This document is the third 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.

We have now carried out seven field campaigns since December 2022 when the pilot study happened. The last field campaign occurred from May 9th to May 18th with the help of the Aliança da Terra's fire brigade and SEMAD's workers (Figure 1 and 2). Every field campaign, we visited all the 75 sampling stations checking the batteries and collecting the SD cards, this was a two-week effort.

Figure 1. Research team and collaborators. From left to right in the first picture: Márcio Azevedo (fire brigade, Aliança da Terra), and PhD. Alessandra Bertassoni (Universidade Federal de Goiás) in Caldas Novas State Park - PESCaN. From left to right in the second picture: PhD. Alessandra Bertassoni (Universidade Federal de Goiás), and Gabrielly Beatriz Pacheco (undergraduate student, volunteer, Universidade Federal de Catalão).

SEMAD has been publishing in social media about the research projects that have been conducted in the region. In the last field campaign, while we were in the municipality of Água Limpa, the journalist Théo Mariano, from the communication department of SEMAD joined us to make a content about our project to be published in SEMAD's social media (available at: https://www.instagram.com/p/C7EK20bOD4p/). In the video, Alessandra Bertassoni talks about the ecotone region between the Cerrado and Atlantic Forest biomes in the South of Goiás, and the distribution of some mammal species. We have been noticing that some species are more associated with the Cerrado (maned wolf, *Chrysocyon brachyurus*), others are more associated with the Atlantic Forest domain (tapir, *Tapirus terrestris*), and some can be found in almost sorts of environments (giant anteater, *Myrmecophaga tridactyla*).

Figure 2. Research team in Mata Atlântica State Park -PEMA in Água Limpa. From the left to the right in the first picture: PhD. Alessandra Bertassoni, Pedro Cordeiro and Vitor Gabriel Adorno (undergraduate students and volunteers), and MSc. Filipe Guimarães Lima (Universidade Federal de Goiás). In the second Picture, in the background, Théo Mariano (Journalist from communication department of SEMAD), and Vitor Gabriel Adorno (undergraduate student, volunteer, Universidade Federal de Goiás)

Figure 3. Species recorded with the camera traps. From the left top: maned wolf (*Chrysocyon brachyurus*) recorded in PESCaN, tapir (*Tapirus terrestris*) recorded in PEMA, and a giant anteater (*Myrmecophaga tridactyla*) recorded in a rural area in Caldas Novas.

The giant anteater, the coati (*Nasua nasua*), and the gray brocket deer (*Subulo gouazoubira*) are still the most abundant native mammal species in our sampling sites (Figure 4).

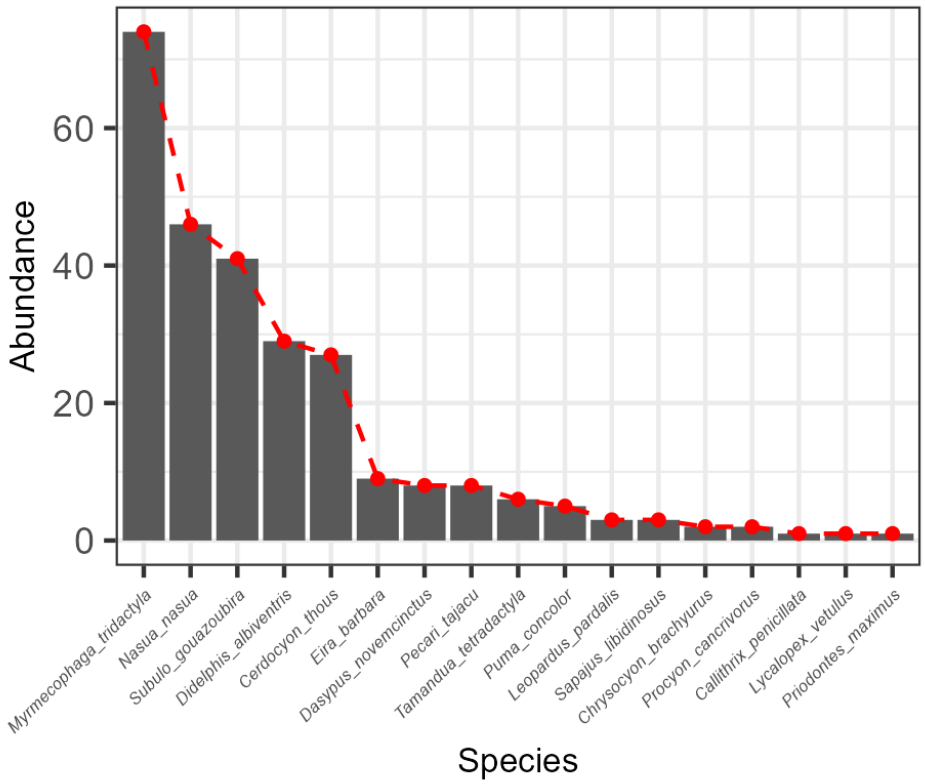

Figure 5. Abundances of mammal species.

So far, I have identified 49 domestic dogs across the study region, both in the Parks, PESCaN and PEMA, and in the corridor area in rural properties. The identification is possible through individual marks such as coat patterns, breed, scars and amputations (tail and ears), and body size (Figure 6). The domestic dogs recorded seem to be free-roaming owned dogs instead of feral, however we will need more time to understand the dog's issue.

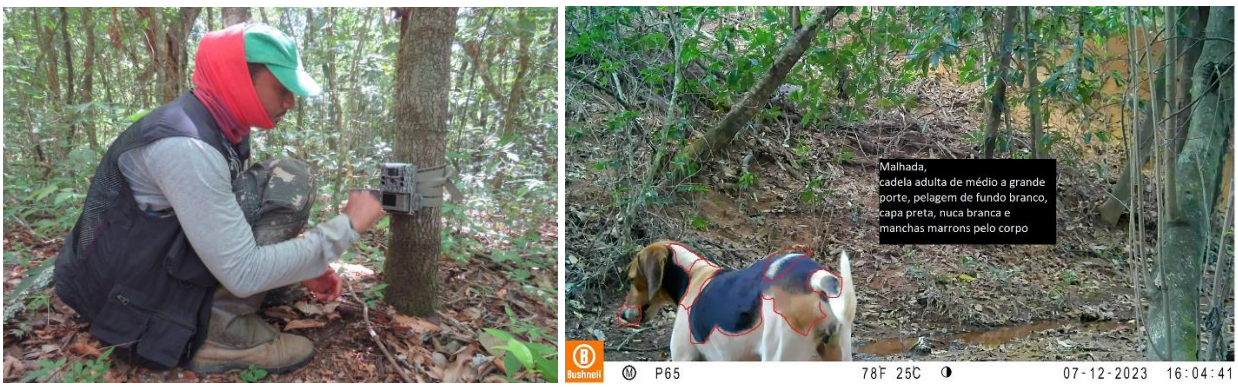

Figure 6. MSc. Filipe Guimarães Lima setting the camera trap and an individual domestic dogs identified with their natural coat pattern highlighted in red.

The following steps are to keep the data screening and spreadsheeting the records, which will further facilitate sorting the raw data for the different analysis. I already have all the environmental data, fire history for instance, needed to run my analysis, and I am organizing the needed data of the maned wolf, gray brocket deer, and the giant armadillo to start running the occupancy models and explore the variables that might affect their

habitat use and detectability. The next field campaign for collecting data and camera maintenance is planned to happen from August 25th to September 07th.

Appendix 1. List of the species recorded.

Class	Order	Family	Scientific name	Common name
Aves	Accipitriformes	Accipitridae	*Buteo nitidus*	Gray-lined hawk
			Rupornis magnirostris	Roadside hawk
	Anseriformes	Anatidae	*Cairina moschata*	Muscovy duck
	Caprimulgiformes	Caprimulgidae	*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 picazuro	Picazuro pigeon
			Zenaida auriculata	Eared dove
	Coraciformes	Momotidae	*Momotus momota*	Amazonian motmot
	Cuculiformes	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
		Corvidae	*Cyanocorax cyanopogon*	White-naped jay
		Furnariidae	*Furnarius rufus*	Rufous hornero
		Icteridae	*Psarocolius decumanus*	Crested oropendola
		Thamnophilidae	*Thamnophilus doliatus*	Barred antshrike
		Thraupidae	*Coereba flaveola*	Bananaquit
			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
	Pelecaniformes	Ardeidae	*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
		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
		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