

Monitoring of dama gazelles on Takolokouzet massif

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SaharaConservation

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Participants

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Illustration 1: Picture of the participants

Introduction

The ATNNR is one of the largest protected areas in Africa, covering 7.7 million ha. It includes several overlapping reserve designations and is titled as UNESCO World Heritage Site, Biosphere Reserve (Aïr et Ténéré), Ramsar Site (Gueltas et Oasis de l'Aïr) and an Important Bird and Biodiversity Area. It covers both the eastern half of the Aïr Mountains and the western sections of the Ténéré desert. The reserve boasts an outstanding variety of landscapes, plant species and wild animals.

However, the ATNNR has been on the list of World Heritage sites in Danger since 1992, following rebellion episodes in the area between 1992 and 2008, which considerably disrupted wildlife resources.

Due its inaccessibility, the Mount Takolokouzet, located within the ATNNR, became one of the last refuges for wildlife, including for dama gazelles (*Nanger dama dama*), one of the most threatened antelopes on earth.

A project funded by the African World Heritage Fund and the SaharaConservation has supported since 2017 conservation efforts carried out in the region. The objective is to be able to remove the ATNNR from the list of World Heritage Properties in Danger in which it has been placed for more than two (2) decades.

Since 2017, SaharaConservation has been working to improve the knowledge on one of the last remaining dama gazelle populations, leading conservation and monitoring activities combining the use of camera traps and field missions.

This latest mission was carried out from May 16 to the 28th 2022, in close collaboration with the wildlife authorities and the Regional Directorate of the Environment of Agadez and supported by ATNNR Management Unit officers and accompanied by community guards.

Objectives

This report aims at presenting the work done during the latest dama gazelle field-monitoring mission, led by SaharaConservation in the ATNNR.

More specifically this mission aimed at:

- Collecting data on the population of dama gazelles on the Takolokouzet massif, through direct and indirect observations.
- Monitoring all encountered fauna species.
- Recording the threats and signs of anthropic pressure on and around the Takolokouzet massif.
- Upscaling monitoring by Installing 11 camera traps on the massif according to a 2kmx2km grid.
- Pursuing the study on the human dimension and the perception of local communities of wildlife in general and dama gazelles in particular.
- Meeting and discussing with the community guards recruited by SaharaConservation.

1. Ecological monitoring

Due to the inaccessibility of Mount Takolokouzet, monitoring was carried on foot with camels for the transport of luggages and equipment. All observations of fauna, flora, domestic livestock and human activities were recorded with the Cybertracker ©. It is important to note that the Takolokouzet massif is mountainous and steep, making wildlife sighting relatively difficult. During this mission, we only covered a part of the northwestern side of the massif

1.1 Fauna

Lots of data on wildlife was collected during this mission.

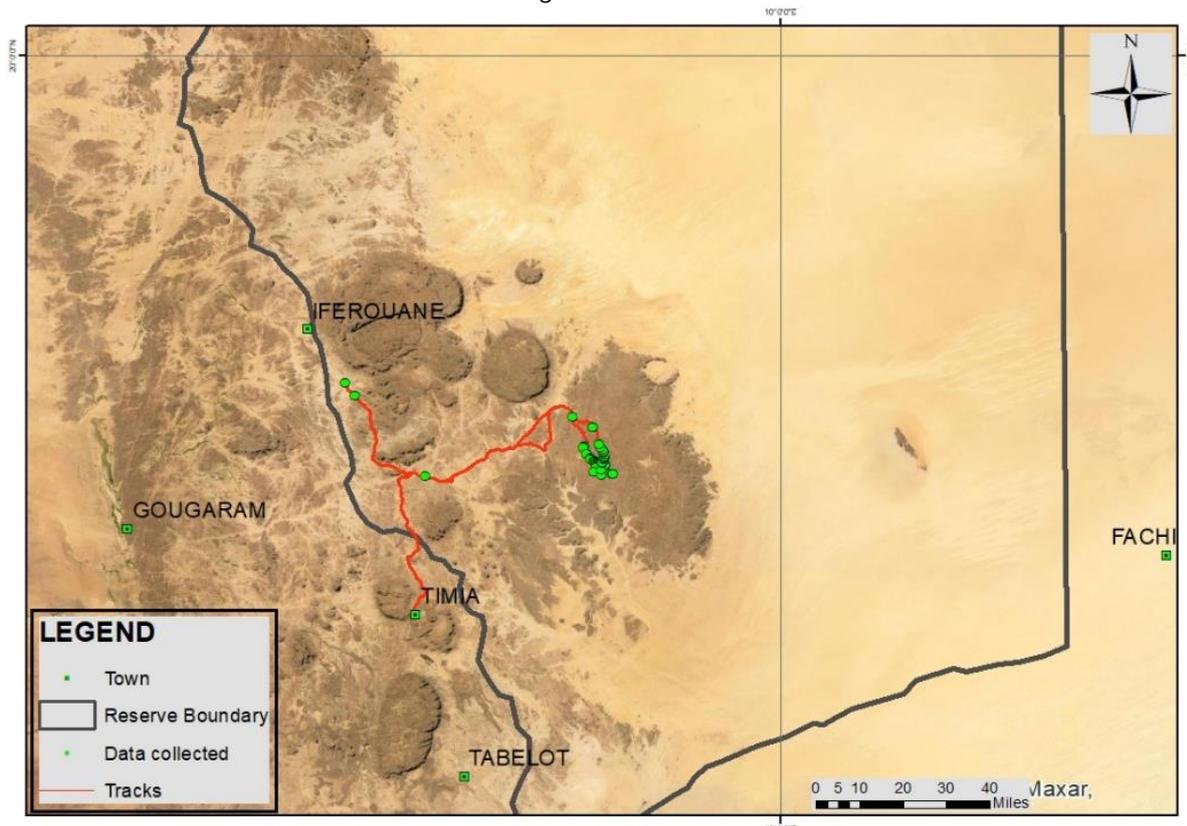


Illustration 2: Itinerary followed, and location of the data collected during the mission

Dama gazelle

During this mission, six (6) dama gazelles were recorded during three (3) direct observations, with a fairly large flight distance which proves that the species is threatened. It will be imperative to deepen the knowledge on its distribution and density in order to implement appropriate measures

The groups were composed as follows:

- 1 One male and two females.
- 2 One female and one (1) unknown.
- 3 One (1) solitary male surrounded by the tracks of a female.

Several indirect observations (tracks and feces) were also recorded.

These observations, combined with the ones from the previous field mission when seven dama gazelles were observed, are very encouraging as it is the two highest number of dama gazelles observed since 2018.



Illustration 3: Dama gazelles observed on Takolokouzet massif in May

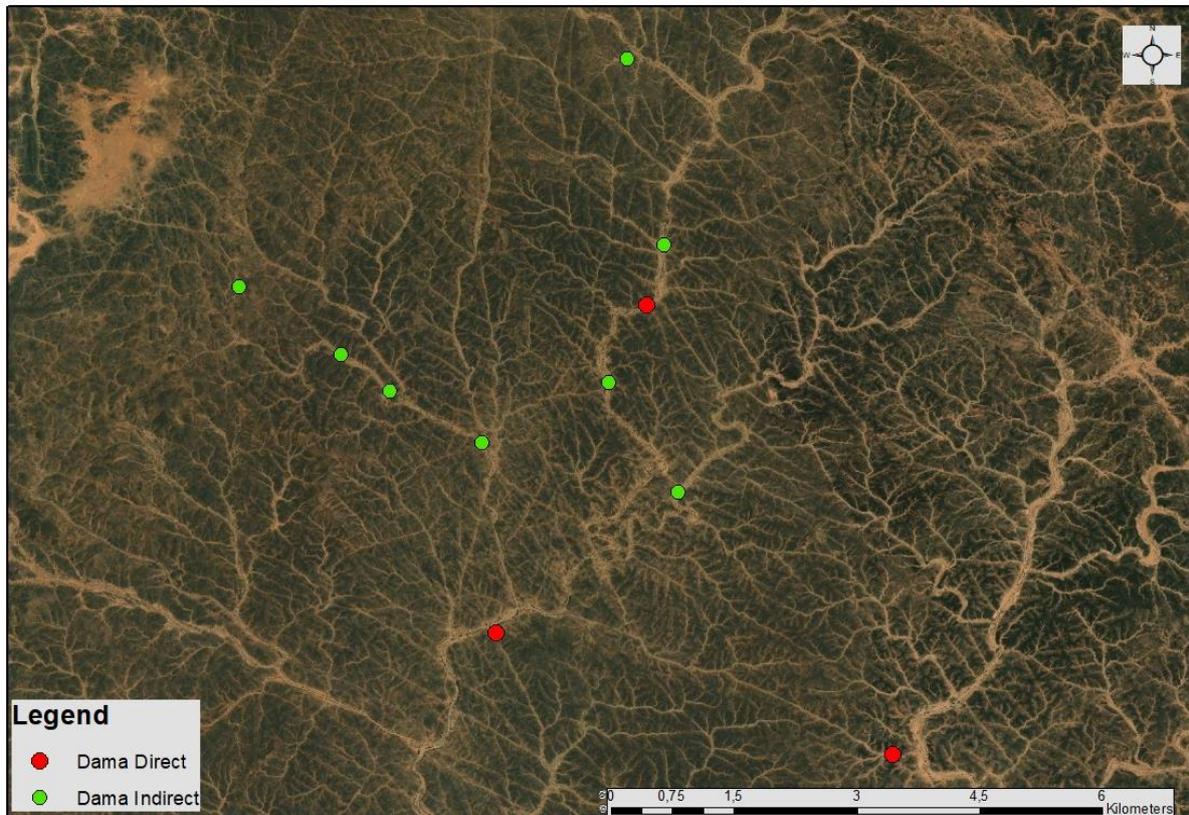


Illustration 4: Direct and indirect observations of dama gazelles on Takolokouzet massif in May

Gazelle Dorcas and Barbary sheep

Twenty dorcas gazelles were counted through direct observations, spread out in 13 groups. In average, there are 1,5 individuals per group and a mileage index of abundance (IKA) of 2.5%. A group of three Barbary sheep was observed during the mission.

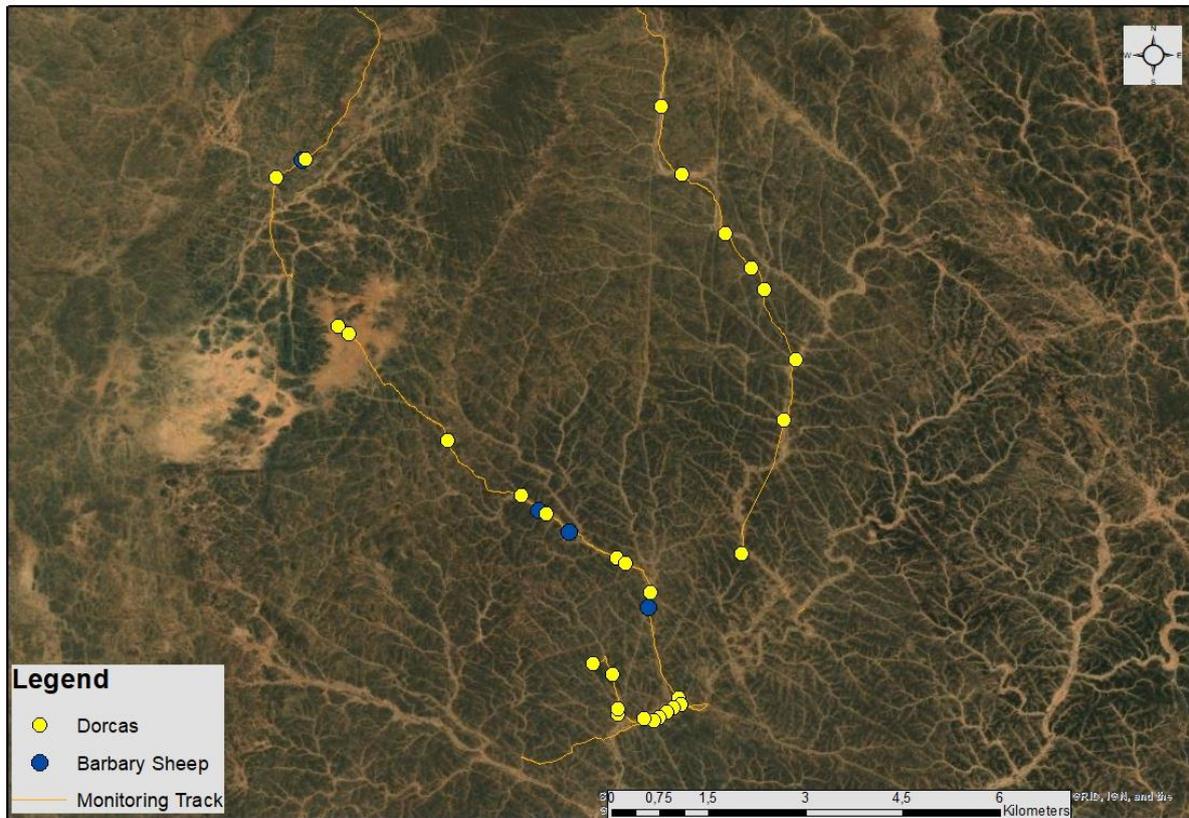


Illustration 5: Location of direct observations of dorcas gazelles and Barbary sheep on Takolokouzet massif in May



Illustration 6: Dorcas gazelles observed on Takolokouzet massif in May

It is important to note that the majority of direct or indirect observations of gazelles, all species included, took place in the southeastern part of the massif.

Camera traps

In order to upgrade the monitoring of the fauna on this massif, 11 camera traps were installed on the massif according to the standard protocol of 2km*2km. The choice of camera location is guided by the presence index.

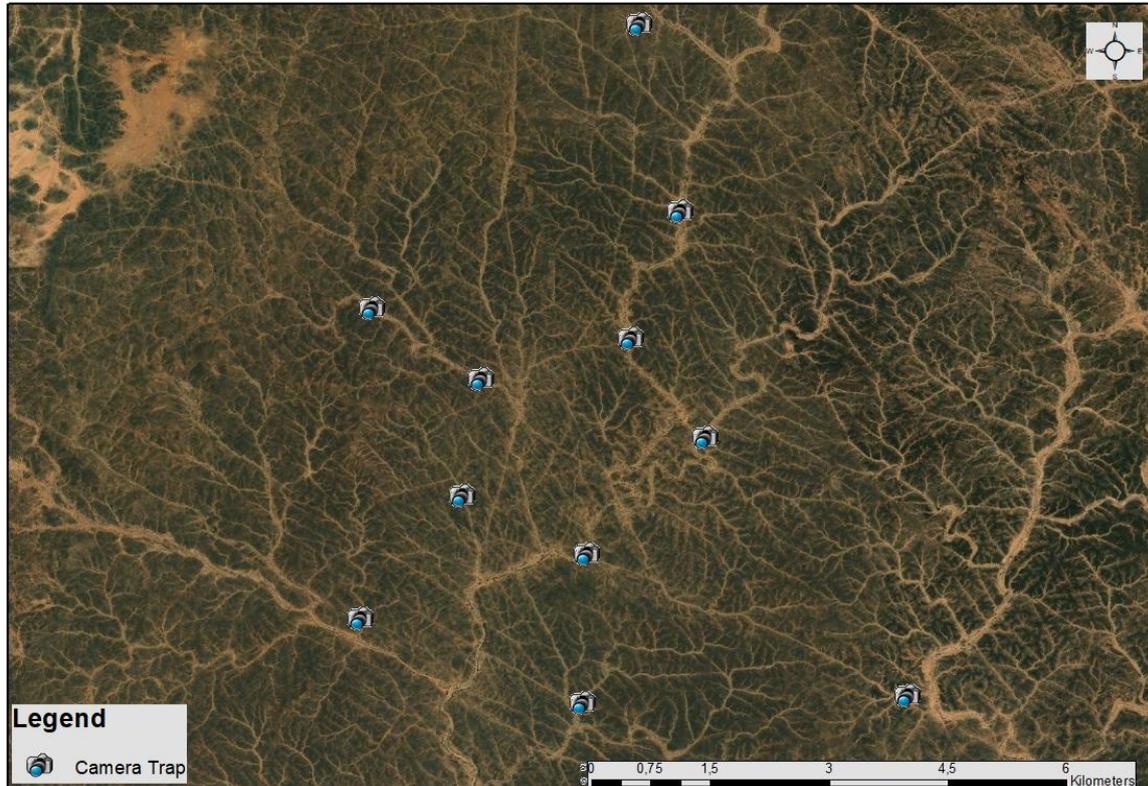


Illustration 7 : Camera trap locations on Takolokouzet massif



Illustration 8 : Camera trap being installed on Takolokouzet massif

1.2 Habitat

Habitat evaluation was carried out during this mission, with a focus on its state of degradation or conservation. The result is rather satisfying given that no destruction was noted, not even wood cutting, a relatively frequent practice in the area.



Illustration 9 : Landscape in the ATNNR

1.3 Anthropic activities

The main threats for wildlife identified in the ATNNR and partially responsible for its decline are poaching and human pressure causing habitat degradation. Traditional gold panning became one of the greatest threats by increasing perturbations on wildlife, destroying key habitats and polluting the soil. Similarly, to the previous missions, only few traces of human activities were observed, and no cases of poaching were observed.

Conjointly to this work, an UICN-SOS funded project “Reversing the decline of threatened wildlife in the ATTNR of Niger » is being implemented in the area. One of its focuses is to lead efficient surveillance activities on and around the massif to secure the threatened Niger flagship species. These activities should significantly reduce the occurrence of anthropic activities in the area.

2. Study on human dimension

In order to improve the knowledge on one of the last populations of dama gazelle in Niger, a study protocol on the human dimension was designed to understand the ATNNR local community knowledge on the specie.

A student, native of the area, was contracted to conduct questionnaires with local communities. The questionnaires were structured in several parts and focused on the general knowledge on the species, its conservation status, threats, the benefits this species can provide, and the conservation measures in place.



Illustration 10: Communities living in the ATNNR at a local celebration

The population surveyed is nomad, living at the periphery or inside the reserve. Twelve localities were involved in this study with a random sample choice to conduct direct interviews. A total of 88 persons were interviewed, among which 78% were men and 22% were women with an age range going from 24 to 76 years old.

Conclusion

The ATNNR, and the Takolokouzet massif in particular, are full of exceptional values in terms of landscapes and wildlife. For the second time consecutively, the data collected during this last mission are rather encouraging as the numbers of dama gazelles observed is close to the highest observed since the beginning of the monitoring initiated by SaharaConservation in 2018, suggesting that this dama population may be viable.

Unfortunately, the ATNNR and its fauna are still threatened by gold panning activities and many indications of anthropic activities and poaching have been noted during this year.

Therefore, we recommend that the government and partners to pursue their efforts to secure important areas such as the Takouloukozet massif. With the implication of all stakeholders including a strong collaboration of local communities and the conduction of several complementary projects, we have every reason to hope to save the dama gazelles in this region (which constitutes one of the last three wild metapopulations).