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Otter Specialist Group

Giant otter Ecotourism and Conservation Project in the Pantanal 2019-2022

Which specific problem will this project address?

Human conflicts and poorly managed ecotourism activities are a threat to the Giant otters in the Pantanal. Considering the urgency to create economic alternatives that promote the conservation of this endangered species, the aim of this project is to evaluate the impact of tourism on giant otter recruitment and behavior and to create better opportunities for the development of a sustainable and long-term tourism base on giant otter observation.

Brief description of the project context including main threats & opportunities

Wildlife tourism is increasing in the Pantanal as a lucrative activity for local communities, as are other activities such as agriculture and deforestation. Poorly managed ecotourism activities present a real threat to this fragile ecosystem, endangered fauna, as well as to the tourists themselves. It is urgent to understand what the impact of ecotourism has on the otters in the Pantanal. Most important, how can we effectively improve ecotourism methods so that they are sustainable and safe for all.

Main target group

We will target local Pantanal communities with ecotourism activities and their tour guides. Improving ecotourism activities will attract more tourists and benefit the wildlife.

Expected direct result

To enhance giant otter ecotourism in the Pantanal, both for the safety of tourists and the conservation of an endangered species, and underlining educational and conservation outcomes. Such improved otter ecotourism programs have been implemented with great success in the Peru.

Project locations

Aquidauana – MS- Brazil
Miranda – MS – Brazil
Corumbá – MS – Brazil
Poconé – MT – Brazil

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Description of location's specific nature, biodiversity, socio-economic, and institutional characteristics:

The Pantanal is a seasonally flooded plain of approximately 200 000 km², that ranges through Brazil, Paraguay and Bolivia, while 80% is in Brazil. Seasonal flooding is the main ecological factor that regulates the ecosystem functionality and the relationship of the whole biodiversity. Most of the land in the Pantanal is privately owned and livestock has been the main economic activity since the beginning of the 20th century. Currently agriculture is expanding on the borders of the Pantanal, and rice fields are found in the wetlands. Tourism, especially fishing, is an important activity in most of the Pantanal, and recently some ranches have initiated wildlife-watching tourism, which has proved to be a promising economic activity. Many of the farmers are immigrants from eastern and southern Brazil. Local people, called "*pantanero*", have a close relationship with nature. Although some farmers hire "*pantaneros*" to guide tourists, most of them are more familiar with fishing than wildlife viewing, and are not prepared to give detailed information about otters, or how to avoid negative impacts during these activities. Poorly managed tourism represents an important threat for giant otters, as reported in the Porto Jofre region (<<https://www.youtube.com/watch?v=STn88XOi3nY>). Fortunately, a few places as the Fazenda Barranco Alto have conducted tourism taking care about the protection of biodiversity. Since 1978 when Jorge Schweizer started his first giant otter monitoring and conservation efforts, the farm has become a top ecotourism destination: www.fazendabarrancoalto.com/. Considering the experiences of Fazenda Barranco Alto and other places, like in Peru, in managing giant otter tourism, we believe that it is possible to combine the development of economic and profitable ecotourism activities with biodiversity conservation.

Project objective

Our goal is to evaluate the impact of tourism on giant otter recruitment and behavior and to improve otter ecotourism activities in the Pantanal in a sustainable and safe manner, promoting the economic development of local communities and the long-term conservation of the species.

Project activities timeline

Research activities

- 1 – Giant otter groups will be monitored monthly during two consecutive dry seasons in the Porto Jofre (-17.3548629°, -56.7678766°) and Rio Negro (-19.577839°, -56.153751°) regions. The monitoring will be conducted from boats and all observations of individuals and groups will be recorded for spatial and behavioral analysis.
- 3 – The birth rate of each group will be determined by counting the number of newborn cubs born, using micro-cameras installed inside the dens, installed before the birth season.

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The rate of cub survival will be determined when the cubs leave the den to follow the adults in their daily activities.

4 – The identity of individuals, their sex and hierarchical status, as well as group composition will be accessed during daily observation of groups and video tapping of their throat marks and behavior, a standard field procedure.

5 – Camera traps will be placed near active sites, like dens, latrines and campsites to record territorial boundaries and the spatial occupation of groups along the river.

6 – We will compare the population demography and behavioral results between the studied areas, considering the tourism profile acquired from our questionnaires.

7 – During the last two years of the project, we will monitor the groups every three months during the dry season to evaluate the composition of the groups and to evaluate the tourism activities.

Community-based activities

- 1- We will begin by creating a website that will provide information about the activities of this project, our findings and overall information about giant otters. This website will serve as an interactive tool where guides, tourists and all the community can contribute by pinpointing the location of their otter sightings.
- 2- We will contact and distribute questionnaires to all the local lodges and ecotourism operations in the Pantanal. Questionnaires will be distributed to tourists to evaluate: a) the profile of the tourists, including their country of origin and the objective of their trip; b) their knowledge about giant otters; and c) their perception about giant otters and aspects related with biodiversity conservation before and after their visit. During this first contact with ecotourism operators we will inform them about our project, inviting them to participate in our workshop.
- 3- When the questionnaires are returned, we will analyze the answers to help us prepare the workshop.
- 4- Soon after, we will contact all the operators and ranches to encourage participation in the workshop.
- 5- In the first year of our project, we will prepare an ecotourism guideline book about giant otter-watching ecotourism that will be distributed to all participants during the workshop and available to ecotourism operators in the Pantanal.
- 6- We will also prepare information material for the workshop. These will include: videos of giant otter behavior in the wild with information about the species biology and ecology; a slide show with more information about ecological, behavioral and conservation aspects; a folder, to be distributed to the audience, with the main information about the species and how to behave during tourism activities.
- 7- We will produce a banner with pictures and information about the species to be exhibited by ecotourism enterprises throughout the Pantanal.
- 8- In the second year of our project, we will hold three one-day workshops in three strategic tourist locations in the Pantanal: 1. Porto Jofre, Poconé; 2. Corumbá; and 3. Buraco das Piranhas location, Miranda. The workshop will be divided with one session of presentations and the second field session will be observing giant otters on the river.

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- 9- To allow us to evaluate the success of the workshop the participants will be invited to answer a questionnaire before and after the event. Some of the questions that will be considered in this questionnaire are: 1) the previous knowledge of participants about giant otters; 2) how to behave when watching giant otters; 3) the importance of ecotourism for giant otter conservation and of the entire Pantanal; 4) what the impact of poorly-managed ecotourism activities has on the biodiversity and the tourist. The results of this questionnaire will be published in scientific papers.

Giant otter reference center

1 – In Year 4 of the project, we will create a Giant otter reference center at Fazenda Barranco Alto. We will have a location dedicated to sharing information about otters and the activities conducted in the Pantanal to conserve them. This center will also be a resource center for visiting researchers to provide information for the study and conservation of giant otters.

Giant otter management Plan in the Pantanal

1 – During Year 3 we will organize one workshop with researchers, stakeholders and environmental agents to establish the development of a Management Plan for giant otters in the Pantanal for the next five years.

2 – The Pantanal Management Plan will be published in the last year of the project.

Expected local, mid and long term sustainability of the project results

We expect to:

- 1- Understand the impact that tourism activities can have on giant otter populations and how to conduct a sustainable tourism program with the species.
- 2- Improve the quality of wildlife-watching tourism in the Pantanal, especially for giant otter observation;
- 3- The increasing popularity of giant otter-watching in the Pantanal will attract more tourists, improving the economic importance of this activity in the region;
- 4- Tour guides will be better prepared to lead tourists in a safe way and will be more confident in provide information about the species and their habitat, which will also reduce human conflict with giant otters.
- 5- The interpretive and educational background of this new form of ecotourism will reduce the impact of tourism activities and will increase the pro-environmental appreciation of the tourists and the local community, which will help improve the conservation for giant otters as well as for the whole ecosystem
- 6- The creation of a network of regional contacts involving all the audience and organizers of the workshops, will create a channel of communication to provide them with technical information that may arise during their tourism activities.

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- 7- *The Pantanal Ecotourism Guidelines* book will provide a permanent guide to teach and inform all the ecotourism operations and their tour guides involved in giant otter observation in the Pantanal.
- 8- The incorporation of the best practices outlined in the book into existing state laws to manage wildlife tourism in the Pantanal, will allow the permanent monitoring by environmental agencies, detailing the qualifications required for ecotourism guides and the sustainability of this activity.
- 9- The creation of the Giant otter Reference Center will provide an ongoing repository of the research and conservation actions for otters in the Pantanal. In addition, Fazenda Barranco Alto is the perfect location for this Center because it is where the first giant otter conservation and research took place in the Pantanal. It will honor the pioneering conservation efforts of Jorge Schweizer 40 years ago.
- 10- The establishment of a management plan for giant otters in the Pantanal will guarantee that all those involved will undertake long-term otter conservation actions.

Importance and expected outcomes towards international nature conservation

The regulation of giant otters' tourism through a long-lasting education and conservation program will promote not just the conservation of the species but also the economic values of Pantanal's biodiversity. We believe this project will create a new perspective to be applied as a well-managed tourism model to conserve other populations of giant otters as well as other species, whether in the Pantanal or elsewhere.

(Budget and Timeline below)

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Budget

Item	R\$	U\$ (=R\$ 3,8)	Year 1 (U\$)	Year 2 (U\$)	Year 3 (U\$)	Year 4 (U\$)
<i>Workshop of one day for 30 people in three areas across the Pantanal</i>						
Acommodation (workshop speaker, 1 day)	120	32		379	758	
Flight tickets (1 person round trip)	2000	526		1053	2105	
Rent car to visit workshop locations (1 day)	120	32		126	221	
Food (1 person, 1 day)	100	26		316	947	
Boat rent (1 boat, 1 day)	250	66		263	526	
Gasoline (1 boats, 4 hours a day)	200	53		211	421	
Transportation to Porto Jofre (3 people, round trip)	1200	316			316	
Venue rent for workshop (for 1 day)	1000	263		263	526	
Lunch for audience during workshop (for 10 people, for 1 day)	2500	658		658	1316	
Folders (2000 units)	500	132		132		
Posters (500 units)	400	105		105		
Tourism guideline (1000 units)	5000	1316		1316		
Video edition (10 minutes)	500	132		132		
Web site design, implementation and maintenance	9196	2420	2210	210	210	210
<i>Subtotal</i>			2210	5163	7347	210
<i>Basic monitoring research of giant otters at the Rio Negro and Porto Jofre (7 days of field work per month each site)</i>						
Accommodation/food at the Farm (R\$120,00/day, 1 person)	120	32	2211	2211	663	663
Flight tickets (Porto Alegre-RS to Campo Grande- MS or Cuiabá-MT, 1 person, round trip)	2000	526	1053	1053	1053	1053
Transport from Aquidauana to the farm by car (1 way)	100	26	368	368	158	158
Gasoline (R\$5,00/800L per Month)	4000	1053	14737	14737	6316	6316
Field assistant daily rate (R\$100/day)	100	26	1842	1842	553	553
Batteries (480 units)	1200	316	316	316	316	316
GPS (1 unit)		300	300			
Video camera (2 unit)		1440	1440			
Camera traps (10 kits)		1710	1710			
Mini video cameras (4 units)		155	620			
Boat (1 unit)	7000	1842		1842		
Motor engine 20Hp (1 unit)	12600	3316	3316			
<i>Subtotal</i>			27913	22368	9058	9059
<i>Center of reference for giant otters</i>						
Folders (2000 units)	500	132				132
Banner (3 units)	400	105				105
Kids activity book (1000 units)	5000	1316				1316
Kids story book (1000 units)	5000	1316				1316

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Design art for kids book	2500	658	658
Video editing (10 minutes)	500	132	132
replica of a giant otter in real size	10000	2632	2632
replica of a giant otter's skull real size	500	132	132
replica of den and campsite	2000	526	526
furniture for workshops, expo center, for visitors (1 table, 2 sofas, 1 bookcase, 1 table with chairs for kids)	5000	1316	1316
multimedia center for reproduction of sounds, images and information	3000	789	789
			9053
Workshop of three days for 20 people in Campo Grande city and Publication of Management Plan			
Accommodation (1 person)	120	32	1895
Flights (average round trip ticket from a Brazilian main city to Campo Grande)	2000	526	10526
Food (1 person, 1 day)	100	26	1579
Rent accommodation (for 3 days)	3000	789	789
Edition and Publication of Management Plan (200 units)	1000	263	263
Subtotal			14789 263
Total			30123 27532 31195 18322

Timeline

Activities	Number of months required	Year 1 2019				Year 2 2020				Year 3 2021				Year 4 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
To evaluate the profile of tourists and ecotourism enterprises using questionnaires that will be distributed to as many ecotourism companies as possible.	12			x	x	x	x										
To monitor the behavior of giant otter groups at the Fazenda Barranco Alto and Porto Jofre to evaluate the impact of tourism activities.	27			x	x		x	x	x			x	x			x	x
To create a website to disseminate information about our project, giant otters, and an interactive tool where people can contribute location data.	6			x	x												
To develop and publish communication material about giant otters, that include: folders, videos, banners, kids activity and story books, scientific papers and books and touristic guidelines.	36					x	x	x	x	X	x	x	x	x	x	x	x

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To create an ecotourism guideline book about giant otter-watching tourism to be distributed to enterprises that have returned the questionnaires and to local tourism agencies.	15				x	x	x	x	x									
To insert good practices into regional legislation to protect giant otters in the Pantanal;	27								x	X	x	x	x	x	x	x	x	x
To promote three workshops for local tour guides and tourism enterprises and agencies.	9								x			x	x					
To create a Giant Otter Reference Center at Fazenda Barranco Alto	12													x	x	x	x	
To promote one workshop with researchers, stakeholders and environmental agents to establish the development of a Giant otter Pantanal Management Plan during 2020.	3										X							
To network created during the workshop will write the Giant otter Pantanal Management Plan	15											x	x	x	x	x		
To publish the Giant otter Pantanal Management Plan in the fourth year.	6																x	x

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