

## In Search of Lost Carnivores

by Rebecca Patterson-Markowitz

March 12, 2015 was an exciting day for the Santa Rita High School Conservation Club. They were invited by Saguaro National Park (Rincon Mountain District) to retrieve data from wildlife cameras in the field as part of the Park's Lost Carnivores Project.



Santa Rita Conservation Club members enjoy "real" science projects in the field!

Jessica, Brendan, Sara, Chris and Jarred, high school freshmen and sophomores, and their teacher Josh Ruddick sat around the conference table in the Park's Education Center. They were heartily welcomed and introduced to the park and the project by Chip Littlefield, Environmental Education Coordinator. He scattered the table with topographical maps and shared anecdotes and statistics about the Lost Carnivore Project – a hypothesized decline of multiple carnivore species from the park, and what they are doing to find evidence to support this theory. He explained how in the last 20 years the park has gone from being on the outskirts of the mid-sized town of Tucson to becoming engulfed by encroaching development on nearly all sides, effectively blocking wildlife corridors. Josh chimed in at every great opportunity to link the narrative the students were being told about certain carnivores disappearing from the park to their curriculum including within-species trait variation and population trends. Chip especially

made the point to the students that the sorts of decisions the park staff were faced with in terms of reintroducing different native species as they seemingly disappear would be a responsibility that would fall to their generation in the not so distant future. It gave the students a new perspective and context for the meaning of stewardship, and what this will mean for their lives ten or twenty years from now.

After everyone had an understanding of the project, and what kinds of carnivores the wildlife cameras were hoping to photograph (skunks, kit foxes, raccoons, bobcats and more) we set out with Tina, our guide for the day. She and Chip had supplied the students with GPS trackers and the location of the cameras we were setting out to retrieve so they could practice their navigation skills.

Our group moved up a wash, finding petroglyphs on rocks, a dead desert tortoise, and glimpsed a mountain patch nosed snake stretched out in the sand. After trekking upstream and passing a few wildlife cams we came to the one we had set out to find. Tina showed students how to remove the SD card, and put it in a protective case. Then it was time for the students to pick out a location for an additional camera which we had brought from the education center. Both Tina and Josh asked the students to consider where a good location for a motion-sensitive camera might and might not be. We moved further upstream and the students chose a spot right where two forks of the wash came together, seeing each as a potential corridor and wanting to capture both. Jared and Chris took turns with a mallet putting in the stake as Sarah and Brendan loaded the camera with a card and batteries. Jessica documented the GPS coordinates in her notebook after it was set up. So as not to tamper with the data we moved out party a little ways away before sitting down for lunch.



Tina instructs students on how to retrieve camera data.



Students prepare to place a new wildlife camera in the field.

We moved past our handiwork, waving to the working camera as we made our way back to the education center for a wrap-up discussion. Students were asked to imagine themselves as the decision maker regarding the reintroduction of certain carnivores in the park, and asked to write down all the factors they would want to consider in making the decision after their experience in the field. We thanked Chip and Tina for their time, and headed back to school with a stop for ice cream for some hot and happy students.

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