View from the Chair, Chris Justice

As the Spring 2014 semester comes to an end, I can say quite justifiably that this has been a very productive year for the Department. We are graduating a record number of students: 110 (71 Undergraduate, 31 Professional Masters in GIS and 5 PhDs). Efforts to recruit undergraduates are now paying off and we are seeing an increase in the number of geography majors. Our proposal for a new minor in remote sensing was accepted and numerous students have already signed up. Our proposal for a 5th Year BS/MS is progressing through the University committees and should start in the Fall. Offers have been made to successful PhD applicants for the Fall and we are expecting new cohort of 15 students. Rachel Berndtson, a former undergraduate advisor in our department, was appointed as Assistant Director of Academic Programs to help with the growing administration load. Mona Williams joined our staff as a Research Coordinator and has already proven to be invaluable in grant management. Our staff and students have received a number of awards this semester: Ronald Luna (Lecturer) was identified as an Honored Instructor by students in the Transfer2Terp Learning Community; Naijun Zhou (Lecturer) was awarded the BSOS Excellence in Teaching Award (Instructor/Lecturer Category); Ashley Enrique (PhD student) was awarded a Graduate Dean’s Dissertation Fellowship; Joanne Hall (PhD student) won first place in the Campus Graduate Research Interaction Day; Wenli Huang (PhD student) was awarded an Anne G. Wylie Dissertation Fellowship; and Jon Nordling (FRA and MPS/GIS Student) and Jie Zhang (Ph.D. student) were successful applicants to the Young [continued on page 2]
Scientists Summer Program at the International Institute for Applied Systems Analysis in Austria. Paul Torrens was appointed Director of the new Center for Geospatial Information Science (CGIS), and we are in the process of hiring two faculty and two lecturers associated with the Center. Conversely, Stephen Prince retired in January after 26 years of dedicated service to the Department. Steve has been appointed Professor Emeritus and will continue to pursue his research interests as a member of our Research Faculty. Gene Kinerney, a retired physical geography lecturer from our Department, passed away in February and will be missed. John Townshend will be stepping down as BSOS Dean this summer and returning to the Department. I would like to thank John personally for making the College an institution we can all be proud of – we look forward to having him back in the Department! Overall it has been an exciting and dynamic year!

2014 is off to a hot start! Earlier this year the Intergovernmental Panel on Climate Change (IPCC) released its 5th Assessment Report, and just last week the U.S. National Climate Assessment was released. These two highly influential reports, authored by hundreds of experts, conclude that climate change is already occurring globally, and in virtually every region of the U.S. Moreover the reports find that human influence has been the dominant cause of recent climate change, and that impacts from climate change on human systems are already evident and likely to become increasingly disruptive. It’s now clearer than ever that the topic of climate change must be studied both as a social science and as a natural science phenomena; as a coupled human-natural system. The Department of Geographical Sciences is out front and well-positioned to not only address, but also lead in this challenge. Our faculty and students are engaged in the current syntheses, and already working on the next generation of relevant modeling and monitoring tools. Consider these recent examples: Giovanni Baiocchi, Louise Chini and George Hurtt contributed as authors to the recent IPCC report, collectively contributing to all three major sections of the report from physical science basis to impacts and mitigation; Global Forest Watch, a dynamic online forest monitoring and alert system, was also launched this spring with input from GEOG researchers Matt Hansen, Peter Potapov, et al; and the most recent issue of the journal Social Forces includes a new assessment of U.S. consumption linked to global distributions of wealth and pollution to which Kuishuang Feng, Laixiang Sun, Martha Geores and Klaus Hubacek contributed. To help support all this work, GEOG researchers have been particularly productive in seeking external funds for research. In FY2013, we submitted 100 proposals for $38.1 million, with a 33% success rate, and in FY14 we have thus far submitted 81 proposals for $32.0 million with a 26% success rate. Research faculty members are a vital part of our Department, and we are pleased to welcome new research faculty members Steve Prince and Jean-Claude Roger.
UMD’s Interactive Campus Map Wins 1st Place at the TUgis 2014 Professional Map App Design Competition

By Taylor Keen (Campus GIS Coordinator, Facilities Management) and Naijun Zhou

UMD’s interactive campus webmap, which was publically released in Fall 2013, received 1st place in the Professional Map App design competition at the nationally recognized 27th Annual TUgis (Towson University GIS) Conference on March 18, 2014 (http://www.tugisconference.com/map-app-design-competition). The mapping application was presented by Marut Tangtrongwanit, a GIS undergraduate student who worked extensively on the campus webmap project for the last several semesters as a student developer of UMD’s Campus Enterprise GIS Initiative.

The UMD interactive campus webmap, which can be accessed at http://maps.umd.edu/map/, is part of the first phase in the advancement of the UMD Campus GIS Initiative. The campus map application is designed to provide information related to the University of Maryland, College Park, campus and will continue to evolve as more features are developed and integrated. It currently features queryable buildings and parking lots, pedestrian directions, several other interactive layers, and the integration of real time local public transportation scheduling and tracking information.

[Continued on page 4]
The campus map project is a collaborative, multi-department effort led by the Department of Facilities Planning in Facilities Management and the Division of Information Technology (DivIT), with data and application development support primarily provided by academic interns from the Department of Geographical Sciences as part of the Campus GIS Internship Program, which was started in 2012 by the Department and Facilities Management who maintain UMD’s campus GIS resources.

Current and past Geography or GIS major interns who have assisted with the campus webmap project besides Marut Tangtrongwanit include: Julian Borelli, Alexandra Rodriguez, Mihir Datta, Chen Jiang, Claire O’Brien, Casey Barry, Naseera Bland, Albert Engel, Jasmin Springfield, Henry Carbajales, Nathan Leveling, Jimmy Vargas, Jordan Klaverweiden, Omari Sefu, Jordan Tessler, Ilan Segal, Alexandra Zablotny, Kevin Mathew and Nasser Ameen. The Campus GIS web-mapping development team is always looking for creative ideas for enhancing the application and for assistance from interested and talented student interns each semester. If you have any suggestions or would like to know more about the enhancements being planned for the campus map or more about the Campus GIS Internship Program please email campus.gis@umd.edu or stop by the Geographical Sciences advising office.

GEOG Faculty Contribute to the IPCC 5th Assessment Report

GEOG Professor, George Hurtt, Associate Professor, Giovanni Baiocchi, and Research Professor, Louise Chini, were all contributing authors in various chapters of the recently published Working Groups I, II and III in the Intergovernmental Panel on Climate Change (IPCC) 5th Assessment Report (AR5). All reports can be found on the IPCC website: http://www.ipcc.ch/. This speaks to the breadth of GEOG research and leadership on such topics.

"The IPCC is the leading international body for the assessment of climate change. It was established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) in 1988 to provide the world with a clear scientific view on the current state of knowledge in climate change and its potential environmental and socio-economic impacts" (http://www.ipcc.ch/organization/organization.shtml).

AR5 "provides a clear and up to date view of the current state of scientific knowledge relevant to climate change. It consists of three Working Group (WG) reports and a Synthesis Report (SYR) which integrates and synthesizes material in the WG reports for policymakers. The SYR will be finalized on 31 October 2014" (http://www.ipcc.ch/).
By Elizabeth Hoy

In May of 2009, GEOG Professor Eric Kasischke headed a team that conducted a scoping study for NASA “to identify the scientific questions and develop the initial study design and implementation concept for a new NASA Terrestrial Ecology field campaign or related team project.” This project lead to a scoping study report that provided the conceptual design for the Arctic-Boreal Vulnerability Experiment, or ABoVE. In the fall of 2011, NASA’s Terrestrial Ecology Program made the decision to move forward with the planning for ABoVE, and over the past year, Dr. Kasischke Co-Chaired the Science Definition Team for ABoVE, which recently released A Concise Experiment Plan for the Arctic-Boreal Vulnerability Study (a copy of this experiment plan can be downloaded at http://above.nasa.gov/acep.html?). The ABoVE Science Definition Team was aided by Elizabeth Hoy, who will be awarded her Ph.D. from the Department this month, and now works for NASA’s Carbon Cycle and Ecosystems Office.

Research for ABoVE will start in earnest in 2015 based on research proposals that will be solicited by NASA later this summer. Studies funded as part of ABoVE will focus on terrestrial and freshwater terrestrial ecosystems located in the Arctic and Boreal regions northwestern North America, including Alaska, Yukon, Nunavut, and the Northwest Territories. The research will not only focus on understanding how recent climate warming and changes to snow and precipitation patterns are causing changes to ecosystems, but also on the impacts these changes are having on the services these ecosystems provide to society. The research during ABoVE will focus on research in six thematic areas: Society, Disturbances, Permafrost, Hydrology, Flora and Fauna, and Carbon Biogeochemistry. The studies selected as part of ABoVE will address two sets of objectives, the first focused on ecosystem dynamics and the second focused on ecosystem services. [Continued on page 6]
Like previous NASA field campaigns, it is expected that the research for ABoVE will take place over an 8 to 10 year period, with intensive field-based research occurring during a 4 to 6 year period.

As with previous NASA Terrestrial Ecology Field Campaigns, the science questions and objectives for ABoVE require the development and use of information products developed from airborne and satellite remote sensing data, where this information will be integrated with field-based observations and used for modeling of critical ecosystem processes. It is expected that faculty and students in the Department will be heavily involved in all phases of ABoVE research, in particular through collaborations with the UMD-GSFC Joint Global Carbon Cycle Center. Dr. Kasischke will continue to aid, with the organization of ABoVE, as a Program Scientist at NASA Headquarters.

Global Land Cover Facility: Vital Signs

By Saurabh Channan

Meeting humanity’s increasing global demand for natural resources while sustaining cultures and ecosystem services in the developing world requires a new approach to managing natural resources. Data on agriculture, ecosystem services, and human well-being exist, but integrative tools are needed to assimilate disparate information sources and to serve as a platform of communication between local and global stakeholders.

Dr. Jyoteshwar Nagol (PI), with the team of Anupam Anand, Saurabh Channan, Dr. Jan Dempewolf and Dr. Joseph Sexton, are working with the non-profit organization Conservation International to develop and apply the Vital Signs Monitoring System in Africa. Vital Signs provides open-source data and tools to support decision-making for sustainable agriculture and evaluation of impacts on social and eco-systems. The system will provide real-time data, synthesized data products, and tools for decision-makers from the local "smallholder" to national-size scales. With funding support from the Bill and Melinda Gates Foundation, the project is being initialized in Tanzania, Uganda, and Ghana before expanding to the rest of Africa and the developing world."

http://www.conservation.org/about/centers_programs/funding/pages/vital_signs.aspx
Field Work in the Republic of the Congo

By Alexandra Tyukavina

As a part of collaboration with Marien Ngouabi University (Brazzaville, RoC) Professor Matthew Hansen and doctoral candidate Alexandra Tyukavina traveled to the Likouala department in the north of RoC from March 10 to March 15, 2014. Together with Dr. Ifo Suspense, his graduate student and local villagers, they measured trees to estimate the changes in forest carbon along the transition from terra firma to wetland rainforests. During a week in the field, 20 carbon plots were measured along a 4-km transect. Measurements included DBH and tree heights of trees and lianas with diameter ≥ 10 cm within nested circular plots. Local names of tree species were identified by the villagers, and will be translated to Latin names using a database maintained by foresters in Brazzaville. Field results will be related to remotely sensed imagery and are hoped to help improve our understanding of the spatial patterns of forest carbon distribution in the forests of the Congo.

The entire Congo region has a scary image in western culture: the heart of darkness with frequent civil conflicts and nasty tropical diseases. On the contrary, this fieldwork was a pleasant experience for me, visiting the region for the first time. I truly enjoyed being in the shade of the forest on a hot day (even the swamp forest wasn’t so bad!), communicating with friendly local people, learning a few words of Lingala, and eating delicious freshly cooked dishes from a street market. Hopefully, collaborations between the department and researchers from Central Africa will continue in the future, further advancing scientific and intercultural exchange.

Photo: Field team in the wetland forest near Bondzale, Republic of Congo.
By Jan Dempewolf

Assistant Research Professor Jan Dempewolf, Faculty Research Assistant Jon Nordling and Graduate Student Ahmad Khan traveled to Pakistan from March 15 – 29, 2014, to work with partner institutions in the Punjab and Sindh Provinces on improving local capacity for satellite-based crop monitoring. In this project, under the leadership of Inbal Becker-Reshef and Jan Dempewolf, members of the Department of Geographical Sciences are developing tools and data products to facilitate the monitoring of crop conditions throughout the growing season and help provide more accurate forecasts on end-of-season harvests of major crops.

During their most recent visit, the researchers installed Linux servers with the advanced versions of the Global Agricultural Monitoring System (GLAM) customized to Pakistan and Windows workstations at the Crop Reporting Services offices in Punjab and Sindh Provinces as well as the University of Agriculture, Faisalabad and Sindh Agriculture University Tando Jam. The project has also installed Geo-ODK, an open-source solution for mobile data collection based on the OpenDataKit (ODK) developed in the Department to improve the speed, accuracy and overall efficiency of field data collection by crop reporters and University researchers. The hard- and soft-ware installations are the first of their kind in Faisalabad and in the Sindh Province with a specific focus on GIS and remote sensing for agriculture; thus, the technology was well-received. The project has provided a basis for further collaboration among the partner organizations and with the University of Maryland.

Photo top right: Faculty Research Assistant Jon Nordling, Research Professor Jan Dempewolf, Pakistani colleagues and Graduate Student Ahmad Khan in traditional decor.
The Changing Geography of Maryland: Hispanics, Cultural Spaces and Educational Attainment

By Byron Marroquin

The gravity of the issues faced by educational institutions in urban settings is more severe than in non-urban settings. This includes overcrowded schools, violence, high dropout rates and issues of quality education and student learning outcomes. Ginny G. Lane and Amy E. White argue that there has been a reversal of trends in school composition since the 1990s. The number of Hispanic students in urban schools are increasing. In addition, urban schools attract immigrants with low English proficiency; thus, the number of low-income families has increased. Most states fund public education via sales and income taxes, but at the local level, education relies heavily on property taxes. Such a system creates major variances across state and local communities.

During the Summer of 2013, as a McNair scholar, I worked alongside Dr. Ronald Luna and SRI scholar Jahneika Griffin to produce urban development research. The quantitative study evaluated three themes within the Hispanic community in Maryland: population change, cultural spaces and educational attainment between 2000 and 2010, from a spatial perspective. The research aimed to investigate these three themes to give a better understanding of how one group of people has interacted through space and time. The study identified the top three low achieving public high schools in Anne Arundel, Howard, Montgomery and Prince George’s County by evaluating dropout, graduation, mobility and attendance rates, and describing the ethnic/racial composition of each institution. U.S. Census, state, county and local school data were utilized to answer a fundamental question: do schools with a low educational attainment contain a high Hispanic student population?

The data suggests that Hispanics in Maryland had a higher growth percentage in comparison to the national figure. Cultural spaces, defined as Latin American themed businesses, tend to be found in areas with a high Hispanic concentration. The top three lowest achieving schools in Prince George’s County alone produced more cohort dropouts (478) than all of the top three lowest performing schools in Anne Arundel, Howard and Montgomery County combined (403). From the high schools considered for the study, Wheaton High contains the highest Hispanic student population and Suitland High contains the lowest. In all three lowest achieving schools in Montgomery County, Hispanic students alone have the lowest attendance rates and the second highest mobility rates when compared to other ethnic groups. Currently, Anne Arundel and Howard [continued on page 10]
County do not contain a high number of Hispanic students, although Montgomery and Prince George’s County do. Future Hispanic population trends may see growth in other counties such as Frederick, Baltimore, Harford and Charles in addition to Baltimore City.

In all cases, Hispanic student composition reflected residency rates at the census tract level. Counties predicted to see future growth may not be prepared for the influx of Hispanics; a fact which may adversely affect the public education system. For example, all top three low achieving schools in Montgomery County were comprised of predominantly Hispanic students, ranging from approximately 30 to 50 percent. Although Montgomery County Public Schools receive high praise for their academic quality, they do not appear to meet the needs of Hispanic students. Policy makers should consider demographics such as ethnicity, gender, English proficiency and income levels of the student population in order to address this issue.

During the Fall of 2013, the study expanded by assembling a research team consisting of Jahnieka Griffin, Byron Marroquin, Carter Ray, Jimmy Vargas, Dr. Ronald Luna and Dr. Naijun Zhou. The team collaborated to produce a web-based GIS map of Prince George’s County (PGC) as a Computer Cartography course project, which indicates the location of public high schools and ranks them based on educational performance – in this case, the top five lowest achieving schools were identified. The purpose of this research was three-fold: it displays a public ranking system, it analyses current trends and future predictions for researchers, and it provides data for policy makers. Ranking systems are commonplace in this society as a standardized platform for comparing schools, which assist people in making decisions in terms of migration. Students generally attend schools depending on the region they live in; thus, performance comparisons amongst high schools could be useful for parents when making settlement decisions. Income levels and race distribution at the census tract level, in addition to variables such as students receiving free or reduced lunch (FARMS) and limited English proficiency (LEP) contribute additional information that describe the community within a certain school region. Researchers and policy makers may use this information to better understand current issues, predict future trends and formulate recommendations. Perhaps by allocating additional funds to areas in need, officials can improve the quality of public education across the county.
By Quentin Stubbs and Ana Sanchez-Rivera

The 2014 Annual Meeting of the Association of American Geographers took place April 8 - 12 of this year in downtown Tampa, Florida. The main events were held at the Tampa Convention Center, Tampa Marriott Waterside Hotel and the Westin Harbour Island Hotel, and included daily paper and poster presentations, specially themed panel discussions, and key-note speeches from various leaders within the field of Geography. Other special sessions included “Geographies of Climate Change,” “The Evolution of Climate Modeling and the US Global Change Research Program,” “Ecosystem and Land Cover Mapping Approaches at Regional and Global Scales,” and “Race Around the World.”

Tampa provided an exciting opportunity for the Department of Geographical Sciences faculty and students to attend the conference, as well as visit the Tampa economic corridor and a variety ecosystems throughout Florida. Numerous students from our Department participated in research projects and presented their work at the 2014 AAG meeting, and several faculty members also participated in panel discussions and/or gave presentations on their research. Quentin Stubbs was one of two students in the Bible Geography Specialty Group to receive the Jonathan Lu Bible Geography Travel Award, and the Amy Mather Bible Geography Student Scholar Award.

Photo right: Assistant Professor In-Young Yeo and PhD Student Quentin Stubbs. Below: PhD Student Hao Tang and Associate Professor Paul Torrens.
Offering a change of pace this year at the annual AAG conference, the Department of Geographical Sciences hosted the first reception specifically designed to bring together women geographers and supporters of women in geography. Over 100 people from schools across the nation and beyond attended the reception. Several other geography department chairs have indicated a desire to co-sponsor the event next year, and to make the event part of the official AAG program. This event was coordinated by GEOG Assistant Professor Julie Silva with the assistance of graduate students, Michael Strong and Amanda Hall (pictured below, top left).
By Ariane de Bremond

Over six hundred people gathered at Humboldt University, Berlin, March 19-21 for the 2nd Open Science Meeting of the Global Land Project, a joint research project for land systems for the International Geosphere-Biosphere Programme (IGBP) and the International Human Dimensions Program (IHDP). The aim of the meeting was to bring together large parts of the international research community working on land change issues, showcase the breadth and scope of ongoing research, help build community in this highly interdisciplinary field of land change science (LCS), inspire new research and facilitate review, theory-building and extrapolation. Department participants included Krishna Vadrevu, Chris Justice and Ariane de Bremond.

The conference was organized around four main themes: ‘Rethinking land change transitions’ dealt with drastic changes in land cover and subtle changes in land management; ‘Local land users in a teleconnected world’ covered the role of human decision-making on land use as both a driver and response to global environmental change; ‘Impacts and responses’ explored land systems change to mitigate global environmental change impacts and adapt to increasing demands for food, fuel and ecosystem services; and, lastly, ‘land governance’ involved a series of presentations examining the ways in which alternative approaches to governance of land resources can enhance the sustainability transition.

The opening plenary and keynote session, “The Emergence of Land Systems Science” with presentations by Eric Lambin, Annette Reenberg, B.L. Turner II and Frans Berkhout, laid the groundwork for lively and rich discussion throughout the three-day event. Among the topics covered: the history of IGBP – Land Cover Land Use Change (LCLUC) and LCLUC’s learning journey; the conceptual evolution of LCS towards current GLP-era research, emphasis on distal connections; embracing the historical process; revision of conceptualizations of land intensification and increasing understanding of land use across the urban-rural divide, and novel conceptual angles for future work exploring sustainable land use. Collectively, the panelists offered perspective into the history of LCS research endeavors, while providing a view into its future in terms of both substantive topics and its institutional place in the emerging earth systems science research architecture of ‘Future Earth.’

After three active days of presentations and great discussions, participants came together for a closing plenary, “The Future of the Land.” The GLP scientific steering committee reported on conference highlights, including the improvement of global data sets, and emerging opportunities from remote sensing for land change science and the importance of continued research on historical processes; regime shifts and land use regimes; teleconnections and land grabs, and land-sparing-land sharing. In closing, GLP Chair Peter Verberg discussed possible transitions of GLP and land change science to Future Earth (the current phase of GLP ends in 2015). With GLP science clearly aligned with Future Earth Global Environmental Change research, the LCS community has contributions to make in each of the three priority research themes: dynamic planet, understanding drivers and impacts of land systems change; global development; understanding human well-being improvements from restoration of land-based natural capital; transformations towards sustainability; and building resilient, adaptable, and integrated land-use and land-governance structures.
**GEOG FRAs Nordling and Humber take 2nd Place in the 2014 ESRI International Hackathon**

By Jon Nordling

Jon Nordling and Micheal Humber participated in the 2014 ESRI International Hackathon on March 10th. With 70+ teams registered for the competition Jon and Mike placed 2nd for overall best use of ESRI’s technologies and 1st place for implementation of the SendGrid API. SendGrid is a platform for a cloud based email delivery system. The competition was to build an application in 24 hours to a) solve a problem of mass scale for Riverside County residents and visitors, b) meet a need on a mass scale for Riverside County residents and visitors, c) showcase Riverside County as a great place to live, work, and have fun. The application had to be community-focused and target Riverside County citizens and public services. The application they created was a Web and Mobile Application that spatially integrated the Riverside county citizens with the governmental public service events. They were judged on user experience/user interface, potential for real-world application, and completeness. The application uses a Microsoft enterprise SQL server database, PHP, CURL, jQuery Mobile, Riverside County Data, and the SendGrid API. The application is completely dynamic, can update features on the fly, and perform spatial querying as well as other geospatial feature operations. Each of them won an AR Drones 2.0 Quadrocopter and a Raspberry Pi Computer.

**PhD Candidate Wenli Huang Awarded Wylie Dissertation Fellowship**

By Wenli Huang

GEOG PhD candidate Wenli Huang was recently awarded an Ann G. Wylie Dissertation Fellowship by the UMD Graduate School. The purpose of the Wylie Fellowship is to ensure fellows devote their full attention to their dissertation research. Wenli will receive a $10,000 stipend, $800 towards health insurance, candidacy tuition remission and a credit for mandatory fees for the Fall 2014 semester.

This Fellowship will support Wenli in the completion of her dissertation research on “Monitoring and Assessing Forest Aboveground Biomass from Disturbance and Recovery by a combined use of LiDAR, SAR and Ecosystem Model.” Monitoring forest aboveground biomass (AGB) over time is important for a better understanding of the terrestrial ecosystem carbon budget. Different forest management practices have been implemented for North American forests during the last few decades to move towards sustainable wood production and a healthy ecosystem. Yet the loss of carbon from forest disturbance and the gain from post-disturbance recovery have not been well-assessed. Results from this research will significantly improve our knowledge concerning waveform LiDAR and L-band Radar’s capability in monitoring and assessment of the net carbon budget from forest disturbance and post-disturbance recovery.
GEOG Graduate Student Ashley Enrici was recently awarded the Graduate Dean’s Dissertation Fellowship for the 2014/2015 academic year. This Fellowship is a merit-based award that enables recipients to focus on their research and does not have to be repaid. Enrici will receive a $25000 stipend as well as candidacy tuition remission.

Ashley is currently investigating forest conservation oriented payment for ecosystem service projects, such as REDD+, in Indonesia across scales. “Reducing Emissions from Deforestation and Forest Degradation (REDD) is an effort to create a financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development. REDD+ goes beyond deforestation and forest degradation, and includes the role of conservation, sustainable management of forests and enhancement of forest carbon stocks” (United Nations Collaborative Programme on REDD in Developing Countries). Ashley is using a comparative case study method to understand which challenges arise for effective forest conservation by assessing discourse vs reality.

Third year PhD student, Joanne Hall, participated in the Graduate Research Interaction Day (GRID) on April 9, 2014. GRID provides an on-campus opportunity for graduate students from all academic backgrounds to present their research, obtain faculty feedback and to improve their conference presentation skills. Joanne Hall won first place in the poster session, Exploring our Physical Environment, whereby she presented her research on mapping and monitoring cropland burning in European Russia.

Registration for the GRID 2015 will open early next year. For additional information, please contact the Vice President for Academic Affairs at gsg-vpaa@umd.edu or visit the following site: www.orgsync.com/org/gsg/home.
On February 20, 2014, at the Washington D.C. Newseum, over 300 guests, including panel member Dr. Christopher Justice (right) and several other Department employees, attended the World Resources Institute (WRI) launch of Global Forest Watch (GFW): an online forest monitoring and alert system that provides nearly real-time data. GFW went live on February 19th of this year.

The application, created by a combination of governments, scientists and environmental groups over the last two years, utilizes a variety of satellite data, including Landsat and MODIS, to "view political boundaries, protected areas, and commercial areas for logging, mining, or palm oil production. Maps are accompanied with sliding time bars to allow users to scroll backward and forward. The datasets underpinning the website are linked in a single place, helping scientists new to the geographical data navigate the information." The launch was made possible in large part thanks to Dr. Matthew Hansen, Dr. Peter Potapov and their group’s contribution of their high resolution annual global tree cover loss and gain map. Within the first 24 hours, the GFW site had 75,000 visitors from 171 different countries – indicating how far reaching this data set and its uses will be. Annual updates will be made to the product and the University of Maryland continues to work with WRI and others to continually improve the global forest map product. For more information on the data Dr. Hansen et al. provided, refer to their article “High-resolution Global Maps of 21st Century Forest Cover Change” *Science*, 342, 850-853.

For additional information on this new tool, please visit www.globalforestwatch.org.
By Danxia Song

On January 30, 2014, to honor the last day of the 2013 lunar calendar, the Department of Geographical Sciences hosted its 1st Lunar New Year event, which was organized by several Chinese students and the Graduate Student Organization. Graduate students, research faculty and professors from various nations gathered together to celebrate the Lunar New Year of 2014. The event started with PhD student, Hao Tang’s presentation about the traditional and modern style of celebrating Lunar New Year in China. GEOG undergraduate student, Sike Li, performed a beautiful song on the traditional musical instrument, the cucurbit flute, to honor the 2014 Lunar New Year. Attendees sampled various Asian foods including dumplings, which are a must-have for Lunar New Year. Prize-winning chopstick and ping-pong competitions were played between eight teams consisting of students and professors, which everyone enjoyed. At the same time, Chinese zodiac-themed bookmarks with PhD students Cheng Fu and Hao Tang’s calligraphies were presented to all participants, which expressed the department’s blessing to everyone in the New Year. This first Lunar New Year event brought lots of joy to people in our Department, and provided a strong start to the 2014 spring semester.
By Chris Justice

After 26 years with GEOG, Stephen Prince is retiring from the teaching faculty. Steve is one of the founding members of the Department as we know it today, and has been instrumental in our success. In his new role as Professor Emeritus, he will join the research faculty as a Research Professor to continue pursuing his research interests at a more leisurely pace. Steve has had a long and distinguished career in the Department: he joined the University in 1987 as a Senior Research Scientist, became a tenured Associate Professor in 1989 and was promoted to Full Professor in 1993. Prior to joining UMD, he was the Director of Field Biology Courses in the Extra-Mural Department at the University of London, U.K. He received his PhD in plant ecology from the University of Lancaster, U.K., in 1971.

Steve’s research expertise is in vegetation remote sensing using a wide range of satellite sensors in the monitoring and modeling of land surface processes, with special expertise in dryland degradation and desertification throughout the world. He has worked on the carbon cycle at regional to global scales using remotely sensed data and field measurements, global vegetation dynamics, and on methods to map desertification and relate it to its human causes. Steve has co-edited 6 books and special journal editions, 27 book chapters and 101 articles in refereed journals. During his career in Department, he brought in over $10 million dollars in grant income as the Principal Investigator.

Steve developed and taught biogeography courses at the 300, 400, 600 and 700 levels, in addition to teaching courses on remote sensing, Africa, desertification, the Geography of Environmental Systems, graduate seminars in ecological processes and human habitability, and biophysical remote sensing. One of the most important roles Steve played was as the advisor to masters and doctoral students in the department, and graduated 12 Masters and 10 PhD students during his career with Geographical Sciences. Several of his PhD students have had a significant impact on their discipline including Scott Goetz, Deputy Director and Senior Scientist at Woods Hole Research Center; Douglas Fuller, Professor of Geography and Regional Studies, University of Miami; Konrad Wessels, Principal Researcher and Research Group Leader at the Center for Geoinformation Science, University of Pretoria; and Jingli Yang, CEO and Co-Founder of Earth Resources Technology, Inc. Steve has served on many departmental, college and campus committees including a term in the Campus Senate, membership in various campus senate committees, and two separate terms on the College APT committee. Steve has always been a strong supporter of graduate students and served terms as both GEOG Graduate Director and Chair of the Graduate Committee. We thank Steve for his amazing contribution to the Department and welcome him to the research faculty.
2013 graduate Dustin R. Picard has been commissioned an Ensign in the National Oceanic and Atmospheric Administration’s (NOAA) Officer Corps after completing a 19 week training program at the United States Coast Guard Academy in New London, Connecticut.

Ensign Picard, who graduated with a degree in Environmental Science and Policy, with a concentration in marine and coastal management, and a minor in Leadership Studies, served during his tenure in College Park for two years as a leadership Teaching Assistant aboard various tall ships in the Caribbean as part of the Department’s Caribbean Study Abroad Program. Picard holds a PADI Open Water Certification and is a NOAA Working Diver.

His studies at the University of Maryland, linked with his passion for service, marine science and travel, has led him to pursue a career in the NOAA Commissioned Corps. The Corps is highly selective: Picard was one of only 11 nationwide candidates selected by NOAA to graduate from its 2013 summer/fall Officer Program - a credit to himself and to the wide reach of opportunity afforded to our Geographical Sciences students.

NOAA Commissioned Corps officers are an integral part of the National Oceanic and Atmospheric Administration. Officers can be found operating one of NOAA’s 19 science ships or 12 aircraft to provide support to meet NOAA’s missions. Duties and areas of operations might range from launching a weather balloon at the South Pole, conducting hydrographic or fishery surveys in Alaska, maintaining buoys in the tropical Pacific or flying a “hurricane hunter” aircraft into the eye of a hurricane.

After completing a diving program at NOAA’s National Diving Center in Key West, Florida, Ensign Picard was assigned to serve aboard NOAA’s flag ship, the Ronald H. Brown (pictured on the following page). Picard is serving as the ship’s Dive Operations Officer as well as a Deck Watch Officer. The Brown is a state-of-the-art oceanographic and atmospheric research platform and the largest vessel in the NOAA fleet. With its highly advanced instruments and sensors, the Brown sails worldwide, supporting scientific studies that increase our understanding of the world’s oceans and climate. Picard joined the ship in Punta Arenas, Chile – at the Straits of Magellan. The Brown sailed northward along the west coast of the Western Hemisphere, where it is scheduled to end this portion of its odyssey at Pearl Harbor, Hawaii. Afterwards, Picard and the Brown will sail to Tahiti and then northward to Dutch Harbor, Alaska.

Ensign Picard says this about his work: “NOAA officers serve as operational experts. We take researchers into the field and we generate the environmental intelligence NOAA requires to produce the accurate, reliable weather and water forecasts upon which we all depend. We are a uniformed service, [continued on page 20]
not a combat service. On board the Brown, I face dangerous environments on sea duty, and the chain of command and leadership are always key. The education I received with the Department of Geographical Sciences was the foundation for my job - and what a cool job it is!"

Eugene “Gene” James Kinerney, Ph.D., of Elkridge, Maryland, died of stroke complications on February 1, 2014. Dr. Kinerney earned his B.S. degree from the University of Missouri, Kansas City, and his Ph.D. from the University of Maryland, College Park. He served as Chair of the Department of Geography at the University of the District of Columbia before accepting a faculty position at the University of Maryland in the mid-1990s. Dr. Kinerney provided undergraduate instruction in physical geography, particularly climatology and geomorphology, maintaining a vibrant and growing undergraduate program in the Geographical Sciences Department. He was genuinely appreciated by his students and colleagues alike and contributed substantially to the rapidly evolving success of the department. He is survived by his wife of 50 years, Anna Marie; his daughter, Donna; son Eugene (Butch); daughter-in-law Meredith; grandchildren Judiclaire, John (Jack), Noah and Tariku Kinerney, and close family friend, Stephen Mann.
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