

***AcademiCast* Transcript**
Texas Tech University
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Allen: What's the buzz surrounding the decline of bees?

Hello everyone, I'm Katie Allen and this is AcademiCast, brought to you by Texas Tech University.

The sudden death of North American bee colonies the past four years has stumped many scientists, but a Texas Tech biologist, along with a group of U.S. researchers, could be closer to finding an answer. TTU biological sciences professor Shan Bilimoria says the bees could be taking a hit from both an insect virus and a fungus, causing the bees to die off by the billions.

Bilimoria: *This virus needs to be isolated from bees, and we are the people who are going to be doing it. That's the arrangement that has been made. We have actually applied for a USDA grant with that collaborative group. Slightly less than half the money will come to Texas Tech out of about half a million dollars. If it is funded, we will soon be able to isolate the virus. Once we have the virus isolated, then we can identify it. Once it's identified, then we can track it. We can monitor colonies.*

Allen: The colony deaths are a concern for those in agriculture, as bees are needed to help pollinate crops.

Wind energy research continues to take off. TTU was included in a \$5.2 million grant from the U.S. Department of Energy to advance two projects. The first will help more accurately forecast when and where electricity will be generated from wind power. The second will aid in the development of mid-size turbine technology, which includes developing turbines with two blades.

Texas Tech's Edward E. Whitacre Jr. College of Engineering has been awarded funding from the National Science Foundation to also help further wind energy research as well as research related to the Gulf of Mexico oil spill and many other projects. The NSF grants totaled nearly \$1.75 million. More information about these grants can be found on www.today.ttu.edu.

Herpetologist and biology professor Lou Densmore is continuing his research examining the American crocodile. But in addition to his research, Dr. Densmore is also bringing an understanding of science to children in the community. Here's Provost Bob Smith with more from this integrated scholar.

Smith: In football, players who are "triple threats" are those who excel in running, kicking and passing. In the performing arts, the term is used to describe artists who are great at acting, dancing and singing. In higher education, faculty members who excel in teaching, research and service are "academic triple threats." Dr. Lou Densmore is an

“academic triple threat,” which is why he was named as a 2010 integrated scholar at Texas Tech.

Dr. Densmore’s research is focused on studying some of our world’s most fascinating creatures: reptiles, particularly the American crocodile.

***Densmore:** For those of you who don’t know, American crocodiles are among probably the second or third of all biggest crocodiles, and we’re looking at the genetics of those populations. What our goal is, is to make them a sustainable resource throughout their range so that people can farm them like they do the American alligator and get meat and skins. We’re also working on trying to understand the relationships between the American crocodile and other New World crocodiles, specifically the Cuban crocodile, which has allowed us to go to Cuba a couple times and work with some of our colleagues there.*

Smith: Undergraduate and graduate students have the opportunity to learn from Dr. Densmore, both at Texas Tech in Lubbock and at the university’s center in Junction, Texas. Regardless if he’s teaching biology majors, or non-majors in introductory courses, Dr. Densmore’s strategy is to get students engaged in the topic of study.

***Densmore:** My strategy is that first of all you’re genuine, and secondly you’re enthusiastic. If you love what you’re doing, if you love the topic, if you feel comfortable with the topic, the students can see that, and if they see that, they want to learn. It doesn’t matter if it’s new to them or something they don’t find completely interesting before you start, if you’re excited about it, it means a lot.*

Smith: In addition to his research and teaching obligations, Dr. Densmore has many service projects, including anything from teaching master naturalist courses, to giving talks at state parks, to teaching elementary school children about the importance of biology.

***Densmore:** There is nothing like learning first-hand—touching, grabbing, getting a handle on something that you’ve only seen on TV or maybe never seen on TV. I think it changes kids’ lives, because I think they get an appreciation for life, for the diversity on this planet, and they get an appreciation for the fact that people can be interested in these animals and end up being at a university but still keep that interest that drove them from the time they were 5 or 6 years old themselves.*

Smith: Dr. Densmore believes that when you use research, teaching and service to complement one another, you strengthen each component individually.

***Densmore:** Certainly, you have to establish your research program. That is one of the major reasons you will be promoted and tenured. But, you also have to appreciate that, at least in my department, the very best researchers are also some of the very best teachers. We actually try to minimize the service that our new faculty have to do at least for the first couple years, but once we promote and tenure them, we definitely want them*

to take part in service to community, service to the university and certainly service to the department.

Smith: Listen for more Texas Tech integrated scholar interviews in upcoming podcasts. Thanks for listening! I'm Bob Smith.

Allen: Thanks, Dr. Smith. As Halloween has just past, many have had ghosts, goblins and witches on the mind. A Texas Tech researcher has written a new book about the most well-known witch saga in America. Gretchen Adams, an associate professor of history, tells how society was influenced by the Salem witch trials in her release of *The Specter of Salem: Remembering the Witch Trials in 19th Century America*.

Adams says while we think of the witch trials today as poor leadership and abuse of government powers, there was a distinct meaning to the witch trials unique to the 1800s.

Adams: All memory is dependent upon context, and the preoccupations in the 19th century are really often excess democracy. So, you don't have persecution attached to the witchcraft trials in the 19th century. Instead, you have fear of irrationality, fear of old world superstitions and practices, but mainly the idea that the community could rise up under the thralls of religious passions, or even political passions.

Allen: I'm Katie Allen for *AcademiCast*.