

NEWSLETTER

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Jaguars in the Crosshairs of Science

Cameras are up and running

Thanks to the generous support by donors in Mexico and the US, 30 trail cameras were deployed in the month of May. May 31 is the official date for the beginning of Puuc Jaguar Conservation.

The Puuc Jaguar Conservation team consisting of 10 participants braved the scorching tropical heat to set up 30 camera traps in an area of approximately 112 km² (42.2 mile²) centered around the KaxilKiuicBiocultural Reserve. We are very thankful to all neighbors that allow us to work on their land.



Markus Tellkamp and John Hurd setting up a camera. Photo: Stephen Dennstedt

The team members on this outing were Dr. Markus Tellkamp, Faryen Mays, Casey Brown, and John Guice, Millsaps College; James Callaghan and Ricardo Pasos, EvelioUc, and Armin Uc, Kaxil Kiuic Biocultural Reserve; Stephen Dennstedt and John Hurd, volunteers. We were quite a diverse bunch, including college students, a photographer, a tech-savvy former emergency medical technician, professional biologists, an anthropologist, and local Maya.



Scratch marks made by an ocelot.
Photo: Stephen Dennstedt

The location for every camera trap was chosen after intensive analysis of the terrain using aerial images and topographic maps. The exact spot for each trap was determined in the field by looking for clear open trails and signs of wildlife, such as scratch marks and animal scent. We tried to avoid areas that appeared to be frequented by hunters. For six weeks the cameras will document every animal that passes in front of them.

Since May 31 our field crew led by James Callaghan and Ricardo Pasos has gone back to check on the cameras. Two cameras were moved to improve sampling of the study area and several cameras were checked to make sure they are working properly. And yes, they are working! Although no jaguar has crossed in front of a camera trap, we did obtain pictures of its biggest competitor, the puma.

In July the team will be back to move the cameras to a new 112 km² area to the south of the Kaxil Kiuic Biocultural Reserve, thus doubling the size of our sampling area. Most of the land included in that study area belongs to the Ejido of San Agustin. We are looking forward to working in that area as well.

El Jaguar y el Puuc

Excerpts from

<http://dennstedt.wordpress.com/2013/05/21/el-jaguar-and-the-puuc/>

by Stephen Dennstedt



First, a word about the jungle at *Kaxil Kiuic* Biocultural Reserve: It is impenetrable. Technically speaking it is referred to as a "Semi-deciduous tropical dry forest." However, it also qualifies as a jungle. From the image above you can readily see what I mean by impenetrable: Very dense, relatively new growth comprised of creeper vines, thick inter-tangled trees and heavy brush. And all with their intricate root and branch systems trying to ensnare you all the while. As long as you remain on a primary road you can navigate from point A to point B, but venture off onto a secondary or tertiary road and one quickly loses heart. During the next week we would not only leave primary, secondary and tertiary roads behind, but we would venture forth upon the very same game trails the Jaguar, Puma and Ocelot use as their super-highways as they transit this surreal landscape in the heart of the *Puuc*.

So what lured us into this hot and humid *Puuc* jungle during *Yucatan's* hottest month? The big cat on the left, the Jaguar, the apex predator of the New World. The largest cat in the world after the Tiger and African Lion. The Jaguar is at the top of the food chain in Mexico, Central and South America; it has no rival but Man. A few years back, by happenstance, a female Jaguar was captured on film using a remote trail camera. And that serendipity led to the creation of *Puuc* Jaguar Conservation under the larger umbrella of *Kaxil Kiuic* Biocultural

Reserve. *KaxilKiuic*Biocultural Reserve is both funded and operated by Millsaps College, a small liberal arts college located in Jackson, Mississippi, USA and founded by the Methodist Church in 1890. The two movers & shakers at *Kiuic* are: James Callaghan, Director of *Kaxil Kiuic* Biocultural Reserve, and Dr. Markus Tellkamp, Professor at Millsaps College and Director of *Puuc* Jaguar Conservation. It's been the vision of these two individuals to study further the big cats transiting the reserve: The Puma, the Ocelot and especially the Jaguar.



Team members studying a map in the field to find most suitable locations for the cameras. Photo: Stephen Dennstedt

A fundraising event was held in December 2012, and enough funds were raised at the *gala* to purchase thirty state-of-the-art remote trail cameras to be installed on the reserve. The purpose of these cameras is to gather photographic evidence of the big cats transiting the reserve and, in the case of the Jaguar, to help with individual identification. Spots, like fingerprints, are unique to each Jaguar. The cameras will provide the cornerstone ongoing study of these large

predators. It is hoped that through the collection of photographic evidence baseline populations can be established, as well as other useful information (such as transit routes) that may assist us in preserving these magnificent creatures. It took five months to get the cameras ordered, and to plan for their siting and installation, but finally it all came together last week.



Santos Armín Uc revising a camera.
Photo: Stephen Dennstedt

Prior to last week's expedition Markus and Ricardo (onsite field biologist) overlaid a Google Earth map with a grid containing fourteen quadrants (each quadrant measuring 16 SqKm in size). Each quadrant has been assigned two cameras (facing each other) to catch both sides of each photographed Jaguar. Tentative GPS coordinates were established for potential sites, but each site would have to be visited and confirmed, subject to the actual conditions found in the field. Potential camera sites would include natural watering holes, game trails and natural transit routes: the big cats normally travel a path of least resistance. Approximately 17% (or 224 SqKm) of the reserve's 1,300 SqKm will be photographically sampled for a period of six weeks.

Returning to Base Camp every evening we looked forward to showering in our thatched *Maya casitas*, the great *Yucateca* food served in

the communal kitchen, and our beer and soft hammocks at nightfall. Up again at dawn, a quick breakfast and the day's activities would commence once again. And the ever-present heat.

We continued our jungle-traipse for five days, and managed to successfully place 20 out of 30 cameras. The cameras will be moved in July. Of course in July the jungle will be teeming with mosquitoes, chiggers and ticks. It will be raining like crazy, and the roads and trails will be nearly impassable. Sounds like a good time will be had by all.



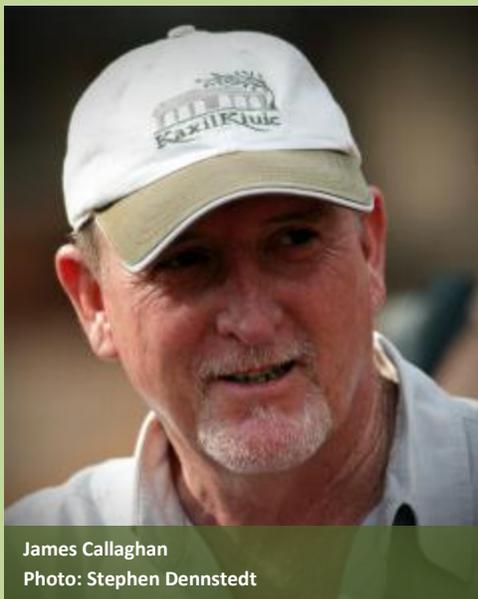
One of the first pictures: a puma crosses in front of a trail camera.
Photo: Puuc Jaguar Conservation

Final thoughts: It wasn't an easy week, but it was so worth it. We netted, weighed, measured, examined and banded local birds. We photographed many species of local birds, including the Pygmy Owl with the lizard in his talons. We became reacquainted with old friends like James Callaghan, Markus Tellkamp, Ricardo, Evelio and his son Santos. We made new friends with Big John (*Juan*) a Merida volunteer, Little John (*Juanito*) a Senior from Millsaps and, of course, Casey and Faryen (both Seniors from Millsaps). We successfully placed cameras. It was a team effort, and we had a great team. I still have aches and pains where I shouldn't, and a tad more sleep is due me. But all in all it was a wonderful and rewarding experience; not soon to be forgotten. I hope

that you've enjoyed my photography this week, and maybe just learned a little something from my narrative. In a few months time hopefully we'll have some images of the big cats to share with you all. Until then, buenas tardes amigos.

Meet the Team: James Callaghan Assistant Director

James Callaghan is a board member of Kaxil Kiuic, A.C. and director of the Kaxil Kiuic Biocultural Reserve. He has been a resident of Merida, Yucatan since 1970.



He holds an M.A. in Anthropology from the University of Alabama. Mr. Callaghan has extensive experience in working with education, research and conservation organizations. He was founding director Mayab University's Institute of Maya Culture, founding director UADY's (Autonomus University of Yucatan) non-profit organization, and has been a professor of Maya Civilization for a number of Study Abroad programs. He now represents Kaxil Kiuic Biocultural Reserve in several conservation networks or projects, such as Alianza Itzincab (The Nature Conservancy

initiative), a Network of Private Reserves, and REDD+ initiatives for Yucatan.

Mr. Callaghan's goal is to put Kaxil Kiuic's Biocultural Reserve on the map internationally as a model for research and education-based management of biocultural resources. The reserve is uniquely rich in flora, fauna and cultural history. Mr. Callaghan sees Kaxil Kiuic as an interactive project which continues to grow based on links between the local community, state and federal entities (both governmental and private), and educational institutions in Mexico and abroad. He also feels his work gives him an opportunity to show his appreciation for the community in which he lives.

Thank you Jack and Catherine Robinson!

Jack Robinson and Catherine Rael are going to step back from the project. They will still support it, but will not be as involved as they have until now. Puuc Jaguar Conservation thank Jack and Catherine for their hard work and dedications! Your enthusiasm and energy will be much missed.

Questions?

If you have any questions about the project or wish to volunteer, please contact Markus Tellkamp (tellkmp@millsaps.edu) or James Callaghan (kaxilkiuc@gmail.com).

