

EDUCATION

# Rattlesnakes Under the Radar at Mesa Community College

By AnnElise Makin

With spring around the corner, you might be worried about a rattlesnake encounter, but although they are in the desert around us, they won't leave their encounters with humans to chance.

Nonetheless, this is Arizona, home of 13 rattlesnake species. As many as 12 representatives of these live in terrariums inside the Mesa Community College (MCC) Red Mountain Biology Department, but it would only be natural that others roam the college's original desert campus freely.

"Many people don't know rattlesnakes are out there, and they are being tracked," explained Andy Bridges, an Arizona State University graduate biology student and coordinator for the Rattlesnake Tracking Project at MCC.

On a daily basis, one of Andy's team of students screens various vital signs of five snakes, and logs the information into a spreadsheet. In the winter, locating the snakes gets a lot easier because they don't move so much.

"The idea started in November 2007, when a rattlesnake was found on campus," Andy recalled. This first snake was named Lola. Since then, Lola has continued to provide a real-life research opportunity for undergraduate students at MCC. The other four diamondbacks under observation are Ozzie, Zoe, Phoebe and Koko.

"This campus provides a unique environment, a desert island in an urban environment, to study behavior patterns in rattlesnakes," Andy said. The snake trackers want to know what each snake's home range size is, what habitat they choose, what they eat, how often they hunt, when they mate or how many offspring they produce.

Students from MCC—they are not allowed to handle snakes—use a transmitter to pinpoint the location of a snake. A directional antenna and receiver are tuned to a

unique frequency specific for each snake. Together with a GPS device, students are able to record vital information without having to handle the snakes.

Data of interest, for example, are the air temperature and the snake's body temperature. Combined with the location points and other information, each snake's activity, range and behaviors are charted.

Reliably tracking five rattlesnakes is quite a commitment.

"We track once each day, each day of the week, and it takes between one and two hours," Andy explained. In addition, the equipment used is quite costly. Every year, for example, the transmitters in the snakes must be replaced.

And how is this done? Red Mountain's snake handling faculty,

that is, life sciences professor Dr. Andy Holycross or biology instructor Krya Perry, will locate the snake, retrieve it with a snake tong, and safely put it into a plastic container.

Then, wildlife veterinarian Dr. Richard Funk will be called in to perform surgery. The rattlesnake is made to crawl into a clear, narrow plastic tube, which largely immobilizes it. Then, the surgery is performed with the snake under anesthesia.

Those are the high moments of the study in which the trackers friends and families try to participate. But the commitment alone of observing desert life on a regular basis has many rewards for the students.

"The more you get into it [tracking rattlesnakes], the longer you want to spend on watching," Andy stated, "and the more you learn about their behavior."

For example, Andy was thrilled when baby snakes were spotted.

They were probably about 3 weeks old, he judged, because their rattles did not make noise yet.

"This year, we recorded eight juvenile rattlesnakes," Andy said. "They have a high mortality rate because they easily fall prey to roadrunners and other natural enemies." Young snakes not large enough for a transmitter are pit tagged only for identification.

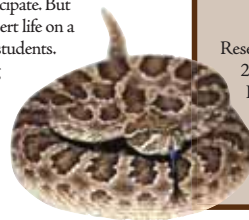
Until last summer, none of the young specimens had yet been recaptured. So, it was a great deal for the trackers when one juvenile diamondback was caught and identified twice more.

"Rattlesnakes are misunderstood by a lot of people," Andy concluded. "They are not interested in preying on people, and strike or bite humans only in defense. Trying to spot them in their natural habitat requires a trained eye with perfect vision."

Even experienced trackers have circled a bush several times with beeping signals before the mottled diamonds revealed themselves. That's how well they blend in.

In conclusion, Andy said, "There has never been a negative contact with a rattlesnake on this campus." Through the tracking project, we all might get to know them better.

Come and hear a rattlesnake researcher talk about his field experience at the MCC Red Mountain Family Discovery Series on March 25, at 7 p.m., in the Saguaro Building. ■



## MCC Family Discovery Series: Rattlesnake Research

Find out more about The Life of a Rattlesnake Researcher at the Family Discovery Series on March 25, at 7 p.m., in the Saguaro Building (RAP Center). Project Coordinator Andy Bridges will speak from rattlesnake tracking experience and illustrate the method and equipment used. He also will provide plenty of tips on positive contact with snakes, or, if you prefer, snake control and avoidance.

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