

# The Newsletter of the Paleoenvironmental Change Specialty Group of the AAG

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Volume 4, Issue 1



## Message from the Editor

Dear PEC Members,

We look forward to seeing many of you in New York. There is great line-up of PEC-sponsored sessions and activities at this year's AAG meeting (see pages 3-4).

In particular, we want to bring to your attention the Inaugural PEC Plenary Session.

Dr. Dorothy Peteet (NASA/Goddard Institute for Space Studies and Columbia University) will be presenting :

*Muskeg Archives of Carbon Storage - Shifts with Vegetational and Climatic Change*

The Plenary is on Monday February 27<sup>th</sup> from 4:40 - 6:20 pm. We hope that you will all be able to attend and make this event a success.

See you in New York!  
Michelle

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Dr. Peteet's research synthesizes the study of modern plant ecology with wetland sediment cores. Her study sites include Siberia, Alaska, Easter Island, and the eastern Seaboard of the US. Dorothy specializes in palynology and macrofossil analysis. Her current research examines carbon sequestration in wetlands and links to climate change.



## PEC Executive Board

**Samantha Kaplan** (Chair-retiring), University of Wisconsin - Stevens Point  
**Michelle Goman** (Past Chair and Newsletter Editor), Sonoma State University  
**Kevin Spigel** (Secretary Treasurer), Unity College  
**Katrina Moser** (Director) University of Western Ontario  
**Philip Van Beynen** (Director-retiring) University of South Florida  
**Anna Klimaszewski-Patterson and Jennifer E. Kusler**, (Student Liaison- retiring)

To vote for new Board members please go to:

<http://www.surveymonkey.com/s/G9CRSQQ>

Biographies of candidates are on page 2

Please Vote by February 5<sup>th</sup> 2012

Please see *great PEC sponsored sessions in New York* on page 3-4

## Candidates for PEC Board Election

PRESIDENT- Please Vote for 1 of the following.

Dr. Don Sullivan is an associate professor in the Department of Geography at the University of Denver. He received his B.A. in Anthropology from the University of California, Berkeley, and his M.A. and Ph.D. from U.C. Berkeley in Geography. His doctoral research focused on an environmental reconstruction for the archaeological site at Sardis in western Turkey, using pollen analysis and a variety of biogeochemical techniques. Don continues to do research in Turkey, usually in association with archaeological surveys. Last summer he started a new project in northeastern Turkey looking at the late Quaternary history of the Camili Biosphere Reserve. Don also conducts research in western Colorado, using pollen analysis, peat humification analysis, and a variety of biogeochemical techniques. He is also working with colleagues to investigate the application of ground penetrating radar in quaternary paleoenvironmental research. Don has been a member of PEC for four years, and served on the PEC board 2007-2009.

Dr. Catherine Yansa is an Associate Professor in the Department of Geography at Michigan State University (MSU). Her research focuses on reconstructing past environments in north-central North America since the last glacial maximum by studying pollen and plant macrofossils preserved in lake sediments. Some of her studies are collaborations with archaeologists to explore prehistoric Native American interactions with their environment and others focus on reconstructing Pleistocene megafauna habitats. Catherine teaches courses at MSU in Quaternary environmental change, pollen analysis, plant geography, introduction to physical geography, people-environment interactions and the regional geography of the United States and Canada. She is originally from Saskatoon, Saskatchewan, Canada where she earned degrees in Anthropology (B.A. Honors) and Geology (M.S.). Later, she obtained her Ph.D. in Geography at the University of Wisconsin-Madison under Dr. Vance Holliday in 2002 and immediately joined the faculty at MSU, where she was tenured and promoted in 2008. Catherine has already served in various capacities to promote Quaternary paleoecology, biogeography and geoarchaeology, as: 1) President of the Canadian Association of Palynologists from 2004 to 2005 (President-Elect, 2002-2003); 2) Awards Committee Member (elected) of the Archaeological Geology Division of the Geological Society of America (GSA, 2008-2011); 3) Board Member (elected) of the Biogeography Specialty Group (BSG, 2006-2008); 4) Board Member (elected) of the Paleoenvironmental Change Affinity Group (PEC) (2008-2009); and 5) has co-organized/co-chaired 12 paper sessions at AAG meetings (BSG and/or PEC-sponsored in 2002, 2004, 2005, 2007, 2011) and two sessions at GSA (2006, 2009), and has also co-ran several student paper competitions for both AAG and GSA. Catherine seeks the PEC presidency because she is very committed to growing PEC membership and increasing participation at AAG meetings as well as strengthening PEC's linkages with other affinity groups of AAG and divisions of GSA.

The following members ran unopposed.

### DIRECTOR

Dr. Chad Lane (Ph.D. and M.S. University of Tennessee; B.S. University of Denver) is an Assistant Professor of Geography and Geology at the University of North Carolina Wilmington (UNCW) where he teaches courses in biogeography, climatology/paleoclimatology, marine biogeochemistry, meteorology, paleolimnology, and stable isotope geochemistry. Chad is also the director of the UNCW Center for Marine Science Stable Isotope Lab. Prior to joining the faculty at UNCW Chad was the Mead-Witter postdoctoral fellow at Lawrence University and a postdoctoral researcher at Memorial University of Newfoundland, Canada. His research focuses on multi-proxy sedimentary records of late-Quaternary paleoenvironmental change in the southeastern United States and circum-Caribbean, with a particular focus on prehistoric human-environment interactions. This work has been published in the journals *Quaternary Science Reviews*, *Quaternary Research*, *The Journal of Paleolimnology*, and *The Professional Geographer*, among others. Chad has been a member of the Paleoenvironmental Change Specialty Group since its inception in 2005.

**STUDENT LIAISON**

Ian Slayton (B.A., M.S. University of Tennessee) is a Ph.D. student and Graduate Teaching Assistant at the University of Denver. He is currently studying changes in climate in the Mediterranean using sediment cores from the southern Caucasus, Turkey (under the direction of Donald Sullivan and featured in the 2012 PEC newsletter). His research focuses on changes in pollen and carbon sequestration in the highlands of northeastern Anatolia. Ian's previous research experience includes reconstructing the vegetation and fire history of Emerald Pond, The Bahamas (for his masters research advised by Sally P. Horn); analyzing the diet of the Baird's Tapir living in the Costa Rican Páramo from macrofossils and pollen in their waste (his undergraduate honors thesis, also advised by Sally P. Horn); and reconstructing changes in effective moisture reflected by changes in humification in sediment cores from Colorado (the subject of his AAG presentation this year). He also organized a paper session called "Paleoenvironments of the Circum-Caribbean" at Washington, D.C. where he presented his masters research. He won the teaching assistant of the year award and was the vice president of Club Geography at the University of Tennessee. He has visited a number of elementary schools over five years to talk to 2<sup>nd</sup> to 5<sup>th</sup> graders about geography as part of an ongoing outreach project for Geography Awareness week led by the University of Tennessee Geography Alliance in collaboration with National Geographic. Most recently he has volunteered at the Colorado State Geography Bee organized by National Geographic. Ian is the senior graduate student in the laboratory of paleoenvironmental research at the University of Denver where he assists in the mentoring of students and the day-to-day operations of the lab.

## PEC Sponsored Sessions in New York

Friday: 2/24/2012

*Central Park East, Sheraton Hotel, Second Floor*

**1256 Weathering Geomorphology, Regolith and Soil Dynamics** (10:00 AM - 11:40 AM)

*Concourse A, Hilton NY, Concourse Level*

**1401 New Perspectives to Paleoenvironmental Change and Ge archaeology I** (12:40 PM - 2:20 PM)

**1501 New Perspectives to Paleoenvironmental Change and Ge archaeology II** (2:40 PM - 4:20 PM)

**1601 New Perspectives to Paleoenvironmental Change and Ge archaeology III** (4:40 PM - 6:20 PM)

*Clinton Suite, Hilton NY, Second Floor*

**1510 Hurricanes IV: Paleotempestology/Geomorphic Impacts** (2:40 PM - 4:20 PM)

Saturday: 2/25/2012

*Conference Room L, Sheraton Hotel, Lower Level*

**2654 Quaternary Environmental Change: Student Oral Presentations** (4:40 PM - 6:20 PM)

Sunday: 2/26/2012

*Madison Suite 5, Sheraton Hotel, Fifth Floor*

**3175 Assessing climate variability and impacts in western North America I: Streamflow, Hydrology, and Riparian Environments.** (8:00 AM - 9:40 AM)

**3275 Assessing climate variability and impacts in western North America II: The Desert Southwest.** (10:00 AM - 11:40 AM)

**3475 Assessing climate variability and impacts in western North America III: Climate, Paleoclimate, and Meteorology.** (12:40 PM - 2:20 PM)

**3575 Assessing climate variability and impacts in western North America IV: Terrestrial Ecosystems, Climate, and Disturbance.** (2:40 PM - 4:20 PM)

*Rhineland Gallery, Hilton NY, Second Floor*

**2422 Biogeography and Paleoenvironmental Change** (12:40 PM - 2:20 PM)

## PEC Sponsored Sessions in New York (Continued)

Monday: 2/27/2012

*Murray Hill Suite A, Hilton NY, Second Floor*

**4117 Dendrochronology I: Dendrochronological Applications I** (8:00 AM - 9:40 AM)

**4217 Dendrochronology II: Dendrochronological Applications II** (10:00 AM - 11:40 AM)

**4417 Dendrochronology III: Dendroclimatology** (12:40 PM - 2:20 PM)

**4517 Dendrochronology IV: North American Dendroecological Fieldweek** (2:40 PM - 4:20 PM)

*Liberty 5, Sheraton Hotel, Third Floor*

**4367 Paleoenvironmental Change Specialty Group Business Meeting** (11:50 AM - 12:30 PM)

*Liberty 5, Sheraton Hotel, Third Floor*

**4267 Environmental Change and Human Adaptation on the Tibetan Plateau: I. Paleo glaciations** (10:00 AM - 11:40 AM)

**4467 Environmental Change and Human Adaptation on the Tibetan Plateau: II. Earth surface processes** (12:40 PM - 2:20 PM)

*Grand Ballroom West, Sheraton Hotel, Third Floor*

**4428 Reconstructing Paleoenvironments since the Last Glacial Maximum**  
(12:40 PM - 2:20 PM)

**4528 Reconstructing Paleoenvironments since the Last Glacial Maximum: II**  
(2:40 PM - 4:20 PM)

*Empire Ballroom West, Sheraton Hotel, Second Floor*

**4659 PALEOENVIRONMENTAL CHANGE SG PLENARY SESSION** (4:40 PM - 6:20 PM)

Tuesday: 2/28/2012

*Murray Hill Suite A, Hilton NY, Second Floor*

**5117 Dendrochronology V: Dendroecology** (8:00 AM - 9:40 AM)

**5217 Dendrochronology VI: Tropical Dendrochronology** (10:00 AM - 11:40 AM)

**5417 Dendrochronology VII: Dendrogeomorphology** (2:00 PM - 3:40 PM)

## Congratulations to last year's Student Paper Winners!!!

**Lixin Wang**, PhD competition oral presentation, Department of Geography, University of Georgia

Abstract Title: Late Holocene Paleofloods in the Upper Little Tennessee River Valley, Southern Blue Ridge Mountains, USA

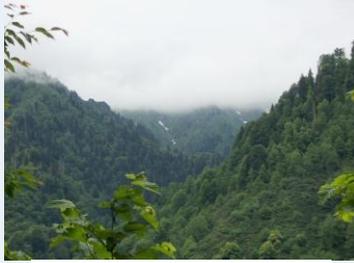
**Kelly Alexander**, Master competition presentation, Lakes and Reservoir Systems (LARS) Research Facility, University of Western Ontario, London Ontario, Canada

Abstract Title: Determining Anthropogenic Impacts on Kettle Lakes in Southern Ontario (Canada) using a Paleolimnological Approach

**Anna Pollack (Leech)**, PhD poster competition, Department of Geography, Environment and Planning, University of South Florida

Abstract Title: Mid Holocene Climate Record from a Belize Speleothem

## News from the Field



The deciduous forest in Çamili Biosphere Reserve



Looking up the valley of Çamili, above its main drainage stream. This valley is inaccessible for several months of the year, due to impassable amounts of snow.



A glacial valley on the upper slopes of the mountains in Çamili Biosphere Reserve.

In July of 2011, Donald Sullivan, Martin Quigley, and Ian Slayton from the University of Denver visited Çamili Biosphere Reserve in Northeastern Turkey, on the Georgian border to look for peatlands and to examine modern plant community assemblages. Ian has been studying the area for his PhD dissertation research. Human impact within the reserve has been minimal over the last several hundred years, with locals practicing subsistence agriculture and utilizing forest products while physical, environmental, and political factors limited development and population movement. Much of the reserve appears to have been a glacial refuge, with many species endemic to Europe and western Asia being present there. Biologically diverse deciduous forests, coniferous alpine forests, and alpine meadows occur within the park. These environments are home to the last genetically pure population of Caucasian Honey Bee on Earth and is considered to be one of the three most important bee populations in the world. Çamili Biosphere Reserve is considered a biodiversity hotspot by the United Nations, but has only recently become available for international study. Environmental and vegetation reconstruction studies in the region will give greater understanding to the history and context of this remarkable and obscure place. A return trip this summer is planned for collecting peat and sediment cores, as well as further study of modern vegetation assemblages. Don and Ian will be presenting an analysis of bee pollen of the Caucasian Honey Bee at the AAG in New York this February in his presentation, “Mad Honey’ and the Pollen Content of the Caucasian Honeybee Bee Pollen.”

~Ian Slayton, University of Denver

Donald Sullivan in the foreground, scouting for peatlands in an alpine meadow in the southern Caucasus.



**CHECK OUT THE PEC WEBSITE AT <http://www.aagpaleo.org/>**

## ***The Neotoma Paleocology Database: facilitating cross-community paleoecological research***

Multidisciplinary, multiproxy paleoecological research can contribute much to issues of critical importance to global change science, such as ecosystem responses to abrupt climate change, species range shifts, and changes in vegetation composition and productivity. The Neotoma Paleocology Database (<http://www.neotomadb.org>) facilitates this research by integrating single-community, discipline-specific databases and providing the infrastructure and support for cross-community queries and analyses, focusing on the Quaternary and Pliocene (i.e. the last 5 million years).

### **Database overview**

Neotoma provides the underlying cyberinfrastructure that enables the development of common software tools for data ingest, discovery, display, analysis, and distribution, while giving domain scientists control over taxonomic and other data quality issues. Discipline-specific working groups include specialists from the diatom, education, geochemistry, insect, isotope, ostracode, packrat midden, peatland and testate amoebae, plant macrofossil, pollen, taphonomy, and vertebrate communities. Additionally, working groups have been established for issues common to different proxies, such as age models, geospatial issues, database tools and visualizations, links to external databases, maintaining content, and facilitating access by diverse groups.

Pollen and mammal data are currently available. Neotoma will expand soon to include new pollen and mammal datasets, as well as data from other vertebrates, plant macrofossils, ostracodes, diatoms, and other proxies, and the database structure will be modified for new data types like isotopes from bones and teeth and taphonomy. Other data cooperatives can develop their own front-ends to Neotoma, as well as remotely input and update data.

### **Data access**

All data are publicly available. For in-depth analyses, SQL Server or Microsoft Access files can be downloaded from the website. Neotoma can also be explored through an interactive web application, which is ideal for finding new datasets, previewing raw data, age models, or stratigraphic diagrams, and finding publications. Individual datasets can be downloaded from the web explorer.

### **Data contributions**

Neotoma accommodates virtually any type of fossil data from sedimentary contexts. Presently, new submissions can be e-mailed directly to the data steward. By spring 2012, data will be submitted via the website, where it will be reviewed by community-specific data stewards. While data are being processed, the original files will be publicly available via the Data Holding Tank.

### **Website**

The Neotoma website hosts a wealth of other resources for educators and researchers, including database-related news, events, and publications, information about using Neotoma as part of the National Science Foundation data management plan, and discussion forums.

### **Future of Neotoma**

The Neotoma community is actively developing new resources and refining existing ones. Going forward, three avenues will be emphasized. 1) *Data processing and flow*. New data steward tools, database snapshots, sync capabilities, and links to external databases such as National Oceanic and Atmospheric Administration will be implemented. 2) *Neotoma Explorer*. Search and mapping capabilities of the web explorer will be enhanced and metadata associated with each site expanded. 3) *Educational resources*. Neotoma is partnering with the Science Education Resource Center at Carleton College to produce pedagogical materials and classroom activities (see C. A. Manduca et al., On the cutting edge: Teaching help for geoscience faculty, *Science*, 327, 1095–1096).

The Neotoma Paleocology Database represents an exciting new initiative that helps the paleoecological community meet the challenges of global change science by facilitating interdisciplinary, cross-cutting research. Neotoma is a public database and an open community, and your input is welcomed.

-Jessica Blois ([blois@wisc.edu](mailto:blois@wisc.edu)), and the Neotoma Paleocology Database leads  
(Allan Ashworth, Brian Bills, Russ Graham, Eric Grimm, Steve Jackson, and Jack Williams)

## Student Profile: Brita Lorenzten (Cornell University)

My research as a PhD candidate in Cornell University's Dept. of Geological Sciences includes analyzing paleoenvironmental change and human-environment interaction at two very different fieldwork sites—the Mediterranean forests of Israel and Jordan and a peat bog in central New York.

My project in Israel and Jordan (the southern Levant) with Prof. Sturt Manning is examining variability in the region's tree-ring record with dendrochronology. The aim of this project is to: i) begin building a network long tree-ring chronologies of the region's native species; ii) map the region into geographic zones of distinct tree-ring patterns for provenancing purposes; and iii) apply dendrochronological dating and provenancing techniques to the region's historical and archaeological timbers.

This work has involved building tree-ring chronologies, primarily from Aleppo pine (*Pinus halepensis*), but also deciduous oak (*Quercus aegilops* and *Quercus boissieri*) and juniper (*Juniperus phoenicea*), from modern forests in north-south and east-west transects in Israel and Jordan in collaboration with the Israel Nature and Parks Authority, Jewish National Fund, Jordan Ministry of Agriculture, and Dr. Linah Ababneh. The chronologies are being compared with other chronologies from Lebanon, Syria, Cyprus, and Turkey. Preliminary results indicate that trees growing in the southern Levant form a largely coherent tree-ring pattern across species that is distinct from that of tree-ring chronologies further north, with a transition zone located near Beirut.

Our work in dating and provenancing historical timbers has included collaboration with the Jaffa Cultural Heritage Project in Israel. Profs. Peter Kuniholm, Tomasz Wazny, and I have analyzed cedar timbers from 2 19<sup>th</sup> century buildings in Jaffa. Our results indicate that these cedars were imported from the Antalya province in western Turkey, which also supplied sites in Rhodes, Crete, and inland Anatolia with cedar timber. We will share more results at the AAG Annual Meeting in New York.



Meanwhile, closer to home in upstate New York, Prof. Michelle Goman and I are completing analysis of Late Pleistocene to Mid-Holocene paleoecological change from the macrofossil and sedimentological records of Purvis Road Bog in Tompkins County, New York. This data helps fill a gap in the paleoecological record for central New York, where macrofossil studies have been non-existent. Purvis Bog is also located at the southernmost boundary of the Late Pleistocene glaciation, and its kettle basin formed during

the ice sheet's retreat. The U.S. Geological Survey considers the earliest date obtained from the Purvis sediment cores (12.76k BP) significant for constraining the time of the Valley Heads deglaciation.

The Purvis data records a change from lacustrine clays to organic-rich, water-saturated peat, as infilling transformed the site from a kettle pond to the present-day raised peat bog environment by ca. 4k yr BP. This is accompanied by a shift in the arboreal macrofossils from boreal spruce to white pine to hemlock and finally the present-day sphagnum and leatherleaf groundcover by 4k yr BP. Sediment from the Younger Dryas contains a particularly interesting charcoal peak around 10.2k yr BP, indicating fire activity in the area. Thanks to funds including those from the PEC Specialty Group Student Research Grant, I have been able to obtain radiocarbon dates to date these transition zones more precisely, and I am continuing to compare the Purvis Bog data with local and regional pollen and lake sediment records.

I look forward to sharing more of the results from these projects with everyone at the next AAG Annual Meeting and in future publications!

## Recent Member Publications

**Caffrey, M.A.**, Taylor, M.J., Sullivan, D.G. (2011). A 12,000-year Record of Vegetation and Climate Change from the Sierra de Los Cuchumatanes, Guatemala. *Journal of Latin American Geography* 10(2): 129-151.

**Gangawala, S.** & Khan, M.Z.A., (2011) “An Assessment of Urban Sustainability as the Core of Sustainable Development”, *Annals of the Rajasthan Geographical Association*, Vol. XXVIII, ISSN: 0975-4652.

Khan, M.Z.A. & **Gangawala, S.**, (2011) *Global Climate Change: Causes and Consequences*, Rawat Publications, New Delhi, ISBN: 978-81-316-0257-7.

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## CONGRATULATIONS TO STUDENT PEC GRANT AWARDEES

Please congratulate the following students for winning the 2011 AAG Paleoenvironmental Change Specialty Group Student Research Competition (Ph.D. Division):

**Samuel E. Munoz**, Ph.D. student

University of Wisconsin-Madison, Department of Geography Faculty Advisor: John (Jack) Williams Title of proposed research project: Quantifying prehistoric land clearance in the central Mississippi Valley, USA

**Brita Lorentzen**, Ph.D. student

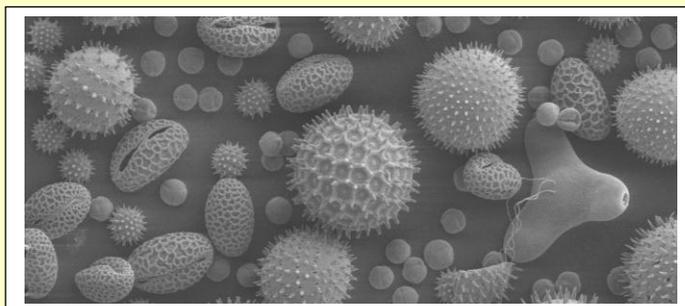
Cornell University, Department of Earth and Atmospheric Sciences Faculty Advisor: Michelle Goman Title of proposed research project: An Analysis of Late Pleistocene-Mid Holocene Paleoenvironmental Change in Central New York State from the Macrofossil and Sedimentological Records of Purvis Road Bog in Tompkins County

The 2011 competition was organized by PEC Board Member Amy Bloom with Board Members Samantha Kaplan, Kevin Spigel, and Phillip Van Beynen serving as judges.

## 2012 GRANT AWARD COMPETITION

We are currently seeking applications for the 2012 Grant Award.

Please contact Katrina Moser for details : [kmoser@uwo.ca](mailto:kmoser@uwo.ca)



Photograph Credit: Rippel Electron Microscope Facility, Dartmouth College

## Forthcoming Meetings and Calls for Abstracts

### DISCCRS VII Interdisciplinary Climate Change Research Symposium

<http://disccrs.org/disccrsposter.pdf>

**Dates:** October 13-20, 2012

**Location:** La Foret Conference and Retreat Center  
Colorado Springs, CO

### **Application Deadline: February 29, 2012**

Participation limited to 30 early-career Ph.D. scholars

Airfare and on-site expenses are supported through grants from NSF and NASA

<http://disccrs.org>

**Eligibility:** Ph.D. requirements completed between August 1, 2009 - February 29, 2012 in any natural or social science field relevant to the study of climate change, its impacts, or its societal implications. U.S. citizens and residents have preference though limited funds are available for non-U.S. participation.

See [http://disccrs.org/files/DISCCRS\\_VI\\_Symposium\\_Scholars.pdf](http://disccrs.org/files/DISCCRS_VI_Symposium_Scholars.pdf) for information on the previous symposium scholars, and [http://disccrs.org/files/DISCCRS\\_VI\\_Symposium\\_Report.pdf](http://disccrs.org/files/DISCCRS_VI_Symposium_Report.pdf) for information on the symposium experience.

### **Symposium Application Instructions**

[http://disccrs.org/application\\_instructions](http://disccrs.org/application_instructions)

### **DISCCRS Resources**

**Webpage** <http://disccrs.org>: The DISCCRS webpage includes information about symposia, a Ph.D. dissertation registry, news and links to other climate research sites, DISCCRS symposium and program reports and publications from the symposia, information.

**Online Ph.D. Dissertation Registry** <http://disccrs.org/register>: Join over 2500 climate change researchers by registering your Ph.D. dissertation and adding your abstract to our fully searchable database. Or browse the registry to identify other climate change researchers.

**Career Resources** <http://disccrs.org/career>: In addition to the Dissertation Registry, the DISCCRS website includes a wealth of valuable resources for finding a job, developing your professional skills, locating funding opportunities, crafting grant proposals and more.

**Electronic Newsletter:** With weekly climate-change job listings, news stories, funding opportunities and more, our weekly e-newsletter is automatically provided to anyone who registers their Ph.D. You can also subscribe at: <http://disccrs.org/subscribe>

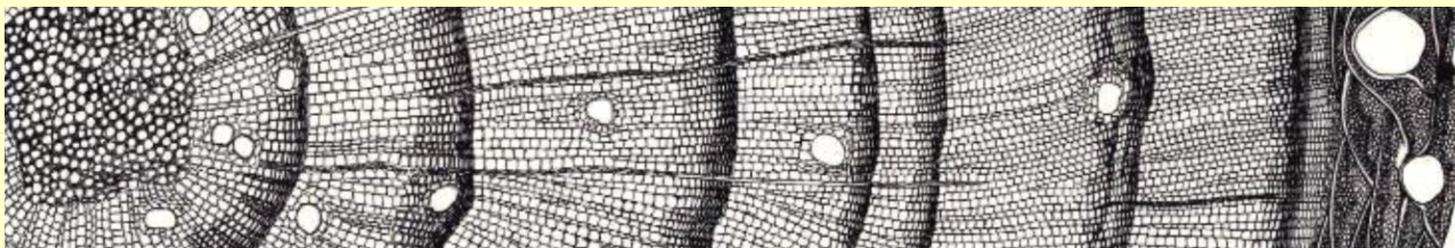
## Forthcoming Meetings and Calls for Abstracts

### **22<sup>nd</sup> Annual North American Dendroecological Fieldweek (NADEF) The Valles Caldera National Preserve in Jemez Springs, New Mexico May 28<sup>th</sup> through June 5<sup>th</sup>, 2012**

The 22<sup>nd</sup> Annual North American Dendroecological Fieldweek (NADEF) will be held at the Valles Caldera National Preserve, Science and Education Center in Jemez Springs, NM. The fieldweek will run from May 28<sup>th</sup> through June 5<sup>th</sup> and registration fees will be \$800 US for students and \$950 US for professionals. Students should send a photocopy of their student ID with their registration. Your registration fee includes room and board for the entire week. Registration fees are due by March 30, 2012.

If you have any questions about the fieldweek please contact:

Jim Speer  
Professor of Geography and Geology  
Indiana State University  
jim.speer@indstate.edu



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### **GSA November 9-7th 2012, Charlotte, NC**

#### **GSA Topical Session T109: Wetlands: Form, Function and History CALL FOR ABSTRACTS**

Wetlands are found throughout the globe from sea level to mountainous terrain, they vary in size from meters to hundreds of kilometers in extent, and show incredible diversity in form and flora. Despite their wide distribution they are often overlooked geologic phenomena. Yet, wetlands provide important environmental functions from storing and cleaning water supplies, buffering the effects of storms and sea level rise to providing a valuable sink for carbon dioxide. Further, stratigraphic analysis of wetlands provides a valuable archive of environmental and climate change and geoarchaeological research indicates that wetlands were valuable resources in prehistory. This session calls for papers that examine the complexity of modern and geologic wetland dynamics. The session will bring together a diverse group of participants including geomorphologists, hydrologists, paleoecologists, and archaeologists.

#### *Sponsors:*

GSA Archaeological Geology Division; GSA Quaternary Geology and Geomorphology Division; GSA Limnogeology Division; GSA Hydrogeology Division

#### *Contact:*

Michelle Goman (Sonoma State University: goman@sonoma.edu)  
Gail M. Ashley (Rutgers University: gmashley@rci.rutgers.edu)