



### Program News

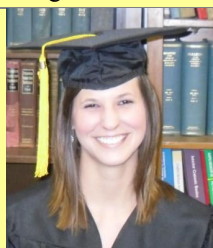
#### Three Geosciences Majors Graduated in August, 2010



**Michael Schneider (Cum Laude), Cathryn Pratka (Cum Laude) and Donnie Clark** graduated with their Bachelor's of Science Degree in Geology in August 2010. It is always tough to say goodbye to graduates. They all play a very-important role in the success and vitality of our program. We are going to miss these Geoscientists as we prepare our new majors. But we look forward to seeing them grow in our professional society.



**Michael Schneider** transferred in from Victoria College and started his geology career in our program in summer I, 2008. He has been involved with research, internships, and held positions in the geology club. Michael worked on research projects with Dr. McGehee involving a "Spatial Analysis of the Edwards Reef in North Central Texas" and "Using Hydrogeologic Models as a learning tool for sedimentology students." He presented poster presentations of this research at the 7<sup>th</sup> annual TAMUS Pathways to the Doctorate Symposium in 2009. Michael held internships with Denbury Resources Inc. as a geotechnician working out of the Plano Texas office. He was also Vice President of the Geosciences Club. Michael is working with Kinder Morgan in Midland Texas.



**Cathryn Pratka** transferred in from Coastal Bend College and started her geology career in Spring 2008. Cathryn was involved in internships and sports at TAMUK. Cathryn Pratka interned for Global Geophysical Services in Sonora and Buffalo, Texas learning about the seismic field work. She also received the 2008 Engineering/Geology Scholarship from the Rocky Mountain Coal Mining Institute. She also was on athletic scholarship and competed with the Javelina Track Team in the High Jump. Upon graduation Cathryn accepted a geologist position in

Meridian, Mississippi with North American Coal Corporation (NAC) who has 90 years of experience in developing, mining and marketing bituminous and lignite coal. The company ranks as the largest lignite coal producer in the United States. They are among the top 10 coal producers nationwide and have an extensive bank of geological data on lignite coal reserves in the country. The company operates 6 lignite coal operations--Falkirk Mine, Freedom Mine, Red Hills Mine, Red River Mine, Sabine Mine and San Miguel Mine. She is gaining field experience with an experienced geologist and drill rig crew determining the properties and extent of a new lignite reserve.



**Donnie Clark** graduated with a Bachelor of Science in Geosciences with a minor in Geography. Donnie Clark transferred in from Del Mar College and started his geosciences career in Fall 2008. He will pursue his career in Geographic Information Systems.

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## Title V Grant and the University Administration Upgrade Geosciences with new Field and Laboratory Resources

Geosciences majors and students taking our courses were greeted by new facilities and an energized faculty at the start of the semester. Our students now have 25 new high-end iMac computers, GIS and remote sensing software, a renovated laboratory, overhead projectors, 16 ft length projection screens and new field equipment.



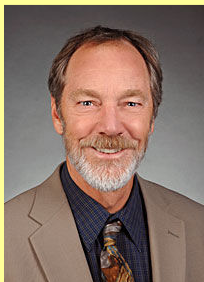
Dr. Dann Brown, Dean of University College and Title V Grant Staff members (Herminio Ibañez, Dina Hinojosa, Jim Remelius, Juan Saldaña and Jonathan Swindle) worked fall and spring semesters to increase the capability of the Geosciences Program at TAMUK. The funding from their program purchased the software, iMac computers, overhead projectors, 16 ft length projection screens and new field equipment. These federally funded grants are designed to build institutional capacity that can support Hispanic students, families and the

communities they live in through the development and support of innovative programs, best practices and services designed to encourage learning and empower learners. The PPOHA Title V Grant supports graduate initiatives and the CCRAA Title V Grant supports undergraduate students in the science, technology, engineering and mathematics fields. Both grants support classroom and technology upgrades. Their combined financial support provided approximately \$62,000.00 with \$40,000.00 provided from the PPOHA grant and \$22,000.00 supported by the CCRAA grant.

TAMUK administration renovated the interior of the laboratory and added a secured “key pad” system on the outer door. The wood floor materials were stripped to the foundation concrete and new concrete was poured to the old floor height. New earth tone tiles and baseboard trim now cover the cement floor and the interior walls were repainted to match the décor of these new materials. The Geosciences Program purchased 25 new lumbar support chairs to enhance the comfort of the facility.

Paul Laraway, J. R. Cavazos, Jessica Garcia, Adam Pasciak, Alexandra Breeding, Thomas McGehee, and Dan Jackson worked to reassemble the facility and load the new software. The new facility was a bright jewel that looked “out of place” with the rest of our facilities. So our faculty and students put a significant amount of time in the reorganization of our facilities. Please thank them for their volunteer efforts this summer. We will be having an open house during Homecoming Week, so come by for a tour.

## Welcome to the new Dean of Arts and Sciences



On July 1 **Scott Hughes** (formerly the Interim Dean at Idaho State University in Pocatello) took over as the new Dean of Arts and Sciences. He is a volcanologist and a new member of our Department. Scott Hughes and his wife Vivian Hughes are excited about the new opportunities available for TAMUK. Vivian accepted a job as interim director of planning and assessment.

## Homecoming Tailgate for Majors/Alumni (October 16)

The Geosciences Program needs Alumnus/Majors volunteers in organizing, funding, and working at our tailgate this year for homecoming on October 16. Do you still have the Javelina Spirit? Call or send email if you are interested.



Department of Physics and Geosciences  
Texas A&M University - Kingsville

## Geosciences Program welcomes 13 new majors

We are happy to have 13 new majors enroll in classes this Fall, 2010. **Jonathan Sulaica** (Three Rivers High School), **Naomi Pankratz** (The Science Academy of South Texas), **Jacob Reese** (Encinal High School), and **Eric Munt** (Eagle Pass High School) are freshmen. **Jonathan Sulaica** and **Naomi Pankratz** are Presidential Scholars at Texas A&M University-Kingsville. **Michael Hill** (Coastal Bend College - Beeville), **Michael Parker** (Alvin Community College), **David Wood** (Coastal Bend College - Beeville), **Stephanie Resendez** (South Texas College – McAllen), **Alicia Molina** (Del Mar College), **Lisa McLaughlin** (Coastal Bend College – Kingsville), **Chase Glowacky** (Lone Star College), **Daniel Canales** (Internal), and **Daniel Jurach** (TAMUCC) are transfer students.



Jonathan



Naomi



Jacob



Eric



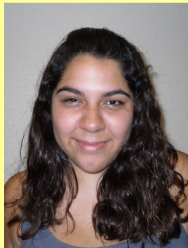
Michael H.



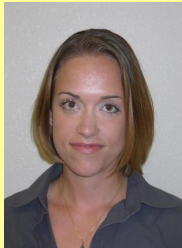
Michael P.



David



Stephanie



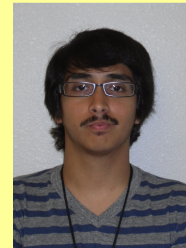
Lisa



Chase



Alicia



Daniel C.



Daniel J.

## Eleven TAMUK students received the future bright GIS certificate

11 students earned their certificates the week of May 2010, and helped fill a growing need for GIS analysts. “GIS analysis is one of the hottest career opportunities today,” said Yu. “GIS analysts are in demand across the nation, and for that matter, the world, as the use of GIS in government agencies, private businesses and nonprofit organizations grows dramatically. “This certificate program is to help students from various fields get enough knowledge to understand and use GIS techniques on real world problem solving and get certified as proof.” To prove the point of the variety of study fields, of the one graduate student and the 5 undergraduate students received their certificates, there are three geosciences geology majors, two animal and wildlife sciences majors, and one environmental engineering major. “I was so impressed by the students,” said Yu. “As they took the classes, they began to realize all the different ways the training can be utilized.”

The recipients are **Jarret S. Pawlik** (Senior, Geology), **Michael Schneider** (Senior, Geology), **Adam Pasciak** (Senior, Geology), **Jonathan F. Stroup** (Senior, Geology), **Richard A. Hodges** (Senior, Geology), **Eric D. Grahamnn** (Ph.D. student, Wildlife), **Hari Prasad Paladhi** (MS student, Civil Engineering), **Wanda J. Silva** (MS student, Math), **John L. Schumann** (Senior, Geology), **Thomas R. Schuenemann** (Senior, Geosciences), and **Saritha Karnae** (Ph.D. student, Environmental Engineering).

## 9 Geology majors completed summer field camp

**Alec Cortez, Orlando Gonzalez, Azael Martinez, Jarret Pawlik, Cathryn Pratka, Michael Schneider, John Schumann, Jonathan Stroup, and Richard Van Winkle** completed their field commitment at the Sul Ross State University field camp. They conducted field exercises by examining outcrops located within a 160 mile radius of their campus in Alpine, Texas, including: a Precambrian metamorphic complex near Van Horn; the Paleozoic Ouachita orogenic belt near Marathon; the Permian Capitan Reef in the Guadalupe Mountains National Park; Cretaceous sedimentary rocks in the Big Bend National Park; Tertiary volcanic complexes in the Alpine area and Big Bend Ranch State Park.



## Geosciences Students Honored on Fall 2009 and Spring 2010 President's List, Dean's List, Honor Roll

Texas A&M University-Kingsville has released the names of the students who made the President's List, Dean's List and Honor Roll for the Fall 2009 and spring 2010 semesters. In order to qualify for the prestigious President's List, a student must be enrolled in at least 15 semester hours and have a perfect 4.0 grade point average for the semester. To make the Dean's List, a student must earn a grade point average of 3.65 (on a 4.0 scale) on all work attempted for the semester with a minimum of 13 semester hours completed. The Honor Roll requires a grade point average of 3.5 while taking at least 12 semester hours.

In Fall 2009, **Thomas R. Schuenemann** (Alvin), **Richard S. Van Winkle** (Corpus Christi), and **Noe Saenz** (Falfurias) made the **President's List**. **Richard Hodges** (Plano), **Michael Schneider** (Allen), and **Alexandra Breeding** (Driscoll) made the Dean's List. **Juan R. Cavazos** (Alice), **Jarret S. Pawlik** (Beeville), **Samuel Cantu** (Falfurias), **Ruben Cano** (Mercedes), and **Amanda Feigel** (Kingsville) made the Honor Roll.

In Spring 2010, **Thomas R. Schuenemann** (Alvin) and **Richard S. Van Winkle** (Corpus Christi) made the **President's List**. **Elizabeth Lysinger** (Corpus Christi), **Jessica Garcia** (Sabinal), and **Alexandra Breeding** (Driscoll) made the Dean's List. **Richard Hodges** (Plano), **Michael Schneider** (Allen), and **J. R. Cavazos** (Alice) made the Honor Roll.

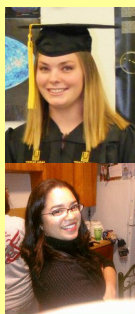
## Two of our Alumni married Texas Women this summer!



**Michael Schneider** (Alumnus 2010 from Allen, Texas) married **Corey Rose** (Port Lavaca, Texas) on July 24, 2010. Michael is employed by Kinder Morgan in Midland, Texas. "Kinder Morgan is principally a CO<sub>2</sub> pipeline company; however, they also operate two of the largest oil fields in Texas. Right now my duty is data entry in the Sacroc Field, which is the 7<sup>th</sup> largest on shore oil field in the US. Over 1.4 billion barrels has been produced and is under CO<sub>2</sub> injection since 1972. However knowing and understanding what the data means is key in helping the geologist identify, diagnose, and fix problems." Michael Schneider has been accepted in the graduate program at UT Permian Basin and will be attending in January, 2011.

**Ruben Cano** (Alumnus 2009 from Mercedes, Texas) married **Debbie L. Gutierrez** (La Feria, Texas) on August 20, 2010. Ruben Cano is working with Dr. Rick Giardino at Texas A&M University on his master's research in Geomorphology. Ruben will be attending the 2010 GSA Denver Annual Meeting in Denver, Colorado where he will be participating in a poster presentation. The title of the abstract is Hydrological Characteristics of Rock Glaciers: San Juan Mountains, CO, USA.

## Rebecca Roscoe and Melissa Hidalgo accept jobs in Alaska



**Rebecca Roscoe** graduated from this program in Fall 2009. She started working for AngloGold Ashanti at the gold mines in Victor/Cripple Creek Mining District. Rebecca Roscoe recently accepted a full time position with Pebble Limited Partnership. The Pebble Project is a Copper-Gold-Molybdenum porphyry exploration project located Northwest of Iliamna, Alaska. Rebecca is very excited about her new career, and thanks the Geology Department at TAMUK in helping achieve her career goal.

**Melissa Hidalgo**, a recent graduate of TAMUK (December 2009), has accepted an offer of employment with a company based in Alaska. She will be logging core samples of the area of exploration. She had this to say: "Not only do I give thanks to my family for their support with all of this, but, I thank all of my colleagues (who are also my friends) there at TAMUK for their support and encouragement that helped me on my path to success."

## Scholarship Recipients

**Alexandra Breeding** received the prestigious Society of Independent Professional Earth Scientists Award. **Lisa McLaughlin** transferred from Coastal Bend College-Kingsville with a 4.0 GPA and received the C. J. Davidson Scholarship at TAMUK.

Three students received Geospatial Intelligence scholarships from the National Geospatial Intelligence Agency. **Jonathan Sulaica** (Three Rivers High School), **Eric Munt** (Eagle Pass High School), and **Stephanie Resendez** (South Texas College-McAllen) received the award.

The Geosciences Program awarded six transfer scholarships this fall. These include awards to **Lisa McLaughlin** (Coastal Bend College-Kingsville), **Michael Hill** (Coastal Bend College - Beeville), **David Wood** (Coastal Bend College-Beeville), **Michael Parker** (Alvin Community College), **Daniel Jurach** (TAMUCC), and **Alicia Molina** (Del Mar College).



### Summer Internships and Research Projects

**Thomas Schuenemann** and **Orlando Gonzalez** accepted part-time jobs with the Kingsville Municipality to develop a GIS of the city water-works. Orlando and Thomas are locating the pipes, developing the GPS database, and producing maps using ARCGIS. **Leah Ball** worked as a geotech for VirTex Operating Company, Inc., a privately owned exploration and production company, located in Downtown Corpus Christi, Texas. Her duties included the creation of scout reports that utilized online resources to find and locate new well locations and find the owners for permits for each new well. She also aided in the preparation of maps using Petra Software used for Geological, Engineering and Petrophysical Analysis. She also helped company geologists with finding and organizing data for small projects. **Alexandra Breeding** has made significant progress on “modeling river delta formation for the Mississippi Delta, Sao Francisco (Brazil), and Ganges-Brahmaputra Delta (India)” for the Army Corps of Engineers. She is working on a report of her findings. **Paul Laraway** completed the solids models and a written report of the above deltas for this project. **Jessica Garcia** and **Adam Pasciak** completed their training in groundwater modeling and helped Paul in the preparation of graphics for the report.

### Photo Gallery (Advanced GIS Research Project Presentations, May 2010)



**Building An Underground Water Protection Model**  
*Jessica Garcia, Adam Pasciak, & Azeal Martinez*



**Deforestation of the Bolivian Amazon Rainforest**  
*Alan Hodges, Jarret Pawlik, & Cathryn Pratkan*



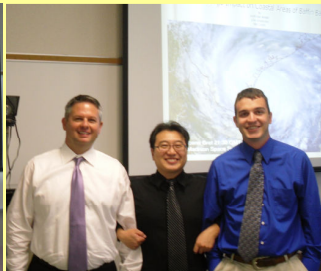
**Monitoring the Increasing Heat Island Effect in McAllen, TX**  
*Thomas Schuenemann, Joege Trevino, & Jonathon Boehm*



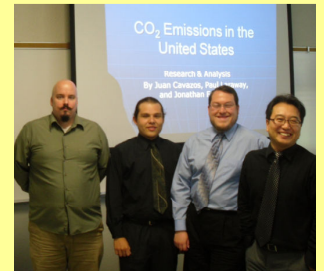
**The Effects of Habitat Heterogeneity and Riparian Proximity on Avian Abundance**  
*Eric Grahmann, Lea Garcia, & Megan Rudolph*



**GIS Based Student Distribution of TAMUK for Recruiting & Student Management**  
*Hari Prasad, Wanda Silva, & Cody Swyden*



**Storm Surge Impact on Coastal Areas of Baffin Bay**  
*Scott Van Winkle, John Schuman, & Alec Cortez*



**CO<sub>2</sub> Emissions in the United States**  
*Juan Cavazos, Paul Laraway, & Jonathan F. Stroup*



**GIS Enhanced Visualization of Anthropogenic CO<sub>2</sub> Sequestration in Depleted Hydrocarbon Reservoirs Along the Gulf Coast**  
*Michael Schneider*  
**Seasonal Correlations of MODIS Aerosol Optical Thickness with Ground Based PM<sub>2.4</sub> Concentrations Measured in Texas**  
*Saritha Karnae*