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Idea Wild Project:

Installation of Camera Traps in Parque Katalapi

One Year Report

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At the *Center for Scientific Research and Environmental Education Parque Katalapi* (www.parquekatalapi.cl) we implemented 5 camera traps provided by Idea Wild, along with two others that we obtained independently, in a project designed to monitor mammal species of interest within the park. The camera traps were first deployed during May 2015. Our stated objectives when applying to Idea Wild for this project were:

- to gather photographic evidence of certain threatened species within the park limits
- quantify the threat posed to said species by dogs, cattle, or poachers
- gather information for conservation management decisions and creation of environmental education programs related to these species

Natural sciences student from the Universidad de Concepción Andrea A. Cisterna, under the tutelage of her professor Dr. Pedro F. Victoriano, with the support of doctoral student Heraldo Norambuena and Parque Katalapi staff, headed up the monitoring project which provided us with ample useful information from which to draw conclusions about our conservation efforts in the park. Over the 20 years of our park's history we have managed to document extensively recuperation of the diverse flora in the forest, yet we have had infrequent sightings of fauna to help us make informed management decisions. After the first 6 months of implementation, an interim report showed that our researchers used the 7 camera traps, strategically positioned and rotated through 14 quadrants, to record 113 photographs with the presence of native mammal species. Fourteen of these photographs were of the andean fox (*Lycalopex culpaeus*), 61 of the southern gray fox (*Lycalopex griseus)*, and 38 of guiña (*Oncifelis guigna*), the smallest wild cat in the Americas; a vulnerable species with fewer than 10,000 individuals remaining. We also confirmed the presence of numerous uninvited dogs and humans walking the trails. In the photos below we present evidence of dogs, fox, and guiña all using the same

trail. This information is a tremendous help in our efforts to preserve habitat for native species and to reestablish balance to this important biological corridor. The second six months of deployment have recently finished, and Andrea Cisterna (prime researcher) is currently working on organizing and analyzing one-year results.

Fig 1: Domestic and wild animals using the same trail: dog (left), fox (center), guiña (right)

Thus far, the monitoring project has been a huge success, has provided our researcher with ample material for her thesis, and has opened doors to new and exciting partnerships for Parque Katalapi. As reported in a previous project update to Idea Wild, Dr. Pedro Victoriano from the University de Concepción has enthusiastically agreed to supervise our ongoing project as a "Research Unit" that biology students must complete in their final year. For the foreseeable future, Dr. Victoriano will assign a new "Research Unit" student to Parque Katalapi each year, thus maintaining a long-term monitoring effort. His supervision of the methodology will ensure that high standards and continuity are met. Our hope is that Dr. Victoriano's ongoing commitment to the project will result in publishable results adding important data to the breadth of scientific knowledge of the ecology of our region. Additional benefits of our partnership with the Universidad de Concepción are that the university will cover some of the costs of the project such as memory cards, batteries, transportation, etc.

Dr. Victoriano has also assigned Heraldo Normabuena, an advanced doctoral student, to assist Andrea in her research. Parque Katalapi is thus benefiting from the presence of yet another young mind focused on scientific study of our temperate rainforest habitat. Mr. Norambuena is an up and coming

expert in the conservation of bird species in Chile, who beyond his academic research, plays a prominent role in Chile´s Network of Bird Observers (Red de Observadores de Aves de Chile-ROC) and has now agreed to partner with Parque Katalapi in creating a bird bio-acoustic educational program, and to identify and track species inside the park limits. During his visits to accompany Andrea on her camera trap research, Heraldo has begun cataloging recordings for his own thesis. All of this is to point out the snowball effect that the Idea Wild donation has caused for the park. We are excited to see where this all goes!

During field work done for the camera-trapping project, our researchers were very excited to discover otter scat, and not at all so excited to make visual contact with mink, three times. Tracks potentially corresponding to puma (*Felix concolor*) were observed twice, so we continue to hope to catch a cougar on camera. Along with continuing the research project already in place, our future goals are to use the camera traps to confirm the presence of the endangered puma (*Felix concolor*), southern river otter (*Lontra provocax*), and the nonnative competitor of the otter, the american mink (*Neovison vison*) in order to create an action plan for protecting the otter and its habitat.

In addition, we are inspired by the amount of interest we have seen from younger visitors to the park about the camera traps and how they work. We see the use of the camera trap technology as an innovative way to generate enthusiasm for conservation in our younger students and look forward to creating monitoring workshops for local school children.

The camera-trap program, initially thought to last one year, has morphed and grown into a full fledged long-term monitoring effort in partnership with the University of Concepción. This means the program will require the continued deployment of all 7 available camera traps; thus limiting their use for educational purposes. In order to continue growing the program, as Parque Katalapi we have recently invested in an eighth camera, to be destined primarily to educational uses. We have created an educational tourism program called “Tracks” (Huellas in Spanish, see Fig 2), focused on discovering the tracks left by the mammals we normally do not have the privilege to see, and learning how camera

traps can help us in the process of discovery.

Fig 2: Flyer used to promote the "Tracks" educational tourism program

We are happy to inform that the cameras donated by Idea Wild will continue to be put to important use in our park; we look forward to learning even more about the native species of Parque Katalapi; and to sharing this experience with many people.

Fig 3: Lead researcher Andrea Cisterna with Katalapi guide Carola Valencia doing the camera rounds, and a collage of fox, dog, and guiña cat pictures obtained.

Thank you Idea Wild for your wonderful donation and all the work that you do.