



Department of Geography Newsletter

University of Alabama

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Chair's Greeting

After an unsuccessful search for a new chair, Dean Olin notified the Department of his decision to continue the search for next year. Although the search was not successful, the Department attracted some outstanding candidates who were interviewed for the chair position. We want to thank the chair search committee for its hard work.

The Department's 8-year program review was completed. Dr. Thomas Mote of the University of Georgia was the external consultant who visited the University and interviewed faculty and staff. He also met with the internal review committee, which consisted of Dr. Julie Olson (Biological Sciences), Dr. Andrew Goodliffe (Geological Sciences) and Dr. Carl Hancock (Music). The final meeting with the program review committee and provost took place on April 20, 2010. The review committee made a number of recommendations to improve the Department and its degree programs. Graduate recruitment, admissions and advising were some of the areas of concern expressed by the committee. As a part of the review process, the Department formulated an "Action Plan" for each recommendation made by the committee.

Congratulation is extended to Dr. Seth Appiah-Opoku for receiving the Faculty Fellows in Service Learning Award presented by the Center for Ethics and Responsibility at the University. Recognition is also given to Dr. Jason Senkbeil for his willingness to participate in the Freshman Learning Center on Weather Disasters. The Department also congratulates Dr. Hobson Bryan, co-author of the Chinese language edition of Social Assessment Theory, Process and Technique published by Chongqing University Press.

The Ray Y. Gildea Outstanding Undergraduate Geography award went to Chris Brown and Whitney Jones. Andrea Murrell is the recipient of the Environmental Science award. And Megan Buchanan is the recipient of the Outstanding Graduate

Student award. The Outstanding Graduate Research Assistant Award and Graduate Teaching Assistant Award went to Kate Miller and Matt Trousdale, respectively. We honor these undergraduates and graduates for their outstanding work and contribution to the Department.

We also want to acknowledge those Geography majors who participated in the Undergraduate Research and Creative Activities Conference: Alana L. Rogers and Stormi Barrett for their research on "Particulate Carbon Storage in River Channel Deposits," Barrett Gutter's research relating to "An Analysis of Air Temperature in Bryant-Denny Stadium," and Diane Schneider's work on "Understanding Perception of Meteorological Hazards within Tuscaloosa County." Great Job!

Chris Brown, one of the winners of the Ray Y. Gildea outstanding undergraduate Geography award, is also to be recognized for being the national winner of the "Bizarre Map Challenge." As part of his investigation of French colonial long lots in coastal Louisiana, he produced the strange map that resembled an alligator's head, which he called "Alligator Bayou," a map of the delta region where many alligators actually live. The map reinforces both the early French colonists' mark on the land and, in turn, nature's response. (See article below).

For next year, the Department welcomes Vicki Tennon as a full time temporary instructor who will be teaching three sections of GY 105, World Regional Geography, and one section of GY 101, Physical Geography, in Fall 2010. She received her B.S. degree in Geography from the University of South Alabama, the Master Degree from the University of Alabama and the PhD from Kansas State University. She is presently an instructor at Wayne State College, Wayne, Nebraska.

Next year will be another challenging academic year for the department as we continue the search for a new chair and began to implement the recommendations of the program review committee. But with hard work and dedication from everyone, the future can be our.

Bobby M. Wilson
Interim Chair



Faculty and Staff

Seth Appiah-Opoku



This past year, my research focused on ecotourism in protected areas. I took advantage of my semester-long sabbatical break to work on a number of manuscripts. My manuscript titled “Using Protected Areas as a Tool for Biodiversity Conservation and Ecotourism: A Case Study of Kakum National Park in Ghana” has been accepted for publication in the *Journal of Society and Natural Resources*. I worked with Professor Bobby Wilson on a book chapter titled “Zoning as a Form of Social Engineering” which has been accepted for publication. In addition, I presented a paper on land use planning problems at the International Association of Impact Assessment Annual Meeting held in Accra, Ghana, May 22-27.

I continued to teach planning courses and a field studies course in Africa. The latter has attracted students from other universities. Last summer, students in the course participated in service learning projects in Ghana. Their experience was reported in a recent *UA Undergraduate Magazine*.

Outside the department, I continued to serve on the editorial board of the *Journal of Environmental Impact Assessment*, the *UA Faculty Senate*, and the *Premier Awards Committee*. Finally, I served as advisor to the *Tuscaloosa Sister Cities Commission*. I traveled to Ghana with a three-member delegation of *Tuscaloosa City* officials last June to explore a sister-city relationship with a Ghanaian city.

Lisa Davis

The 2009-2010 academic year has been a busy and fruitful time. In the past academic year I taught four courses, including GY 363-Geomorphology (fall and spring semesters), GY470/570-Fluvial Geomorphology, and GY101-Weather and Climate. I had not taught GY 101 in seven years. So, it was quite a blast from the past to be teaching it again. In fact, the last time I taught the class was in graduate school at the University of Tennessee when Dr. Justin Hart (also a Tennessee grad. and now a faculty member at UA) served as my teaching assistant for the course! Teaching something different has its selling points, but I look forward to returning to the familiar terrain of GY 102-Earth Surface Processes in fall 2010.

I single-authored and co-authored five articles

in the past academic year. I was second author on an article accepted for a special edition of the *Southeastern Geographer* on “Small Watersheds in the Southeastern U.S.” with Dan Royall (first author) of UNC-Greensboro and my graduate student Dusty Kimbrow (third author). I am also co-editing this special fluvial volume of the *Southeastern Geographer* with Allan James (University of South Carolina) and Scott Lecce (East Carolina University). I was second author of an article published in the *International Journal of River Basin Management* with David Shankman (first author) and Jan de Leeuw (third author, International Institute for Geo-information Science and Earth Observation). I single authored an article in the journal *Physical Geography* and was first author on an article in the *Southeastern Geographer* with David Brommer (UA) about research we conducted on a trip to Cuba sponsored by UA College of Arts and Sciences Cuba Initiative. Recently I co-authored, as first author, an article with my former dissertation advisor and the presiding President of AAG, Carol Harden (Univ. of Tennessee), which is now in review with the journal *Geomorphology*. In the past academic year, I collaborated on research with Dan Royall of UNC-Greensboro on the stratigraphy and formation of in-channel alluvial deposits in rivers of the Piedmont of the Southern U.S., and we submitted several proposals to the National Science Foundation for funds to support this research. One of these proposals was successful, a RAPID grant for \$10,000. Dan and I are continuing with this collaborative research and are currently gearing up for the next round of grant submissions!

In addition to the various collaborative research projects that lead to several publications this past year, I have also been conducting research with several graduate and undergraduate students. Currently, I have three masters students, including Alexis McGraw, who will be graduating in summer 2010, Dusty Kimbrow, who is making headway collecting field data for his bedrock channel research in northern



Alabama and recently accepted a STEP appointment with the USGS Water Science Center in Montgomery, AL, and Adam Watkins, who has just begun data collection on his coastal geomorphology thesis research. I have also been conducting research with two undergraduates, Stormi Barrett (Geography/Geology) and Alana Rogers (Environmental Science) on a pilot study to examine the role that river channel deposits have in carbon cycling. Other things that have kept me busy

during the past academic year included finishing my final year as Alabama State Representative to SE-DAAG, serving as the chair of the Nominations Committee for SEDAAG, co-authoring a paper presentation at the annual SEDAAG meeting held in Knoxville, TN, giving a paper presentation at the annual AAG meeting held in Las Vegas, NV, and being an invited participant at a National Science Foundation Workshop on "Landscapes in the Anthropocene" held in Eugene, OR.

Jason C. Senkbeil

I was thrilled to join the faculty in my new role as Assistant Professor Fall 2009. I have enjoyed my time here since 2007, and I look forward to a long career at UA. After 2 years as an instructor and the advisor for both Geography and Environmental Science, advising and directing duties were split due to rapid departmental growth. I became the new director of Environmental Science while Mary Wallace Pitts became the Geography director. Both majors are steadily growing and evolving in this transition. The undergraduate options in Geography and Environmental Science are more diverse than ever, and we have several goals for the coming years.

On the graduate side, I resuscitated Quantitative Methods (GY 523), and it has become a required element of our graduate program. I am currently teaching a mixed grad/undergrad class, Hurricanes and Society, which is a blend of both physical and human Geography. The initial Quant class was successful with 15 students and I hope to make improvements in the coming years. The goal is for our graduate students to become familiar and comfortable with a variety of quantitative techniques that they may encounter in various sub-fields of Geography as they prepare to write a thesis. Furthermore, we hope that graduate students will be confident enough to present their own research at regional and national conferences.

I continue to maintain an active research agenda in hurricane hazards and climatology. Hurricane hazard perception has been my most active area of research this past year with 2 accepted articles, 4 conference presentations, and more in progress. While I do not want to wish harm on anyone, I am personally hoping for a United States hurricane landfall this upcoming season to collect more field data on hurricane hazard perception. I hope to take students into the



field to witness both the social response and dilemma of hurricane evacuation and the physical observance of meteorological characteristics during the storm. This past year, I have maintained a fruitful collaborative relationship with Dr. Brommer on topics under the broad umbrella of societal implications of weather and climate. In addition to hurricane hazards, I am currently conducting ongoing research on two topics; southeastern drought and winter storms in the southeast. I am the primary advisor for 2 graduate students. Ian Comstock is using GIS to analyze precipitation characteristics of land-falling hurricanes and his preliminary results are very intriguing. Ian will present at several conferences over the next year. Laura Radford is exploring thesis topics in hurricane hazard perception and she also plans to present her research at several conferences.

I participated in service to the department, university, and discipline. At the departmental level, I was a member of the Chair Search Committee while actively participating on 5 thesis committees. In University service, I taught a Freshman Learning Community called "Weather Disasters" and served on the College Academy to Improve Student Success (CAISS). Once again I assisted Dr. Brommer in game-day weather forecasting for the athletic department. Regionally I served on the SEDAAG Program Committee and was voted to serve on the Nominations Committee for 2009-2010. I also coached the Alabama world geography bowl team at SEDAAG. It was a busy and exciting year and I am forecasting next year to be similar.

Michael Steinberg

I have had a busy but productive year. I led a group of 14 US students on a field course to Iceland focused on environmental history in May 2009. We had an incredible time hiking on glaciers and mountains, as well as studying the human-environmental landscape. I also had two papers accepted for publication on bird conservation topics, and I continue to work on my book about brook trout conservation in the eastern US. I hope to have the book completed by the end of the summer (2010). I am also working on masters of fine arts in creative non-fiction writing. So my writing has begun to shift from purely academic to more creative. I will complete the degree next year.



Joe Weber

A big development for me this year is to teach Advanced GIS for the first time in Spring 2009. It's been a challenge, but I'm excited about the opportunity to get to talk about some new GIS topics and learn some new GIS skills. The technology changes so fast I have to spend more and more time each year catching up! I also taught Transport Geography and Intro to GIS again. GIS course enrollments in the department are up, and participation in the GIS certificate program is at an all time high. Both are due in large part to outstanding undergraduate advising. More and more students from outside the department are also taking GIS classes. Matt Trousdale has been doing a wonderful job of overseeing the department computer labs, and he won the Outstanding GTA award this year for his hard work. I have some new students and theses to oversee, and I am busy working on a project funded by the National Institutes of Health to examine geographic patterns of adolescent behavior and attitudes involving alcohol in Alabama. The GIS portion has required quite a bit of data collection, which has been far more of a challenge than I anticipated. GIS work can always be unpredictable! This year I

am also collaborating with Selima Sultana and others at the University of North Carolina at Greensboro on grant proposals for projects involving walking and bicycling travel. It's a new topic for me, but I can find new ways to measure accessibility. On my trips there I get to spend time exploring different highways and watching the ongoing processes of highway-related landscape change. I'm working on several papers about highways, including changes to the Interstate Highway System over time, and it's always nice to have an excuse to go driving around investigating it in person. This winter I tracked down an abandoned section of Interstate 85 in South Carolina. It's a bit different from tracking down abandoned pieces of Route 66 in Arizona, but the same basic geographic principles apply. I enjoyed visiting Las Vegas last year for the annual AAG meeting, and got to make a short trip to Death Valley. It was a very windy day, and very dusty, but always nice to be back home. The new bridge bypassing Hoover Dam will make for tremendous space-time convergence between northern Arizona and Las Vegas, and once housing growth recovers the effect of the bridge will quickly be apparent. I can't wait to go back and see what happens.



Hobson Bryan

Another great year at the Capstone, as we bask in the University's stable financial situation and continued recruitment of an excellent, productive faculty.

Buoyed by this work environment and good departmental colleagues, I travelled to Maine, Upstate New York, Canada, France, the Bahamas, Mexico, and New Zealand this past year to present and continue my writing and research on envi-



ronmental policy and outdoor recreation public access issues. (Admittedly, my daughter's living in Paris and great fishing in other locals were factors in some of the destination decisions!) In the meantime, my New Zealand colleagues and I authored a revised edition of our text, *Social Assessment: Theory, Process, and Techniques* published in Chinese this past year. This past September I was honored to be an invited speaker to the Conference on Environmental Assessment in Federations in Ottawa. This was a meeting of officials having ministerial or cabinet-level responsibility for environmental policies in a number of countries around the world, including Canada, the European Union, and the United States. The purpose was to pursue international standards for environmental impact assessment. I am looking forward to teaching Environment and Society and Social Impact Assessment in the coming year.

Justin Hart

This was my first year back at the Capstone since completing my MS degree at UA in 2004. The academic year was quite busy, but very rewarding. Much of my time was devoted to the introduction of two new courses to the curriculum (Environmental Reconstruction and Plant Geography) and to the establishment of my research laboratory (the Forest Dynamics Lab). Both new courses were positively received based on student feedback. The Environmental Reconstruction class is essentially an applied course in restoration ecology. The course covers the theories, tools, and techniques used in environmental reconstruction with a focus on the establishment of reference conditions for habitat restoration and management decisions. Students collected and analyzed real data and prepared technical reports such as those that would be submitted to a land management agency. The Plant Geography course covers a range of topics and uses lecture and

seminar approaches. The course also requires a day trip and a weekend trip where students learn to use field equipment and see first-hand some of the patterns and processes discussed in the classroom. My research



lab is now fully operational. The physical lab is located in the Biology Building and includes four rooms each devoted to specific tasks. The facility includes a bandsaw, a vacuum sanding table, belt sanders, a drying oven, a fume hood, sinks, and glassware among others and a lot of field equipment ranging from diameter tapes to a chainsaw. My lab currently supports two undergraduate technicians and three graduate students working on either theses or independent research projects. My research agenda is focused on forest community ecology, plant geography, riparian ecosystems, and natural resource management. I am currently working on several projects focused on forest development patterns, disturbance ecology, and ecological amplitude of tree species. This summer I plan to initiate several new projects with students and colleagues in other departments here at the Capstone. Lab members are currently preparing for what will be a summer full of field work (which luckily for us includes hiking and camping in beautiful places). On a personal level, my wife Sara (who also holds a MS from the department) and I are very excited to be back in Tuscaloosa. Our daughter Ellie (three years old) made a quick and smooth adjustment to the move and is already at home on campus.

Placenames Research Center Activities

Recently, our placenames research operations have grown by leaps and bounds. Our lifetime awards for GNIS related projects now total over 2.5 million dollars. At present, we are working on a total of six funded research projects for the US Geological Survey to update and correct the Geographic Names Information Systems (GNIS) database.

We have added two new fulltime research professionals, Scott Miller and Charles Long, and counting Audrey Miller and me, we now have a workforce of four research professionals devoted exclusively to placenames related research. Tom Kallsen continues to provide his expertise to our placenames research on a part-time basis, as well. Audrey has begun to assume Co-Principal Investigator responsibilities for two of our projects, and Scott and Charles have rapidly become integral components of the team.

Scott has been instrumental in streamlining digital operations and has assumed a significant role in training and managing students. Along with his research activities, Charles has become our webmaster, coordinating the design and implementation of our new website and brochure.

In addition to our professional team, we also have one undergraduate, Kayla Anthony, and three graduate students, Kate Miller, Liuhui Zhao, and Qinyue "Arlene" Pan assigned to research projects. Kate Miller, our most senior graduate student, has been honored with the Outstanding Graduate Research Assistant award for 2010. In my opinion, we now have the "Dream Team" of placenames research.

Audrey and I will be at AAG in Washington in April, participating in the special session on Placenames and Gazetteers. We hope to see as many of the UA alumni as possible.



Placenames Research Center Staff

Field Studies in Africa: Director's Report

At the beginning of the twenty-first century, the pace of integration among the world's regions and populations has accelerated rapidly. Unfortunately, many of the world's scholars have been trained within the borders of their nations and are unable to understand or experience other cultures. Since the 9/11 terrorists attack on the US, it has become increasingly clear that intra and inter-territorial studies could help prepare students of all nations for entry into a diversified world full of complex challenges and opportunities. A well educated citizen in the contemporary world must have sensitivity to international issues and a working familiarity with international affairs. The Field Studies in Africa course was introduced almost 7 years ago to help students: (a) develop intercultural knowledge and abilities; (b) gain a new perspec-

on a field of study; (c) explore cultural differences and find common values between cultures; (d) become a global citizen; and (e) develop independence and a self-reliance outlook.

The course offers students a unique opportunity to not only study in an African culture but also get involved with African communities in a tangible way by integrating service projects with classroom learning. The service-learning component engages students in the educational process, using what they learn in the classroom to solve real-life problems. This can be applied across all subjects and majors. Students build character and become active participants as they work with others in Ghana in areas like education, planning, nursing, engineering, economics, anthropology, geography, social services, natural resource management, and the environment etc.



The Kakum National Park

The City of Tuscaloosa has entered into a partnership with a Ghanaian city in the area of education, business, civic engagement, and industrial development. This initiative has paved the way for us to participate in service learning activities in the Ghanaian city. The city officials make arrangements for UA service learning activities in the following areas: (a) elementary and high school teaching; (b) land use planning and environmental organizations; (c) laboratories and clinics; (d) social service organizations; (e) engineering, businesses etc.

Students prepare a service learning plan prior to their arrival in Ghana. The plan often consists of (a) Goals and objectives; (b) Strategies to achieve their objectives; (c) Implementation tools; and (d) Evaluation criteria. While in Ghana, students will document their daily service learning experience and this will provide the basis for the final presentation in the course. Other activities include visits to the following sites: Elmina Slave Castle; Kakum National Park; National Cultural Center; Monkey Sanctuary; Kente Factory; and The Mole National Park.

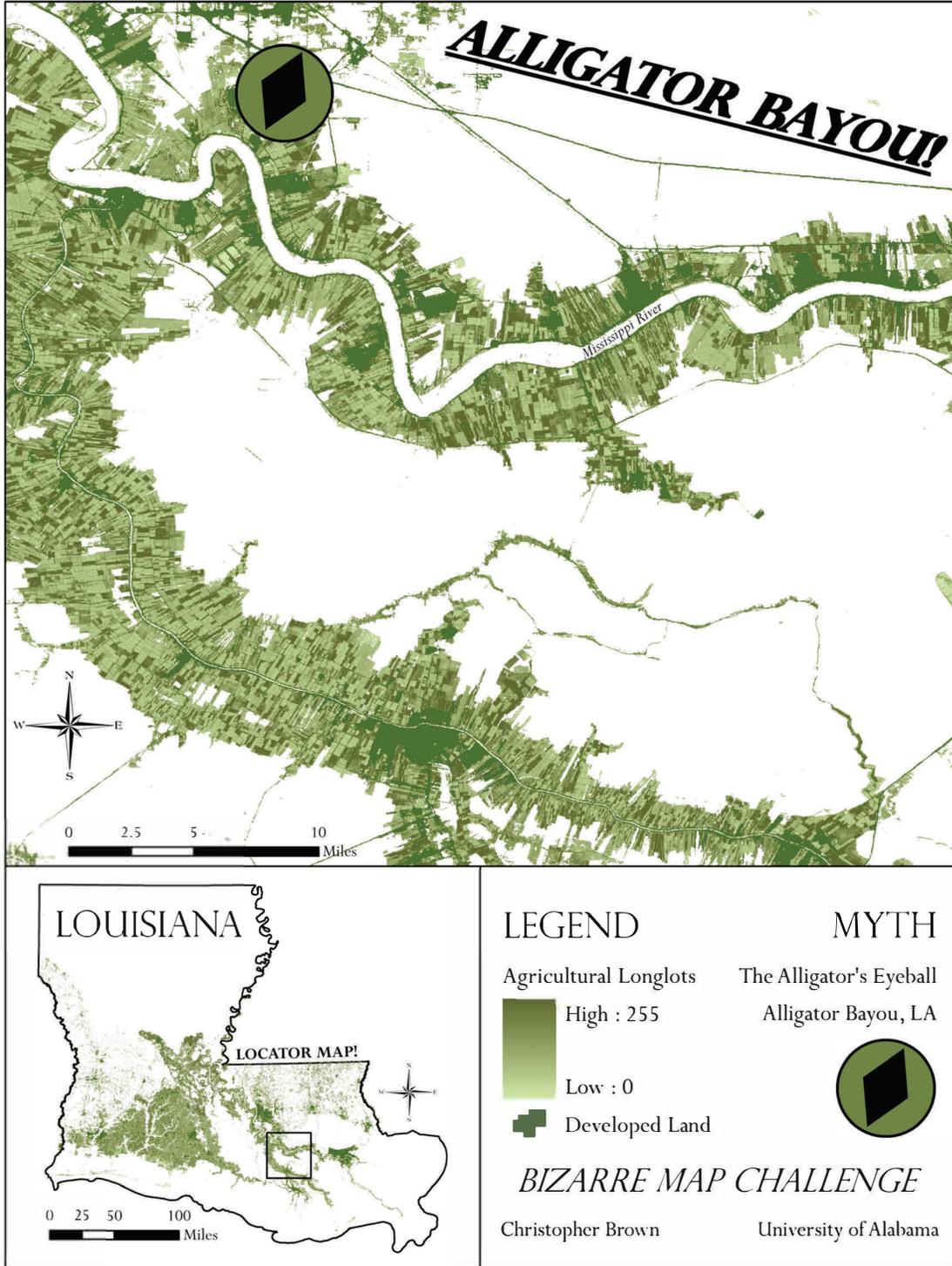
Chris Brown: Bizarre Map Challenge Winner

“**Alligator Bayou**” was created using ESRI ArcGIS 9.3 software, as part of an investigation of French colonial longlots in coastal Louisiana. The creation of the final map involved a NOAA land cover dataset (landcover_la_noaa_2005.tif) and Landsat satellite imagery (landsat5tm_la_lsu_2005.sid). Each dataset used the NAD 1983 datum, and was projected according to UTM Zone 15N; both rasters can be located at <http://lagic.lsu.edu/loscoweb>.

The most technically difficult aspect of the project was the isolation of the longlots; thankfully, though, the surveying system has remained intact to the present-day, dominating parcel alignments throughout the Mississippi River and many of its distributaries. Owing to the location of the study area in the delta, surrounded by wetlands, nearly 100% of the agricultural parcels were historical colonial longlots. Therefore, I was able to isolate these longlots by reclassifying the NOAA land cover dataset, reducing it to the class definitions of “Cultivated” and “Pasture/Hay” However, since not all of the historical longlots preserved their agricultural heritage, I also included developed land by assigning the same value to “High Intensity Developed” “Medium Intensity Developed,” “Low Intensity Developed,” and “Developed Open Space.”

The final step was the integration of the Landsat imagery with the agricultural areas specified in the land cover dataset. To accomplish this task, I used a spatial analysis mask to extract only imagery within the agricultural land use classes. After applying a stretched symbology, the final map visually delineated each of the longlots and their subsequent subdivisions with different color shades, exposing the spatial extent and patterns of the parcels without the clutter of water or wetlands.

Aside from the visual interest of the differing depths, angles, and alignments of the lots with respect to the hydrology, I suddenly realized that the bifurcation shown in this final map, between the Mississippi River and the **Bayou** Lafourche (the fork), looked very much like an alligator's head! Because the map is in the delta region, where many alligators live, and the dead space in the map is either water or, in the majority of cases, wetlands (according to NOAA), it should be right at home in its environment! Both from a superficial and historical perspective, I believe that “**Alligator Bayou**” provides a refreshing way of looking at the cultural hearths of New France, reinforcing both the colonists' mark on the land and, in turn, nature's response.



Congratulations to recent Geography Department graduate Christopher Brown for winning first prize in the National Bizarre Map Challenge.

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Farrah's New Parking
Lot: Mud Volley Ball
every Tuesday

