Greetings Geography Alumni and Friends,

I am happy to share this 2019 newsletter. So much has happened since our last newsletter. Inside these pages you will meet our new tenure-track faculty member; Dr. Eric Magrane, a cultural/human geographer who earned his PhD in geography from University of Arizona in 2017.

We also want to announce that our proposed joint PhD with UNM has been approved. We have an active colloquium series, and the student clubs provide hikes and activities to explore and share time together outside of the classroom. Please contact us if you are in the area or have a topic to share with students via the colloquium, a workshop, or a mentoring opportunity. We also invite alumni interviews to boast your success and re-connect with other alumni. We look forward to hearing from you.

Warm regards, Carol Campbell, Department Head and Alumnus 2002

**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 Spotlight Interview:
Master of Applied Geography: Dana Robinson, Class of 2008

Column by Carol Campbell

Give your name and current position or title.

Dana Robinson, GIS Specialist, Bureau of Land Management, Arizona State Office.

What year did you graduate?

2008

What was your specific program or focus of study?

Remote sensing techniques applied to invasive species

Who was your major advisor?

Dr. Carol Campbell

Describe what your thesis was about and your approach.


Did anyone else play a role in your work?

Dr. Andrea Laliberte, Researcher and Remote Sensing Specialist – Jornada Experimental Range, was very experienced in using Ecognition image analysis for landscape scale applications.

What was the new innovation of the day (time?) ArcDesktop v 9.3, ERDAS Imagine v. 6? and Definiens Ecognition software.

What did you do when you left NMSU?

I moved immediately to Kingman Arizona with one job application in with the National Park Service.

How has your geography degree helped you?

After a nearly 20-year career working in the field as an archaeologist, I made a complete career change. I learned technical skills that were not available to me in my last career, and learned the theoretical constructs of geographic theory as well as scientific research that allowed me to pursue a career working for a land management agency.

Describe a typical day at work.

A typical day for me involves attending to many customer requests internally from within the office and remote field office locations or for national data calls for the BLM as well as externally from partners and the public for maps, and data. I support two interns and two contractors, providing guidance in product delivery, data quality improvement, and other techniques. I am also responsible for SDE DBO duties, including granting edit permissions to editors, and reconciling, posting, and synchronizing data to “publish” databases. Being the long-term employee at the BLM AZ office (Ha! 5 years), I am often called upon to explain the provenience of data and map projects, research archived projects for legacy data for decisions related to agency land management such as national monument, and national conservation area designations, as well as FLPMA and NEPA document decisions. I provide guidance to contractors working on data cleanup to accurately populate attributes and metadata related to standard corporate data, and troubleshoot customer problems related to both ArcGIS Desktop and Arc Catalog tools. I also troubleshoot problems associated with Esri Applications centralized on a Citrix server platform.

Hiking up to Dripping Springs, just prior to starting graduate school, April, 2006.
Alumni Updates: Robinson continued….

What are you doing these days? What’s next?

Working on a team of seven federal staff employees, two contractors, and several Ameri-corp interns across 8 distinct offices to build a statewide GIS data management and GIS support system for the geographic extent of the state of Arizona, which also supports multiple-use decisions with geographic applications for multiple disciplines.

What are your long-term plans?

Move out of Phoenix to a more temperate climate.

Any special memories of classes, professors, or grad experiences to share?

I really enjoyed Soil Morphology taught by Dr. Dugas, although that was one of the most challenging classes that I took. The field trips were great, being able to visualize the physical manifestations of big geomorphological terminology. My research on tamarisk detection along the Lost River in Whites Sands National Monument allowed me the opportunity to ride a 4-wheeler across the back country sand dunes.

Editor’s Note: to contribute your alumni interview contact Dr. Campbell at: geobird@nmsu.edu
Alumni Spotlight Interview: Mark Romero

Mark Romero is an Imagery specialist at Esri on the Imagery & Remote Sensing Team. He is focused on helping users maximize the value of their imagery using ArcGIS technology. Satellite, Aerial, Drone, Lidar, Full Motion Video and Street Level sensors are his areas of expertise. He’s been a GIS user since 1997 as a GIS Specialist at the BLM. He joined Esri in Spring of 2005 as a Product Engineer on the Defense Products team in Redlands, CA. He now lives in Boulder, CO.

What was your specific program or focus of study?  
My focus was in local government GIS applications, public safety and environmental land management. I spent hours in the SPARC lab digitizing parcels for Assessors offices in the state of New Mexico. I also interned at both Dona Ana County Assessors and the City of Las Cruces GIS department.

Who was your major advisor? Describe what your thesis was about and your approach.
Dr. Czerniak was my advisor and helped me get every GIS job I had during my years at NMSU. My thesis was about mapping the frequency and distribution of auto-thefts from the border crossings in El Paso/Juarez. The mapping patterns revealed auto-thefts locations decreased as the proximity to the border crossings increased. I spent lots of time at the El Paso Police Department explaining to them why I needed their data and what GIS was. All their crime data was stored in spreadsheets at the time.

Did anyone else play a role in your work?
I spoke often with Dr. Demers about GIS and Raster Modelling in his office. Dr. Brown helped me understand the role of statistics in GIS. He made me take Advanced Spatial Analysis twice. I’m thankful he made me read all those journal articles about statistics, although I didn’t love it at the time.

What was the new innovation of the day (time?)
ArcInfo Workstation 7.2 and Erdas 8.1 were the primary software applications we used in the SPARC lab. We digitized and edited hundreds of parcels using workstation. The SPARC lab was a great environment for learning desktop software application because we applied it to real projects for real customers.

We made working in the lab a fun learning experience. On one occasion we held a contest to see who could make the most aesthetically pleasing cartographic map using ArcView 3.2. The SPARC lab was also competitive. There was often bragging about who knew the most ArcInfo workstation commands. When ArcMap 8.2 was released in 2003 we experimented with topology in multiuser geodatabases for managing and editing parcels.
How has your geography degree helped you?

I can say I’m using my degree in my career. The combination of hands-on software experience from the SPARC lab and course work prepared me for a career in the geospatial industry. I’m grateful for the skills and education I received in the Department of Geography at NMSU and still use them each week. Every now and again I flip through my old text books including Dr. Wrights Master of Applied geography book with the green cover.

What are you doing these days? What’s next?

I now lead a technical sales team focused on imagery, lidar, video, drones, deep learning any data type coming off a sensor. Each year, a new technology emerges, and we adopt and learn as a company. Integrating Deep Learning and GIS is a current technology trend Esri is invested in. Deep learning is a promising technology in imagery, remote sensing and other sensors for feature extraction and identification of patterns and many more exciting applications in geospatial.

I lived in Redlands, CA for seven years where I met my wife Beth, who also works at Esri. We moved to Denver in 2011 and now live outside of Boulder. We have two daughters age 3 and 5. We split our vacation time between New Mexico and Wisconsin. What I miss most about New Mexico is the cuisine. I still get my green and red chile fix several times a year with visits to Santa Fe. We try to take advantage of life in Colorado by hitting the slopes in winter, camping in the summer and enjoying the Colorado climate.

Describe a typical day at work

Working for Esri is exciting. The best part of my job is using the software. The technology is so advanced, and the learning process is constant. I’m often on a call with a customer strategizing on an enterprise level imagery implementation. I help users implement imagery into ArcGIS. Many GIS users have large collections of Lidar, Imagery, video and drone content. Managing that data and making it accessible is challenging. I help users maximize the use of their data and software through education of ArcGIS. Ten percent of my time is dedicated to conferences and software demonstrations.

Any special memories of classes, professors or grad experiences to share?

Dr. Czerniak let us use his property to roast a goat for the super bowl. We dug a pit in his yard, cooked it overnight in an onion sack with mesquite wood. It was still raw when we pulled it out the next day. We ended up baking it in the oven, so it was ready for kickoff. I used the shoulder to make green chili stew.
Change is the only constant...

Beginning July 1, 2016, Dr. Carol Campbell assumes the role of Department Head of Geography.

This change in leadership was inevitable as Dr. Brown had served as department head for seven years.

The geography department has done well under the leadership of Dr. Christopher Brown. During his seven years as department head the department has maintained strong and positive relationships with the College the University and the community. We successfully added collaborative doctoral program: the Water and Science and Management program, a collaboration between the College of Agriculture and the geography department have work successfully together to support a number of students, both in research activities and in advancement toward higher degrees.

The SpARC lab has supported a variety of research projects and contracts including Buddy Clark's work on a tree inventory of campus, numerous projects with the department of transportation regarding roads and access ways in Las Cruces and Doña Ana County, and projects supporting the BLM and other agencies in the county. In addition, Dr. Brown was an important coordinator in establishing a memorandum of understanding (MOU) between New Mexico State University and the Bureau of Land Management related to the establishment of two new national monuments in Doña Ana County, the Prehistoric Trackways National Monument, established in 2009, and the Organ Mountains – Desert Peaks National Monument which was established in 2014.

Thank you Dr. Brown, Welcome Dr. Campbell

The New Mexico State University geography department honored Jack Wright by naming our conference room, Breland 194, the Jack Wright graduate research conference room, May 26, 2017. Pictured above are Dr. Carol Campbell (Left), Dr. Mike Demers, Dr. John (Jack) (right), Susan DeMar, and Dr. Christopher Brown. The conference room provides a space for thesis presentations and meetings.
Dr. Campbell offered the Geography 401 Co-op/Internship course for advanced geography undergraduate students in the spring of 2018. This course had not been offered to undergrads in many years. The class is described in the catalog as “providing an opportunity where by students work with a local, regional, or federal agency, or private sector firm on applied geographic work, under the supervision of an agency or firm professional, and a geography faculty member.” Each student’s work is described in a contract developed with the firm or agency.

The geography department has had a strong, ongoing relationship with the BLM for many years. Dr. Campbell worked as a BLM STEP in 2000-2002 conducting Southwestern Willow Flycatcher surveys. It was this collaboration that supported her MAG degree and led to her thesis which explored bird communities of the Gila Lower Box, New Mexico.

For the internship, student projects were varied and designed for individual skills, interests and BLM needs. This year, student projects included designing and conducting tours for local grade school groups, inventory of roads and trails, monitoring rare or invasive species, assisting with graffiti removal, designating vehicle boundaries, sign installation or repair, and converting drone imagery to GIS.

Thanks to the staff and alumni from the BLM Las Cruces Field office.
Geography faculty kick off BLM Project

Christopher Brown and Michaela Buenemann

Geography faculty Michaela Buenemann and Christopher Brown recently headed to the field to kick off a project funded by the Las Cruces office of the Bureau of Land Management (BLM), “Resource Management Planning Support for Organ Mountains Desert Peaks and Prehistoric Trackways National Monuments.” This grant is an outcome of a memorandum of understanding that Brown developed between NMSU and the Las Cruces office of the BLM in spring of 2016 whereby NMSU faculty and students serve as “on call researchers” to conduct applied research on the Monument that would support the Resource Management Plan (RMP) that BLM needs to develop to guide management of the Monument.

The project on which Brown and Buenemann have embarked seeks to assemble 4 “subject matter expert (SME) teams” that are doing applied research into specific areas of resource management interest on the monument, gather needed data in each area, and then populate a geodatabase in which all of the data will be housed for future use. The teams set up for the project and their NMSU faculty and BLM members are noted below:

- **Archaeology** – Rani Alexander (project lead PI) and Kelly Jenks (NMSU) and David Legare (BLM),
- **Biology/botany** – Donovan Bailey and Sara Fuentes-Soriano (NMSU) and Patrick Alexander (BLM),
- **Geology** – Jeff Amato and Emily Johnson (NMSU) and Colin Dunn (BLM),
- **Paleontology** – Peter Houde (NMSU) and Colin Dunn (BLM), and
- **Geodatabase team** - Michaela Buenemann and Christopher Brown (NMSU) and Ray Hewitt (BLM)

Select members of the project team headed to the field for a very successful reconnaissance trip on 5 May 2018, in which the SMEs noted above guided the larger group to various sites of interest on the monument that will be inventoried, mapped, and studied throughout the term of the grant. Buenemann’s and Brown’s involvement is to build and populate the geodatabase in which the data will be housed, develop public outreach and education tools that highlight key resources on the monument, and guide the overall project team in how best to use the geodatabase to advance research that will support BLM’s RMP. They will be assisted by Sara Aristizabal, an NMSU undergraduate geography student, who will work on developing geodatabase and GIS-based education and outreach materials.

More pictures on the next page!
Geography faculty kick off BLM Project Continued...

Meet the team (Above)

Check out the beautiful view from Pina Blanca (Right)
Field Explorations Students Take Learning on the Road

Eric Magrane

One of the most exciting aspects of studying geography is the opportunity for field experiences. Students in Dr. Eric Magrane’s spring 2018 Field Explorations in Geography class (GEOG 483/583) had such an opportunity. Over spring break, students embarked on a week-long field course road trip. They visited the Sonoran Desert, Grand Canyon, Lake Powell, Glen Canyon Dam, and Canyon de Chelly, among other places. The class camped along the way at a variety of sites, including at a state park, a national park, a national recreation area, and a private campsite on the Navajo Nation. Throughout the field course, they explored and practiced interpreting landscapes, and paying attention to the various factors—whether environmental, cultural, or physical—that shape landscapes.

“Field courses expand the idea of the classroom. Experiences like this help bring geographical concepts and ideas home in a very embodied way. I love witnessing the “aha moments” that continually arise in an experience like this. I have seen how field experiences can have profound effects on student learning and engagement,” says Magrane, new faculty member in the Department of Geography. This past spring, Magrane also presented on field course teaching at the American Association of Geographers (AAG) conference in New Orleans, in a session on “Experiential Learning in Geography Education.”

During the field course, students visited many sites that highlight human-environment and sustainability questions and ideas. For example, the class visited Biosphere 2, a research facility that was first made famous in the 1990s when eight people lived under glass in a closed system. Students took a detailed tour of the research currently happening at the site. As another example, the class visited Tucson’s Watershed Management Group’s Living Lab, a green infrastructure demonstration site. At a larger scale, students got a tour of the inside of Glen Canyon Dam, a place that embodies geographic questions about human-environment relationships and water and energy policy in the American West.

Reflecting on visiting the various sites, Evan Dolly, a student in the class, noted, “The most important thing that I took from this course was inspiration. My goal in life and the reason I have become a geographer is to better understand the world around me and use this understanding to make it a better place… And this is why I love geography; it is more than maps, rocks, and landscapes as most people think. To me it is about understanding that the world around us is intricate in an infinite amount of ways, but all these different aspects connect and relate. Within these underlying connections and relationships is where we find solutions.”

For many of the students in the class it was also their first time visiting the Grand Canyon. There’s nothing quite like holding class a couple miles down the trail into the Grand Canyon!
Dugas and Morgan to Ireland – “how cool is that!”

Dan Dugas, along with his colleague Eric Morgan from the Department of Communication Studies, were given the Outstanding Faculty Leader Award at the 2018 Symposium on International Faculty-Led Programs, held at Portland State University. This award is given by the international education community to instructors who have demonstrated outstanding qualities in international faculty-led programming. Dan Dugas and Morgan’s combined “Culture, Place, and Communication in Ireland” program, took 29 students across Ireland over the course of 2 weeks.

The nomination from the NMSU Office of Education Abroad’s director, Angelia Palumbo, cited the, “dedication, resourcefulness, collaboration, and creativity as key to in creating transformative learning opportunities for students. The genius of this faculty-led international program (FLIP) came from the melding of disciplines and the way students were encouraged to learn. As Dugas and Morgan collaborated, they discovered that their respective disciplines of cultural geography and environmental communication look at similar topics and problems using different tools.

This led to the main goal of the course; students were given the basic tools and theories for each discipline, and analyzed their experiences abroad through these lenses. In this way, the FLIP became a collaborative, field study experience where students from each discipline were exposed to new perspectives and theories, while serving as guides to their own discipline. By discarding the traditional lecturer/student dynamic, Dugas and Morgan were able to guide students through a more profound and nuanced experience, and to learn a great deal about themselves.

The instructors led their group with flexibility and a positive attitude. Throughout the course of the program, some unique group interests and dynamics emerged. By observing and communicating with students, they were able to make changes to the itinerary and syllabi to dive deeper into new points of interest. From the plight of a rural community fighting the encroachment of oil pipelines, to the soulful poetry of Yates, students were able to freely explore their host culture while gaining experience in critical analysis.”

This international learning experience was repeated in the summer of 2018, with plans to periodically continue the adventure in future years. (Summer Ireland trip of 2016 on the next page.)
Summer Trip to Ireland with Dan Dugas and Eric Morgan

Students joined Dr. Dan Dugas (Geography) and Dr. Eric Morgan (Communications Studies) on a trip to Ireland in the Summer of 2016. The professors hope to be returning in the future. Contact Dan Dugas for more information.

Quite the view!
FLIP courses (Faculty Led International Programs) give faculty a chance to take students to a new place and interact in the new environment. Drs. Dugas and Morgan developed a course that blends Geography and Communication Studies into a 5 week excursion. Students earn credits for both classes and build their life skills as they go.
Susan DeMar Has Retired.

Susan DeMar retired from the geography department in January 2019. Ms. DeMar had served as the administrative assistant in geography for seven years. We wish her all the best in her future travels.

Photo (Right) includes Fernando Carreras, Sarah Aristizabal, Valerie Rodriguez, Susan DeMar, Jessica Castro, John Castillo, and Aaron Adams.

College of Arts & Sciences Faculty Service and Travel Awards

Three faculty were honored for their length of service at the March 30th 2016 Service awards ceremony. Dr. Campbell (not pictured) was awarded a 10 year service award, Dr. Brown was Awarded a 15 year service award and Dr. Wright was acknowledged for 25 years.

Congratulations to all three for their years of dedication to team Geography.

Jack Wright and Chris Brown
(Left)

Dean Enrico Pontelli and Chris Brown
(Right)

Three Geography Faculty won travel awards in spring 2016.

Dan Dugas (top left) won support to attend the AAG conference in San Francisco March 29-April 2 2016.

Carol Campbell won support to participate in the NPS Centennial celebration to conduct a Bioblitz at Bandelier National Monument in May 2016. She hosted 3 student volunteers.

Mike DeMers won support to travel to Greece to collaborate (by invitation) with Professor Marinos Kavouras, Dean of the School of Rural and Surveying Engineering at the National Technical University of Athens, to investigate opportunities for collaboration and grant proposal development.

We thank the College of Arts& Sciences for their support and inspiration.
Congratulations to the Geography Award Recipients

2016 Awards

Robert & Beth Czerniak  Outstanding Geography Graduate Student Award
Brenda Ward

Robert & Beth Czerniak  Outstanding Geography Undergraduate Award
Jessica Ward

Richard D. Wright Award for Excellence in Applied GIS Graduate Student Award
Nathan Lopez-Brody

Richard D. Wright Award for Excellence in Applied GIS Undergraduate Student Award
Ryan Blickem

James J. Parson’s Award for Excellence in Thesis Research Graduate Student Award
Jake Dialesandro

2017 Awards

Robert & Beth Czerniak  Outstanding Geography Undergraduate Award
Paige Ramsey

Richard D. Wright Award for Excellence in Applied GIS Graduate Student Award
Manuel Lopez

James J. Parson’s Award for Excellence in Thesis Research Graduate Student Award
Renee Pardee

Robert & Beth Czerniak  Outstanding Geography Graduate Student Award
Rachel Burke

Richard D. Wright Award for Excellence in Applied GIS Undergraduate Student Award
Nathan Lopez-Brody
Awards Continued...

2018 Awards

Winner of the Richard D. Wright Graduate Award for Excellence in Applied GIS

Sierra Aney
(Left)

Winner of the Richard D. Wright Undergraduate Award for Excellence in Applied GIS

Paige Ramsey
(Right)

Robert & Beth Czerniak Outstanding Geography Graduate Student Award

Sierra Aney

Robert & Beth Czerniak Outstanding Geography Undergraduate Award

Susan Schvaneveldt (Not Pictured)

2019 Awards

Robert & Beth Czerniak Outstanding Geography Graduate Student Award

Aaron Adams

Robert & Beth Czerniak Outstanding Geography Undergraduate Award

Valerie Ramirez and Jenna Rabe

Richard D. Wright Award for Excellence in Applied GIS Graduate Student Award

Coury Dorn

Richard D. Wright Award for Excellence in Applied GIS Undergraduate Student Award

Evan Dolly

James J. Parson’s Award for Excellence in Thesis Research Graduate Student Award

Dan Carter

Once again, congratulations to all the winners!
Bandelier’s 2016 BioBlitz at Bandelier National Monument, New Mexico

What is a BioBlitz?

A BioBlitz is an event in which teams of volunteer scientists, families, students, teachers, and other community members work together to find and identify as many species of plants, animals, microbes, fungi, and other organisms as possible. The National Park Service has partnered with National Geographic to host a series of BioBlitzes in 2016 to celebrate the 100th anniversary of the National Park Service. Bandelier National Monument was selected as one of seven regional showcase parks that will be participating in a national, two-day BioBlitz to help kick off the NPS Centennial in 2016. In addition to being the 100th anniversary of the creation of the National Park Service, 2016 is also the 100th anniversary of the establishment of Bandelier National Monument. So in addition to celebrating the centennial of the National Park Service, we are also celebrating the centennial of Bandelier NM.


At right: a Western Tanager. One of the birds included in the inventory at Bandelier.

Below: Dr. DeMers at Bandelier posing outside the remains of the ancestral pueblo

Below: ancient dwelling built into the cliff at Bandelier.
Dear NMSU Geography Alums and Friends,

You are part of a tradition of excellence in the Geography Department at NMSU. We did a study recently, and we were very impressed by the successful careers our alums have in the areas of land use planning, natural resource management, GIS analysis, remote sensing, academia, and other work involving geospatial applications. Many others have selflessly supported us over the years, driven by a personal love of geographic knowledge. We are so honored to have you as part of the NMSU Geography family.

**Now, the question. Can you help us continue offering high quality geographic and geospatial education?**

**Any amount will help.**

Here’s why. The State budget is being cut because of a drop in oil and gas revenues. Our Geography majors are feeling the pain as we struggle to cover the basic costs of providing them the kind of education you received.

The Department needs funds to help cover:

- **Student Travel** - This pays for student field work and travel to professional conferences where they present research papers;
- **Software Licenses for GIS and Remote Sensing work**;
- **Continuing education and training for faculty and staff GIS&T**; and
- **A new or less-used department van** - Our Chevy is now 20 years old and beat up. I’m sure some of you remember bouncing across the desert in that contraption.

Can you help? If you can, we’ve made it easy. Just go on-line to [http://geography.nmsu.edu/make-a-gift/](http://geography.nmsu.edu/make-a-gift/). We invite you to make a donation in any amount to help advance the work we do. Feel free to drop us a line anytime to learn more about how funds we raise are used.

Thanks in advance for lending a hand. The entire Geography Department sincerely appreciates it, especially those young people who will follow you into the workplace.

*Carol Campbell*

*Department Head*