

It was late September when we began our snake study at The Nature Conservancy's Muleshoe Ranch. Fall was fast approaching and with it cooler temperatures. To heal properly from surgically implanting a radio transmitter, a snake needs to keep warm for several weeks, so we gave ourselves a week to find, capture and implant transmitters in up to ten rattlesnakes.

## The Story of Chris, the Arizona Black Rattlesnake

ith the assistance of a herpetology class from Wales, we set out on our search for rattlesnakes. We spent the first afternoon searching the canyon bottoms, weeds high from summer showers. Every so often, the rasping drone of cicadas was pierced by an excited, "snake!" We would quickly converge to identify and admire the find.



Melissa Amarello searches for snakes at the Muleshoe Ranch. © Jeffrey Smith/TNC

To our delight, we were confirming Muleshoe's reputation as a great place for snakes. That first day brought one black-tailed rattlesnake and nine western diamond-backed rattlesnakes (only two of the latter would become part of our study). But our primary focus was Arizona blacks.

The Arizona black

rattlesnake is not a well-known species. It occupies mid-to-high elevations across Arizona and barely "slithers" into western New Mexico. It is an exceptional illusionist, sometimes changing color from a uniform velvet-black to ash-gray with brown blotches to avoid detection by prey and predators. Like a Cheshire cat, an Arizona black seems to reveal itself only when it chooses.

We searched for three days without luck. At the end of the fourth day, we finally caught sight of our first Arizona black, neatly coiled in a canyon beside some flood-borne logs. He was shiny black, conspicuous in the sandy wash. As with most coiled rattlesnakes, he remained motionless until touched. When lifted gently by snake tongs, he unraveled, his head and tail drooping into a bow. He cocked his head at us, looking incredulous at being discovered. Before he could react, we popped

him into a bag and headed back to headquarters. We were ecstatic, and with renewed vigor, our searches soon yielded three more Arizona blacks to our study.

In a week's time, seven rattlesnakes of three species now carried transmitters and names. While most of the snakes were named for their discoverer or perhaps a celebrity, "Chris" was the name we chose for the first Arizona black to enter the study only for the sheer improbability of a snake so named.

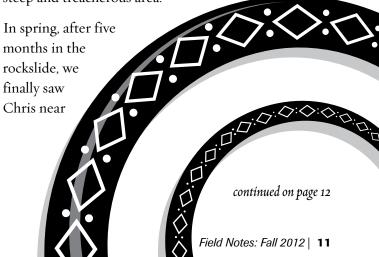
With the first phase of the project complete, we settled into a tracking routine, checking on each snake about every third day. While some hid out for a few days after surgery, Chris was visible when we first checked on him. He was coiled in low weeds, alert, and patiently waiting for a lizard or rodent to happen by.

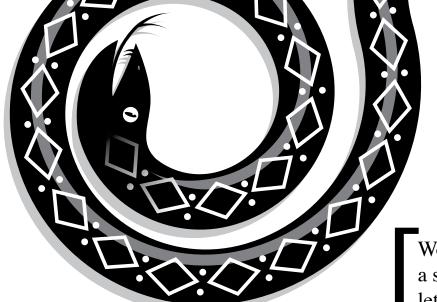


Chris, the Arizona black rattlesnake © Jeffrey Smith/TNC

By October mating season has passed, so all that remains for a rattlesnake to do is get a few meals then head to the safety of a winter shelter. Chris was the first to arrive at his wintering site; he'd gotten his fill and was ready to close the book on 2011. Seemingly in challenge to his bipedal followers, Chris

led us to an unstable rockslide, moving around within it before finally settling beneath a particularly steep and treacherous area.







We sat motionless amid the catclaw, a silent moment for a snake that had let us witness his life.



Jeffrey Smith uses a radio transmitter to search for snakes. 

Melissa Amarello

the surface, basking in the warm sun. During spring emergence snakes seem groggy and cautious, gradually leaving the safety of the winter site. Chris, however, quickly moved from the rocks to the canyon bottom.

While the other snakes would only be partially visible beneath a rock or a plant,

Chris was often stretched out, flicking his tongue to gather information on favorable hunting sites. If he sensed us he would pause and look at us. We would stand still, which helped convince him that we posed little threat.

One day in May, we tracked Chris up out of the canyon bottom where he'd been. We followed his signal up the bank and into some tall mesquite trees. Ducking branches and climbing over fallen limbs, we could tell we were getting close. The final obstacle was the most robust patch of catclaw acacia we'd yet come across. To find Chris, we dropped our packs and slowly entered on hands and knees, stopping to remove the sharp, recurved claws. This first intrusion was cut off by the armored tangles, so we retreated, haltingly, without seeing Chris. We entered a second time and a second time we retreated.

With resolve, we made a final incursion into the stronghold; the plant's claws clutched at flesh and clothing until the tips gave way, leaving embedded needle-sharp triangles. Inching forward we glimpsed an unnatural red protruding from loose soil. It was Chris' transmitter, and nearby were a few dried fragments of vertebrae and thin ribs.



Arizona black rattlesnake eating a lizard. © Melissa Amarello

We sat motionless amid the catclaw, a silent moment for a snake that had let us witness his life.

The lasting impression he left was one of boldness and audacity. Chris' large size attested to his success as a predator. But the dangers assumed by his hunting style finally caught up with him. Stretched out, a black snake

on light sand, Chris probably was headed across the wash when a predator found him.

His daredevil attitude made him fascinating to study, but also may have been his undoing. And it is what will make us remember him − with wistful smiles.

## -Jeffrey Smith & Melissa Amarello

Melissa is a biology graduate student at Arizona State University and a volunteer naturalist at Muleshoe Ranch. Jeff is guest services and outreach coordinator at Muleshoe Ranch.

