Small felid conservation in an endangered ecosystem in Bolivia.

The aim of this project was to fill a knowledge gap about small felids in the Chiquitania-dry forest.

CLP project ID: 03143220

Site location: Chiquitania: Municipalities of San José de Chiquitos, Roboré, Carmen de Rivero Torrez and Puerto Suarez.



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Table of Contents

Project Partners & Collaborators 3

..... 4

Summary 4

Background 4

Project members 6

Aim and objectives 6

Changes to original project plan 7

Methodology 8

Outputs and Results 10

Communication and Application of Results 17

Monitoring and Evaluation 20

Achievements and Impacts 21

Capacity Development and Leadership capabilities 21

Conclusion 22

Problems encountered and lessons learnt 22

In the future 23

Financial Report 23

Appendices 24

Bibliography 25

Project Partners & Collaborators

First, we would like to acknowledge the local authorities of the communities in the Chiquitania area; their involvement, support, and interest in the project are important and encouraged to continue. to the villagers that shared their knowledge with us during the interviews and participated in the workshops, and to the parents of the children that let them be part of our activities.

Vicky Ossio (founder of La Senda Verde), who was involved in helping the animals that were hurt or burned during the wildfires,

Phaola Merubia for his revision of the poultry care and veterinary supervision of the project, and the cooperation with the local communities. Martin Jansen and José Luis Aramayo from the Chiquitania Jaguar Project (CJP) – Senckenberg museum Frankfurt/ MNKM Also, thanks to Miguel Fernandez for his assistance in the field.

Dr. Patricia Mollinedo of the Chemical Research Institute-UMSA, for her support and advice for the project.

Dr. Enzo Aliaga-Rossel, for his technical support, ideas, and advice during the project. to Luis Guizada of the Institute of Ecology for his assistance and contributions to the project.

We want to thank both the Geoffroy's Cat Working Group and the Pampas Cat Working Group for their help with the project and for supporting the conservation of small felids.

The National Museum of Natural History, especially Director Hugo Aranibar Rojas and Gustavo Rey from the zoology department, for their interest in and help with the Program of Research on Felids in Bolivia.

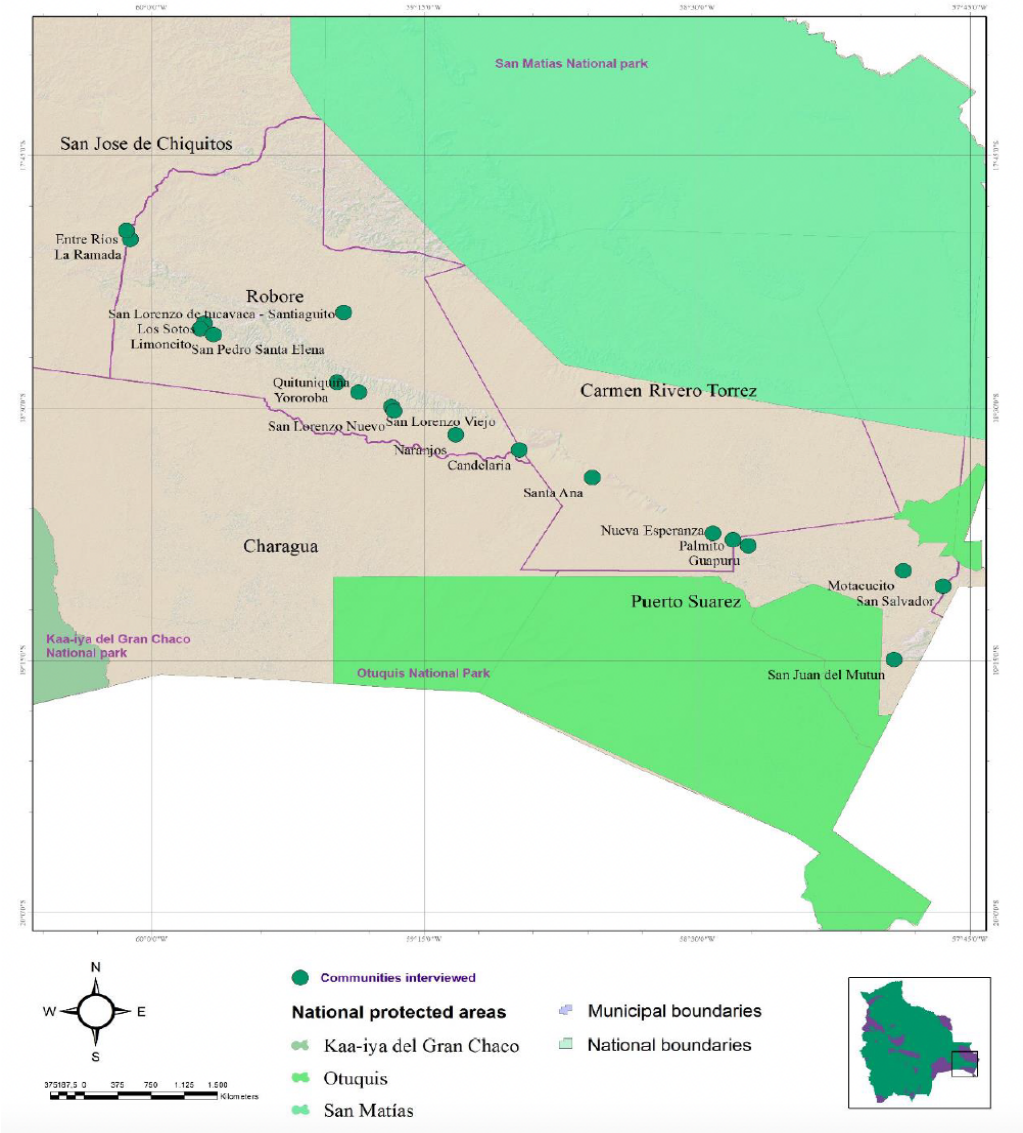
Section 1

Summary

The project's aim was to determine the conservation status of several felid species in an endangered ecosystem in Bolivia, in order to identify locals' attitudes toward small felids, the conflicts they face, and the various methods they might use to resolve those conflicts. The results of the interviews show that more than half of the interviewed local people had negative perceptions towards small felids, categorising them as "harmful" or "dangerous". However, there is no significant relationship between people who had conflicts and people who had a negative perception of the species, indicating that personal experiences do not predict hostility toward the species. People's methods for avoiding conflicts with felids, on the other hand, are all related to injuring small cats with various types of weapons (rocks, guns, dog chasing, poison). To positively influence local perceptions of small felids, we held five workshops highlighting the role of this species in the ecosystem and exhibiting the differences between the species. We also provide a booklet with management tips for avoiding wild animal attacks on chickens and identifying the wild animal that caused the attack. Moreover, after noticing that there are a lot of poultry losses due to diseases, we contacted a veterinarian to find and write some recommendations to help cure and understand the causes of the ill chickens. Finally, and although initially it was not presented in the proposal, we also conducted three workshops with children, explaining to them the ecological role of small felids and the differences between the species present in the area.

Background

The Chiquitanian-dry-forest, one of the most threatened ecosystems, is the only place on earth where seven species of wild cats coexist: *Leopardus geoffroyi* (Least concern, IUCN; NT red list of Bolivia), *Herpailurus yaguaroundi* (Least concern, IUCN; NT red list of Bolivia), *Leopardus pardalis* (LC, IUCN; LC red list of Bolivia), *Leopardus wiedii* (NT IUCN; NT red list of Bolivia), *Leopardus tigrinus* (VU, IUCN; VU red list of Bolivia), *Panthera onca* (NT, IUCN; EN red list of Bolivia), and *Puma concolor* (LC, IUCN; NT red list of Bolivia). This ecosystem is under extreme and constant stress from factors such as habitat loss, forest fires, and human-wildlife conflict. More than five million hectares burned in 2019, and more than three million hectares in 2020 and 2021, resulting in irreversible biodiversity losses.



We investigated the relationships between people and small felids in the Chiquitanian dry forest, gathering information on people's perceptions, knowledge, and conflicts with small felids. This knowledge is critical for promoting coexistence in this endangered ecosystem. Furthermore, it is the first study of small felid perceptions in the country, paving the way for the development of a small felid national action plan.

We were able to gain a better understanding of small felid-human conflicts and local perceptions thanks to the information gathered; With these findings, we created a booklet to mitigate conflicts and delivered workshops to promote coexistence and demonstrate the differences between small felids found in the region. In addition, we included workshops for children from schools that explained the importance and ecosystem role of small felids in order to form a positive perception of small felids in kids that they can later discuss with their parents.

Project members

Paola Nogales Ascarrunz (Team leader)

She is a conservation scientist (28 years old). She has a bachelor degree in biology and a master in genomics. Currently, she is working on felids conservation projects as part of the geoffroys cat working group and pampas cat working group.

Daniela Ramirez (Workshop deliver - Interviewer collector)

She is young biologist (26 years old), interested in wildlife conservation and indigenous communities development. Currently she is working in an NGO of Santa Cruz "ORE".

Cristian Vargas (Interviewer)

He is a biologist working on wildlife (32 years old). He is currently consulting in different projects.

Miguel O. Rollano (molecular biologist)

He is a molecular biologist with a Ph D. in biology working on plant resources (34 years old). His research focuses on virus and plant development. Currently, he is doing a postdoct.

Section 2

Aim and objectives

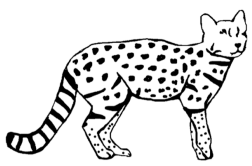
The goal of this project was to fill a knowledge gap regarding human-felid conflicts and information about small felids in the Chiquitania-dry forest.

The goals were as follows:

1) Determine conflicts between small felids and human activities.

2) Gather data on local perceptions and traditional uses of small felids.

3) To detect the presence of Leopardus guttulus in the Chiquitanian dry forest, using environmental DNA.



Changes to original project plan

The main change is on objective 3 "Isolate environmental DNA."

We were unable to collect eDNA in the field due to logistical constraints:

1st. We had planned to collect samples on the first field trip in July 2020, but due to the pandemic, we have had to move the date to March 2021. However, since it was the rainy season, we were unable to collect samples from any water holes because they overflowed. We did collect a sample from a natural water body, but we did not achieve satisfactory results in DNA isolation.

2nd. The wildfires were so extensive on the second field trip, which was in August (we waited until COVID cases decreased before doing the workshops), that it was difficult and dangerous to go to the forest and collect samples without any special equipment. Aside from that, we went to Otuquis National Park to assess the likelihood of setting the water holes; unfortunately, it was a bare scenario, with ashes covering the entire field, and it was also dangerous because the fires had been reactivated. We also considered having a park ranger set up the water holes, but due to the pandemic, there are very few staff members available. Unfortunately, we are unable to achieve this goal.



bare scenario on Otuquis National park. photo Paola Nogales

Methodology

We chose 20 small communities (>350 people) that were approximately 5 kilometres from the main route and had no COVID risk (we previously communicated with the main authority of each community to ensure our COVID-19 protocol).

The interview was divided into five sections:

A) Questions about the person's gender, age, place of birth, length of time spent in the community, main activity, pets, and how often they hunt or fish in a year (QTS 1–7).

B) Questions about felid knowledge: general perceptions, local felid names (by showing photos), opinion on felid fate (conserve, respect, maintain, control, eliminate), where small felids are found, ecological role, if the interviewee saw these species, and where did they see it (QTS 8 to 15).

C) Conflict questions: If they have knowledge of any personal or someone else's conflicts with felids in the previous year or five years, or loss of domestic animals due to other factors in the previous year or five years, how do locals resolve conflicts, which felid is the most dangerous? and perceptions of wildcats and fires? (QTS 16 to 23)

D) Ethnozoology; traditional meaning, use in local traditions, medical applications, and use as a pet (QTS 24 to 31).

E) Willingness to take part in second-stage workshops (QTS 32-33).



Daniela doing the interview. photo *PN*

We interviewed one person from each household of the 19 indigenous communities (as many as we could). The interview was semi-structured; we did not ask for names during the interview, so it was entirely voluntary and confidential. Each interview lasted between 20 and 30 minutes. Then, at the end of the interview, we gave each participant a notebook with our contact information in case they had any personal concerns about our research.

One booklet on conflict resolution was written for the outreach activities. We included in this booklet proper management actions to prevent future felid attacks and the loss of chickens due to snake bites, raptors, foxes, and feral dogs. Then, because we noticed that some people discovered the dead chicken and immediately assumed it was a wild cat (increasing their fear), we provided some guidelines for determining whether these chickens were attacked by a wild animal or a domestic animal. Then, we gave some management advice, establishing the importance of good communication between neighbours to avoid future attacks on the animals, as well as the use of henhouses, to clean the area where the chickens walk. We provided some non-lethal methods for scaring felids, such as using lights, noise, or smoke. Finally, after noticing a high number of disease-related losses, we contacted a veterinarian to write some recommendations to help the sick chickens.



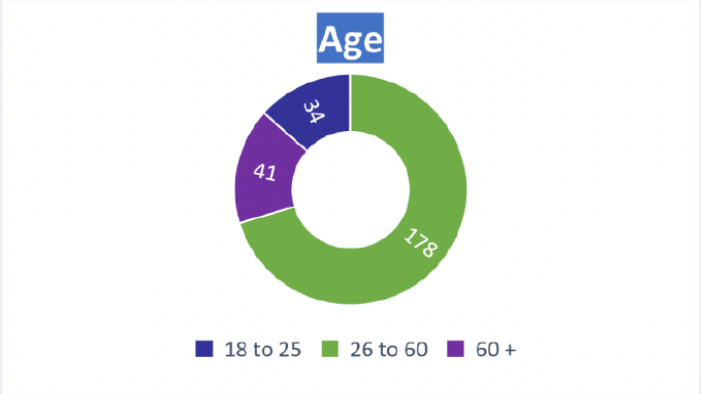
Man from the community “La Ramada” reading the booklet. Photo PN

As requested by the villagers, we conducted activities with children in three communities. The activities focus on getting to know three small cats of the Chiquitanian dry forest: Geoffroy's cat, Oncilla, and Margay. We begin by asking how children perceive these felids. We show them the three species and their differences before handing them paper and markers to draw felids. After finishing the drawing, each child should present it and then explain the differences between the small felids. Finally, when we ask them about their perceptions of felids, they simply dismiss the negative words.

Outputs and Results

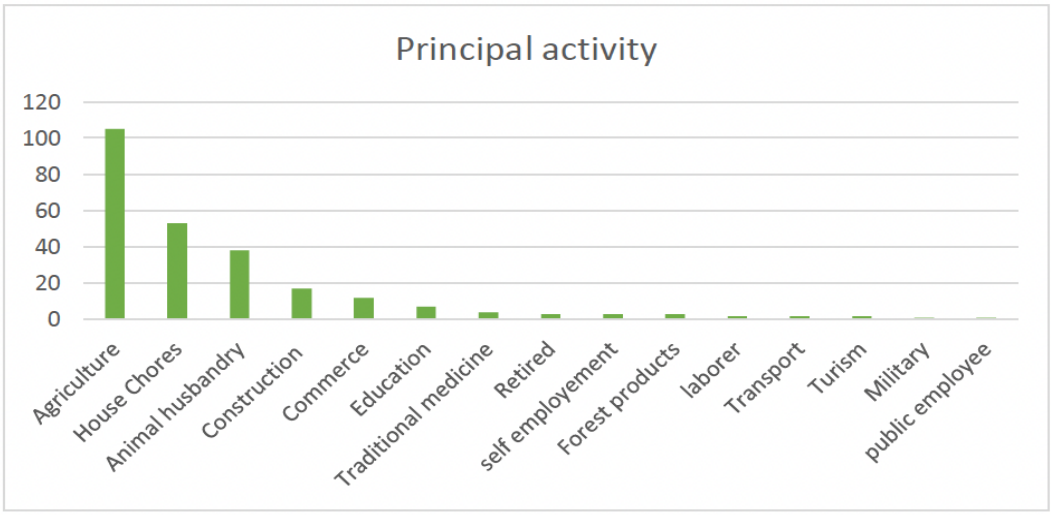
Socieconomic

We interviewed a total of 253 people, (121 Women, 132 men). The ages ranged from 18 to 77 years (Graphic 1).



Graphic 1: Ages of the people interviewed.

The main activity of the locals was agriculture (41.5%), followed by house chores (20.95%), animal husbandry (15.02%), construction (6.72%), commerce (4.74%) and others (11.06%) (Graphic 2). Most people in the communities have chickens for their own consumption (88%). Locals established that felids are present in their community (65.5%), others indicated that there are not more felids around (32.41%; 2% not answered).



Graphic 2: Principal activity of people in the local communities.

Conflict

Related to death of small felids in the last five years, 128 people killed or saw a death felid (some people killed more than one species) (table 1).

Species	total	Hunted	Burned	Hit by car	Hurt
Ocelote (*L. pardalis*)	36	24		11	1
Geoffroy (*L. geoffroyi*)	9	8		1	
Yaguaroundi (*Herpailurus yagouaroundi*)	3	2		1	
Jaguar (*Panthera onca*)	68	65	1	2	
Puma (*Puma concolor*)	15	13		1	
Margay (*L. wiedii*)	9	5		4	
Small felid (*Leopardus sp.*)	6	2	2	2	

Table 1: Felids who were killed or hurt by someone in the community in the last five years.

In total, 105 people reported to have conflicts with felids in the last five years. 80 with small felids, 21 with big felids and 4 with both. Some people reported problems with more than one species of small felid, in summary: Ocelot attacked 27 times, Geoffroy´s cat attacked 24 times, Yaguaroundi attacked 20 times, Margay attacked 8 times and Oncilla (*L. tigrinus*) attacked 6 times.

People reported **1255** animals killed by small cats in 84 events (including, chickens, roasters, chicks, ducks, turkeys, dogs, and other animals). Other reasons why locals' loss animals (all husbandry animals) they reported 148 died for different accidents (fires, drought), big cats killed 289 animals in 25 events, fox killed 265 animals in 42 events, raptors killed 290 animals (chicks) in 34 events, snakes killed 58 animals in 25 events. 493 animals died because of diseases "pox virus" in 53 events, domestic animals like dogs and cats killed 86 husbandry animals in 11 events, and 36 animals were killed in 6 events by other wild animals (lizzard=12, Raccoon= 5, Tayra= 12 and bats= 7). Most of the loss of animals was mainly due to a lack of management because there are just a few people with "henhouse".
The majority of the people use one method to avoid an attack of a wild cat or that they use as a retaliation (139 people). The most common is Chase the felids with, also they hunt them with guns, make noise, Management measures, Tramps, Shot in the air, Hurt with rocks, do guard, use gooses to protect chickens, smoke out or use poison.

We noted that most of the people on the villages have a dog and they use them as a "method" to avoid and scare away cats and other wildlife, however, people reported that their dogs killed an Ocelot in one community, also people make the dogs to chase the wildcats, corner them and then hunt or hurt them with rocks or wood poles to beat. Furthermore, some lethal methods like poison or tramps, are also lethal for other species, and these issues should be addressed (Table 2).

Number of methods	Methods	number of people
0	Nothing	102
1	Chase with dogs	88
	Hunt	17
	Make noise	8
	Management	7
	Tramps	6
	Shot in the air	5
	Hurt with rocks	3
	Do guard	3
	Gooses	1
	Smoke out	1
2	Chase with dogs + Hunt	14
	Chase with dogs + Tramp	11
	Hunt + Tramp	7
	Chase with dogs + hurt	3
	Hunt + Guard	3
	Chase with dogs + Management	2
	Chase with dogs + noise	2
	Chase with dogs + Shot in the air	2
	Chase with dogs + Light	1
	Chase with dogs + Smoke	1
	Hunt + Poison	1
	Hunt + shot in the air	1
	Hunt + Management	1
	Hurt with rocks + Management	1
	Hurt + Shot in the air	1
	Guard + tramp	1
	Guard + Management	1
3	Hunt + Chase with dog + Tramp	3
	Hunt + Chase with dog + Shot in the air	1
	Hunt + Chase with dog + Smoke	1
	Hunt + Guard + Tramp	1
	Hurt+Chase with a dog + Shot in the air	1
	Hurt + Smoke + Tramp	1
4	Hunt + Chase with dog + Guard + Tramp	1
5	Hunt + Chase with dog + Hurt + Guard + Tramp	1

Table 2. Methods that people use to avoid conflicts

We asked people about which felid is more harmful. In this question people answered in some cases more than one felid. Nine people said that all of them are harmful, three said that none are harmful (these people never had conflicts) and 12 preferred not to answer. Jaguar was mentioned by 130 people, and puma by 46 people. Established that people have more fear to big felids. Then, Ocelot was mentioned by 42 people, Yaguaroundi by 40, margay by 26, Geoffroy by 21 and Oncilla by 12. We found that the size of the felid has a relationship with the perception of harmful and fear (Fig 1).



Fig 1. Percentage of people that perceive each felid as the dangerous one.

Finally, we asked people what they will do if they see a small felid in the community, 62.45% said that will not do anything (some said that they cannot do nothing because they don´t have guns- reflecting the inner intention to kill them). 19.76 % will kill the wildcat, 16.21% will chase with dogs, only 1.1% will hunt the animal and 0.4% will use some management measure.

Perception

Our results show that 65.22% of people have a negative perception and 30.04% a positive perception of small felids (4.74% no answer). We need to highlight that from the 165 people that have a negative perception towards felids, 52 people never saw a felid. And also, 88 people never had a conflict with felids.



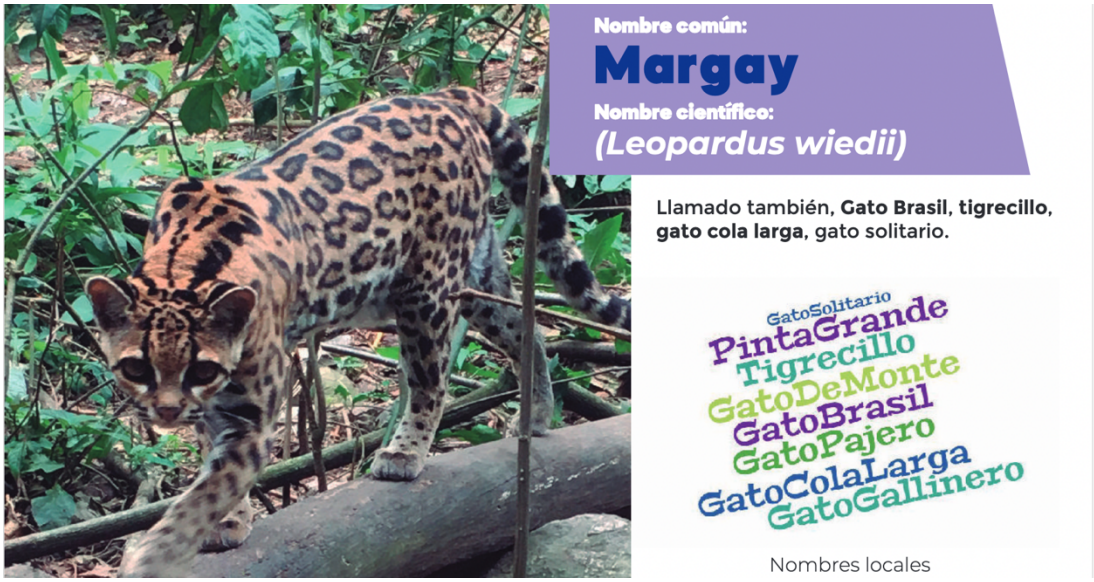
Graphic 3. Negative perceptions towards felids (red) and positive perceptions to highlight (green)

The opinion on felids fate. - most people agree that felids should be conserved (47.82%), some people believe that felids should be respected (12.25%), others prefer that the felids population should main in numbers like now (7.11%), less than a half thinks that felids population should be controlled (20.55 %) and few people thinks that felids population should be eliminated (9.88%), (while 2.37% prefer not to answer this question).

Most of the interviewed mentioned that felids have a role in the ecosystem (52.96%), less than a half do not know their role (26.87%), 14.22% mentioned that felids are beneficial because they clean the land from snakes and rodents, 3.16% mentioned a spiritual role, 1.58% mentioned a beauty role in nature and just 1.18% mentioned that their role is to eat domestic animals. The majority of people who do not have deeper knowledge about the ecological role are women (W: 70.17%; M: 29.82%), while most men mentioned that felids are beneficial (W: 22.20%; M: 77.20%). Furthermore, most of people know that wild felids eat wild animals like reptiles, small mammals and birds (62.84%), just few people said that small felids just eat domestic animals (5.52%), less than a half established that small felid eat wild animals but also, they eat domestic animals like ducks, chicks, chickens, cows (25.69%), and some people do not know what do they eat (5.53%).

We recorded many names different names to small felids (Graphic 4), also some wrong information about them:

- All the small felids are the same.
- The ocelot is the jaguar's female so it can also eat a cow.
- The oncilla is the jaguar's soon, so it can also eat a cow.
- The red yaguaroundi and the puma are the same animal.
- There are just three species of felids on Chiquitania (jaguar – Puma – Gato gris).
- The Geoffroy's cat and the domestic cat can procreate cubs, and it can be pets.





Graphic 4: Local names recorded for each species of small felids.

In total we delivered 5 workshops with local people:

1) Los Sotos (15 people)

2) San Pedro (12 people)

3) San Lorenzo (20 people)

4) Entre Ríos (12 people)

5) San Pablo Sur (25 people)

A total of 3 workshops with children were performed.

1. Los Sotos (18 children) 2. San Pedro (14 children) 3. San Pablo Sur (35 children)

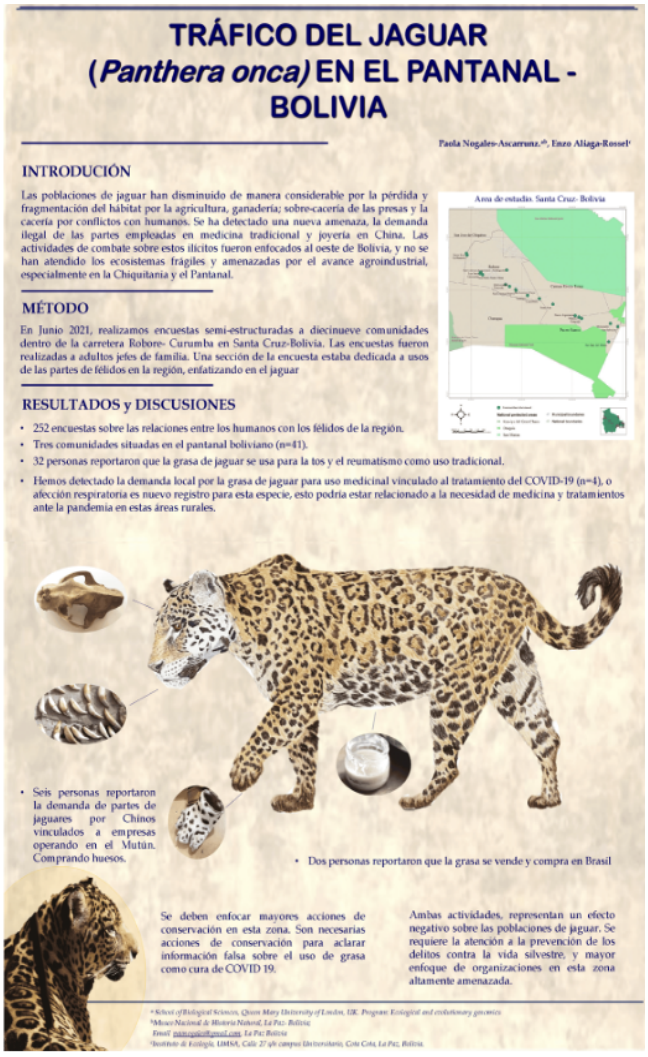


Paola Nogales explainig the characteristics of Yagouarondi and the differences with Puma in San Lorenzo. photo. *D. Ramirez*

Communication and Application of Results

We performed several presentations of the results. We would like to highlight online talks: "From the small tilcayo to the big jaguar: Bolivian felids", *Lecture series "Bolivia ecológica" (Centro Ecopedagogico Simon I. Patiño), and* "No todos los pintau son el mismo" in the event "Ciclo de conferencias por el día internacional de la cultura científica" (Instituto de Genètica Barbara McClintock).

The results were also presented in specialized and Scientific meetings: In the SCCS, as a poster and at the First symposium on neotropical cats, canids and small carnivores. We are also preparing a scientific publication about the results of the human perceptions towards small cats in the Chiquitanian dry forest. Moreover, the booklet we created is available online at: https://www.researchgate.net/publication/358191028_Conservacion_de_felinos_chiquitanos


TRÁFICO DEL JAGUAR
(*Panthera onca*) EN EL PANTANAL - BOLIVIA

Paola Nogales-Ascarrunz, Enzo Aliaga-Rossel

INTRODUCIÓN

Las poblaciones de jaguar han disminuido de manera considerable por la pérdida y fragmentación del hábitat por la agricultura, ganadería; sobre-cacería de las presas y la cacería por conflictos con humanos. Se ha detectado una nueva amenaza, la demanda ilegal de las partes empleadas en medicina tradicional y joyería en China. Las actividades de combate sobre estos ilícitos fueron enfocados al oeste de Bolivia, y no se han atendido los ecosistemas frágiles y amenazadas por el avance agroindustrial, especialmente en la Chiquitania y el Pantanal.

Area de estudio. Santa Cruz- Bolivia

MÉTODO

En Junio 2021, realizamos encuestas semi-estructuradas a diecinueve comunidades dentro de la carretera Robore- Curumba en Santa Cruz-Bolivia. Las encuestas fueron realizadas a adultos jefes de familia. Una sección de la encuesta estaba dedicada a usos de las partes de félidos en la región, enfatizando en el jaguar

RESULTADOS y DISCUSIONES

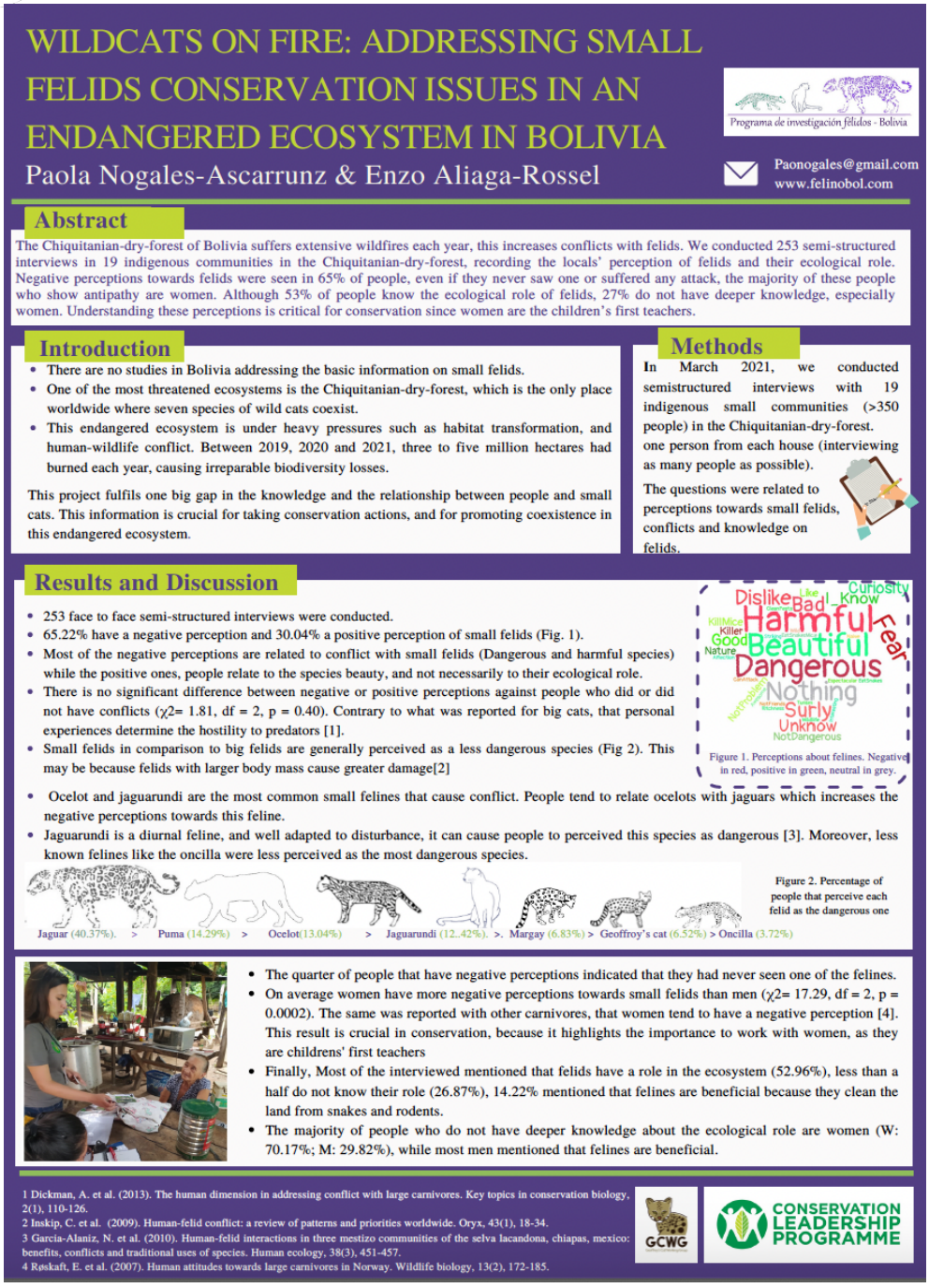
- 252 encuestas sobre las relaciones entre los humanos con los félidos de la región.
- Tres comunidades situadas en el pantanal boliviano (n=41).
- 32 personas reportaron que la grasa de jaguar se usa para la tos y el reumatismo como uso tradicional.
- Hemos detectado la demanda local por la grasa de jaguar para uso medicinal vinculado al tratamiento del COVID-19 (n=4), o afección respiratoria es nuevo registro para esta especie, esto podría estar relacionado a la necesidad de medicina y tratamientos ante la pandemia en estas áreas rurales.

- Seis personas reportaron la demanda de partes de jaguares por Chinos vinculados a empresas operando en el Mutún. Comprando huesos.
- Dos personas reportaron que la grasa se vende y compra en Brasil

Se deben enfocar mayores acciones de conservación en esta zona. Son necesarias acciones de conservación para aclarar información falsa sobre el uso de grasa como cura de COVID 19.

Ambas actividades, representan un efecto negativo sobre las poblaciones de jaguar. Se requiere la atención a la prevención de los delitos contra la vida silvestre, y mayor enfoque de organizaciones en esta zona altamente amenazada.

Poster presented at the First symposium on neotropical cats, canids and small carnivores, Chile.



Poster presented on SCCS-2022, Cambridge United Kingdom

Is important to highlight that, one of the workshops we did in the comunity "San Pablo Sur", was recorded and is part of the documentary "Jaguar Spirit",with NatGeo Explorer and director **Emi Kondo.**

On the 28th of January (Geoffroy's cat day), we delivered an activity in "La Recoleta", explaining the main results of our research and the threats of the geoffroy's cat. This activity was focused on children and with the support of the Geoffroy's cat working group and the refudge "Senda Verde" we delivered this activity.





During the municipal activity "Larga Noche de Museos", we explained the threats of the wild cats, and we delivered an art activity in order to promote positive attitudes towards small felids. This activity was supported by the Geoffroy's cat working group, the Pampas cat working group and Senda Verde. More than 50 people visit our stant and got information about the small cats..

Finally, all the outreach activities we did, increased the awareness of small felids in the society.

Monitoring and Evaluation

To assess the effectiveness of the outreach activities, we asked participants at the start of each workshop how many felid species exist in the Chiquitanian dry forest (the most common answer was from 3 to 5). The sculptures depicting the differences in size and spots of the small felids are then used to introduce all the species. We also changed and eliminated false information about felids. We explained the significance of seven felid species coexisting in the Chiquitanian dry forest. We discussed the significance of having seven felid species coexist in the same area. When we have completed the four parts of the workshop

1: Importance of small felids and differences.

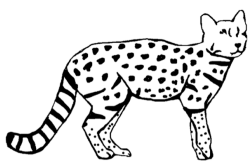
2: Conflicts with people.

3: Veterinarian advice for the animals.

4: Felids as a potential tourist attraction.

We heard the participants' final thoughts on the workshop; several women stated that after their first encounter with felids in the workshop, they had lost their fear of these animals. Others expressed concern about the future of small felids because they want their children to have the opportunity to interact with these animals. Another idea is that they want to use the beautiful animals to make handicrafts and promote tourism. At the end of the workshop, we asked the same question, and the answer was the same in all five communities: the Chiquitanian dry forest is home to seven felid species. Also, we make sure to ask the participants questions about what we tell them during the workshop to make sure they learn something new.

We started with a question about children's perceptions of small felids. We have 10 words in Los Sotos (6 positive, 4 negative), 8 words in San Pedro (2 positive, 6 negative), and 10 words in San Pablo Sur (all negative). After explaining to the children, the ecological role of wild cats and completing all the workshop activities, we asked them again about their perceptions of wild cats. All the children expressed positive words, most of which related to their beauty and the role they play in the community.



Achievements and Impacts

The most significant achievements of the project are:

The project collected data on locals' perceptions and ecological knowledge of wildlife (felids), including common names in the area. We recovered information about the local methods that people use to avoid conflict with wild cats, most of which are harmful to wildlife. We provided conflict resolution by promoting management and coexistence. We also gave veterinarians advice on how to reduce illness-related chick losses. Furthermore, we raise community children's awareness of wild cats. Last but not least, when authorities were asked to continue the work there, they responded positively and wanted to continue with conservation actions in the area. This is an important impact of the project.

The project has reached out to over 400 residents of the Chiquitania dry forest, way above the proposed target of less than planned. This is a strong foundation for conservation actions in progress and to be implemented in the future.

Capacity Development and Leadership capabilities

The team learned more about social science and how to conduct interviews. We also learned how to create educational materials and then use them in the different planned activities. Finally, this project assisted in obtaining funding from the Geoffroy's Cat Working Group to continue conservation efforts and from the Pampas Cat Working Group to instal camera traps to record wildcats. Related to leadership capabilities, we learned how to communicate successfully with local authorities. We need to lead and work with several stakeholders to transmit the philosophy of the project and felid conservation.

Section 3

Conclusion

The project raises awareness of the importance of small felids in the Chiquitanian dry forest by emphasising their ecological role. Furthermore, we provided the first step in behaviour change to promote coexistence between local communities and wild cats by providing conflict resolution. As a result, we dispelled some felid's myths by providing people with information and posters about small cats. We promoted activities that might be useful to control the health of poultry in the region, therefore, locals won't blame felids for poultry mortality. Last but not least, we collect information about small felids that will be used to create a national action plan for small felid conservation.

Problems encountered and lessons learnt

· Which project activities and outcomes went well and why?

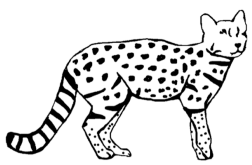
The activities that went well were the surveys given to local people from the indigenous communities and the workshops. Those activities were carried out by team members who had prior experience using these methods to recover information. Furthermore, the main authorities in the communities were interested in the project, which helped it run smoothly.

· Which project activities and outcomes have been problematic and in what way, and how has this been overcome?

Running the project on Pandemic was difficult. First, having close contact between the interviewer and the interview was dangerous. However, we performed the activities in well-ventilated areas. Moreover, we had to cancel a workshop in one community because someone died as a result of COVID-19; we had to reschedule the activity and hold the workshop in another community. On the other hand, we had difficulty isolating environmental DNA to achieve the third objective, particularly due to time constraints; continued wildfires and an unusual rainy season; this could have been reduced with better planning (rainy season); however, it was complicated due to the pandemic and the national mandatory quarantine.

· Briefly assess the specific project methodologies and conservation tools used.

Semi-structured interviews are an excellent tool for gathering information about the species because most people in the local communities had prior knowledge and experience with it. Workshops, in terms of conservation, are a good tool for sharing knowledge with villagers in order to promote coexistence.



· Please state important lessons which have been learnt through the course of the project and provide recommendations for future enhancement or modification to the project activities and outcomes.

We learn that coexistence is more complex than expected and needs different steps. We also learn that in order to promote conservation, we should promote economic activities involving wild cats, because conflict with these animals usually results in a loss to the villagers' economies, as well as establish management methods (such as chicken coops) that require investment.

In the future

We received small funding to continue doing conservation actions for small cats as part of the Geoffroy's Cat Working Group. We acquired camera traps from the Pampas Cat Working Group to improve our small felid research. Therefore, we have a long list of activity plans for the conservation of small felids in the country, especially in the Chiquitania dry forest. The next step as part of this project, is to continue with diffusion and environmental education. And as a result of the bad practises with their poultry management (chickens roam free and sleep around), they will have to build chicken coops in the communities to prevent future attacks by small cats and other animals.

Financial Report

Itemized expenses	Total CLP Requested (USD)*	Total CLP Spent (USD)	% Difference
PHASE I - PROJECT PREPARATION			
Communications (telephone/internet/postage)	200.00	229.59	15%
Field guide books, maps, journal articles and other printed materials	300.00	342.64	14%
Insurance	150.00	60.87	-59%
Visas and permits			
Team training			
Reconnaissance			
Other (Phase 1)	120.00	159.44	33%
EQUIPMENT			
Scientific/field equipment and supplies			
Photographic equipment	0.00		#DIV/0!
Camping equipment			
Boat/engine/truck (including car hire)	2,900.00	2182.27	-25%
Other (Equipment)			
PHASE II - IMPLEMENTATION			
Accommodation for team members and local guides	2,275.00	2116.68	-7%
Food for team members and local guides	1,760.00	2105.77	20%
Travel and local transportation (including fuel)	1,552.00	1640.51	6%
Customs and/or port duties			
Workshops	1000	1168.73	17%
Outreach/Education activities and materials (brochures, posters, video, t-shirts, etc.)	2,000.00	2007.22	0%
Other (Phase 2)	1,000.00	966.59	-3%
PHASE III - POST-PROJECT EXPENSES			
Administration			
Report production and results dissemination	1,000.00	854.25	-15%
Other (Phase 3)	743.00	731.00	-2%
Total	**15,000.00**	**14,565.57**	

Appendices

CLP M&E measures table

Output	Number	Additional Information
Number of CLP Partner Staff involved in mentoring the Project	0	
Number of species assessments contributed to (E.g. IUCN assessments)	0	
Number of site assessments contributed to (E.g. IBA assessments)	0	
Number of NGOs established	0	We stablished the program for felds conservation that in future will be a NGO
Amount of extra funding leveraged ($)	1500	from geoffroys cat working group to continue on conservation actions
Number of species discovered/rediscovered	0	
Number of sites designated as important for biodiversity (e.g. IBA/Ramsar designation)	0	
Number of species/sites legally protected for biodiversity	0	
Number of stakeholders actively engaged in species/site conservation management	1	the chiquitanian jaguar program its now engaged to small felids conservation

Number of species/site management plans/strategies developed	0	
Number of stakeholders reached	5	five main authorities of the communities we made the workshops in
Examples of stakeholder behaviour change brought about by the project.	5	people from the communities we delivered the workshops
Examples of policy change brought about by the project	0	
Number of jobs created	0	
Number of academic papers published	1	we are writing up one
Number of conferences where project results have been presented	2	SCCS and First symposium on neotropical cats, canids and small carnivores

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Locals seeing the size of the small cats in San Lorenzo. photo. P. Nogales



workshop on San Lorenzo community. Ph. M. Fernandez



Workshop in San Pedro community. photo M. Fernandez



Workshop in Los Sotos community. photo M. Fernandez



Workshop in Entre Rios community. photo M. Fernandez



Workshop in San Pablo Sur. photo D. Ramirez



Kids of Los Sotos community and the teacher showing their cat bracelet. photo. M. Fernandez



Kids of San Pedro community showing their cat bracelet. photo. M. Fernandez



Kids of San Pablo sur community photo D. Ramirez



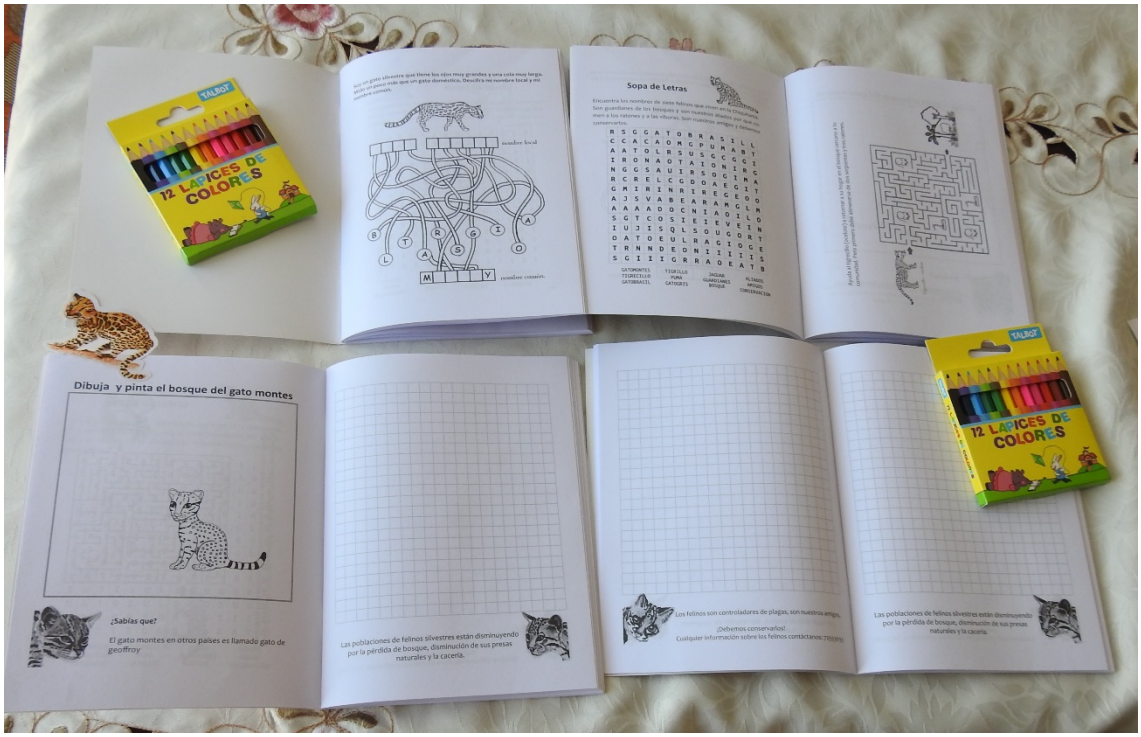
Kids of Los Sotos community drawing the small felids. photo P. Nogales



Sculptures of the felids photo P. Nogales



The three smallest felids (L. geoffroy, L. wiiedi and L. tigrinus) in the workshop with kids to explain the difference between them, community San Pedro. photo P. Nogales



Note books given to kids during the workshop, it contains four pages with activities to know more about small felids, the squared sheets contains in the footet messages to proctect species and our contact number. photo P. Nogales



Booklet of the chiquitanian felids photo. P Nogales



Posters. Photo P. Nogales