

Learning to Live with Mountain Lions

To provide more insight into the ecology of mountain lions in the region, researchers are collaring and tracking the large cats through the Global Positioning System.

The U.S. Geological Survey, in a collaborative effort with National Parks in southern Utah and northern Arizona, is hoping to better understand movement, habitat selection and predation of the cougars. Researchers specifically want to know what's happening in the unstudied land between the San Francisco Peaks and the Grand Canyon, what corridors the cats are using and whether Babbitt Ranches may be a source area for mountain lions.

In a study that began in 2003, Cougars of the Flagstaff Uplands, wildlife biologists set out to investigate potential impacts of humans on lions and potential risks posed by lions to humans. Since then the project has expanded to better understand how the cougars are traveling through northern Arizona.

Wildlife biologist and project consultant Jan Hart says the study may include as many as 60 cougars, each collared for a year. "The collar sends signals to satellites and once a day we get an email that tells us the last six locations of the animal."

Researchers are finding that mountain lions are around people all the time.

Research wildlife biologist Dr. David Mattson and senior scientist on the study says cougars appear to be making interesting choices. "We are cohabitating with the cats. They are all over the trails, killing things and making a living, and we don't even know it. They are demonstrating phenomenal restraint."



Photo courtesy Brandon Holton

In addition, Mattson says mountain lions have a reputation for killing livestock; however, he has yet to document a single kill of a domesticated animal.

What they are killing are elk and deer, about every seven to 10 days.

Of 10 collared cougars studied between 2003 and 2006, 52 percent of their prey was elk, mostly calf and short-yearling; 46 percent adult mule deer; and, 15 percent small mammals, usually coyotes, killed by female cougars.

"It's recommended that people be careful when entering mountain lion country during dusk and dawn," said USGS geographer Terry Arundel. "You don't want to look like a prey object. A mountain biker can look like an elk."

Research results will be provided to public and private land managers to help them understand what areas the cougars are using and make decisions about the resource.

"This has been an exciting project," said Arundel. "Since we first started we were looking at cougars from a certain perspective, habitat use and movements. Now we are doing more realistic modeling of habitat movement and understanding their world within a three-dimensional space."

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Air Disaster Recognized for Contributions 52 Years Later

Ever since he was a child growing up on the White Mountain Apache Reservation, Benjamin Carver has been fascinated with history. His father and grandfather were history buffs and much of Carver's childhood memories include visiting historic landmarks such as Fort Apache and the Kinishba Pueblo Ruins.

Frequent encounters with those places and the day-to-day interaction with the ancient Apache culture influenced Carver's interest in history. He figured learning about history would always be an important part of his life. What he didn't see coming was that his curiosity about the past would put him on a cliff deep inside the Grand Canyon.

Landing him there was the Ecological Monitoring and Assessment Program and Foundation, a science-based entity established by Babbitt Ranches at Northern Arizona University.

Last November, Carver, now an NAU history grad student, and a team of National Park Service employees were helicoptered in to spend three days surveying the haunting site of a 1956 plane crash.

It was considered the worst disaster at the time in the 30-year history of American commercial aviation and now is eligible to be considered for the National Register of Historic Landmarks. Through EMA, the team is conducting the historical and archival research.

"This was a horrible tragedy that shocked the public. Two giant airliners collided in mid air and went down in

the Grand Canyon. This was the first really big civil aviation crash."

On the morning of June 30, 1956, the Kansas City bound Trans World Airlines Constellation and the United Airlines DC 7 on route to Chicago took off within minutes of each other from Los Angeles. Just before noon the two collided some three miles above the canyon. The crash sheered off the left wing of the United flight and sent it spiraling into a steep, rocky cliff. The now tailless Constellation plunged nose first into an area where the Little Colorado converges with the Colorado River.

Both planes burst into flames upon impact. None of the 128 passengers and crew members survived. Investigators speculated that poor cockpit visibility, distraction from duties caused by diversion over the canyon



to provide passengers scenic views and insufficient air traffic control were the main causes of the accident.

"The crash was significant for several reasons. It highlighted air traffic control problems that hadn't been resolved at a time when civil aviation was really picking up. For the first time in U.S. history, more Americans flew than took the train in 1956. As tragic as it was, it led to

much safer skies with the creation of the Federal Aviation Administration, nationwide radar coverage and the development of technologies like flight recorders that we use today."

The experience of camping in this remote location, documenting history and actually touching a piece of the past is the kind of unique learning that EMA promotes.

EMA, located on the NAU campus, was created six years ago through a vision and land gift from Babbitt Ranches. It facilitates research projects and cultivates relationships among land managers, governmental agencies, scientists, researchers, private landowners, professors and students. Projects have been developed in all six colleges at NAU.

"One of the solutions to current economic problems is to provide the workforce training and bring together entities that by themselves don't have the resources to conduct research or take on projects," said EMA Director Karan English. "In this region the environment is the economy and so if we want to have a healthy economy we have to have the labor force trained to take care of the environment. I want our students to have a deeper understanding of that connection. That will give them an advantage when they leave NAU and look for jobs."

EMA brought in nearly half-a-million dollars last year for research projects that supply landowners and managers information to help them make better decisions.

"Through EMA and this on-the-ground laboratory that is the Colorado Plateau, NAU is providing opportunities that other students will never have," said English.

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Article X

Section 1.

We do the very best we know how, the very best we can; and, we mean to keep on doing so until the end.

Article III

Cowboy Essence

Section 14.

Confidence

Demonstrate respect without fear. Being prepared and keeping all things in proper perspective creates self-assuredness.