

PROGRESS REPORT II

RSG REFERENCE: 39083-B_radosoa-andrianaivoarivelo

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**Project title: FOOD RESOURCE DYNAMICS AND DISTRIBUTION OF
NATURAL HABITATS MAY DETERMINE THE PANMICTIC
POPULATION STRUCTURE OF MADAGASCAR FRUIT BATS AND
IMPROVE THEIR STRATEGIC MANAGEMENT**



LEGENDS OF THE FIGURES

- ✚ **Figure 1:** Poster explaining serious threats (hunting and habitat loss) to fruit bats in western Madagascar we distributed to five villages in Western Madagascar.
- ✚ **Figure 2:** Poster showing the importance of fruit bats on life and the ecosystem and the reasons why they should not be hunted or eaten and the livestock such as chicken and fishes that reproduce quickly are devoted for consumption instead of bats.
- ✚ **Figure 3:** The mission team, from left to right by Sabine Raheliasoa Safidy A. Ramanamidona and Radosoa A. Andrianaivoarivelo.
- ✚ **Figure 4 to 6:** Awareness-raising carried out in the villages of Ankotrofotsy, Malaimbandy and Mahabo respectively. Influential people and neighborhood leaders are the most targeted during this mission.
- ✚ **Figure 7:** Fruit bat (*Pteropus rufus*) roost with few individuals in Ambatolahy monitored in January 2024.
- ✚ **Figure 8 and 9:** fruits bearing traces of activity or teeth tracks of fruit-eating bats (*Pteropus ufus* and *Rousettus madagascariensis* respectively).
- ✚ **Figure 10:** maintenance of the water tank in Ampasimanjeva, a village located next to a *Pteropus rufus* roost in eastern Madagascar.
- ✚ **Figure 11:** monitoring of the reforestation and restoration site in Ampasimanjeva with the tree nursery attendant M Régis Rakotondravony we have worked with since 2018.
- ✚ **Figure 12 and 13:** Functioning oversight of the hydroelectric turbine in Ampasimanjeva: inside and outside the electricity production house respectively.

POSTERS

Poster 1

Following the results on our first mission in August and September 2023, two posters were created and distributed in response to the drastic reduction in the size of the *Pteropus rufus* colony and the abandonment of the roosts that these animals previously occupied. The poster carries messages on the current state of the populations of these animals, especially the considerable decline in their numbers.

Poster 2

The message in the second poster concerns the need for actions to be taken to curb the threats such as no longer disturb these animals in their daily roost, no longer hunt or eat them, whether in restaurants or as domestic supply, and no longer convert their feeding sites into agricultural land or other uses.

The message conveyed being, fruit bats as they are among the mammal species in danger of extinction are not intended for domestic consumption or for sale to supply the restaurant since their reproduction is low (one birth every year or two years) and they could not be domesticated. Animals that reproduce very quickly which are considered as sources of daily food such as poultry (several chicks per brood and several times per year) and fish could be exploited but not bats.

ROOST MONITORING

Of the five roosts visited in August and September 2023, four were monitored to observe the evolution of bat populations. In each roost we noticed that the number of bats had changed significantly. The population size in general has reduced by more than 50% compared to our previous mission. The reasons given in relation to our analysis and the stories of the local people are the migration in search of sites with food and available shelter much conducive to survival and the other reason being the presence of hunters who come to the roost to hunt the bats. In Ambatolahy one family (with four adults) looking for gold lives next to the fruit bat roost, they occasionally hunt the “fanihy” (Malagasy name of the Madagascar flying fox) to have them as an accompaniment to the rice. The hunting method is wooden sticks that they throw at the colony, or a slingshot (stone thrower) aimed at hitting the animal to injure and make it fall.

SENSIBILISATION

We conducted awareness sessions in 5 large villages (seat of a municipality) during our mission in January and February (2024). It was mainly the respected elderly people of the village and the young people who attended the meeting. The session was always introduced by the village chief, and it was not only a concern of the role played by fruit bats or its rarity due to the anthropogenic threats on these animals, but the participants were given time to present their point of view and their perception or attitude towards these animals. In order to minimize hunting or the threat of the fruit bat roost sites, the villagers wish to implement alternative solutions such as capacity building in terms of agriculture (planting rice and beans) and poultry breeding, which will improve their agriculture and meat resource production. However, in the 5 large villages (Ankotrofotsy, Ambatolahy, Malaimbandy, Ankilizato and Mahabo) targeted by this activity, no cases of consumption or sale of fruit bats were observed (domestic consumption or in restaurants) in January and February 2024.

NEXT REALIZATION IN THE FIELD

Currently we are in the process of renewing the research authorization with the Ministry of the Environment in Madagascar and another and final mission with students from the University of Antananarivo is planned for March 2024. Studies on change within bat roosts and the diet of these animals will be the subject of this mission. At the same time, we will conduct short-term training on improving poultry farming, a source of protein for villagers located in areas where fruit bats occur.

AROVY TSY HO LANY TAMINGANA NY FANIHY (*Pteropus rufus*)

Miha lany ny Fanihy noho ny fihazana azy tafahoatra;
Maro ny toby fatorian'ny Fanihy teo aloha no simba
navadika toeram-pambolena ka lasa nilefa ny Fanihy.
Notapahina natao saribao na hazon-trano
ny toerana fatoriany sasany.

Efa sokajiana anatin'ny biby atahorana ho
lany tamingana ny Fanihy:

- aza hazaina amin'ny toby fatoriany,
- aza kapaina ny hazo avo fatoriany,
- aza dorana ny toeram-ponenany,
- entano ny mpiara-monina tsy hanimba ny Fanihy sy ny toeram-ponenany,



MENTION ZOOLOGIE ET BIODIVERSITE ANIMALE



Lalimeria chalumnae



A BETTER LIFE FOR CHILDREN
L'UN DES MEILLEURS POUVAIRS DU MONDE



Figure 1

AROVY TSY HO LANY TAMINGANA NY FANIHY (Chauves-souris frugivores de Madagascar)

- Voankazo sy ranom-bonikazo ary ravin-kazo no sakafon'ny Fanihy izay tadiaviny amin'ny alina;
- Tsy sokajiana ho biby mpanimba toy ny voalavo sy ny fody ny Fanihy;
- Manana anjara asa lehibe amin'ny fambolena hazo an'Ala sady manaparitaka voa amin'ny toerana samihafa hanjary ala izy amin'ny alalan'ny fihinanana voankazo sy fanapariahana voa;
- Mampitombo sy manatsara taranaky ny zavamaniry laovany ny fanihy amin'ny alalan'ny famindrana vovobony sy famindrana voa amin'ny toerana mifanalavitra;
- Ela vao mahabe taranaka ny fanihy satria iray isan-taona ny zanany raha be indrindra ka raha hazaina atao sakafon'ny dia malaky lany tamingana;
- Eto Madagasikara ihany no misy ny fanihy koa raha lany tamingana izy dia tsy misy intsony na aiza na aiza;

Noho izany "ANDAO HATSAHATRA NY FIHAZANA SY FIHINANANA FANIHY"
Ny biby fiompy haingam-pitombo sy maro taranaka toy ny akoho na gana na trondro no fanao kabaka (laoka) fa tsy ny biby ela fitombo sady efa ho lany tamingana sady manana anjara asa amin'ny tontolo iainana toy ny Fanihy sy ny Gidro;



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Latimeria chalumnae



A BETTER LIFE FOR CHILDREN
UNE VIE MEILLEURE POUR LES ENFANTS

The Rufford Foundation
www.rufford.org



Figure 2

Figure 1



Figure 3



Figure 4



Figure 5



Figure 6



Figure 7



Figure 8



Figure 9



Figure 10



Figure 11



Figure 12



Figure 13