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## Message from the Editor

Hello! A friendly greeting to all from the Department of Geography at NMSU. Thanks for taking the time to catch up on what has been happening throughout 2014 in the Geography department. There has been a lot of activity here in Breland Hall. Dr. Brown has resumed his duties as Department Head following his sabbatical. Dr. DeMers is enjoying a 1-year sabbatical exploring opportunities to advance Geographic literacy as president of the National Geographic Education Council. We welcome Dave Rachal as Affiliated Faculty.



Dr. Carol Campbell

We continue reaching out to our local, regional and national contacts, working on exciting new projects. Of special note is the SWAAG conference in Albuquerque where many faculty and grad students presented their research. Geography Week included Guest Speaker events leading up to GIS Day with talks by Dr. Czerniak and Alumni Peg Gronemeyer and Heather Glaze. On GIS Day, Dr. Campbell's U.S. National Parks class released a storymap of the newly established Organ Mountains-Desert Peaks National Monument. Geography supports four student clubs that are getting out, getting involved and getting some dirt under their feet. Please look inside for more details, photos and information about what's happening.

## Mission Statement

The mission of the NMSU Department of Geography is to advance sustainable solutions to contemporary problems through innovative and effective teaching, research, service, and outreach in geographic information science and technology and coupled human-environment systems.

## Vision Statement

The NMSU Department of Geography will be the premier applied geography department in the U.S. Southwest as evidenced by the successful placement of our graduates in excellent jobs and graduate programs as well as our high research and funding productivity relative to geography departments at our peer institutions.



## Alumni Updates: Master of Applied Geography

**Peg Gronemeyer: Class of 2007**

### GIS Specialist, Jornada Experimental Range

**What was your specific program or focus of study?** Using GIS and remote sensing to address ecological issues. “Specifically, Using eCognition and GIS to assess the spatial distribution of African wild dogs (*Lycaon pictus*) in northern Botswana.”

**Who was your major advisor? Describe what your thesis used and about and your approach.** Committee: Mike DeMers; Jack Wright, Andrea Laliberte. I used GPS/telemetry data and imagery to assess spatial distribution of African wild dogs to see if vegetation as it functioned as cover for the wild dogs, affected their spatial distribution. I used eCognition (and with immeasurable help from Dr. Andrea Laliberte), and ASTER imagery to create a vegetation classification for the area surrounding the location of several wild dog packs. Other wild dog researchers generously shared their telemetry data with me, allowing me to overlay the temporal and spatial data with classified imagery. Specifically I was asking if the habitat type, as a function of cover, was related to how much time a dog pack spent in that habitat, i.e. did use = availability, or not.

**Did anyone else play a role in your work?** Dr. Megan Parker very generously shared her data and knowledge of African wild dogs. Also, Dr. Rosie Woodroffe, UC Davis; staff at Botswana “Dog Camp” and the Botswana Wild Dog Research Project.

**What was the new innovation of the day (time?) for example I used Arc 3.0** I use eCognition and object-based image analysis.

**What did you do when you left NMSU?** Took a job at Jornada Experimental Range doing GIS and remote sensing.

**Is there any technique or approach you used in thesis/grad work that was particularly beneficial later?** Using eCognition software and object-based image analysis (OBIA) taught me how useful satellite and aerial imagery can be in addressing ecological problems or questions. After using eCognition for two years I was able to access some of the power of the program and still use it in my current position.

**How has your geography degree helped you?** Provided credentials for GIS knowledge.

**What are you doing these days? What’s next?** Still using GIS and remote sensing, learning more each day about the utility of GIS and remote sensing, trying to steer my work towards conservation projects.

**What are your long-term plans?** To apply GIS and remote sensing to conservation and ecological challenges focused on large predators.

**Any special memories of classes, profs. or grad experiences to share?** I still am amazed at the level of support and encouragement from **all** of Geography faculty and staff that resulted in my fascinating (at least to me!) thesis topic and a very unexpected trip to Africa:

I remember, at the beginning of my first semester, talking with Bob Czerniak about a short presentation required of each new grad student. Bob stressed that the subject could be **anything** – it didn’t have to be our (eventual) thesis topic. The most unlikely idea popped into my head... what about African wild dogs? When Bob replied “sure!” I was surprised, and suddenly had a thesis topic I would never in my wildest dreams have imagined was possible. My surprising topic, **and** a trip to Botswana, became a reality after Jack, on a whim, emailed a researcher studying African wild dogs “Just because the person was from Montana”.

Editor’s note: Ms. Gronemeyer will be teaching Geog. 481 in Spring 2015. Be sure to ask her about her research.



Pack of African Wild Dogs (Photo by P. Gronemeyer)

## 2014 Spring Awards Banquet & Reception



### Award Recipients

*Robert Sabie* won the **Robert & Beth Czerniak**

**Outstanding Geography Graduate Student Award**

*John McGlone* won the **Outstanding Geography Student Senior Award**

For the **Richard D. Wright Award for Excellence in Applied GIS**

*Shelby Van Arnham* took home the **Undergraduate Award** and  
*Steve Walker* was the recipient of the **Graduate Award**.

*Gaurav Thapa* won the **James J. Parson's Award for Excellence in Thesis Research**.

*Luke Ricards* received the **Jack Wright Early Geographer's Award**.





## Spring & Fall 2014 Graduating Students

**Undergraduate Students** \*Denotes Crimson Scholar

Ruben Baca (FA 2014)

\*Amanda Callihan (FA 2014)

\*Maria Calzada (SP 2014)

Randolph Curley (FA 2014)

Hanna Davis (SP 2014)

Miguel Echavarria (FA 2014)

Beth Anne Gonzalez (High Honors) (SP 2014)

John McGlone (SP 2014)

Samuel Morrison (SP 2014)

Thomas Murphy (SP 2014)



Randolph (Randy) Curley



Miguel Echavarria

Jacob Salas (FA 2014)

Michael Sanchez (FA2014)

Brian Suarez (SP 2014)

Patricia Snyder (FA 2014)

David Clarence Turner (FA 2014)

Tina G. Turner (FA 2014)

\*Shelby Van Arnham (SP 2014)

Brenda Ward (SP 2014)



Beth Ann Gonzalez

## Spring & Fall 2014 Graduating Students, continued

### We are proud to congratulate the 2014 Master of Applied Geography Graduates!

The department has been busy with several of our Masters of Applied Geography candidates completing the requirements for the degree in a very lively term at NMSU. Faculty advisors and students alike collaborated on final drafts of both theses and professional residency documents, preparing for their public presentations and oral exams. The University community, staff, and students enjoyed a very interesting series of presentations that attracted visitors from many NMSU Departments and also folks from agencies such as the U.S. Bureau of Reclamation, Elephant Butte Irrigation District, The Jornada Experimental Range, and the Paso del Norte Watershed Council. Outside committee members commented positively on the high quality of the students' research and also the rigor of the final exams, and it was great to feel such positive energy resulting from the good work our students accomplished. We congratulate all of the individuals involved and share the details of their projects below:

- Josh Baldwin completed and presented his thesis entitled, **"Landscape Change in the Greater Gila Ecosystem: A Multi-Scale Geospatial Analysis."** Advisor: Dr. Michaela Buenemann.
- Byron Calkins completed his thesis entitled, **"Spatial Analysis of Future Climate Structure in New Mexico Viticulture Regions."** Advisor: Dr. Carol Campbell.

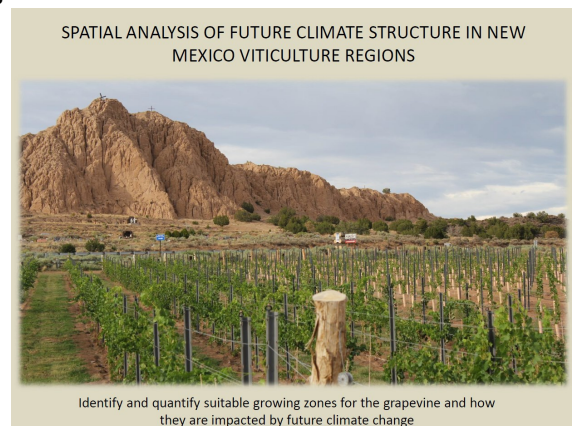


Carlos Coontz & Roberta Lujan

- Carlos Coontz completed and presented his thesis entitled, **"Elementary School Walkability in Las Cruces, New Mexico: a Geographical analysis from 1948-1999."** Advisor: Dr. Christopher Brown
- Katherine Higgins completed and presented her thesis entitled, **"A Study in Consequences: the Implementation of the National Environmental Policy Act and the Application of Geographic Information Systems to the Assessment of Social Impacts."** Advisor: Dr. Christopher Brown.
- Shawn Oyer completed and presented his thesis entitled, **"Effects of Land Use Change and Drought on Groundwater Hydrology in the Mesilla Valley."** Advisor: Dr. Christopher Brown.

- Erin Roberts completed a professional residency project and presented her final report entitled, **"Homestead Preservation Districts: Tax Increment Financing Study for the City of Austin, Texas."** Advisor: Dr. Christopher Brown.
- Amy Slaughter completed and presented her thesis entitled, **"The Utility of Multispectral Imagery From an Unmanned Aircraft System for Determining the Spatial Distribution of *Eragrostis lehmanniana* (Lehmann Lovegrass) in Rangelands."** Advisor: Dr. Michaela Buenemann.

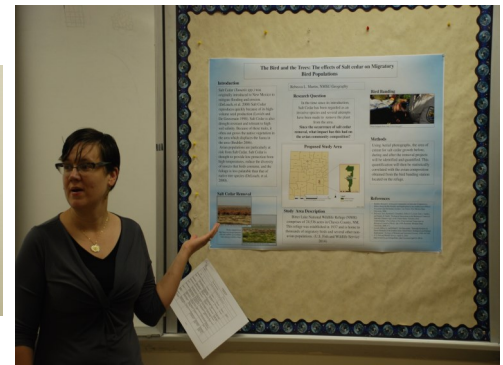
Again, hearty congratulations to these students who completed their degree





## Research & Teaching News Spring 2014

### Dr. Campbell's Biogeographer's Ball 2014 (photographs by R. Sabie)

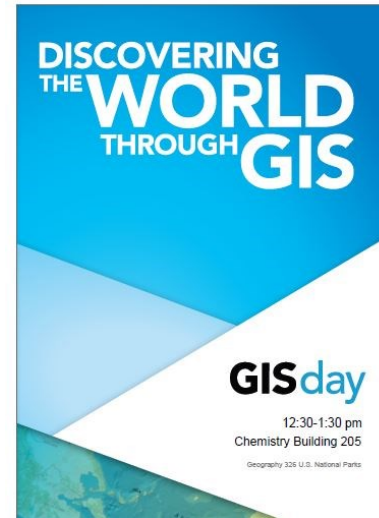


Dr. Dugas continues work on the debris flows in the Organ Mountains. At right, student Michael Villa conducts field measurements. (Photograph by Dan Dugas)



## ***Research & Teaching News 2014 continued..***

Dr. Campbell's U.S. National Parks class prepared and released a storymap of the newly established Organ Mountains-Desert Peaks National Monument.



**Br** **ea** **k** **I** **n** **g** **B** **ou** **nd** **Ar** **ies**

**October 23-25, 2014**  
**Hotel Andaluz | Albuquerque, New Mexico**

SWAAG attendance and participation was fantastic. Students Charlie Jackson, Gaurav Thapa and Robert Sabie gave talks about their research and Rebecca Martin presented her poster.

NMSU Faculty talks included "Four Symbolic Boundaries of the American West" by John B. Wright, "Strategic Planning for K-12 Geography Education in New Mexico: Recent Activities of the New Mexico Geographic Alliance" by Michael N. DeMers, "Avian Diversity Increased Compared to Grinnell and Storer's Cross-Section through Yosemite." by Carol L. Campbell, "Examining Resiliency-based Approaches to Watershed Management in the Lake Champlain Basin" by Christopher Brown, and "Soil Carbon Pools and their Spatial Variability along Environmental Gradients in New South Wales, Australia" by Michaela Buenemann, Heather Throop and David J. Eldridge.



## Geography Week Presents : The Speakers Series 2014

Dr. Czerniak (emeritus) shared slides of his recent trip to Africa. Too many to include here!





## Outreach News 2014

### White Sands Geography Bee, November 2014

#### Student Leaders in NMSU Geography Department Give Back

Leaders of the NMSU Department of Geography student clubs helped the teachers and staff at White Sands School put on a regional competition of the National Geographic Society Geography Bee on 21 November 2014. Armando Morales, Zach Taraschi, and Gaurav Thapa traveled to White Sands School on White Sands Missile Range and worked with Ms. Wendy Graham, the Middle School Social Studies teacher, to host the Bee. Our students performed the tasks of Reader, Time Keeper, and Score Keeper as twelve students from the Elementary and Middle School competed in the Bee. The activities in the Bee included oral quiz questions on places around the world, and map interpretation questions that were new to the Bee this year. The competition was fierce, and the final single elimination round resulted in the following students taking the top three places:

Jared Brown, eighth grader, took first place, and will go on to compete in the State competition in Albuquerque in February.

Archie Wyman, fifth grader, took second place, and

Maria Grant VillaCorta, eighth grader, took third place.

Thanks to Armando, Gaurav, and Zach for their service to Las Cruces Public Schools, and congratulations to our Junior Geographers for their excellent work. NMSU Student Geography clubs rock!



Students at White Sands School wait for the next question during the Nov. 21 Geography Bee competition at the school's library. Teacher Wendy Graham hosted the event with the help of Gaurav Thapa, Zach Taraschi and Armando Morales, with the New Mexico State University Geography Department.

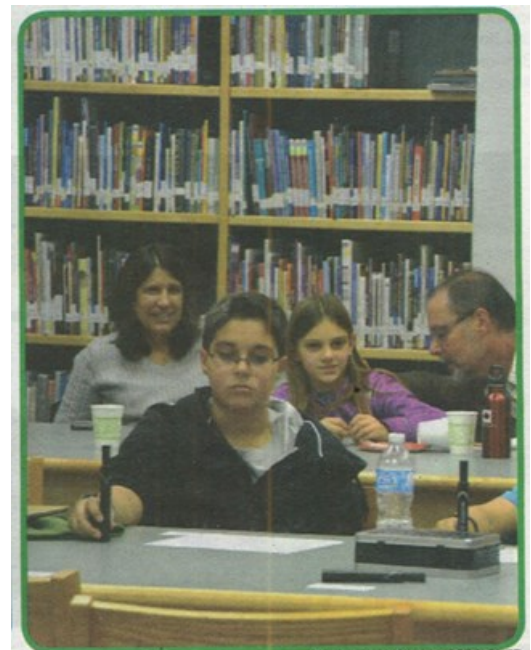


PHOTO BY MIRIAM U. RODRIGUEZ

Jared Brown, center, took 1st Place and will go on to compete at the state level. Archie Wyman took 2nd Place Nov. 21 at the Geography Bee competition at the school.

## Student Organizations

### Gamma Theta Upsilon (GTU)



Gamma Theta Upsilon (GTU) is an international honor society in geography. Gamma Theta Upsilon was founded in 1928 and became a national organization in 1931. Members of GTU have met academic requirements and share a background and interest in geography. GTU chapter awareness activities support geography knowledge and awareness.

Officers (Fall 2014)

President: Dominic Loya

Vice President: Curtis Atherton

Secretary: Rebecca Martin

Treasurer: Zach Taraschi

Faculty Advisor: Dr. Michael N. Demers

### American Society for Photogrammetry and Remote Sensing (ASPRS)



The American Society for Photogrammetry and Remote Sensing (ASPRS: [www.asprs.org/](http://www.asprs.org/)) is one of the world's largest societies for students (and faculty and industry leaders) with interests in GIS, Remote Sensing, and Photogrammetry.

Officers (Fall 2014)

President: Gaurav Thapa

Vice President: Zach Taraschi

Secretary/Treasurer: Beth Gonzalez

Faculty Advisor: Dr. Michaela Buenemann

## Geography Club Hike

Geography Club Students Hike to Soledad Canyon,  
September 6th, 2014

Dr. Dugas enjoying the waterfall





## Department News

### Susan DeMar Awarded for Community Service

Susan DeMar, NMSU administrative assistant in the Geography Department, received an award from the City of Las Cruces Mayor Ken Miyagishima in recognition of her community service on Oct. 20 2014. Susan has advocated for an Amtrak stop in Las Cruces; has been an active officer in the NMSU Women's Club; developed the Ruth Mary Webber Scholarship in memory of her mother; and sings in the Mesilla Valley Choir. She is also active in the Relay for Life, a fund raising effort to support patients fighting cancer. We salute Susan winning the award from Mayor Miyagishima and thank her for her service.

Susan and Mayor Miyagishima



Susan and Geography Supporters



## WE'RE ON THE WEB!

<http://geography.nmsu.edu/>

THE NMSU DEPARTMENT OF GEOGRAPHY HEARTILY INVITES ALL STUDENTS, FACULTY, STAFF, AND ALUMNI TO VISIT THE PAGE, CHECK OUT WHAT IS HAPPENING WITH THE DEPARTMENT, AND SHARE SOME NEWS OF WHAT IS GOING ON IN YOUR WORLD. WE HOPE TO SEE YOU THERE!

[HTTP://WWW.FACEBOOK.COM/PAGES/NEW-MEXICO-STATE-UNIVERSITY-DEPARTMENT-OF-GEOGRAPHY/109764555756575](http://www.facebook.com/pages/New-Mexico-State-University-Department-of-Geography/109764555756575)

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