This document is the fourth quadrimester report presented to the Rufford Foundation regarding the 1st Rufford Small Grant received to provide resources for the project "Defining an ecological corridor in central Brazil using mammalian and fire dynamics data" by Filipe Guimarães Lima.

- **Fieldwork updates**

We have now accomplished nine field campaigns since December 2022 when the pilot study happened. Since November 2024 there were two field campaigns that occurred from November 11th to November 23rd (Figure 1) and from August 25th to September 07th (Figure 2). We visited all the 75 sampling stations checking the batteries and collecting the SD cards, this was a two-week effort. The first 2025 field campaign for collecting data and camera maintenance happened from February 03rd to February 11th, and the team is processing the storage of all the data. Until now we have trained 12 volunteers in the field, which are majorly biology and ecology undergraduate students from three different universities, Universidade Federal de Goiás (UFG), Universidade Federal de Catalão (UFCat), and Universidade Federal de Uberlândia (UFU). At the end of each campaign, we share some of the videos with the staff and the chief of PESCaN.

Figure 1. Research team and collaborators. From left to right in the first picture: PhD. Marisa Novaes (Universidade Federal de Goiás), PhD. Cristiano Machado Filho (Universidade Federal de Goiás), PhD. Alessandra Bertassoni (Universidade Federal de Goiás), and Mariana Couto (undergraduate student, Universidade Federal de Goiás) in Caldas Novas State Park - PESCaN. From left to right in the second picture: PhD. Cristiano Machado Filho and PhD. Alessandra Bertassoni in Mata Atlântica State Park – PEMA.

Figure 2. Research team and collaborators. From left to right in the first picture: Aline Lopes (undergraduate student, Universidade Federal de Goiás), MSc. Sabrina Wust (Universidade Federal de Goiás), Fabrício Alves (fire brigade, Aliança da Terra), PhD. Alessandra Bertassoni (Universidade Federal de Goiás). From left to right in the second picture: Aline Lopes, Anna Cecília de Souza (Environmental Defense Agent, PESCaN), PhD. Alessandra Bertassoni, and MSc. Sabrina Wust.

- **Networking**

We have built partnerships with different research groups that are developing surveys in PESCaN and in its surroundings, which we now have mutual collaboration, especially sharing data of domestic dogs. The Mammals of the Cerrado Conservation Program (PCMC, in Portuguese) is a research program that has as one of the goals the monitoring of roaming dogs in the region. Once we have different approaches on the subject (space use, population, human and fauna interaction, diseases), we hope to aggregate our efforts to help the environmental state department for better management of the region.

The bird data will be shared with a bird study group of the Universidade Federal de Goiás, since the mammals are the target group of this project, being Sabrina Wust, one of the volunteers, the responsible for the bird records.

So that we can strengthen our partnerships with the landowners, we send a personal New Year message via WhatsApp, the way we use majorly to communicate with our partners, followed by some species recorded in their own properties. Most of the landowners are curious about the mammals present in their lands and are enthusiastic about our research. We have received some good and encouraging feedback from them:

> "Boa tarde, meus amigos, é muito bom ter vocês amigos umas pessoas do bem que vive zelando da nossa natureza!" (Good afternoon my friends, it is so good to have you, good people, taking care of the nature) – Mr. S.
>
> "Obrigado pelo retorno, fico feliz em poder contribuir" (Thank you for the feedback, I'm happy to contribute) – Mr. L. C.
>
> "Olá, agradecemos pela oportunidade e estamos juntos e o que estiver ao nosso alcance estamos disponíveis. Obrigado pela as fotos e Feliz 2025 pra toda a equipe do projeto" (Hello, we thank you

for the opportunity and we are in this together, and everything that is within our reach we are available for you. Thank you for the pictures and happy 2025 for the project team) – Mr. R.

Our project has also been highlighted in websites and in the local media with transmission to the state of Goiás:

- Agência Cora Coralina de Notícias: https://agenciacoradenoticias.go.gov.br/139347-projeto-bandeiras-do-corredor-identifica-mais-de-30-especies-animais-em-parques-goianos
- PUC TV Goiás: https://www.youtube.com/watch?v=goZ-Jw2gG5k
- TV Anhanguera – JA2: https://globoplay.globo.com/v/13151994/

- Visual identity

For the visual identification of our project, we have asked a designer to create a logotype that could represent our project. The giant anteater (*tamanduá-bandeira* in Portuguese) was chosen as the flag species (flag in Portuguese is *bandeira*) of the mother project from which my PhD research comes, because it is an emblematic and charismatic mammal of the Cerrado, and for being well known for the locals (Figure 3). The different shades and shapes of green represent PESCaN and the Cerrado biome, the remnants of native vegetation and matrix (the corridor area), and PEMA and the Atlantic Forest biome. Finally, relating the flag species with one of our goals, which is to help to design an ecological corridor (*corredor* in Portuguese) between the parks, we finally named the project Bandeiras no Corredor.

Figure 3. Logotype of the project named Bandeiras no Corredor.

The visual identification of the project will increase our credibility as professionals in a way that we will be remembered by the landowners and the personnel we deal with during the field campaigns.

Preliminary results

We have run some exploratory analysis to evaluate the data we have so far (Figure 3), being, therefore, possible to say that mammal richness is higher in both parks and in their surroundings. For the maned wolf we found that the species is more related to the Cerrado domain, especially in PESCaN, which is expected according to its habitat preferences. The presence of the giant armadillo was more related to the parks, especially in PESCaN and in areas nearby.

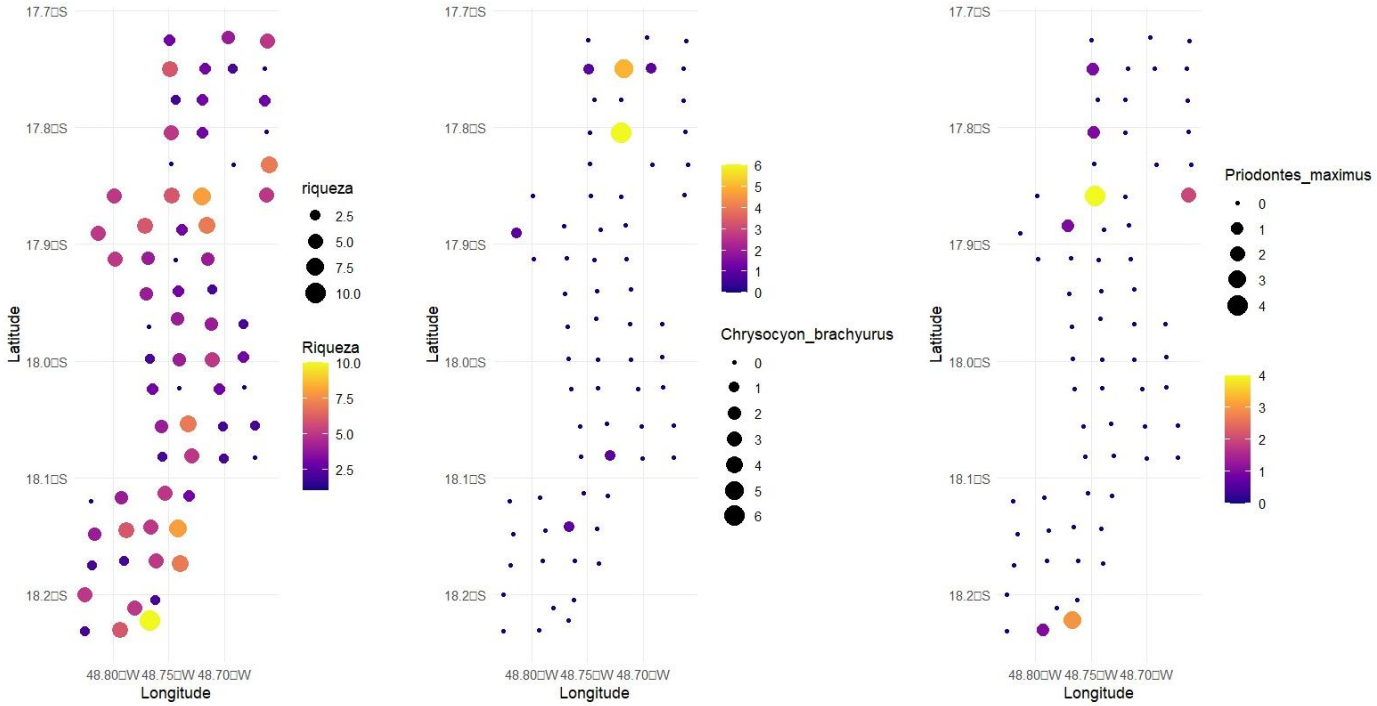

Figure 3. Exploratory analysis of the study area. From the left to the right: mammal richness, maned wolf (*Chrysocyon brachyurus*) and giant armadillo (*Priodontes maximus)* presences, respectively.

We also have recorded interesting behaviors of the species for using video mode such as predation events (Figure 4).

Figure 4. Crab-eating fox predating a frog.

- **Personal health issue**

In the last couple of months I have dealt with health issues, in 2024 August I was diagnosed with lupus. Therefore, I was not able to actively participate in the last two field campaigns nor to meet my research demands. Now, I am almost fully recovered, and I am returning to my academic activities. As soon as possible I hope to continue my analysis and join the team in the fieldwork.

Appendix 1. Updated species list.

Class	Order	Family	Scientifc name	Common name
Aves	Accipitriformes	Accipitridae	*Urubitinga urubitinga*	Great black hawk
		Accipitridae	*Buteo nitidus*	Gray-lined hawk
			Rupornis magnirostris	Roadside hawk
	Anseriformes	Anatidae	*Cairina moschata*	Muscovy duck
	Caprimulgiformes	Caprimulgidae	*Hydropsalis torquata*	Scissor-tailed nightjar
			Nyctidromus albicollis	Common pauraque
	Cariamiformes	Cariamidae	*Cariama cristata*	Red-legged seriema
	Columbiformes	Columbidae	*Columbina talpacoti*	Ruddy ground-dove
			Leptotila verreauxi	White-tipped dove
			Patagioenas cayennensis	Pale-vented pigeon
			Patagioenas speciosa	Scaled pigeon
			Patagioenas picazuro	Picazuro pigeon
			Zenaida auriculata	Eared dove
	Coraciformes	Momotidae	*Momotus momota*	Amazonian motmot
	Culiciformes	Cuculidae	*Crotophaga ani*	Smooth-billed ani
			Guira guira	Guira cuckoo
			Piaya cayana	Squirrel cuckoo
	Eurypygiformes	Eurypygidae	*Eurypyga helias*	Sunbittern
	Falconiformes	Falconidae	*Caracara plancus*	Crested caracara
	Galbuliformes	Bucconidae	*Monasa nigrifons*	Black-fronted nunbird
	Galliformes	Cracidae	*Crax fasciolata*	Bare-faced curassow
			Penelope superciliaris	Rusty-margined guan
	Gruiformes	Rallidae	*Aramides cajaneus*	Gray-necked wood-rail
	Passeriformes	Corvidae	*Cyanocorax cristatellus*	Curl-crested jay
			Cyanocorax cyanopogon	White-naped jay
		Furnariidae	*Furnarius rufus*	Rufous hornero
		Icteridae	*Psarocolius decumanus*	Crested oropendola
		Icteridae	*Cacicus cela*	Yellow-rumped cacique
		Thamnophilidae	*Thamnophilus doliatus*	Barred antshrike
		Thraupidae	*Coereba flaveola*	Bananaquit
			Saltator maximus	Buff-throated saltator
			Saltator similis	Green-winged saltator
			Sicalis flaveola	Saffron finch
		Turdidae	*Turdus leucomelas*	Pale-breasted thrush
			Turdus rufiventris	Rufous-bellied thrush
		Tyrannidae	*Tyrannus melancholicus*	Tropical kingbird
		Mimidae	*Mimus saturninus*	Chalk-browed mockingbird
		Parulidae	*Myiothlypis flaveola*	Flavescent warbler
	Pelecaniformes	Ardeidae	*Ardea alba*	Great egret

			Pilherodius pileatus	Capped heron
			Tigrisoma lineatum	Rufescent tiger-heron
		Threskiornithidae	*Mesembrinibis cayennensis*	Green ibis
			Theristicus caudatus	Buff-necked ibis
	Piciformes	Picidae	*Veniliornis passerinus*	Little woodpecker
			Colaptes campestris	Campo flicker
		Ramphastidae	*Ramphastos toco*	Toco toucan
	Strigiformes	Strigidae	*Asio sp.*	Owl
	Tinamiformes	Tinamidae	*Crypturellus undulatus*	Undulated tinamou
			Rhynchotus rufescens	Red-winged tinamou
Mammalia	Artiodactyla	Cervidae	*Mazama americana*	Red brocket deer
			Ozotoceros bezoarticus	Pampas deer
			Subulo gouazoubira	Gray brocket deer
		Tayassuidae	*Pecari tajacu*	Collared peccary
	Carnivora	Canidae	*Cerdocyon thous*	Crab-eating fox
			Chrysocyon brachyurus	Maned wolf
			Lycalopex vetulus	Hoary fox
		Felidae	*Herpailurus yagouaroundi*	Jaguarundi
			Leopardus pardalis	Ocelot
			Leopardus sp.	Tiger cat
			Panthera onca	Jaguar
			Puma concolor	Puma
		Mephitidae	*Conepatus semistriatus*	Striped hog-nosed skunk
		Mustelidae	*Eira barbara*	Tayra
		Procyonidae	*Nasua nasua*	Coati
			Procyon cancrivorus	Crab-eating raccon
	Cingulata	Chlamyphoridae	*Euphractus sexcinctus*	Six-banded armadillo
			Priodontes maximus	Giant armadillo
			Cabassous sp.	Naked-tailed armadillo
		Dasypodidae	*Dasypus novemcinctus*	Nine-banded armadillo
	Didelphimorphia	Didelphidae	*Didelphis albiventris*	White-eared opossum
			Gracilinanus/Cryptonanus sp.	Gracile opossum
	Lagomorpha	Leporidae	*Sylvilagus brasiliensis*	Tapiti
	Perissodactyla	Tapiridae	*Tapirus terrestris*	Lowland tapir
	Pilosa	Myrmecophagidae	*Myrmecophaga tridactyla*	Giant anteater
			Tamandua tetradactyla	Southern anteater
	Primates	Cebidae	*Callithrix penicillata*	Black-pencilled marmoset
			Sapajus libidinosus	Black-striped capuchin monkey
	Rodentia	Caviidae	*Hydrochaeris hydrochaeris*	Capybara
		Dasyproctidae	*Dasyprocta sp.*	Agouti
		Erethizontidae	*Coendou prehensilis*	Brazilian porcupine
Reptilia	Squamata	Teiidae	*Ameiva ameiva*	Giant ameiva

		Salvator merianae	Giant tegu
	Tropiduridae	*Tropidurus sp.*	Lizard

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