

THE BIOGEOGRAPHER

Newsletter of the Biogeography Specialty Group of the Association of American Geographers
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BSG Board: John Kupfer (President) Lesley Rigg, Joy Wolf, Mary Ann Cunningham, and David Cairns
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President's Column

Confessions of a Generalist Living in a Specialists' World

Every now and then, it's worth taking stock of one's own research interests and activities, including not only our current interests but how our research focus has changed through time, how our activities form a "consistent" research program (if it all), and how our work fits into the scientific and societal circles within which we participate. Many of us, for example, were careful to identify the broader relevance or significance of our dissertation research as we completed graduate school and hit the job trail. Those of us who are faculty members also have to do so when we come up for tenure or promotion and are asked to characterize the central nature or focus of our research activities.

Several things in the past few months have caused me to once again reflect on my own body of research, and I've come to the conclusion that: "I'm a weed!". OK, I'm not a weed in the agricultural sense of the word, but rather a weed in the sense of being a generalist in what is increasingly becoming a specialists' world. This, as I hope to point out in the next few paragraphs, is not necessarily a bad thing, but rather one end of the spectrum of approaches to research agendas that can be seen in biogeography (as in other fields) today.

One of the main reasons I've been thinking about the nature of my research is that I applied and interviewed for a position at the Univ. of South Carolina this past fall, the first time I had done either since before coming to Arizona. In my earlier job interviews, I was relatively fresh out of grad school and one of my main objectives was to show that my work wasn't so overly specialized as to remove me from consideration for jobs that didn't seem to be quite up my alley. As I put together my application packet last Fall, assembled my job talk, and thought about things to emphasize on my trip to Columbia, I had just the opposite experience. In fact, I came to the realization that I would likely be the most generalized candidate they would interview for the position. After all, I've worked on riparian ecology in the Midwest and Southeast, montane forest pattern and process in Tennessee, Arizona, New Mexico and Idaho, invasive species and fire in Arizona grasslands, and successional dynamics in landscapes in the Midwest, Southeast and Central America (plus a few other things to boot). I've published on climate change, succession, seed dispersal, remote sensing techniques, forest fragmentation and a handful of other topics since starting graduate school 16 years ago, and my work has been by turns theoretical, conceptual and applied.

The second thing that had me thinking about my place in the biogeographic universe was looking through the diversity and sheer number (39!) of BSG sponsored or co-sponsored sessions for the Denver AAG meeting. Sixteen of those sessions have the roots "Dendro-" or "Paleo-" in their titles, and we now have full- or even multiple-sessions on topics like "Landscape Pathology", "Stable Isotope Analysis" and "Hurricanes". I say this certainly not to imply it's a bad thing, but rather because it reminds me of the increasingly specialized nature of our group's membership. With respect to myself, I'm basically a field-based community / landscape ecologist, but I know a little dendrochronology, a fair amount of remote sensing, a pretty good amount of geospatial analysis, some ecological modeling, and even a little bit about pack rats. When people are putting together research teams for large multidisciplinary projects here at the UA, one of my problems is not having enough of a distinct niche to fill since I'm not "the remote sensing guy" or "the dendrochronologist" or "the GIS guy" (there doesn't seem to be a call for "the ordination guy", for example).

So, given the inefficiencies of being a generalist (and there are several), what is it that drives me to keep doing new and slightly different things? Over the last few months, I've found three answers to this question, the first of which is simply expediency. Wherever you go, greater proximity to study sites in the local geographic area for both me and my students means developing new research questions

appropriate to the region. If you move to a lot of new places (and ecosystems) like I have, you pick up interests just from being there. In some cases, this might just involve tweaking pre-existing research projects or interests (e.g., transferring my interests in Midwestern floodplain forests to southern bottomland hardwood forests after moving from Iowa to Memphis); in others, it means developing entirely new interests (e.g., working in montane forest communities in the Smokies and Rockies).

Second, when you move as much as I have, you not only expand your research interests with the proximity to new ecosystems and research sites but also with greater exposure to new people both inside and outside of the university. This has certainly been the case, for example, with the grassland research that I've been doing in southern Arizona for almost 4 years now, which stemmed from interactions with new colleagues here at UA and the Audubon Society. I never set out to be a grassland ecologist, but the opportunities to study invasive species effects and grassland species dynamics using manipulative, controlled experiments (and seeing the results unfold over a few years) has allowed me to address some of the same questions I've been working on with trees. Similarly, my interactions with people at Arizona like Andrew Comrie, Gordon Mulligan, Tom Swetnam, Julio Betancourt, Guy McPherson and many others on the UA campus have gotten me interested in topics well outside the scope of my previous research and exposed me to ideas and methods that I'll take with me when I move to Columbia this summer.

Finally, part of the answer is that it's just my basic personality type to be interested in a broad range of topics and research activities. As geographers, I think most of us are inclined to have some generalist tendencies anyway, but I've found that my broad range of experiences has given me different spins on projects than I would otherwise have had. In my case, I've valued the broad range of experiences that I've had while working on projects with not only other geographers but also with the range of ecologists, botanists, resource managers, engineers and geoscientists with whom I've worked.

When I was at Memphis, an incoming chair of the Biology Department told one of my friends that his work was "too broadly focused" and that to really accomplish something meaningful, he needed to "pick one topic and focus all his efforts on it". I remember a subsequent comment from the Chair that went something like this: "Take me, I study the behavior of voles so every time I see some new and interesting research, I'm thinking, 'How can this relate to voles?'" I see his point and the many tangible benefits of being more highly specialized, but I also have come to understand the occasional value of having broad research interests as well. All of this I guess brings me to the conclusion that "I'm OK with being a generalist." It's not that being a generalist means I don't have a central theme to my work (which "stresses the manners by which spatial patterns of ecological phenomena interact with and constrain ecological processes such as succession, plant dispersal or non-native species invasions", according to the cover letter of my USC application), but rather that I enjoy and benefit in some ways from the breadth of projects that I work on around this central theme. In this respect, I think I'm a lot like Norm Christensen, Peter White and others who have influenced my scientific and professional thinking.

Finally, there is a third reason I've been thinking about these things. For the upcoming Denver AAG Meeting, Tony Stallins and George Malanson have put together a panel with Katrina Moser, David Cairns, Amy Hessel, Al Parker, Jake Bendix, Tom Crawford and Tom Vale on "Unifying Themes in Biogeography". Among the tentative list of topics to be discussed are: What are the themes in your research of interest/relevance to the broader biogeographical community? How important is it to have conversations about unifying themes? Should we ask more epistemological/philosophical questions about our research? I'd like to close by encouraging you to make this panel discussion if it fits into your schedule as I think it will stimulate further discussion on some of the points I've made in my final chair's column.

Election

BSG Board: **Vote Now!**

Current **BSG members** may vote for **President and 2 Board Members**. **Student members** can also vote for the **Graduate Student Board Member**. Vote by sending an e-mail with your choices to bsg-election05@geog.tamu.edu **before March 31**. Only current BSG members are eligible to vote. If you are unable to vote via e-mail, please send your votes by regular mail to:

David M. Cairns
Department of Geography
3147 TAMU
Texas A&M University
College Station, TX 77845

BSG Board (Vote for 2)

David R. Butler (Ph.D. University of Kansas, M.S. University of Nebraska, B.A. University of Nebraska at Omaha) is Professor and Graduate Program Coordinator in the Department of Geography at Texas State University-San Marcos. He is interested in ecotones, and the interface between biogeography and geomorphology. He is author of the book (Cambridge, 1995) *Zoogeomorphology - Animals as Geomorphic Agents*. He has guest edited special issues of *Physical Geography* on the topics of alpine treeline (1994) and environmental change (2001), served on the editorial boards of *Landscape Ecology* (1999-2003) and *Physical Geography* (1996-present), and has published 25 book chapters, and over 125 refereed papers in journals and conference proceedings, including *Annals of the Association of American Geographers*, *The Professional Geographer*, *Physical Geography*, *Progress in Physical Geography*, *Catena*, *Arctic and Alpine Research*, and others. He serves on the AAG's Publications Committee, served as Chair of the AAG Mountain Geography and Geomorphology Specialty Groups, and was the recipient of the Mountain Geography group's Outstanding Recent Accomplishment

Award (2001) and the Geomorphology group's G.K. Gilbert Award for Excellence in Geomorphological Research. He teaches courses in Landscape Biogeography, Geomorphology, and Research Design.

Charles Lafon (Ph.D. and M.S, University of Tennessee; B.A., Emory & Henry College) is an Assistant Professor of Geography at Texas A&M University, where he teaches courses in biogeography, climatology, field geography, and introductory physical geography. His research employs fieldwork (including dendrochronology) and simulation modeling to investigate the effects of fire, ice storms, insect outbreaks, and historic human land use on patterns of tree species composition and diversity in eastern North America. He is also interested in the interactions of terrain, climate, and vegetation that generate spatial patterns in the frequency and severity of disturbance. He has served the BSG as a judge in the student research proposal competition, and has published papers in the *Journal of Vegetation Science*, *Oikos*, *Physical Geography*, *Climate Research*, the *Journal of Geography*, and *Dendrochronologia*.

J. Anthony (Tony) Stallins, (PhD University of Georgia, MS Georgia State University, BS Florida State University) has been an Assistant Professor of Geography at Florida State University for the past five years. His research examines how coastal and riparian biogeomorphic interactions influence vegetation patterns and how land-use history influences present-day forest dynamics. His main research locations have been in the southeastern US, from salt marshes and barrier island dunes, to longleaf pine sandhills and cypress-tupelo forests. From a disciplinary standpoint, Tony is interested in how AAG biogeographers can find common ground among methodological strands that emphasize field-based description, hypothesis testing, simulation, and reconceptualization of pattern and process. Tony teaches courses in Environmental Science, Map Analysis, Physical Geography, and Field Methods. His publications have appeared in *Plant Ecology*, *Physical Geography*, the *Annals*, *Climatic Change*, and *Natural Areas Journal*.

Thomas W. Gillespie (Ph.D. University of California Los Angeles, M.A. California State University, Chico, B.A. University of Colorado, Boulder) is a sixth year assistant Professor in the Department of Geography at UCLA. His research interests over the last six years have focused on testing biogeographic hypotheses related to patterns of species richness and rarity for a number of taxa at local, regional, and global spatial scales. His research focuses on three primary themes: forest ecosystems, biogeography and conservation theories, and geographic information systems and remote sensing. Currently, his research has been in tropical dry forests of Oceania which have been identified as high priority areas for conservation. He has published in *Ecological Applications*, *International Journal of Remote Sensing*, *Global Ecology and Biogeography*, *Journal of Biogeography*, *Progress in Physical Geography*, and *Conservation Biology*.

Robert Dull (Ph.D. University of California, Berkeley, M.A. San Francisco State University, B.A. University of California, Santa Barbara) is an Assistant Professor in the Department of Geography and the Environment at the University of Texas, Austin (beginning in fall 2004). Prior to joining the faculty at UT, Rob spent two years (2002-2004) as an Assistant Professor at Texas A&M University. He has carried out research projects both in Central America (El Salvador, Nicaragua) and the western United States focusing on decadal to millennial-scale changes in regional vegetation, climate, fire regimes, and land use. Over the past year Rob has been working on late Holocene paleoecology and modern forest conservation in Nicaragua (Ometepe Island, Volcán Mombacho, Rivas), as well as starting new projects along the Gulf Coast of Texas and Mexico (Veracruz, Tamaulipas). In addition to intro-level physical geography, Rob teaches upper division and grad classes in Quaternary paleoecology, biogeography, natural hazards, and human impacts on the environment. He has published articles in the *Journal of Biogeography*, the *Journal of Paleolimnology*, *Latin American Antiquity*, *Geological Society of America Special Papers*, and *Quaternary Research*.

Amy Hessl (Ph.D. University of Arizona, M.S. University of Wyoming, B.S. & B.A. University of California, Berkeley) is an Assistant Professor in the Department of Geology and Geography at West Virginia University. She is interested in the interaction between ecosystem processes and human activities in forested systems. She has explored aspen forest dynamics in Wyoming, paleo-fire regimes in central Washington and carbon dynamics in eastern deciduous forests of West Virginia. Amy teaches courses in Physical Geography, Biogeography, Environmental Field Geography and the Geography of Fire. She has published in *BioScience*, *Climatic Change*, *Ecological Applications*, and *Journal of Biogeography*, among others. As a board member, Amy is particularly interested in broadening the scope and influence of the BSG within and beyond the AAG.

David Goldblum (Ph.D. University of Colorado, M.S. University of Colorado, B.A. University of California, Los Angeles) is an Associate Professor in the Department of Geography and Geology at University of Wisconsin-Whitewater. He is interested in the potential impact of climate change on forest dynamics at the ecotone between deciduous forest and boreal forest in the eastern United States. He has been conducting research on this question in Ontario, Canada since 1999. Previous projects have been conducted in Australia, New Caledonia, Colorado, and New York State. David teaches courses in Biogeography, Forest Geography, Spatial Analysis, and Human-Environmental Problems. He has published in *Physical Geography*, *Journal of Vegetation Science*, *Australian Journal of Ecology*, *Journal of Biogeography*, *Bulletin of the Torrey Botanical Society*, and *Plant Ecology*.

Jim Speer (Ph.D., University of Tennessee; M.S., and B.S. University of Arizona) is an Assistant Professor at Indiana State University. He specializes in Dendrochronology and examines disturbance ecology. The recent Brood X emergence of periodical cicadas provided an opportunity to examine cicada ecology and how they influence succession through their effect on the trees. He continues to expand the application of dendrochronology to new insects, tropical regions, and new methods (such as mast reconstruction). He has organized the North American Dendroecological Fieldweeks for three years and has helped to organize the dendrochronology session at AAG for the past five year. Jim teaches a wide range of classes including Biogeography, Conservation of Natural Resources, Quaternary Environments, Soil Genesis and Classification, Structural Geology, and Fundamentals of Tree-Ring Research. He has published in *Ecology*, *Climate Research*, *The Holocene*, *Journal of Biogeography*, and *Tree Ring Research*.

Valery J. Terwilliger (Postdocs: University of California, Santa Barbara; Hebrew University, Givat Ram, Ph. D. University of California, Los Angeles, M.S. University of Florida, B.A. McDaniel College) is an Associate Professor at the University of Kansas. Her

interests in the relationships between the responses of plants to their environments and plant distributions are both quaternary and present-day. She and her students' recent field research sites include Utah, Arizona, Kansas, Maryland, Panamá, and Ethiopia. There is also a lab rat component to her work as stable isotope methods yield many of the insights for her studies. She teaches honors courses in Physical Geography, and Human Biogeography, as well as courses and seminars in Plant Geography, Field Ecology, and Stable Isotopes in the Natural Sciences. Journals that have published her and her student's papers include *Biotropica*, *Bulletin of the Geological Society of America*, *Geochimica et Cosmochimica Acta*, *Catena*, *Earth Surface Processes and Landforms*, *Vegetatio*, *New Phytologist*, *Earth Science and Planetary Letters*, *Journal of Plant Physiology*, *International Journal of Plant Sciences*, *International Journal of Vegetation Science*, *Progress in Physical Geography*, *Phytochemistry*, *Physical Geography*, and *American Journal of Botany*.

Graduate Student Board Member (Student BSG Members Vote for 1)

Christopher Gentry (M.A. Indiana State University, B.A. Indiana University-Southeast) is a Ph.D. student in the Department of Geography at Indiana University, Bloomington. At IU he has taught the lecture and laboratory portions of *Physical Systems of the Environment*, discussion sections of *Introduction to Human Geography*, and has given guest lectures at the School for Public and Environmental Affairs. His research interests include dendroecology, landscape and fire ecology, and biogeography. He is currently researching the effects of changing atmospheric carbon concentrations and climatic effects on a mixed deciduous hardwood forest in Indiana. For the past two years he has assisted the North American Dendroecological Fieldweek and has been a reviewer for *Forest Ecology and Management*. He is a regular attendee of BSG meetings, and a member of the Association for Fire Ecology and Gamma Theta Upsilon.

Chad Lane (Ph.D. in progress, M.S. University of Tennessee, B.S. University of Denver) is a Ph.D. student in the Department of Geography at the University of Tennessee. He is interested in lake sediment records of the interactions between climate, vegetation, and human populations throughout the Quaternary. His main research areas have been the Dominican Republic and Costa Rica. In his research he uses multiple proxies to develop detailed records of paleoenvironmental change. In particular, he uses fossil pollen, charcoal, stable isotope, and other geochemical analyses to develop these records. Chad's current research is focused on identifying the impacts of droughts in the circum-Caribbean region on both ecological communities and prehistoric human populations in the interior of the Dominican Republic during the late Holocene. His past research has included stable carbon isotope analyses of lake sediments from several lakes in Costa Rica to identify prehistoric forest clearance and agriculture, natural changes in vegetation in response to climate change, and changes in paleolimnological conditions. Chad has published papers in the *Journal of Paleolimnology* and has recent submissions to *Palynology* and *Ecography*. During his residence at the University of Tennessee, Chad has been appointed as a research assistant, a teaching assistant, and has taught an introductory physical geography course.

President (Vote for 1)

Joy Nystrom Mast (Ph.D. and M.S. University of Colorado - Boulder, B.S. University of Wisconsin - Madison) is Chair of the Department of Geography and Director of the Dendroecology Lab at Carthage College in Wisconsin. She is interested in forest dynamics of conifer and riparian ecosystems, focusing on the American Southwest and Rocky Mountains. Joy currently serves on the National Science Foundation Geography and Regional Sciences panel and is a consultant for the National Park Service Southern Colorado Plateau Network for 14 National Parks. She has enjoyed serving the BSG as an executive board member, as a grant reviewer, and as a student presentation judge, and is also active in the International Biogeography Society. Joy teaches courses in Forest Ecology, Biogeography, Biological Conservation, and field courses in Arizona and Wisconsin. She has received funding for her research from NSF Biocomplexity program, the National Park Service, the National Forest Service, the Bureau of Land Management, among others. Joy has published in a variety of journals and books, including *Journal of Biogeography*, *Landscape Ecology*, *Ecological Applications*, *Forest Ecology and Management*, *Canadian Journal of Forest Research*, *Physical Geography*, and *Journal of Forestry*.

Kimberly E. Medley (Ph.D., M.A., Michigan State University, B.S. Kent State University). After a one-year postdoctoral appointment in landscape ecology at the Institute of Ecosystem Studies, Kim began an academic career at Miami University (in Ohio), where she just received word that she will be promoted to Professor of Geography. Under a Worldwide Women-in-Development fellowship in 1997-1998, she worked as an ecological monitoring and gender specialist for the U.S. Agency for International Development in Madagascar. Kim is especially interested in forest resources and how the physical environment and human activities influence their geographic patterns of diversity, environmental histories, and conservation futures. She is the author of over twenty publications in peer-reviewed journals and books, and especially enjoys her collaboration with graduate and undergraduate students on integrative and applied research in Ohio, Kenya, and other locations. Funded by the National Geographic Society and now Conservation International, she is conducting an ethnoecological research project on Mt. Kasigau, Kenya that examines the use of woody plants by the Kasigau Taita along an altitudinal gradient between bushland and montane evergreen forest. She is grateful for the professional support provided by colleagues in the Biogeography Specialty Group and will hope to carry on that tradition for new and continuing members.

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International Biogeography Society News

The 2005 International Biogeography Society conference met Jan. 5-9, 2005 at the National Conservation Training Center, Shepherdstown WV. The meeting included poster sessions, symposia, a keynote address and a workshop on Historical Biogeography. The meeting's theme "Conservation Biogeography," reflects the fact that conservation is emerging as one of the dominant themes in the IBS and the broader field of biogeography. As part of this trend, Blackwell is "rebranding" one of the *Journal of Biogeography's* sister journals as *Diversity and Distributions, a Journal of Conservation Biogeography*. The journal recently published an article by Robert J. Whittaker and other members of the Oxford University School of Geography's Biodiversity Research Group's article called "Conservation Biogeography: Assessment and Prospect" ([Diversity and Distributions Vol. 11, Jan. 2005](#)), which BSG members should find interesting.

The IBS meeting was organized around the five symposia:

- Biogeographic Responses to Global Change
- Biogeography of Exotic Species
- Geography of Parasites and Infectious Diseases
- Geography of Extinction: From Paleo to Recent Periods
- Biogeography and Ecological Impacts of Human Civilizations.

Each symposium included half-hour presentations by five invited speakers representing the breadth of the biogeographical enterprise. Brief descriptions of each symposium and Richard Field's reflections on the meeting are available in the IBS newsletter ([click here](#)). Poster sessions supplemented the symposia and highlighted the work of 120 biogeographers. The meeting culminated with geographer-turned-librarian and Alfred Russel Wallace scholar Charles Smith's keynote address on Wallace.

The small size of the meeting (around 100 participants, I'm guessing) and intimate setting encouraged informal discussions, as did the fact that the posters remained up for a full day. This meant there was plenty of opportunity and time to read most, if not all, of the posters and to think about them, discuss them during breaks, meals, or other downtime, and go back and view them multiple times, if you wanted to. I've never been to a meeting where I discussed the content of presentations (my own and other peoples') as frequently or in as much depth and detail as I did at this one. As was the case with the inaugural IBS meeting 2003, I came away from the conference excited about the discipline of biogeography and full of new ideas and insights. If there were any way we could create this level of interaction at AAG meetings, I would lobby for moving heaven and Earth to make it happen.

One of the high points of the symposia was Hartmut Walter's presentation. Hart is one of the founding members of the BSG, and one of four biogeographers in the UCLA geography department (along with ex-BSG president and IBS founding treasurer Glen MacDonald, Tom Gillespe, and Jared Diamond), and his presentation generated a great deal of interest and discussion. The abstract of Hart's paper is reproduced below.

To help further its goal of becoming a truly international society, the next IBS meeting, scheduled for early January 2007, will move beyond the U.S., to Oxford, U.K. Membership in the IBS is \$40 (Students \$30), which includes the IBS newsletter, discounts on IBS meetings and publications, and eligibility for a \$30 subscription to the online versions of the *Journal of Biogeography*, *Global Ecology & Biogeography*, and *Diversity & Distributions* (a personal subscription is \$330, so this is a steal!). For more information, see the [IBS web site](#).

The Culture and Politics of Extinction: A Geography of Human Folly and Animal Angst

Hartmut S. Walter
UCLA

2nd Biennial Conference, International Biogeography Society, Shepherdstown, West Virginia, January 5-9, 2005.

The current distribution of biota is a product of a complex of interactive historic and present-day factors; some of these are anthropogenic in nature. This paper investigates the contribution of human behavior, beliefs, and policies that contribute to extinction processes in animals. I am particularly interested in those cases where incorrect or ecological and geographic assessments of rarity and extinction probability result in faulty or inefficient conservation management. It is hoped that biogeography can address this problem by recognizing and incorporating the complex human-animal interface into future conservation science and management. One aspect concerns the need to create a firewall between distributional reality and the partisan needs of motivated stakeholders. Biogeography cannot afford to support trivial conservation demands when there is an abundance of unmet and poorly understood conservation needs among noncharismatic taxa around the world.

Department News

Biogeomorphology at Kentucky

Several members of the University of Kentucky Department of Geography are involved in projects examining the coevolution of landforms, soils, and ecosystems, and the effects of trees on weathering and regolith evolution, in forest environments in the Ouachita Mountains, Arkansas. Jonathan Phillips (Professor) and Dan Marion (USDA Forest Service, Southern Research Station, and Adjunct Professor of Geography) have been examining the biomechanical effects of trees on soil variability and regolith evolution, and the relative importance of biological and lithological influences. Publications on this work, funded by the USDA Forest Service, have appeared or are in press in *Geoderma*, *Forest Ecology & Management*, *Earth Surface Processes & Landforms*, and *Journal of Geology*. Kristin Adams recently completed her M.A. thesis in conjunction with this work, and a number of other Kentucky geography faculty and graduate students, and Forest Service personnel, have contributed to this ongoing work. The newest phase of the project is examining in detail the effects of tree roots on weathering at the bedrock weathering front, with Assistant Professor Alice Turkington playing a key role. PhD candidate Linda Martin, in addition to assisting in the Arkansas work, is pursuing her dissertation (funded by EPA) on evolution of fluviokarst landscapes in central Kentucky, with the hydrologic and geomorphic effects of trees, and root-rock interactions at the base of the epikarst, playing a central role.

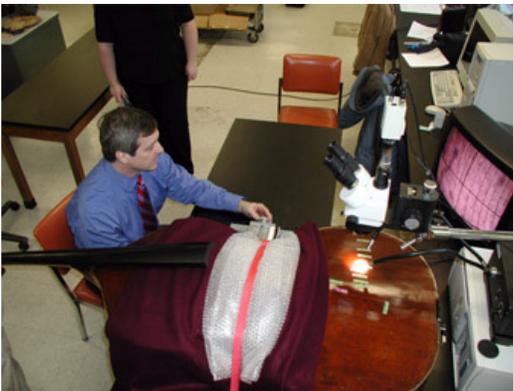
Jonathan D. Phillips
New Disciples of Soil
Lexington, Kentucky
(Univ. of Kentucky, Dept. of Geography)
<http://ukslsrp.150m.com/JPhome.htm>

Member News

Henri Grissino-Mayer

Henri's involvement with the "the mystery of the Messiah," (see [here](#), and [here](#)) has launched something of a cottage industry in forensic biogeography. In the last issue, we highlighted his work on the (putative) [Abraham Lincoln log cabin](#). Since then, he's been involved in three more projects, dating the Karr-Koussevitzky 1611 Amati bass, working on a Texas murder case (see Research Notes below), and dating another historic cabin. The latter project, Henri promises, "will actually help re-write Tennessee history and history books." We'll feature it in the next issue.

Henri on (1611 Amati) Bass



The performances and conducting of Serge Koussevitzky (1874-1951) gave the world its first serious exposure to the double bass instrument. In 1962, after hearing a New York Town Hall recital given by Gary Karr, Koussevitzky's widow, Olga, gave Karr the double bass used by Serge Koussevitzky, reportedly made by Antonio and Hieronymous Amati in 1611. The Amati brothers were sons of Andrea Amati who began the famed Amati line of instrument makers in Cremona, Italy, in the mid to late 1500s. Nicolo Amati (1596-1684), the son of Hieronymus, was the mentor of Antonio Stradivari.

Today, Gary Karr has been acclaimed as "the world's leading solo bassist" by Time Magazine, and is considered the first solo double bassist in history to make playing a full-time career. In 1967, Karr founded the International Society of Bassists (ISB). In 2004, Karr stunned the music world by donating the Karr-Koussevitzky 1611 Amati bass to the ISB, and plans have been made for leading artists to perform with it at the 2005 ISB Convention in Michigan.

However, close inspection by a top team of experts found stylistic inconsistencies with the double bass, including the purfling, the top C-bout channel, the F-holes, and the varnish. Furthermore, the shape of the instrument itself appears to have been influenced by Stradivari, who would not be born for another 33 years. The experts reported their findings to Madeleine Crouch, President of the ISB, who had previously heard that tree-ring dating had helped solve the mystery of the "Messiah" violin.

The ISB contacted Henri Grissino-Mayer, and on January 28 and 29, the Karr-Koussevitzky bass was analyzed in the Laboratory of Tree-Ring Science at the University of Tennessee. Surprisingly, the double bass had a continuous series of 297 tree rings on both sides of the instrument, the most tree rings ever found in a musical instrument, suggesting the instrument was indeed made in Europe. Dr. Grissino-Mayer is now comparing the patterns of the tree rings from this instrument with reference spruce chronologies from the upper elevations of Italian and Austrian Alps region, the most likely locality of the wood used to make the instrument.

Henri reports that he does have absolute dates for the tree rings in the instrument, but has been requested not to release the dates just yet. If the instrument was indeed made by the Amati brothers in 1611, the instrument would be priceless because this would be the only double bass known to have been constructed by the Amati brothers.

Also, Henri, **Sally Horn**, and **Ken Orvis** currently have research featured in an exhibit called "[Lost Worlds: Discovering Past](#)"

[Environments](#)" at the University of Tennessee's McClung Museum.



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AAG Biogeographers in Denver

Biogeography Specialty Group Business Meeting

The BSG business meeting is scheduled for Thursday (4/7/05) from 11:50 AM - 12:50 PM. Bring a lunch and join us.

Physical Geography Reception

A Physical Geography Reception will be held 8-11 PM on Friday April 8, in the Majestic Ballroom of the Adam's Mark Hotel. The reception will feature remarks by AAG Vice-President Dick Marston, displays by several publishing houses, and complementary food and drinks. All AAG members specializing in an aspect of physical geography (and a guest) are welcome at the event. There is no admission charge.

The reception is sponsored by the AAG's Cryosphere, Geomorphology, Climate, Mountain Geography, Biogeography, and Water Resources Specialty Groups. In addition to donations by the sponsoring specialty groups, generous financial support has been provided by co-sponsors Blackwell Publishing Inc., John Wiley & Sons Ltd., Elsevier Science Ltd., and Bellwether Publishing Ltd. A representative from each of these firms will be present, and books, journals, and other materials will be on display.

The reception will have two continuous slide shows running, similar to the one last year in the "Celebrating a Century of Physical Geography" reception at the Philadelphia meeting. Reception organizer Fritz Nelson requests that **physical geographers each send him ONE power point slide containing (a) one or more images showing their current research, and (b) a one-paragraph annotation or description. Please keep the size of individual slides to 6 Mb or less.** Send slides to Fritz at recep@geog.udel.edu by March 21. Please ensure that slides are in final presentation format—no editing will be done on them.

BSG Sponsored Sessions

This year, we have **thirty** BSG-sponsored paper sessions. For details on specific sessions and papers, go to the AAG's [2005 Annual Meeting Program](#) web page, select "Specialty Group" in the search criteria, and search on "biogeography."

- Advances in Paleoclimatology I, II, and III: Quantitative, multiproxy, and novel approaches to climate reconstruction
- Biogeography Illustrated Paper Session
- Dendroclimatology I and II
- Dendroecology
- Dendroecology and Disturbance
- Dendrogeomorphology
- Eastern Forest Dynamics
- Emerging themes in political ecology III: Changing landscapes and biogeographies
- Exotic Species Invasion Dynamics
- Fire History from Dendrochronology
- Geographic approaches to understanding urbanising landscapes and urban ecosystems
- Geographic approaches to understanding urbanising landscapes and urban ecosystems
- Geosystems, Ecosystems, and Wildfires 1: Geomorphic Hazards
- Geosystems, Ecosystems, and Wildfires 2: Soil Factors and Time
- Geosystems, Ecosystems and Wildfires 3: Remote Sensing Applications to Fire Hazard and Effects Assessment

- Geosystems, Ecosystems, and Wildfires 4: Biotic Effects and Responses
- Geosystems, Ecosystems, and Wildfires 5: Management Issues
- Hurricanes I: Spatial and Temporal Variability
- Hurricanes II: Paleotempestology
- Hurricanes III: Landfalling Hurricanes and Societal Impacts
- Integrative Dendrochronology: Theoretical Cross-overs to Other Disciplines
- Landscape Pathology
- Landsurface - Atmosphere Interactions I
- Landsurface - Atmosphere Interactions II and Urban Climate I
- Paleobiogeography I: Pollen and Charcoal Calibration and Analysis to Reconstruct Fire, Vegetation and Agricultural History
- Paleobiogeography II: Paleo Records of Climate, Geomorphic, and Vegetation Change from the American and African Tropics
- Paleobiogeography III: Paleocological Evidence of Prehistoric Human Activity in the Circum-Caribbean Region
- Paleobiogeography IV: Late Quaternary Climate and Vegetation Change in Temperate North America
- Prehistory, Geoarchaeology, and Paleobiogeography: prospects for engagement and synthesis
- Stable isotope analysis of trees: new methods, new uses.
- Tropical rarity: biogeography of endemism in low latitude environments
- Unifying themes and issues in AAG Biogeography Panel Discussion
- Unifying themes and issues in AAG Biogeography I and II
- Western Forest Dynamics

Field Trips!

[Click here](#) for more information on these and other field trips.

A Landscape Transect in the Boulder Valley Tuesday, April 5: 8am – 4pm Organizer/Leader: Paul W. Lander, City of Boulder/University of Colorado Trip Capacity: 40 Cost/person: \$75 (includes transportation, lunch and handouts)

Rocky Mountain National Park Thursday, April 7: 7am – 6pm Organizer/Instructor: William C. Rense Workshop Capacity: 40 Cost/person: \$75 (includes transportation, lunch, admission fees and handouts)

Fire and Forest Management in the Colorado Front Range Friday, April 8: 8am – 6:30pm Organizer/Leader: **Rosemary Sherriff**, University of Colorado – Boulder; **Thomas Veblen**, University of Colorado - Boulder Trip Capacity: 32 Cost/person: \$70 (includes transportation, lunch and handouts)

Terrestrial Paleoenvironments of the Front Range Near Denver, Colorado Friday, April 8: 9am – 5pm Organizer/Leader: Joanna Wright, University of Colorado - Denver Trip Capacity: 40 Cost/person: \$70 (includes transportation, lunch and handouts).

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Recent BSG Member Publications.

*Name in **bold** is the individual submitting publications.*

Meral Avci

Avci, Meral. 2004. [Rhododendrons and their natural occurrences in Turkey](#). İstanbul Üniversitesi Edebiyat Fakültesi Coğrafya Dergisi 12: 13-29. (In Turkish, also English abstract).

Avci, Meral. 2004. [The influence of geographical characteristics on the naming of plants in Turkey](#). İstanbul Üniversitesi Edebiyat Fakültesi Coğrafya Dergisi 12: 31-45. (In Turkish, also English abstract).

Matthew Becker

Bekker, M.F. 2004. Spatial variation in the response of tree rings to normal faulting during the Hebgen Lake earthquake, southwestern Montana, USA. *Dendrochronologia* 22:53-9.

Bekker, M.F. 2005. Positive feedback between tree establishment and patterns of subalpine forest advancement, Glacier National Park, Montana, USA. *Arctic, Antarctic, and Alpine Research*, in press.

David Butler

Allen, Thomas R., Stephen J. Walsh, David M. Cairns, Joseph P. Messina, David R. Butler, and George P. Malanson, 2004. Geostatistics and spatial analysis: characterizing form and pattern at the alpine treeline. In: *GIScience and Mountain Geomorphology* (M.P. Bishop and

J.F. Shroder, Jr., eds.), Springer Verlag - Praxis Scientific Publishing, Heidelberg, Germany, 189-214.

Butler, David R., 2004. Zoogeomorphology. In: Encyclopedia of Geomorphology, Volume 2 (Andrew Goudie, ed.), Routledge, London, 1122-1123.

Butler, David R., George P. Malanson, and Lynn M. Resler, 2004. Turf-banked terrace treads and risers, turf exfoliation, and possible relationships with advancing treeline. *Catena* 58(3), 259-274.

Resler, Lynn M., Mark A. Fonstad, and David R. Butler, 2004. Mapping the alpine treeline ecotone with digital aerial photography and textural analysis. *Geocarto International* 19(1), 37-44.

Malanson, George P., David R. Butler, and Stephen J. Walsh, 2004. Ecological response to global climatic change. In: *WorldMinds: Geographical Perspectives on 100 Problems* (Donald G. Janelle, Barney Warf, and Kathy Hansen, eds.). Kluwer Academic Publishers, Dordrecht and Boston, 469-473.

Walsh, Stephen J., Daniel J. Weiss, David R. Butler, and George P. Malanson, 2004. An assessment of snow avalanche paths and forest dynamics using Ikonos satellite data. *Geocarto International* 19(2), 85-93.

Henri Grissino-Mayer

Burckle, Lloyd, and Henri D. Grissino-Mayer. 2003. Stradivari, violins, tree rings, and the Maunder Minimum: a hypothesis. *Dendrochronologia* 21(1): 41-45.

Soulé, Peter T., Paul A. Knapp, and Henri D. Grissino-Mayer. 2003. Comparative rates of western juniper afforestation in south-central Oregon and the role of anthropogenic disturbance. *Professional Geographer* 55(1): 43-55.

Grissino-Mayer, Henri D. 2003. Canons for writing and editing manuscripts. *Tree-Ring Research* 59(1): 3-10.

Grissino-Mayer, Henri D. 2003. A manual and tutorial for the proper use of an increment borer. *Tree-Ring Research* 59(2): 63-79.

Grissino-Mayer, Henri D., William H. Romme, M. Lisa Floyd-Hanna, and David Hanna. 2004. Climatic and human influences on fire regimes of the southern San Juan Mountains, Colorado, USA. *Ecology* 85(6): 1708-1724.

Grissino-Mayer, Henri D., Paul R. Sheppard, and Malcolm K. Cleaveland. 2004. A dendroarchaeological re-examination of the "Messiah" violin and other instruments attributed to Antonio Stradivari. *Journal of Archaeological Science* 31(2): 167-174.

Huffman, Jean M., William J. Platt, Henri D. Grissino-Mayer, and Carla J. Boyce. 2004. Fire history of a barrier island slash pine (*Pinus elliottii*) savanna. *Natural Areas Journal* 24(3): 258-268.

Kaennel Dobbertin, Michéle, and Henri D. Grissino-Mayer. 2004. The Bibliography of Dendrochronology and the Glossary of Dendrochronology: Two new online tools for tree-ring research. *Tree-Ring Research* 60(2): 101-104.

Speer, James H., Kenneth H. Orvis, Henri D. Grissino-Mayer, Sally P. Horn, and Lisa M. Kennedy. 2004. Assessing the dendrochronological potential of *Pinus occidentalis* in the Cordillera Central of the Dominican Republic. *Holocene* 14(4): 561-567.

Soulé, Peter T., Paul A. Knapp, and Henri D. Grissino-Mayer. 2004. Human agency, environmental drivers, and western juniper establishment during the late Holocene. *Ecological Applications* 14(1): 96-112.

Ryan Danby

Danby, R.K. 2003. Birds and mammals of the St. Elias Mountain Parks: Checklist evidence for a biogeographic convergence zone. *The Canadian Field-Naturalist* 117:1-18.

Amy Hessel

Hessel, A. E., McKenzie, D., and Everett, R. 2004. Fire and climatic variability in the inland Pacific Northwest. *Ecological Applications* 14(2):425-442.

Hessel, A. E. and D. L. Peterson. 2004. [Interannual variability in aboveground tree growth in Stehekin River watershed, North Cascade Range, Washington](#). *Northwest Science* 78(3): 204-213.

McKenzie, D., S. Prichard, A. E. Hessel, and D. L. Peterson. 2004. Empirical approaches to modeling wildland fire in the Pacific Northwest Region of the United States: methods and applications to landscape simulation. Chapter 7 in A.J. Perera and L. Buse, eds., *Emulating Natural Forest Landscape Disturbances*. Columbia University Press, New York, NY.

Hessel, A. E. 2003. Human interactions with ecosystem processes: causes of aspen decline in the intermountain West. In: B. Wharf, D.

Janelle and K. Hanson, eds. *WorldMinds: Geographical Perspectives on 100 Problems*. Pp. 311-316.

Fagre, D. B., D. L. Peterson and A. E. Hessl. 2003. Taking the pulse of mountains: ecosystem responses to climatic variability. *Climatic Change* 59(1): 263-282.

John Kupfer

Kupfer, J.A. and Miller, J.D. 2005. Wildfire effects and post-fire responses of an invasive mesquite population: the interactive importance of grazing and non-native herbaceous species invasion. *Journal of Biogeography* 32: 453-466

Kupfer, J.A. and Emerson, C.W. 2005. Remote sensing. In: *Encyclopedia of Social Measurement*, Vol. 3. Kempf-Leonard, K. (ed.). Academic Press, San Diego, pp. 377-383.

Kupfer, J.A. and Malanson, G.P. 2004. The biodiversity crisis. In: *WorldMinds: Geographical Perspectives on 100 Problems*. Warf, B., Hansen, K., and Janelle, D. (eds.). Kluwer Academic Publishers, Dordrecht, pp. 273-277.

Kupfer, J.A., Webbeking, A.L., and Franklin, S.B. 2004. The effects of landscape structure on plant regeneration patterns and soil characteristics in shifting cultivation fields near Indian Church, Belize. *Agriculture, Ecosystems and Environment* 103: 509-518.

Franklin, S.B., Kupfer, J.A., Grubaugh, J.W. and Kennedy, M.L. 2004. A multi-taxa analysis of biotic diversity in Natchez Trace State Forest, western Tennessee. *Environmental Monitoring and Assessment* 93: 31-54.

Franklin, S.B. and Kupfer, J.A. 2004. Forest communities of Natchez Trace State Forest, western Tennessee Coastal Plain. *Castanea* 69: 15-29.

Glen MacDonald

Huang, C., MacDonald, G.M. and Cwynar, L.C. 2004. Holocene landscape development and climatic change in the Low Arctic, Northwest Territories, Canada. *Palaeogeography, Palaeoclimatology, Palaeoecology* 205: 221-234.

Kaufman, D.S., Ager, T.A., Anderson, N.J., Anderson, P.M., Andrews, J.T., Bartelein, P.J., Burbaker, L.B., Coats, L.L., Cwynar, L.C., Duval, M.L., Dyke, A.S., Edwards, M.E., Eiser, W.R., Gajewski, K., Geisodottir, A., Hu, F.S., Jennings, A.E., Kaplan, M.R., Kewin, M.W., Lozhkin, A.V., MacDonald, G.M., Miller, G.H., Mock, C.J., Oswald, W.W., Otto-Blisner, B.L., Porinchu, D.F., Rhland, K., Smol, J.P., Steig, E.J., Wolfe, B.B., 2004, Holocene thermal maximum in the western Arctic (0-180 W). *Quaternary Science Reviews* 23: 529-560 .

Kremenetski, K. V., Boettger, T., MacDonald, G. M., Vaschalova, T., Sulerzhitsky, L., Hiller, A. 2004. Medieval climate warming and aridity as indicated by multiproxy evidence from the Kola Peninsula, Russia. *Palaeogeography, Palaeoclimatology, Palaeoecology* 209: 113-125

Kremenetski, K.V., MacDonald, G.M., Gervais, B.R., Borisova, O.K., Snyder, J.A. 2004. Holocene vegetation history and climate change on the northern Kola Peninsula, Russia: a case study from a small tundra lake. *Quaternary International* 122: 57-68.

Sheng, Y., Smith, L.C., MacDonald, G.M., Kremenetski, K.V., Frey, K.E., Velichko, A.A., Lee, M., Beilman, D.W. and Dubinin, P. 2004. A high-resolution GIS-based inventory of the west Siberian peat carbon pool. *Global Biogeochemical Cycles* 18 (GB3004, doi:10.1029/2003GB002190): 1-14.

Smith, L.C., MacDonald, G.M., Velichko, A.A., Beilman, D.W., Borisova, O.K., Frey, K.A., Kremenetski, K.V., and Sheng, Y. 2004. Siberian peatlands a net carbon sink and global methane source since the early Holocene. *Science* 303: 353-356.

Case, R.A. and MacDonald, G.M. 2003. Tree ring reconstructions of streamflow for three Canadian Prairie rivers. *Journal of the American Water Resources Association* 39: 703-716.

Case, R.A. and MacDonald, G.M. 2003. Dendrochronological analysis of the response of tamarack (*Larix laricina*) to climate and larch sawfly (*Pristiphora erichsonii*) infestations in central Saskatchewan. *Ecoscience* 10: 380-388.

Kremenetski, K.V., Velichko, A.A., Borisova, O.K., MacDonald, G.M., Smith, L.C., Frey, K.E. and Orlova, L.A. 2003. Peatlands of the Western Siberian lowlands: current knowledge on zonation, carbon content and Late Quaternary History. *Quaternary Science Reviews* 22: 703-723.

MacDonald, G., Kaufman, D., Duvall, M., and Coates, L. 2003. PARCS: Paleoenvironmental Arctic Sciences - taking the long view. *Arctic Research of the United States* 17: 50-58.

Joy Mast

Savage, M. and Mast, J.N., 2005. The fate of ponderosa pine forests decades after intense crown fire. In press, *Canadian Journal of Forest*

Research.

Mast, J.N. and Wolf, J. 2004. Ecotonal changes and altered tree spatial patterns in lower mixed-conifer forests, Grand Canyon National Park, Arizona, U.S.A. *Landscape Ecology* 19(2): 167-180.

William Noble

The Aftermath of the Pleistocene in the Upper Nilgiris of Southern India, 2004, *Journal, Bombay Natural History Society* 101 (1): 29-63.

The Nilgiri of Tamil Nadu, India, as a Distinctive Upland Island, pgs. 401-420, in 2004, Neelam Grover and Kashi Nath Singh (eds.), *Cultural Geography: Form and Process, a festschrift in honor of Prof. A. B. Mukerji*, New Delhi, Concept Publishing Company, xxxiii, 469 pp.

Jonathan Phillips

Phillips, J.D., and D.A. Marion. 2005. Biomechanical effects, lithological variations, and local pedodiversity in some forest soils of Arkansas. *Geoderma* 124: 73-89.

Phillips, J.D. 2004. Divergence, sensitivity, and nonequilibrium in ecosystems. *Geographical Analysis* 36: 369-383.

Phillips, J.D., and D.A. Marion. 2004. Pedological memory in forest soil development. *Forest Ecology and Management* 188: 363-380.

Lesley Rigg

Rigg, L.S. (2005) "Disturbance processes in maquis and forest, and the resulting spatial patterns of two emergent maquis conifers, New Caledonia" (In Press *Austral Ecology*)

Rigg, L.S. and S. W. Beatty (2004) "The abundance and spatial distribution of herbaceous and woody vegetation along old field margins in three upstate New York fields" *The Great Lakes Geographer*. 11(1): 54-65.

Rigg, L.S. (2003) "Genetic Applications in Biogeography: An introduction." *Physical Geography*, 24(5): 355-7.

Diochon, A., L.S. Rigg, D. Goldblum, and N.O. Polans (2003) "The regeneration dynamics and genetic variability of sugar maple (*Acer saccharum* [Marsh.]) seedlings at the species' northern growth limit, Lake Superior Provincial Park, Ontario, Canada." *Physical Geography*, 24(5): 399-413.

Susy Zeigler

Ziegler, Susy Svatek. 2004. Composition, structure, and disturbance history of old-growth and second-growth forests in Adirondack Park, New York. *Physical Geography* 25 (2): 152-169.

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Research Notes

Lesley Rigg,

Department of Geography, Northern Illinois University.

Biogeography and Beamtime

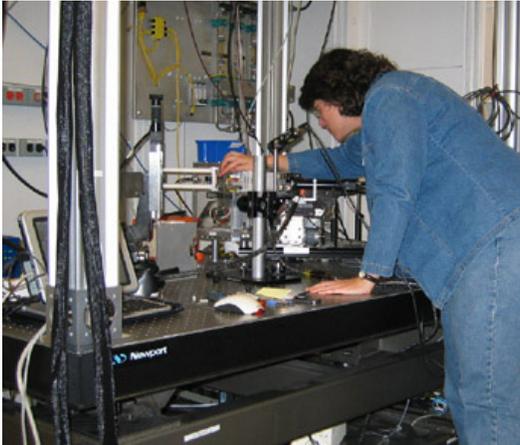


In conjunction with Dr. Melissa Lenczewski from the Dept. of Geology and Environmental Geosciences at Northern Illinois University, we recently initiated a project in New Caledonia examining the role of the microbial community in vegetation change and structural associations. We received funding from the American Association for the Advancement of Science and the National Science Foundation: Program for Women in International Scientific Collaboration (great program!).

This work built on previous biogeographic research on species in New Caledonia such as the endemic conifer *Araucaria laubenfelsii*. Last year we were granted beamtime at the Advanced Photon Source (APS), Argonne National Laboratories, to examine the uptake of nickel by *Araucaria laubenfelsii*.

Along with a NIU PhD student, Linda Jones, we have now completed our third set of beamtime (150 hours) and have expanded our

research to examine the uptake, location, and storage of, trace chemicals and metals in trees growing in contaminated soils in northern Illinois. We are working with a great team at Argonne (GeoSoilEnviroCARS, Dr. Steve Sutton and Dr. Matt Newville) and we are currently attempting to analyze our copious quantities of data!!



Putting a sample in the hutch.



Monitoring the results: Linda Jones on the left.

For more information

<http://www.lightsources.org/cms/?pid=1000166#section3>

<http://www.aps.anl.gov/>

<http://cars9.uchicago.edu/gsecars/GSEmain.html>

Hartmut S. Walter

University of California-Los Angeles

Hart Walter continues to maintain a skeptical view of general and global concepts in biogeography. He is currently working on regional case studies that can illustrate the relevance of the geographic place as part of the ecological niche (termed eigenplace). He is also working on biogeographic aspects of extinction and presented a plenary paper on the Culture and Politics of Extinction at the recent biennial symposium of the International Biogeography Society. Two of his recent papers reflect his critical analysis of biogeographic paradigms:

Walter, H. S. 2004. Understanding places and organisms in a changing world. *TAXON* 53:905-910.

Walter, H. S. 2004. The mismeasure of islands: implications for biogeographic theory and the conservation of nature. *Journal of Biogeography* 31:177-197.

Regionally, he is currently spearheading an ESA petition drive with UCLA undergraduates to save the endemic, unprotected and tiny remnant population of the island loggerhead shrike (*Lanius ludovicianus anthonyi*) on the northern Channel Islands off Santa Barbara, CA. For details, see:

Walter, H. S. 2005. Extinction at our doorstep: what happened to the island loggerhead shrike? *Western Tanager* 71 (4):1-3.

Henri Grissino-Mayer

University of Tennessee

The Baltimore Sun (February 4, 2005; E1) reported on Henri Grissino-Mayer's collaboration with ORNL colleague Madhavi Martin to match pieces of wood found with the body of a homicide victim with others connected with the suspected killer. Investigators contacted Henri to see if he could match the two sets of samples based on tree rings. The wood turned out to be mesquite, which doesn't form good rings, but Henri contacted Madhavi Martin at Oak Ridge, who uses laser-induced breakdown spectroscopy (LIBS) to identify the geographic origin of imported wood from Canada. The samples did, indeed match. The suspected killer has already confessed, but prosecutors may use the evidence when the case goes to trial later this year.

LIBS has been used to [analyze soil carbon and nitrogen](#), and may hold great promise for biogeographic research. LIBS works by using a high-energy pulsed laser to vaporize small amounts of a bulk sample and optically excite the constituent elemental species of the resulting vapor plume, and then recording the time-sensitive ultraviolet-visible emission spectra of the elements as they de-excite. The result is a ppm-range multielemental microanalysis of the sample, collected instantaneously with minimal sample loss and little or no sample preparation. Researchers at Oak Ridge are currently working to develop a field-deployable unit that could greatly expand opportunities for biogeochemical research. (See Lesley Riggs' Research Note above).

Meral Avci

Istanbul University

Dr. Meral Avci, did a dendrochronological studies in west part of Black Sea Region (Turkey) that was financially supported by the Research Fund of Istanbul University (Project number: 1780/21122001). In this research, the air pollution which effects on annual ring widths of forest trees are tried to be determined in Catalagzi surrounding (July 2004). Within the scope of this study, tree's increment corer samples were obtained from some locations to the south, east, and west of Catalagzi Thermal Power Plant. She investigated a correlation between annual ring widths and air pollution; annual ring widths and climatic components. Width of annual tree rings might decrease because of the air pollution effect in Catalagzi Thermal Power Plant surrounding, but site characteristics are better than any place (humidity climate, deep soil etc.). So, this caused the decreasing of the damage degree.



Catalagzi Thermal Power Plant in west part of Black Sea Region (North Turkey). Dr. Avci, in Catalagzi

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Field Notes

Saskia van de Gevel and Evan Larson; Advisor: Henri Grissino-Mayer
University of Tennessee

Whitebark pine (*Pinus albicaulis* Engelm.) is a long-lived tree species found in many high elevation and subalpine forest communities of western North America. Twentieth century fire suppression, periodic mountain pine beetle outbreaks, and white pine blister rust infestations have led to dramatic declines in whitebark pine communities throughout the species' native range, with critical ramifications for dependent wildlife species. To better understand the dynamics of these declining communities, we are investigating (1) current and past stand dynamics, (2) the role of wildfires and the effects of its exclusion, and (3) the synergistic effects of various disturbances and climate in several locations in western Montana.

During a month-long expedition during the 2004 field season, we collected stand and fire history data on three mountains in the Lolo National Forest, near Missoula, Montana, and on one peak in the Beaverhead-Deerlodge National Forest along the border between southwestern Montana and Idaho. Thanks to Elaine Kennedy-Sutherland, we also attended a workshop on monitoring white pine blister rust in whitebark pine forests, presented by the Whitebark Pine Ecosystem Foundation in West Yellowstone. Analyses of our samples have thus far yielded a 1000-year whitebark pine tree-ring chronology that dates well against previously-developed whitebark pine chronologies in Idaho. The fire histories for each mountain include a combined 150 fire scars and 70 unique fire events over the past 600 years. We have presented our preliminary results at the Whitebark Pine Ecosystem Foundation Meeting in Waterton, Canada in September of 2004, and look forward to presenting our recent findings at the Association of American Geographers Annual Meeting in Denver this April.

This research was funded in part by the 2004 Biogeography Specialty Group Research Grant awarded to Evan for his Master's thesis research. The grant was used for travel, field equipment, and for several layers to help ward off the early June weather of the high country. Thank you!

Saskia has been awarded a National Science Foundation Doctoral Dissertation Research Improvement Grant to continue her research on

whitebark pine stand dynamics for the next two summers.



A whitebark pine at the edge of a plot on the slopes of Ajax Peak, in the Beaverhead-Deerlodge National Forest, Montana.



Henri's first day in the field with us began with a soggy camp and whiteout conditions on top of Point Six, but we still managed to put in a good day of work!

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Book Notes

Book Notes highlights recent books written by, or of special interest to, BSG members. Reviews and suggestions welcome.

Review

Susan Woodward

[**Biomes of Earth: Terrestrial, Aquatic, and Human-Dominated.**](#)

2004. Greenwood Press. 456 pages, maps, photos, tables. List price: \$79.95 (USD). ISBN: 0-313-31977-4.

and

Lori Daniels

[**Biogeography Image Exchange: Explore the World's Biomes**](#)

Explore! CD. List price \$10.00 (USD).

Anybody who has ever considered creating an introductory course on comparative biogeography has probably abandoned the idea after searching, and not finding, a suitable textbook. There are several biome books and reference volumes aimed at K-12 students, and more advanced-level volumes devoted to specific biomes, but there is no current text devoted solely to comparative biomes and written for an undergraduate audience.

Susan Woodward's *Biomes of Earth: Terrestrial, Aquatic, and Human-Dominated* fills this long-standing gap in the physical geography textbook market with a comprehensive and reasonably priced undergraduate (and advanced high school) textbook. The book grew out of Woodward's contribution to the [Virtual Geography Department](#) which promised, back in the heady early days of the web, to supplant commercial textbooks by promising free access to constantly up-to-date and massively hyperlinked online content. Publishers were understandably nervous about such ventures, but as it turned out, they needn't have worried. The Virtual Department fizzled, for the most part, but old-fashioned publishing seems to be doing fine. Fortunately, Greenwood Press has seen fit to "rescue" one of the brighter pieces of the failed virtual revolution and deliver it to us in the form of a promising textbook.

Biomes of Earth is both predictable and surprising. Predictably, the book consists of an introduction, followed by chapters devoted to individual biomes. It is structured in four parts, with separate sections for terrestrial, freshwater, marine, and human-dominated biomes. Each section begins with an overview that covers basic concepts and terminology used in the subsequent chapters. Each biome chapter follows a standard format that begins with a map and overview, and includes subdivisions covers climate, vegetation, soils, animals, and regional expressions. And like most textbooks *Biomes* has key terms set in bold type and defined in a glossary, is sprinkled with (black and white) photographs, is indexed, and includes a bibliography. Given the finite limits of a single introductory textbook, the coverage is predictably broad and shallow.

These are not weaknesses. Lack of depth is unavoidable given Woodward's goal of creating a comprehensive introductory textbook on an immensely broad, diverse, and complex topic. The book's predictable format and rigid structure impose discipline that keeps it from

sprawling and give it unity coherence that students will doubtlessly welcome and that should facilitate course construction.

Biomes' surprises are more interesting, and potentially more limiting, than its predictability. The introduction focuses on the biome concept and its historical development, but it treats the latter in more depth than most science textbooks do. This, together with a good discussion of taxonomy, helps emphasize the fact that biomes delineations are human constructions and subject to degrees of arbitrariness. I would have liked to see this theme developed more completely, with at least a few examples of different biome classifications included. I think an explicit discussion and concrete examples of scale and resolution issues, and of distinctions between communities, ecosystems, ecoregions, and biomes would be useful as well. Similarly, I found that some sections presume more background knowledge than I would expect from most of my students. I noticed this particularly in the soils sections, and I can imagine students being frustrated when they encounter terms (e.g. "A horizon" and "podzolization") that are not included in the glossary or index.

More pleasantly, I did not expect to see chapter subsections devoted to the origins or the history of scientific exploration and research of each biome. These add depth and interest to the volume. Likewise, most treatments (I am thinking primarily of general physical geography, biogeography, and ecology textbooks) either ignore or skimp on coverage of aquatic biomes, but Woodward devotes nearly a quarter of its pages to these critical environments. Doing so is risky, since it necessarily limits the thoroughness with which she can treat of the terrestrial biomes that generally occupy geographers' attention. But most of the globe is ocean, and like the biosphere itself, physical geographers probably give it less attention than we should.

Perhaps the biggest surprise is the inclusion of a separate section devoted to human-dominated biomes (agroecosystems and urban ecosystems). Woodward acknowledges the idiosyncratic and experimental nature of this inclusion, and I think it works well, especially in concert with each of the other chapters' human impacts subsection.

Finally, I was surprised at the near total reliance on verbal description to convey information. While Dr. Woodward's descriptions are particularly lucid and effective, *Biomes* does not include any graphs, contains no maps except those for individual biome distributions at the beginning of each chapter, and has very few tables. Reference maps showing the Koeppen climate distributions all of the biomes at once, and possibly shaded relief and place names referred to in the book would, I believe, greatly enhance the book's usefulness. They could also free up some of the space devoted to describing information better conveyed visually. Likewise, quantitative data (in the form of maps, tables, or graphics) on net primary productivity, standing biomass, soil carbon, and other factors would greatly facilitate comparisons among biomes and between biota and physical environmental factors. Even a few more graphics and tables could greatly enhance the book's information and increase its density and depth.

All of these lacunae could easily be addressed in lectures and supplemental handouts gleaned from other textbooks, but I hope that future editions of *Biomes* will incorporate them directly into the text. A more thorough index and glossary would also be welcome. Overall, *Biomes of Earth* is well thought out and executed. The writing is clear and accessible, and both the text and photographs draw on Dr. Woodward's extensive experience, travels, and research. It should appeal to and work well for most undergraduate students, could spawn a boom in comparative biogeography courses, and deserves a place on any biogeographer's bookshelf. Susan Woodward and Greenwood Press deserve kudos for this fine contribution to the biogeography literature.

The photographs in *Biomes of Earth* are all black and white, and even though most of them are clear enough and well-printed enough to work perfectly well, students will doubtlessly appreciate a little color.

Fortunately, Lori Daniels' [Biogeography Image Exchange](#) project is now available on CD as well as on the web, and makes a perfect companion to Susan Woodward's book. It is also a fantastic resource for putting together lecture slides.

The exchange includes nearly 500 photographs contributed by BSG members. Each image includes a brief annotation, and the collection is searchable by biome/vegetation type, latitude/longitude, or by the contributing biogeographer's name. The coverage is uneven and ranges (at this point) from a mere ten wetlands photos to 151 images in the Needleleaf Forest category. This is a minor problem, however, given the many upsides to the project. What's more, you can help expand this coverage by contributing your images to the project.

The CD costs \$10 (US) and includes higher-resolution images than the web site. Best of all, proceeds from sales of the CD go to the BSG's Student Awards program.

Reviewed by Duane Griffin

New Books



Avci, Meral. 2004. *The Last Shelters for the Remaining Forests of the Central Anatolian Region, The Vegetation on Karacadag and Karadag volcanoes*. Istanbul: Published by Cantay (In Turkish, also English abstract), 16X24, XI+168 page, ISBN: 975-7206-99-7.

The Central Anatolian Region is a vast area without forests where steppe vegetation is widespread, especially in comparison to Turkey's coastal regions. Geomorphic processes and other growth conditions have played an important role in the distribution of the plant formations in this region.

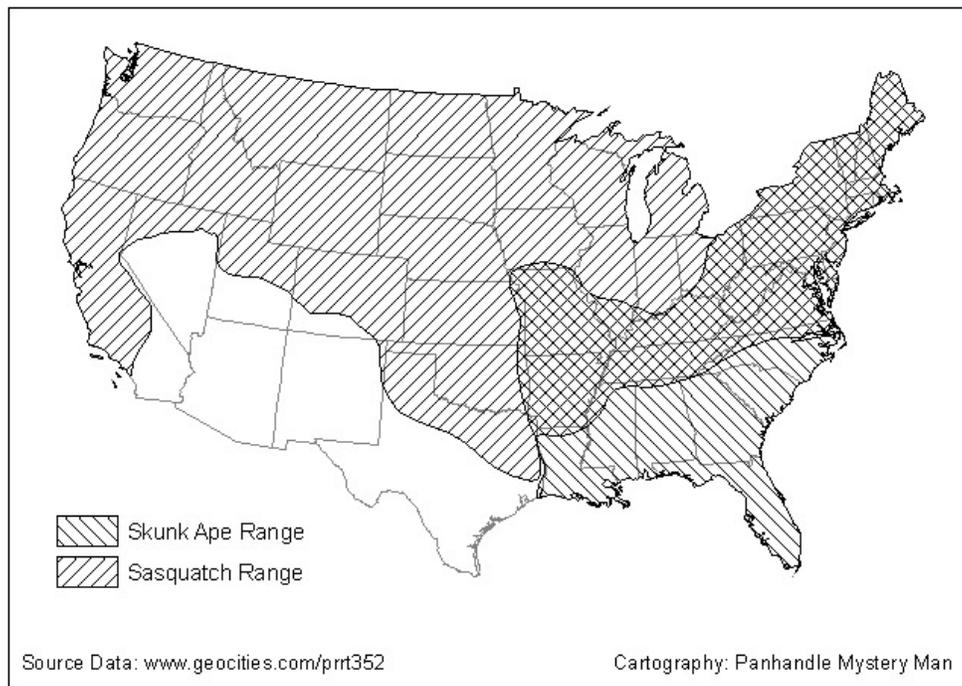
The region's climatic characteristics enable tree growth outside of local natural steppe areas, where

human impact as well as natural conditions have shaped the plant formations. When the whole Central Anatolian Region is taken into consideration, natural steppe areas, which cover relatively small parts, have expanded due to human impact on forests (agriculture, heavy grazing, fires etc.). In this way, many steppe plants have invaded deforested areas and been naturalized there. On the other hand, relatively high mountains in this vast and seemingly treeless region have been the shelter-refuges for the last remaining forests of the Central Anatolian Region. These mountains include Karacadag and Karadag volcanoes, which have significant forests that are notable for their high species richness and endemism, reflected in the specific epithets *volcano* and *vulcanicum* applied to some of the plant species first collected from Karadag

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Map

Bigfoot subspecies range extents in the continental U.S.



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Editor's Note

As always, thanks to everybody who contributed material to this edition, and a reminder to contribute to the next one. News items, book reviews, or anything for the Notes sections are always welcome.

Your editor enjoys putting the newsletter together twice a year, but I could use some help. Specifically, I'm looking for somebody to keep track of member publications and help assemble and edit the Notes sections. If you can spare a few hours each fall and winter, let me know. No special skills are necessary.

See you in Denver!

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