



Information & News for Prospective and Current Students and Alumni

November 2014 Newsletter



Guana Island

Iguanas on Guana

Each October, when Lubbock's temperature plummets to the 70s, Dr. Gad Perry and six lucky graduate students travel to the British Virgin Islands in the Caribbean. Though frequent boat trips and tropical forest hikes appear to belong in the realm of "play" rather than "work," the primary purpose of Dr. Perry's trip is research.

During his time on Guana Island, Dr. Perry, a conservation biologist and herpetology specialist, focuses on studying the native stout iguana and the impacts of an invasive beetle on the native century plant, the agave. "The iguana is a critically endangered species, with only a few hundred individuals known worldwide," says Dr. Perry, whose research is geared towards ensuring the survival of the iguanas. "By the 1950s, stout iguanas were only found on Anegada Island, and by the 1980s, their numbers were in steep decline." A combination of factors led the iguana to become endangered: climate change, human exploitation and persecution, and competition for food with domestic animals gone feral. "Without the intervention that brought some animals to Guana, and from there to other islands, and without establishment of a headstart facility on Anegada Island, the species would probably now be extinct," Dr. Perry says.

Dr. Perry also studies the native century plants, which some scientists identify as essential to the function of local ecosystems. The agave was once very common on Guana and throughout the islands. Local bats, birds, and insects depended on agave flowers as a food source suffered and continue to do so as agave numbers remain low. (Island residents, too, had a use for the agave—it served as their Christmas trees.) But after "the arrival of an invasive weevil just over a decade ago," Dr. Perry says, "the agave's population plummeted." Now, Dr. Perry "monitors the spread and persistence of the agave throughout the archipelago." His is the first serious inquiry into the agaves' decline and impact on the food web. "Issues of invasive species and their impacts and preservation and restoration of endangered species are universal," Dr. Perry says. Hopefully, with time and Dr. Perry's conservation efforts, the endangered species on Guana will flourish again.

An average day on Guana Island:

"There really aren't many 'average' days. On any given day, I may be on a boat for 8 hours straight, helping corral iguanas, dealing with my other duties, which don't go away when I am here, meeting with landowners or management agency personnel, helping solve problems for any of the 10 or so projects going on at any one time, working with the graduate students who come here for the class... It does not get boring," says Dr. Perry.

Interesting facts:

1. We've been running a graduate-level class in Guana every October for over a decade, and this year's project focuses on the damage that feral sheep do to native vegetation.
2. Guana has higher species diversity than would be expected from its size.
3. The owners have been very supportive of the research and restoration work, funding it since 1980.
4. Over the years, some 200 papers have been published based on the research (of many people) in Guana.
5. The food is great. So are the rooms and service. It is easy to see why this is such a high-end resort during the rest of the year.
6. Guana was just awarded the Caribbean Tourism Organization's 2014 Biodiversity Conservation Award!

Working with students:

In addition to inviting undergraduate and graduate students to conduct research in the British Virgin Islands, Dr. Perry also facilitates hands-on learning experiences for elementary school students on Guana Island (pictured to the left.) The students and volunteers participate in the Youth Empowerment Programme (YEP), whose goal is to encourage student engagement with wildlife and ecology, among other subjects. Under the supervision of the scientists, the students handled and learned about snakes, the native stout iguana, and insects. After the class, several students came back to study insects, iguanas, and the marine life near the island.



A Note from the Chair



I want to say Welcome & Thanks to Maggie Zebracka whose energy and enthusiasm is responsible for this newsletter, which I hope will be a regular Department feature. I apologize for the expansive coverage of Dr. Perry. 'Blame' for this lies mostly with peoples' willingness to provide info for this inaugural newsletter. See also *link* for a new video blurb on Dr. Boal's work on Guana Island too. I am very pleased to have someone (Maggie) with the eyes of an interested public and experience of a magazine editor who wants to write on NRM topics. Features we hope to keep regularly in this monthly publication include: calendar of events, new course notices, fellowship/ scholarship, and job/internship/ volunteer opportunities.

I hope you feel, as I do, that this is an exciting time for NRM. We are entering a new 'era' with the growth of our faculty. We already have many new people, ideas, and directions for collaborations in and beyond NRM. We will also soon have many new classes and graduate students who will be looking, with our new faculty, for new interdisciplinary ideas and research. I see this happening already and it is great timing for us in Texas. We are a few years ahead of A&M, which will be going through a similar faculty

turnover, and can fill vacuums left by other departures or changes in the Southwest. The movement that has already happened, through and independently of the Climate Science Center, illustrates new directions where we can be on the cutting edge.

Our faculty, in collaboration with PIs from TIEHH, BIOL, AAEC, PSS, LA both at TTU and from other institutions, have proposed >\$9Mill in the last 2 years (>\$5Mill 1st year funds). They have actually been awarded >32 awards totaling >\$1.8Mill in new external research funding. This is only 1 metric. Given new faculty start up support and these external grant funds we now have >70 graduate students (nearly twice what we had in 2010). We are beginning to revamp and use on-campus labs and are trying to increase our research fleet and support staff. New problems running across my desk include: needs for more grad space, juggling classroom space and new curricula needs, struggling to provide NRM support for all the new personnel & students. These are actually good problems to have. I truly am looking forward to where will decide to go in these next years. Please come visit with me any time you want with ideas or concerns about what we might need to be doing to get where we want to be going. Please also visit Maggie so the next issue could be about you and your students/labs work.
Mark

Recent Alumni

Peter Schlichting



After graduation in August I accepted a post-doctoral position here at Texas Tech with Dr. Dabbert and Quail Tech while continuing to teach undergraduate classes. I am focusing on publishing my dissertation research as well as quail manuscripts. I will soon begin searching for tenure track or research based positions.

Matt Van Landeghem

I am currently an instructor in the Natural Resources Management Department, teaching NRM 1300: Environmental Science as a Social Pursuit. In addition to my teaching duties, I am also continuing some of my research work on golden alga. I recently developed a niche model for golden alga. I am combining this niche model with a series of autoregressive-moving average models to project which waterbodies in Texas golden alga might invade next. In the next few years, I hope to continue both my teaching and research work by obtaining a tenure-track faculty position back in the Midwest, which is where my family is located.



UPCOMING EVENTS

Every Wednesday from 9:30 - 10:30 AM:
ANRS Coffee Hour (CASNR Annex 133)

November 14th: ANRS Seminar with Dr. Cinthia Sorrenson from the Dept of Geosciences (GO 101 at 12 PM)

November 18th: Texas Tech Range Wildlife and Fisheries Meeting: Tyler Campbell (GO 101 at 7 PM)

November 21st: ANRS Seminar with Dr. Preston Bean from TPWD Inland Fisheries (GO 101 at 12 PM)

December 1st: Texas Tech Range, Wildlife, and Fisheries Christmas Party (GO 101 at 7 PM)

GRADUATE FELLOWSHIPS

General Graduate School Fellowships
November 15th: application opens

Presidential Fellowships
November 15th: nomination opens

Doctoral Dissertation Completion Fellowships
December 1st: program announced

NEW SPRING 2015 COURSES

For graduate students:
RWFM 6002: Raptor Ecology and Conservation

"We will review North American birds of prey, examine general raptor ecology and behavior, and discuss research and conservation methods and issues applicable to the taxonomic group."

CRN: 38732 / 3CRH / T & Th Time TBA
Contact: Dr. Clint Boal

For graduate students:
LARC 6402: Regional Planning & Design
"Learn how broad landscapes work in physical, social, environmental, and ecological contexts."

Th 12:30 - 1:20 & 2:00 - 4:50
Contact: Dr. Sohyun Park

RESEARCH OPPORTUNITIES

Graduate or Undergrad Field Assistant Needed over Christmas Break

Duties: Assist in the collection of data on winter roost use by bats in Louisiana.

Pay: \$750/trip.

Requirements: Willingness to work hard / Must be able to work outside / Be an NRM or Biology major.

Contact: Dr. Richard Stevens
(richard.stevens@ttu.edu) Goddard 007D