

THE UNIVERSITY DAILY KANSAN



Catching up with the Kansas Relays

The Wave takes a look at four full days of track and field. **THE WAVE | INSIDE**

Refugees speak at KU event

Invisible Children visited campus to promote awareness Tuesday. **CAMPUS | 6A**

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LIZARD TALES

LAWRENCE



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Spencer Walsh/KANSAN

Mayor Robert Chestnut is congratulated by his son Spencer, a senior at Free State High School, after giving his thoughts about being mayor for the past year to the Commission Council. Chestnut passed on the responsibilities of mayor to the newly selected Mike Amyx.

City officials select Amyx as city mayor

BY ALEESE KORE

KU graduate discovers new lizard species in Philippines

BY ROBERT ALTMAN
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After two months scouring the jungles of the northern Sierra Madre mountain range on the Philippine island of Luzon, KU graduate student Luke Welton still hadn't caught a glimpse of the elusive.

His researching team was nearly out of food, money and morale. Still, with only two days left in the expedition, Welton, of Lawrence, sensed they were closing in.

"We had seen its claw markings up and down trees and even heard reports from local villages that the lizard we were after had been caught and eaten on three different occasions in only a week at that site," he said.

Then, after a midday snorkel, Welton spotted the six-and-a-half foot fruit-eating cousin of the Komodo dragon. Known to the locals as bitatawa, the lizard was strapped to the back of a hungry tribesman who was heading home for lunch.

With the help of Filipino

translators, Welton and the team of researchers convinced the hunter to part with the animal, and after conducting tests, they confirmed it was the third known species of fruit-eating monitor lizard in the world.

The species, now known as *Varanus bitatawa*, is more robust than other *Varanus* lizards, and has unusually vibrant black and golden yellow scale coloration. It is also equipped with unique reproductive organs.

To the local Agta and Ilongot tribes, the bitatawa is known as a delicacy for having tastier meat than the more common carnivorous monitor lizards. Welton said this had made them more of a reclusive animal. They seldom stray from the dense forest, often spending most of their days high in trees.

Once back at the KU Biodiversity Institute, Welton, along with doctoral student Cameron Siler and Rafe Brown, assistant professor and assistant curator of ecology

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Contributed Photo

Luke Welton, a graduate student from Lawrence, shows off a new lizard species. Welton and his research team spent nearly two months searching for the lizard on an island in the Philippines.

To watch a video about the new lizard species, visit kansan.com/videos.

LIZARD (CONTINUED FROM 1A)

and evolutionary biology, compared DNA sequencing of the specimen with its relatives to confirm it was a new species. The three coauthored and published a report on their findings this month in *Biology Letters*.

"Field work can only do so much," Welton said. "In order to validate this thing as being an actual scientific discovery, it required many more hours of lab work here back at the University than in the field."

The adult male specimen revealed distinguishing shape morphology to its double-barreled reproductive organ, or hemipenis (a feature common in many reptiles), creating a lock and key effect in that it can only fit into females of the same species. This prevents any gene flow among different populations.

Brown said he hoped the discovery would encourage ecologists to study the lizard's lifestyle and behaviors.

"We need them out there before we can really understand this animal," Brown said. "Now they should have a pretty good idea where to look."

Researchers aren't exactly sure how bitatawa came to the

northern mountain forests of Luzon because open ocean and river valley barriers separate it from its closest relative, *Varanus olivaceus*, commonly known as Gray's monitor lizard.

"One of the hopes of my own personal research is to gain a better understanding of the evolutionary history of the group," Welton said. "When I was a little kid, I had this dream that I would be able to name new species of animals, and being able to do that so early in my career makes so many things seem possible."

Welton said he became interested in herpetology, the study of reptiles and amphibians, while attending Free State High School and eventually managed Pet World's reptile breeding center while working on his undergraduate degree. He has published three species descriptions so far as a graduate student under Brown and will get more opportunities to conduct field-

work on monitor lizards for his master's degree, thanks to the grant that funded last summer's expedition.

Brown, who wrote the proposal for the grant from the National Science Foundation, said the studies in the Philippines were impor-

tant to preserving the biodiversity of the region, which is under constant threat of deforestation.

The grant has set out to comprehensively survey the biodiversity of vertebrates in the Philippines and will fund five to six expeditions each year for another three years.

"Every trip I've been a part of we have found at least a half-dozen undescribed species," Welton said. "We're all eager with anticipation to see what else we can turn up."

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LUKE WELTON
KU graduate student

— Edited by Megan Heacock