

# THE BIOGEOGRAPHER

Newsletter of the Biogeography Specialty Group of the Association of American Geographers

Volume 10, No. 1: Spring 2010

[www.biogeographer.org](http://www.biogeographer.org)

## *BSG Executive Board*

**Lesley Rigg** (President), University of Northern Illinois

**David Butler**, Texas State University-San Marcos; **Amy Hessel**, West Virginia University; **Gabrielle Katz**, Appalachian State University; **Colin Long**, University of Wisconsin-Oshkosh

**Stockton Maxwell** (Graduate Student Representative), West Virginia University

**Taly Drezner** (Secretary-Treasurer), York University

**Joy Nystrom Mast** (Editor, *The Biogeographer*), Carthage College

---

[Back Issues](#)

[BSG Home](#)

[AAG Home](#)

---

### In this issue:

- [President's Column](#)
- [Grad Representative's Column](#)
- [Awards and Competitions](#)
- [Recent Publications](#)
- [News and Notes](#)
- [Submission Information](#)

---

## President's Column

Lesley Rigg, BSG President, 2009-11

### BSG Chair's Note Spring 2010



If you were at the BSG Business meeting in D.C. you would have heard that the BSG Board, along with several BSG members, submitted a travel grant to NSF this past January. Since I was not at the meeting to provide you with more details the following is the project summary from that proposal, along with a list of members that contributed to the proposal. We will let the BSG community hear if we were successful as soon as we receive word from NSF!

I hope you are all having a wonderful end of semester and gearing up for a productive field season. Happy sampling!

-- Lesley

## **NSF PROJECT SUMMARY**

**Operation CRETE:** fostering Collaborations, expanding Research horizons, and Establishing and Transforming networks for Early career Biogeographers.

We request funds to promote participation in the 5<sup>th</sup> International Biogeography Society (IBS) conference (Crete, Greece, January 2011) by early career faculty (pre-tenure), post-docs, and graduate students, in the Biogeography Specialty group (BSG) of the Association of American Geographers (AAG). The IBS is a young society, established in 2000, and its biennial conference has become the leading international conference focused specifically on Biogeography. Founding IBS members included all of the sub-disciplines within Biogeography as well as noteworthy Geographers and past presidents of the BSG. Crucially, the IBS conferences provide a unique opportunity for meetings among leading biogeographers who have homes within Geography, Geology, and Biological Science departments.

Intellectual Merit: The mission of the BSG is to promote interactions between biogeographers, stimulate active research and teaching development in biogeography, and facilitate the exchange of ideas. While the BSG a strong and vibrant group, its members stand to gain from an even greater exchange of ideas. However, there has historically been low participation by BSG members at the biennial IBS meetings, limiting the opportunity for the two groups to network and share ideas. As Geographers we are familiar with intra- and interdisciplinary work, and our ability to create knowledge bridges is one of our main strengths. The IBS meetings represent an outlet for idea exchange at the international level that would 1) foster collaboration, 2) expand existing research horizons for all Biogeographers, and 3) establish and potentially transform important research networks for the attending early-career Biogeographers within the BSG. The specific target for this funding proposal (Operation CRETE) is to offset the cost of participation for early career faculty and graduate students, i.e. those members who are least able to provide their own funding and are the most likely gain from the enhanced network of contacts professionally.

Broader Impacts: While this funding proposal is specifically targeted to provide funding for early career faculty, post-docs, and graduate students to present paper/posters at the IBS conference, ultimately the goal of such funding is to foster new collaborative networks expanding research horizons for the targeted group of early career Biogeographers. Due to the international nature of the conference, it will provide a transformative opportunity for students and early career faculty to listen to keynote speakers and session participants, to participate in inter- and intra-disciplinary discussions, workshops and symposia, and to meet outstanding researchers in their fields from across the world. We will promote the inclusion of women and minority BSG members through funding selection criteria. The BSG will also encourage all participants to work towards publication of their presentation topics through normal outlets or through themed journal issues resulting from the conference. The BSG also hopes to showcase some of this research in a special issue of the journal *Physical Geography* or other. This issue will have a high level of scientific rigor, with manuscripts undergoing a full peer-review process.

**Conference Organization:** The International Biogeography Society will hold its 5th International Conference In early January, 2011, in Crete, Greece. The preliminary schedule is January 7: pre-conference workshops and field trips, January 8 - 10: symposia, and concurrent sessions, January 11: field trips. Based upon previous meetings the anticipated attendance is 400+ students, faculty, and research scientists. The BSG aims to fund 15 early career Biogeographers and the IBS will be pursuing other channels of funding for a further 20. While the proposals are separate, if both are funded we will work collaboratively in all efforts concerning this key group of participants.

This current funding proposal was developed through the efforts of several former and current Board members and Officers of the Biogeography Specialty Group of the Association of American Geographers, in collaboration with a representative from current Board of the International Biogeography Society. The members are as follows;

BSG President/Chair of the BSG (2009-2011)

Lesley Rigg, Associate Professor, Northern Illinois University

BSG Board members

David Butler, Professor, Texas State University

Amy Hessl, Associate Professor, West Virginia University

Gabrielle Katz, Assistant Professor, Appalachian State University

Colin Long, Assistant Professor, University of Wisconsin, Oshkosh

BSG Graduate Student Representative

Stockton Maxwell, West Virginia University

BSG Secretary/Treasurer

Taly Drezner, Associate Professor, York University

BSG Newsletter editor

Joy Nystrom Mast, Professor, Carthage College (Also a past BSG President, 2005-2007)

IBS Secretary and BSG Liaison

Jack Williams, Bryson Professor of Climate, People, and Environment, University of Wisconsin, Madison

Contributing Former Board Members of BSG and BSG members

David Goldblum, Assistant Professor, Northern Illinois University

Duane Griffin, (BSG Newsletter editor 2002-2008) Associate Professor, Bucknell University

John Kupfer (BSG President 2003-2005), Professor, University of South Carolina

Ken Young (BSG President 2001-2003), Professor, University of Texas, Austin

[Back to the top](#)

---

# Graduate Student Representative Column

## Graduate Student Representative Column



Hello All!

With the field season about to begin, the annual AAG conference in Washington, D.C. seems to be a distant memory. This year I organized a panel session titled “Advocacy in Biogeographic Science”. The panel session brought together four respected biogeographers to discuss the issue of advocacy in biogeographic science. Despite landing the first session of the conference on Wednesday morning, there was a good audience turnout and much participation.

Panelists were Glen MacDonald from the University of California at Los Angeles, Laura Schneider from Rutgers University, Jim Speer from Indiana State University, and Ken Young from the University of Texas at Austin. Discussion focused on questions such as: 1) What is the role of the researcher in advocating for biogeographic research? 2) Should biogeographers speak with elected representatives to inform and advocate for positions supported by research? 3) Are there other avenues of advocacy? 4) Should researchers and students publish/present in layperson magazines/forums as well as scientific journals/conferences? 5) Should the biogeography community train new scientist to be savvy in the presentation and dissemination of their findings? 6) Should research questions be focused on application in the real world or with a specific “cause” in mind? These are just a few of the questions that developing biogeographers must consider as their careers begin. Thank you to all of the panelists and audience participants.

It has been a great year as the student representative of the BSG but I must cut my tenure short because I am no longer a Ph.D. candidate. I have graduated from West Virginia University and started a postdoctoral position at The Pennsylvania State University in the Department of Geography. I look forward to participating in the BSG as a non-student member and am happy to support student issues. Your newly elected student representative is Ph.D. candidate Arvind Bhuta from Virginia Tech. Arvind’s research focuses on a multi-scale analysis of composition, structure, and dynamics of mountain and piedmont longleaf pine communities in the southeastern US. Arvind plans to create a Facebook page for the student members of the BSG to replace the student email listserv. Good luck, Arvind!

--Stockton Maxwell, BSG Graduate Student Representative 2009-10

[Back to the top](#)

---

# Awards and Competitions

## Henry Cowles Award for Excellence in Publication in Biogeography

The Henry Cowles Excellence in Publishing in Biogeography was awarded to: **Bryan Shuman, A.K. Henderson, C. Plank, I. Stefanova, and S.S. Zeigler** for their 2009 article “Woodland-to-forest transition during prolonged drought in Minnesota after ca. AD 1300” published in *Ecology* (Volume 90, pages 2792–2807).



*Cowles award presented by John Kupfer at the 2010 AAG National meeting in D.C. (regretfully none of the co-authors were present to receive it!)*

### Abstract:

Interactions among multiple causes of ecological perturbation, such as climate change and disturbance, can produce “ecological surprises.” Here, we examine whether climate–fire–vegetation interactions can produce ecological changes that differ in direction from those expected from the effects of climate change alone. To do so, we focus on the “Big Woods” of central Minnesota, USA, which was shaped both by climate and fire. The deciduous Big Woods forest replaced regional woodlands and savannas after the severity of regional fire regimes declined at ca. AD 1300. A trend toward wet conditions has long been assumed to explain the forest expansion, but we show that water levels at two lakes within the region (Wolsfeld Lake and Bufflehead Pond) were low when open woodlands were transformed into the Big Woods. Water levels were high instead at ca. 2240–795 BC when regional fire regimes were most severe. Based on the correlation between water levels and fire-regime severity, we infer that prolonged or repeated droughts after ca. AD 1265 reduced the biomass and connectivity of fine fuels (grasses) within the woodlands. As a result, regional fire severity declined and allowed tree populations to expand. Tree-ring data from the region show a peak in the recruitment of key Big Woods tree species during the AD 1930s drought and suggest that low regional moisture balance need not have been a limiting factor for forest expansion. The regional history, thus, demonstrates the types of counterintuitive ecosystem changes that may arise as climate changes in the future.



Congratulations!

-- **Dave Butler**, BSG Board Member and Awards Organizer

## 2010 Student Presentation Awards, National AAG Meeting

This year the BSG held two student paper competitions at the AAG Annual Meeting in Washington, D.C. The papers, distributed among three special sessions, were an excellent showcase of research being conducted by student members of the BSG. Topics ranged from dendroecological studies of disturbance and climate effects on forests, to land use impacts to floristic diversity. The student paper sessions were well attended, with a lively competitive atmosphere. The competition judges were Matt Bekker, Mark Cowell, Taly Drezner, Chris Larsen, Kendra McLauchlan, Bryon Middlekauff, and Suzy Ziegler. The judges were very impressed with the high quality of research presented!

There were three papers presented in the PhD level competition. These were:

1. Christopher Underwood - *Fire and Forest History in the Southern Appalachian Mountains, U.S.A.: Extending the Tree-Ring Record Using Soil-Charcoal Analysis*
2. Kathryn Hrinkevich - *Historical mountain pine beetle outbreak dynamics in north-central British Columbia*
3. Grant Elliott - *Multi-Scale Influences of Climate on Upper Treeline Dynamics along a Latitudinal Gradient in the Rocky Mountains, USA*



The winner of the PhD student paper competition was **Grant Elliott** (currently at University of Missouri, graduate research conducted at University of Minnesota) for his paper, *Multi-scale influences of climate on upper treeline dynamics along a latitudinal gradient in the Rocky Mountains, USA*.

His dissertation research addressed the relative roles of climate (temperature and precipitation), spatial pattern of tree establishment, and positive feedback in governing tree establishment in upper treeline ecotones at multiple spatial scales along a latitudinal gradient (35–45°N) in the Rocky Mountains. Study sites straddled a known precipitation dipole situated at ca. 40°N and were located on contrasting north- and south-facing slopes in the Bighorn, Medicine Bow, Front Range, and Sangre de Cristo mountain ranges.

Dramatic increases in tree establishment have occurred since 1950, particularly in areas above timberline. From a regional scale, this appears to be primarily driven by increases in spring and cool season minimum temperature. At smaller spatial scales, more complex dynamics result as the influence of broad-scale climate is contingent on the fine-scale spatial patterns of tree establishment and related role of positive feedback.

There were seven papers presented in the Masters/Undergraduate level competition. These were:

1. Brian Harvey -- *Post-Fire Stand Dynamics in a Pinus muricata Forest (1995-2009)*
2. Andrew Keske -- *Chronology of the Loafer Mountain Avalanche Path, Wasatch Mountains, Utah*
3. Philip White -- *The roles of climate and stand dynamics in a post-disturbance red spruce-Fraser fir forest at Roan Mountain, Cherokee and Pisgah National Forests*
4. Matthew Kwit - *Sugar maple leaf phenology, light levels, carbon gain, and regeneration at and north of the current range limit*
5. Terri Stamper - *Assessing changes in land management status in the southwestern United States over a 10-15 year time span*
6. Stephanie Smith - *Floristic Response to Land-Use Change in the Southern Appalachians*
7. John "Nez" Nesbitt -- *Drivers of Mixed Severity Fires: Quantifying Forest Fire Variability in Nelson, British Columbia 1700-Present*



The winner of the Masters/Undergraduate student paper competition was **Matthew Kwit** (Northern Illinois University) for his paper, *Sugar maple leaf phenology, light levels, carbon gain, and regeneration at and north of the current range limit*.

His project focused on (1) quantifying the light environment of sugar maple seedlings at the boreal/deciduous ecotone, (2) determining the

amount of carbon assimilated by individual seedlings, (3) predicting seedling mortality, and then (4) projecting how sugar maple seedlings will perform in the more northern boreal light environments where they are predicted to migrate under future climate change scenarios. He found that sugar maple seedlings are shade tolerant, but they rely on seasonally high light levels to assimilate enough carbon to survive. Without the seasonally high light levels, mortality will increase and migration into boreal environments may be limited.



The BSG will sponsor student paper competition sessions again at the 2011 Annual Meeting, so please keep your eyes out for the call for participation, and the call for judges. Thanks!

-- **Gabrielle Katz**, BSG Board Member and Student Presentation Awards Coordinator

## 2010 Student Research Grant Competition

The goal of the Biogeography Specialty Group (BSG) Graduate Student Research Grant competition is to provide partial support for graduate students to conduct quality biogeographic research projects for their master's thesis or doctoral dissertation. The awards are competitive, and proposals are judged individually on the basis of:

- 1) scientific merit of the project, including biogeographic significance of the research question, adequacy and quality of the methods, and originality of the research;
- 2) organization and clarity of the proposal; and,
- 3) qualifications of the student to conduct the proposed work.

**Kimberly Meitzen**, a doctoral student at the University of South Carolina, won the PhD student grant competition for her proposal entitled "Hydrogeomorphology and Vegetation Ecology of Abandoned Meander Wetlands in a Large Floodplain, South Carolina". She has been awarded \$1000 towards her research.

Good luck Kimberly and thanks to all the students who submitted proposals this year. It was an excellent competition. There were no masters applicants this year, so please submit for the 2011 competition!



--**Amy Hessl**, BSG Board Member and Student Research Grant Coordinator

[Back to the top](#)

---

## 2010 BSG Board Elections

Two new BGS Board members and a new student representative were selected in this year's election to replace outgoing Board members David Butler and Colin Long and student representative Stockton Maxwell. Our new Board members are **Lynn Resler** (Virginia Tech) and **Kurt Kipfmüller** (University of Minnesota). The new student representative is **Arvind Bhuta** (Virginia Tech).



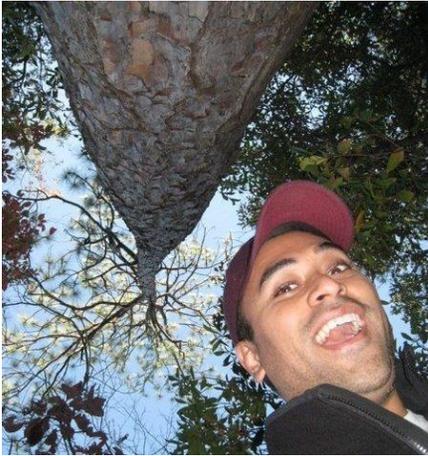
**Lynn Resler** (Ph.D. Texas State University) is an Associate Professor in the Department of Geography at Virginia Tech in Blacksburg, Virginia. Lynn's research program in the biogeography of mountain environments addresses vegetation dynamics of mountain ecotones through collection and analysis of field and remotely sensed data. Lynn has studied fine scale geomorphic controls of seedling establishment at alpine treeline in the northern Rocky Mountains and is currently investigating invasive species and disease in the context of environmental change in the Appalachian Mountains, and in the western Rocky Mountains of North American and Canada. Lynn teaches courses in Mountain Geography, Biogeography, Geography of Resources, and

Advanced Topics in Physical Geography. She has published in the *Professional Geographer*, *Arctic, Antarctic and Alpine Research*, *Geomorphology*, *Physical Geography*, and other journals.



**Kurt Kipfmüller** (Ph.D. University of Arizona) is an Assistant Professor in the Department of Geography at the University of Minnesota. His research focuses on understanding the interactions between forest demographic processes, disturbance, and climate variability. His current research focuses on the interactions of climate and mountain pine beetle outbreaks in the northern Rockies, fire-climate interactions in the western United States, and forest dynamics in the Boundary Waters Canoe Area Wilderness of northern Minnesota. Kurt is also involved in the development of climate

reconstructions using tree rings in several regions of the United States. He teaches courses in biogeography, climatology, and dendrochronology and has published his work in the *Annals of the Association of American Geographers*, *Quaternary Research*, and the *Canadian Journal of Forest Research*, among others.



**Arvind Bhuta** is Ph.D. candidate at Virginia Tech working under Dr. Lisa M. Kennedy. Arvind is studying the spatial and temporal patterns of disturbance, competition, and climate on trees in the mountain and Piedmont longleaf pine communities of the southeastern United States. His research has been funded by an NSF Doctoral Dissertation Research Improvement grant. Arvind has a BS in Zoology and Environmental Science and a BA in Geography from Auburn University. He completed his M.S. in Geography at Virginia Tech. He has two first-authored peer-reviewed publications and two others are in preparation. He is currently a co-op student

(Physical Scientist) for the Army Corps of Engineers. He has served as the Ph.D. student representative to the Department of Geography for two academic years, a Department of Geography delegate for the Graduate Student Assembly at Virginia Tech's Graduate School, an AAG Diversity Ambassador for both 2009 and 2010 Annual Meetings of the Association of American Geographers, and has served for two academic years as the President for the southwestern Virginia chapter of the American Society for Photogrammetry and Remote Sensing (ASPRS).

Thank you to all who were willing to serve on the BSG board and for those who participated in the election.



-- **Colin Long**, BSG Board Member and Elections Organizer

## **BSG Sponsored Sessions, 2010 AAG, Washington D.C.**

The Biogeography Specialty Group sponsored the following special sessions at the 2010 national meeting of the Association of American Geographers in Washington D.C.

Thanks to all who organized and participated in these sessions.

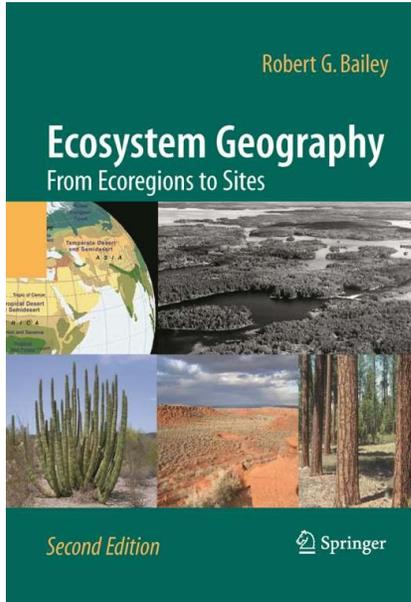
1. AAG Session Call: Seeing the trees through the buildings, Tenley Conway
2. Advances in Paleoclimatology, Camille A Holmgren
3. BSG Student Competition, Gabrielle L. Katz
4. BSG-CAPE Illustrated Paper Session, Kimberly Medley
5. Dendrochronology Sessions, James H. Speer
6. Eastern Forest Dynamics, David Goldblum
7. Ecological Analysis using Presettlement Land Survey Records, Yi-Chen Wang
8. Ecological and Cultural Perspectives on Biodiversity Conservation, Kimberly Medley
9. Environmental Change in the Western Cordillera, Katrina Moser
10. Environmental Restoration Research, Scott Markwith
11. Environmental Systems of small lakes and ponds, Greg Pope
12. Geospatial methods and applications for biodiversity monitor, Kelley J. O'Neal
13. Graduate Students Reflect on Fieldwork, Danielle Fontaine
14. Illustrated Paper Session: Science and Research Outreach, Sally P. Horn
15. Land Use Change and Watershed Assessment, Xiaojun Yang
16. Landscape Dynamics of Southwestern Savannah and Woodland Communities, James J. Hayes
17. Landscape Today: Contemporary Applications of the Landscape, Michelle Metro-Roland
18. Modeling Species' distribution and movement ISP, Jennifer A. Miller
19. Paleoenvironments of the Circum-Caribbean, Maria Caffrey
20. Poppies, Allison Brown
21. Remote Sensing and GIS Applications in Biogeography, Kirk M Stueve
22. Sedimentary Perspectives on Paleoenvironmental Change, Kevin Spigel
23. Special Session on Repeat Photography, Carol F. Sawyer
24. Thinking beyond climate: Biogeomorphology and biotic drivers of landscape evolution, Paul Eric Reyerson
25. Vegetation Dynamics, Daehyun Kim
26. Wildlife responses to environmental change, Thomas Albright

[Back to the top](#)

---

# Recent Publications:

## Books



**Ecosystem Geography: From Ecoregions to Sites, 2nd Ed.** Robert G. Bailey, 2009. Springer, New York, 251 pages, 113 illus., 2 map inserts, ISBN 978-1-4419-0391-4.

The first edition of this book (1996) explores the patterns of ecosystem distribution at multiple scales. It describes these patterns in terms of the mechanisms that cause them, and goes on to examine the connections between these patterns, conservation, and management. This second edition is fully updated and expanded. New sections address how ecoregion boundaries were determined, ecoregion redistribution under climate change, more emphasis on ecosystem processes (such as fire regimes), and human modification to ecosystems, such as through the introduction of invasive species.

## Articles

Bekker, M.F., and A.H. Taylor. 2010. Fire disturbance, forest structure, and stand dynamics in Montane forests of the southern Cascades, Thousand Lakes Wilderness, California, USA. *Ecoscience* 17:59-72.

Elliott, G.P., and K.F. Kipfmüller. 2010. Multi-scale influences of slope aspect and spatial pattern on ecotonal dynamics at upper treeline in the Southern Rocky Mountains, USA. *Arctic, Antarctic, and Alpine Research* 42(1):45-56.

[Back to the top](#)

---

# News and Notes

1. Photo: Last year's winner for best Ph.D. presentation, Evan Larson, received his official certificate from Gabrielle Katz at the Washington DC national AAG meeting.



2. If you mail a check to the AAG and write that it is a “donation to the BSG”, it gets put in the BSG account and would be used for future student grants and student awards.
3. Please consider adding the **new BSG domain** to your favorite links and promote it on your homepage ([www.biogeographer.org](http://www.biogeographer.org))
4. If you're interested in being on the BSG student list-serv, please e-mail the list moderator, Chad Lane, at [chad.lane@lawrence.edu](mailto:chad.lane@lawrence.edu).
5. John Kupfer is presently managing the BSG website, [www.biogeographer.org](http://www.biogeographer.org). If you have links (or other materials), send up to 2-3 pages to John, including syllabi for biogeography courses. These are especially helpful for younger individuals just starting to teach (graduate students, new faculty, etc.). There is also a teaching page. If there is anything for any of these areas, or other items of interest, send John an email.

6. **OPERATION CRETE. The International Biogeography Conference will be held in Crete, Greece from January 7-11, 2011.**



It is anticipated that there will be over 400 attendees. The BSG Board submitted an NSF proposal to fund 15 graduate students, post-docs and pre-tenured faculty in the BSG at the IBS Conference in Crete. Unfortunately, there is limited interaction between the BSG and the IBS. We hope to hear about funding in June or July. Lesley Rigg thanks board members David Butler, Amy Hessler, Gabrielle Katz, Colin Long,

Stockton Maxwell, Taly Drezner, and Joy Nystrom Mast, and BSG members and former BSG Board members Joy Wolf, David Goldblum, Duane Griffin, John Kupfer and Ken Young for their assistance. Lesley also thanks IBS Secretary and BSG Liaison Jack Williams.

7. BSG SESSIONS AAG 2011 in Seattle. Please send ideas for sessions by email to Lesley Rigg. She will assemble a list and post it to the listserv. In addition, Lesley Rigg has been approached by Decagon, who produce data loggers, for an equipment workshop in Seattle. Lesley will work with the BSG Board to organize this. If anyone has any experience or a concern they wish to share, please feel free to do so and/or to email Lesley.

8. Communications among BSG members is usually by email through the AAG's discussion forum. Current instructions to access and post messages on the BSG forum: Login to the AAG website ([www.aag.org](http://www.aag.org))

Select "My Communities" from the Communities panel (lower right)

Select "Global Preferences" to ensure you are actively subscribed to the BSG community and to ensure you are receiving all email messages from the forum (Select "preferences" to receive email messages immediately, daily or weekly)

Under "My Communities", select Biogeography Specialty Group

Under "Forums", select General Information or Job Announcements to review recently posted messages or to post a new message

To post a new message, click on "General Information" and "Create a New Topic" (upper right). From here you can type your message, preview for formatting and then post.

[Back to the top](#)

# Submission Guidelines

Submissions to The Biogeographer should be sent directly to the editor as email attachments in one of the following formats: html, MS Word, or RTF. If submitting items for more than one section of the newsletter (news, notes, publications), send each in a separate email with the section identified in the subject line. Bear in mind that your editor generally just cuts and pastes whatever she gets, so please spell-check and proofread your submissions carefully. Submissions should be concise and written in a style consistent with the rest of the newsletter.

**Notes and News Items.** News items can be personal, departmental, institutional, or simply biogeography-related stories from the press. Notes are intended to convey topical information of interest to the BSG community. Topics for these categories include:

- Research Notes: new projects and progress reports or general research-related ideas and issues.
- Field Notes: recent field work or field trips or retellings of classic tales from the field (embellishments welcome).
- Course Notes: news, announcements, or articles related to teaching biogeography or pedagogical issues affecting the discipline.
- Book Notes: book reviews or announcements.
- Miscellaneous Notes: anything that doesn't fit in any of the other categories.

News items should generally be less than 500 words and notes less than 1500. Please check with the editor before submitting longer items. Images should be sent as separate files (do not embed them in text documents) following the guidelines below.

## **Recent Publications**

Only publications that have actually appeared in print or online will be listed, so please do not submit in-press items until you have page numbers or a permanent URL.

## **Images**

Photos should be jpeg or png format with a minimum resolution of 400 pixels wide or tall. Edit your images to enhance contrast, brightness, and color balance



--- Joy Nystrom Mast, Editor, *The Biogeographer*

[Back to the top](#)