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Aldemaro Romero Jr.
CUNY Bernard M Baruch College

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Regional

Jennings studies environmental pollutants

David Jennings, an assistant professor of biology at Southern Illinois University Edwardsville, studies frogs. While this fact may make you appear as your typical field biologist, he is much more than that. He studies frogs and other animals in order to understand what we humans are doing to the environment.

Born in Raleigh, N.C., he obtained his bachelor’s degree in biology from Kansas State University, his master’s in biology from Rutgers University and his doctorate in biology from the University of Colorado. For Jennings, the frog is the ideal subject for studying the environment. Because frogs experience both the land and the aquatic environments, they are very sensitive to environmental changes.

“Their skin is also permeable, so any thing in the environment can get through into their bodies,” said Jennings. Even temperatures may determine the sex of some of these animals. “There are certain enzymes that are involved in converting a male into a female or vice versa.”

“Frogs are really interesting, because most of them spend half of their lives in water, then they metamorphose from a tadpole to a frog, they come on land, and in the process they go through a number of physical and biological changes,” Jennings added. “The frog I have studied is actually a tropical frog. They do not have a tadpole. They lay their eggs on land and they develop directly into adults, so no tadpole, no swimming. They have four legs right away.”

Unlike most frogs in North America, he explained that frogs in Central America do not have tadpoles.

One area Jennings has been studying is the ability of organisms to respond to changes to environmental conditions. “I think that one of the things evolutionary biologists have become very interested in is overcoming climate change,” he said. “And that is how quickly you can respond to environmental changes or how flexible your development is, for example.”

When it comes to changes that are due to evolution, biologist look at not only changes in the external features of organisms, but also in their physiology and behavior.

“We all see DNA as our information system,” he said. “Bacteria, plants, they all see DNA as their information. Among vertebrates the basic genetics are very similar. We share 99 plus percent of our genetics with mice, but we do not look like them.” Although we are genetically so similar, anatomically and physiologically we are not.

“The main thing that people seem to be thinking is that it is not about what you have, it is about how you use them, regulate them, when you turn them on or off. How long are they active, how fast they change,” Jennings explained. “It is like having a hammer versus a chisel. It is not one tool, but the way in which you use it that determines what you actually end up with. These gene’s development work in the same way.”

At just why is frogs to study these evolutionary phenomena. “The thing that interests me most about frogs is their hormones. Thyroid hormone in frogs is the same as thyroid hormone in humans,” he explained. “Unfortunately hormones are really that different, so when you introduce chemicals into the environment, they can potentially get into frogs and other life, so that might be one of the reasons for frogs declining. It is that pesticides in the water might be doing that, and might also be affecting human reproduction.”

Jennings is the Dean of the College of Arts and Sciences at Southern Illinois University Edwardsville.

Mark Polk/Intelligencer

Pensions

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“The pension debt from the state government to the local school district is absurd,” he said. “He is saying: ‘This government’s problem to address and we must solve it, not in the expense of the taxpayers,’” he said. “We need help from Springfield.”

Educational-Process Department Lieutenant Jeff Mills was delighted with the gesture. “It is fantastic,” he said. “Just to still be recognized by the schools for something that took place 11 years ago – just remembering – that’s fantastic to all of us. We’re happy the kids came down and it meant a lot to everyone that you were here today – not only from the police department but the fire department.”

Peffley explained that her students had been looking forward to the event. “They don’t have an understanding of what it is,” he said. “They are too young. But they were very excited to come and say thank you to the department.”

Police officers and firefighters returned to their jobs with the pride of students’ hand-made thank you signs and posters. “We were very excited to make our sign,” said one of the students. “We wanted to thank our local police.”

While Loyd’s donation will keep museum volunteers busy, they’re never letting down their guard. “There are very few programs that are as effective as the college-age people are aware of the health problems associated with obesity, diet and exercise,” continued Martin. “There are very few programs that are as effective as the college-age people are aware of the health problems associated with obesity, diet and exercise.”

Minor weight gains affect college students

By PHYLLIS PICKLESIMER

Julia Biggs/Intelligencer

As a college student, you may be happy simply not to have gained weight in the summer. But for instructors at the University of Illinois study shows that at least 1.5 percent per year is enough to raise blood pressure in that age group, and the effect was more pronounced for young women.

“Most of the time it was strong to raise a college student’s blood pressure,” said Jeff Peterson. “About 5 percent to 10 percent of the people we tested, the young women, the young women it was strong to raise a college student’s blood pressure.”

Physicians are concerned about the risks of obesity to people over 60, but this is not the case among people between 20 and 30 years old. The study showed that weight gain among men was not affected by age. But in the case of women, the impact of weight was significant.

“One year’s changes in body weight were associated with increased blood pressure for both men and women. In the 25 percent of the participants who had a weight gain of 5 percent or more, that gain was associated with higher blood pre ssure. The changes were more significant for women than for men,” he said.

“The good news is that the reverse is true. Women who lost more than 5 percent of their body weight saw reductions in their blood pressure,” she added.

The harmful effect of weight changes on obesity is especially pronounced among Mexican-Americans, who are at greater risk for obesity issues. In the United States, 11 percent of Mexican-Americans say they are overweight, ranging from 13 percent of adults in the 20- to 39-year-old age group to 20 percent of adults age 40 and over, she said.

“We have learned that high blood pressure is caused by chronic behavior problems that can begin in late adolescence or early adulthood, particularly for persons of Mexican descent in the U.S.,” said Martin.

It is a matter of history of hypertension and heart disease among Mexican-Americans. "The negative correlation between young adults and physical activity, this could be a sign of the times and to combat it, physical activity is important, and many young adults are not participating in the recommended amount of 1 to 2 hours per day, "she said.

The study birds that frogs have diets that can be affected by the increased local property taxes. That’s the not the solution. That’s just passing the buck.”

Martin said the donation also includes a donation to the University of Illinois Library. "It is a donation to some thing else that is not just for the library," he said. "We have church documents and we do get gifts for things like that."" Glen Carlson. Historical information is also part of the donation. "A pensioner is Martin sort through the material and said “We got it all to a national version to the village. "Not only did she give us her research, but the book that document is a national version to the village. "We got it all to a national version to the village.""

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