

DES FALL 2009 WELCOME

DEAR DES MAJORS:

It's that time....summer is coming to an end and here you are..... back in class again. All of us in the Department of Environmental Science (DES) are ready and eager to welcome you to the fall 2009 semester...so....a ***GREAT BIG WELCOME*** to the new ES students and to our returning students!!

DES FACULTY SUMMER VACATION??

Samantha Langley-Turnbaugh spent her summer working with DES student Augustus Barefield, and two local high school students conducting a pilot project on Peaks Island. They dodged raindrops and collected soil samples from over 40 residential properties in order to evaluate the extent of heavy metal contamination on the island. The students will continue to analyze the samples during the fall semester. Sam also did some traveling - she spent time in Croatia in June, and visited with scientists at the Institute for Adriatic Crops and Karst Reclamation. Also in August, Samantha successfully completed her first sprint triathlon, and took her 10 year old daughter on her inaugural climb up Mt. Katahdin.

Professor Rob Sanford was very busy this summer. It started when he facilitated at the National Conference on Environmental Communication. Then he taught a summer field class, EPB 545 Environmental Education and Interpretation at Wells National Estuarine Research Reserve. Two of the class participants were DES students Aimee Howson and Monique Lefebvre. In August, Professor Sanford served as institute faculty and presenter at the National SENCER Conference in Chicago. SENCER is an organization dedicated to Science Education for New Civic Engagements and Responsibilities, and Professor Sanford is the co-director for the New England region. He also presented a paper at the National Science Bowl Coordinators conference in Minneapolis. Rob finished the revisions of his co-authored cultural resource archaeology and practicing archaeology books, which are now at the printers. Last but not least, he guest lectured at the Isle of Shoals Undergraduate Research Laboratory off the coast of Portsmouth. The laboratory is run by Cornell University and UNH.

Travis Wagner had a busy summer as well. In June, he was the director of a national conference on environmental communication held at USM in Portland. DES students Skye Wood and Britney Carter were volunteers at the event. Travis also completed his first research article, electronic waste recycling in Maine, and continues research on CFL recycling by households and operational characteristics of municipal transfer facilities and the association with e-waste collection. Professor Wagner will be away on sabbatical this fall. His departmental and advising duties will be met by other DES faculty—if you

are his advisee and not sure who your interim advisor is, see Therese Martin after the semester begins.

Over the summer, Joe Staples and DES student, Leticia Smith have been collaborating with the Vector-borne Disease Laboratory of Maine Medical Center Research Institute to assess the impact of a potential deterrent for the deer tick, *Ixodes scapularis (dammini)*, on non target forest insects. This ongoing research is being carried out in Cape Elizabeth and will be completed in the fall of 2009. Joe also hosted a high school student with the USM Upward Bound program this summer. Ashely Cox from Buxton, Maine, worked as an intern on a project that involved identifying insects as part of a collaborative study with the Vector-borne Disease Laboratory of Maine Medical Center Research Institute. Joe also taught Human Biology at the USM Lewiston-Auburn campus and has continued in insect chemical ecology with individuals from the USDA in Peoria Illinois and Illinois State University (ISU). Joe Staples served as a faculty research mentor for USM student Tim Blier. Tim is an undergraduate research fellow with the Eastern Alliance in Science Technology, Engineering and Mathematics (EAST) program at the University of Southern Maine (USM). His research explored the various ecological and physiological characteristics in a population of the introduced pine sawfly, *Diprion similis*, located on Portland Water District (PWD) Lands in Standish. One of the basic questions that this research addresses is whether or not the current population densities represent a pre-outbreak population. Tim's preliminary discoveries suggest that although the introduced pine sawfly is abundant on white pine, *Pinus strobus*, throughout PWD lands, its population densities appear to have reached a plateau. One of the main reasons for this may be due to at least two species of local parasitic wasps that infest the sawfly larvae and cocoons. Over the course of his research Tim has also observed a phenomenon called interspecific hyperparasitism, whereby sawfly cocoons contain multiple parasites from two or more species. This discovery will provide forestry managers with valuable information regarding the management of this significant forest pest.

The Dr. Karen Wilson/Dr. Theo Willis lab has been a busy place this summer with four recent DES graduates working with a 7th grade science teacher, a recent high school graduate, and two students from other universities on four major projects. In June and July the lab collected fish and aquatic insects to assess food web structure in the Penobscot River and four tributaries as part of the Penobscot River Restoration Project. Also in June the lab collected fin-clips from alewives and shad in the Penobscot River and outlying rivers as part of a USF&W funded study looking at the genetic relatedness of stocked and natural alewife and shad spawning runs. Throughout the summer the lab has been collecting water samples and zooplankton samples from four Maine lakes to study the impact of alewife on lake water quality and zooplankton populations. Finally, this year marks the fourth year of monitoring the recovery of Sherman Salt Marsh in Newcastle, Maine, where graduate students have also been comparing insect populations in the recovering salt marsh to nearby reference salt marshes. As the summer draws to a close there is still plenty of work to be done, in the lab and potentially in the field, and so we are looking for several students to help us out for 5 -10 hrs/week during the school year. Work study funds are helpful, but please let us know if you are interested even if you don't have work study funds! If interested, please send your most current resume to

kwilson@usm.maine.edu and let me know what classes you are taking this year. We also have several small projects that might work well for research practicum (ESP 450) credits. Karen is looking forward to spending Friday afternoons this semester on Highland Lake with the Limnology class, and meeting new DES students at Field Immersion!

In addition to his teaching for Environmental Science, Dr. Lewis Incze has a role at USM as Director of the Aquatic Systems Group. Dr. Lewis Incze also serves as Chief Scientist for the Gulf of Maine area program and is currently synthesizing nearly a decade of research for a collaborative publication of the international Census of Marine Life, a ten-year study of life in the world's oceans - past, present and future. The Gulf of Maine Area Census of Marine Life is the ecosystem project of the global Census. American and Canadian scientists have been working together to understand the past, current and future of the Gulf of Maine ecosystem, which supports one of world's most productive fisheries. From the coast to the deep sea, researchers as diverse as archaeologists, historical ecologists, marine biologists and oceanographers have been collaborating to lay the groundwork for an ecosystem approach to managing the Gulf of Maine. Lew will be teaching ESP 380 Earth Systems and Climate Change in spring 2010.

ESP 150 FIELD IMMERSION

The Field Immersion course is scheduled for September 10-13th and we have a large group again this year heading for Camp Hawthorne for this fun and exciting learning adventure. For students enrolled in the course check your emails, blackboard, and the ESP listserv regularly for all the details you will need to participate in the course. Professor Rob Sanford is the lead instructor for ESP 150 this year. Other faculty will participate, and DES senior Sarah Hayes will be the teaching assistant. Announcements/instructions will be made the first week of classes so stay tuned. If you have any questions please contact Therese at theresem@usm.maine.edu or 780-5390.

DES NEW PEER MENTOR

We are pleased to announce the 2009/2010 ES peer mentor, Sarah Hayes. Sarah is a senior in DES, focusing on her BS in Environmental Science. She will act as peer advisor assisting other students in such academic areas as advanced registration. If you would like to contact Sarah, email sarah.hayes@maine.edu or call the ES office (780-5390) and we will be happy to connect you with her.

WE ARE HIRING WORKSTUDY STUDENTS!

Therese is looking for a student to work with her in the ES office. Student should be interested in clerical work and have strong computer skills. Duties will include filing, copying, answering the phone, and special projects. For more details contact Therese at 780-5390 or come by the office, 106 Bailey Hall.

Rob Sanford is looking for a work study student to assist in his research on the relationship between buffer areas, stream and river water quality, and town planning.

Students with experience in GIS are invited to apply by contacting Professor Sanford at rsanford@usm.maine.edu or 207-780-5756.

Karen Wilson is looking for several students to help her out for 5 -10 hrs/week during the school year. Work study funds are helpful, but please let her know if you are interested even if you don't have work study funds! If interested, please send your most current resume to kwilson@usm.maine.edu and let her know what classes you are taking this year. She also has several small projects that might work well for research practicum (ESP 450) credits.

Joe Staples will accept interviews for a work study this fall. Duties will include classifying the DES insect collection and general laboratory and administrative assistance. Interested students that have already been approved for workstudy should contact Joe Staples at jstaples@usm.maine.edu.

If you are really looking for hands onDr. Langley-Turnbaugh is recruiting students with workstudy funds to assist her in the lab with an on-going research project analyzing heavy metals in soils. You can contact her at langley@usm.maine.edu.

ADDRESS CHANGE?

PLEASE.....if you have a change of address or phone number, come by the office and inform Therese. Students who will be relocating to the dorms or apartments in the area, we really need to have your new local addresses, phone numbers, and emails.

EMAIL COMMUNICATION POLICY

USM has established email as an official and primary means of communication to all of its students accepted and/or enrolled. In some cases, email may be the only form of communication. USM will assign email addresses to all accepted and/or enrolled students in the form of FirstName.LastName@maine.edu. Students are responsible for reading all information sent to them via their University assigned email account. The University assigned email account is the MaineStreet "Business" email address, regardless of email account preference. The University has the right to expect that such communications will be received and read in a timely fashion. Confidential information will not be sent via email. Faculty and staff in the Department of Environmental Science will also adopt this policy by sending most information to our DES students via university email and our ESP Listserv. Students should activate their assigned email account at: <http://mail.maine.edu>. If you need assistance in activating your email account, contact the USM Help Desk at 780-4029.

STAY INFORMED.....SUBSCRIBE TODAY!!!

DES has its own listserv....to subscribe click on the following link, <http://lists.usm.maine.edu/subscribe/ESP-L>. Fill in your email address and your name, and click "Join ESP-L." Once on the listserv, check it often. There will be notices of scheduled ES Student Group meetings, student group planned activities, job postings,

peer advisor information, faculty postings, and campus events. And you can feel free to communicate with other ES majors and faculty via listserv. It works both ways....so we hope to see you on the serve!!!

SUCCESS AT USM

USM has combined several offices to create student success centers. Take advantage of this new support effort. Also, be sure to get involved in the department and the university. Active involvement is an even better predictor of post-graduate student success than grades, so, while grades are important, do not miss opportunities to be active and involved at USM.

STUDENT GROUP ...GEARING UP FOR THE NEW YEAR...

Hello to all DES Majors! A big **WELCOME** to our new DES students, and a **WELCOME BACK** to all who are returning.

This year the student group officers are determined to increase student involvement and engage student participation in more community outreach activities. We want more students to be aware of our department and our student group by promoting environmental awareness. This fall we are planning multiple events. In October we will be doing a clean-up of Capisic Brook, an impaired urban stream in Portland. Between November and January we will be visiting local high schools to promote USM's Environmental Science Department and let them know what we're all about! Over winter break we are planning a hiking/camping trip led by our very own Maine guide, Bill Yeo. The spring semester will include a canoe race down the Kenduskeag Stream, rescuing amphibians during migration to/from wetlands, and a trip to Acadia National Park to camp/hike/rock climb and do a volunteer project. You can join us in September by participating in a couple of events on and off campus: the Student Involvement Fair, Husky Fest, and the Welcome Back Picnic (hosted by the DES officers). Everyone is invited to attend our Student Group meetings and give your input and advice on activities, trips, and events. Meetings this fall will be on Wednesdays from 1:00-2:00p.m. in Bailey Hall on the Gorham campus. Contact any of the officers for questions. Also, the treasurer's position is open. It's a very important position that makes all the above plans come true....please contact the student group officers if interested.

Enjoy the rest of the summer, and see you soon!

Peace,

Amanda Roy (President)
Jessica Barilone (Vice President)
Britney Carter (Secretary)

Amanda.Roy@maine.edu
Jessica.Barilone@maine.edu
Britney.Carter@maine.edu

In closing, all of us in the Department of Environmental Science are looking forward to seeing you next week...enjoy the remainder of your vacation...then let the fun begin!!

Sincerely,

The DES Faculty and Staff