplified Fragment Length Polymorphisms (AFLP).

- Melissa Hobbs and Anil Baral, won 1st and 2nd place awards at the Arkansas Wastewater and Water Environment Associations 2003 conference in Hot Springs for their research presentations. Melissa donated her \$400 award to the EVS foundation account for future student use — What an example for all of us!



Bill Stephens at Mid South SETAC.

Please send suggestions and comments to:



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Try the Improved  
website!

<http://evs.astate.edu>



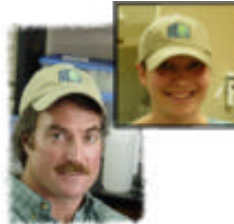
#### THE EVS MISSION

To produce scientists with the knowledge needed to support the assessment, maintenance and recovery of environmental resources. This includes an appreciation of the economic, social, political and aesthetic context that shapes our interaction with and knowledge of the environment. Measuring and understanding the balance between environmental protection, sustainable resource management, and economic growth is a major integrating theme within the program.

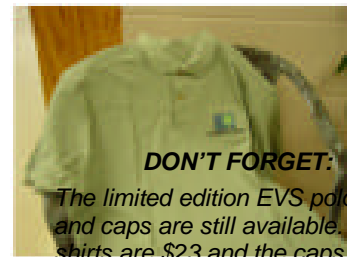
**SAVE A TREE** - If you would like a electronic copy of the newsletter contact Sonja Bickford ([sbickford@astate.edu](mailto:sbickford@astate.edu))

## FROM SUMMER TO FALL...

With a few more dog days to survive and a new semester start, take a moment to notice all the changes and opportunities that are around every corner of campus. New facilities, people and programs all demand that we continue to introduce ourselves and offer information about what we do. To this end, there will be a fall orientation and retreat for all faculty and students for assistance in the process. Dates and times of activities will be hosted on the improved website and posted throughout Laboratory Sciences and the website. There is also a newly established campus environmental club to support student involvement with regional issues and education. There'll be lots



of opportunities to take part with the Second Nature Environmental Club's meetings and activities. The EVS program is also planning a bluegrass picnic bash this fall to feature everybody's research to the university community.



#### **DON'T FORGET:**

The limited edition EVS polo shirts and caps are still available. The shirts are \$23 and the caps are \$15. Contact Sonja Bickford ([sbickford@astate.edu](mailto:sbickford@astate.edu)) to order yours!

