

# NAPPA #174

NEWS FROM AFRICAN PROTECTED AREAS MAY 2023



*Tsitsikamma National Park, South Africa*

EDITORIAL **ARE INVASIVE SPECIES AN OBSTACLE FOR CONSERVATION?** BY FIRMIN  
TAPE

PAGE 3 **MOOC-CONSERVATION.ORG: FUTURE DATES**

PAGE 4 **CASE OF AN INVASIVE PLANT IN NAZINGA GAME RANCH, BURKINA FASO**

PAGE 10 **YOUTH CONSERVATION - MEETING IN GOMA**

PAGE 11 **ANNOUNCEMENTS**

# Editorial



## FIRMIN TAPE

CONSULTANT IN GOVERNANCE AND  
BIODIVERSITY AND PROTECTED AREA  
MANAGEMENT

[firmintape7@gmail.com](mailto:firmintape7@gmail.com)  
+226 53253893

## ARE INVASIVE SPECIES AN OBSTACLE FOR CONSERVATION?

Different forms of pressure weigh on protected areas. Here, we are talking about biological invasion. This can be caused by animals, plants, and microorganisms. In protected areas, invasive species usually cause the most problems. No ecosystem spared: terrestrial, aquatic (marine or fresh water) and so on.

### What is it that gives these species the ability to be invasive?

Here are a few items that enable the spread of these species: the absence of predators or of specific pathogens in the case of animals, absence of herbivores in the case of plants, ecosystem malfunctions, invasive species' ability to adapt to change or disturbances to their environments, their rapid growth, their ability to reproduce in different ways (especially plants: stem, seed, leaf, roots, shoots etc.), their ability to go through seasons without hurting their germination capacity. These species are born competitors.

## Are they truly a handicap for conservation?

The answer is obvious as several studies have proven and confirmed it. Invasions alter living environments (habitats) and erode biodiversity. By dominating, they prevent other species from surviving. They have serious environmental, economic, financial, and even health, social and cultural consequences. And when the species is not eaten by herbivorous animals, it will spread to the point of causing the extinction of other species that are supposed to act as refuge or nesting spaces for other species. Weed science often states there is no useless plant and no plant is bad. However, it can become so depending on the environment or the targets of the producers or conservators.

It was the case, for example, when Nazinga Game Ranch and Classified Forest in Burkina Faso was invaded by *Triumfetta lepidota* (K. Schum ). Even if this invasive plant has a certain use in traditional medicine or agriculture, its presence in the protected area is a great obstacle for conservation.

**Let's visit the Classified Forest and Game Ranch of Nazinga in Burkina Faso. •**

## PAPACO ONLINE

[facebook/IUCNpapaco](https://www.facebook.com/IUCNpapaco)

[MOOC FB Group \(English\)](#)

[@mooconconservation \(Instagram\)](#)

[@Papaco\\_IUCN \(Twitter\)](#)

[Papaco.org](http://Papaco.org)

[IUCN Protected and Conserved Areas newsletter](#)



# MOOC-CONSERVATION.ORG

## SELF-PACED MOOCS

**Important dates.** The end of the current session is near, here a couple of dates to keep in mind:

- **18 May 2023:** last webinar of the session. [Click here](#) to get the Zoom link.
- **1 June 2023:** registrations close. Enrolled learners still have access to courses and to exams.
- **18 June 2023:** session closes. We will have a short break during which exams will be reset and changed.

**And then?** The next session will be open as soon as 1 July and will run til late October. The website will then undergo great changes,

## ESSENTIALS

What are they? They are short courses geared to a specific profile of protected area conservation actors. Four options are possible: Rangers, Managers (involved in Research R or in Law enforcement L) and Leaders.

The Essentials are open throughout the year.



### RANGER ESSENTIAL

For protected area (PA) professionals who apply decisions and ensure the implementation of activities inside the PA.

### MANAGER ESSENTIAL

For protected area professionals who need to plan, manage and assess the work carried out by field agents.

➔ **MANAGER LAW** focuses on law enforcement and the valorisation of the PA and its natural resources.

➔ **MANAGER RESEARCH** focuses on research activities, monitoring-evaluation and ecological monitoring.

### LEADER ESSENTIAL

For actors who are influencing the protected area context at a larger scale, without necessarily working directly inside a protected area.

more on this later...

Enrolments: [mooc-conservation.org](https://mooc-conservation.org)

## ONLINE CERTIFICATE

Good news! The online certificate on Protected Area Conservation will be open to English speakers later this year, and two dates have been set for the online exam:

- 18 October 2023 à 13:00 UTC
- 16 November at 13:00 UTC

The exam is open to students who completed all seven MOOCs on [mooc-conservation.org](https://mooc-conservation.org).

To apply: [click here](#).





Fruits of *Triumfetta lepidota*. Burkina Faso, between Léo and Ghanaian border. Photo: Marco Schmidt

# CASE OF AN INVASIVE PLANT IN NAZINGA GAME RANCH, BURKINA FASO

REPORT BY FIRMIN TAPE, CONSULTANT IN GOVERNANCE AND IN PROTECTED AREA AND BIODIVERSITY MANAGEMENT

## INTRODUCTION

We know that life, especially suitable conditions for life, is the most important thing on earth. It takes on different forms encompassing life in plants, animals (including humans), fungi, bacteria, all natural environments. It also includes biological and ecological interactions between these elements, and between these elements and their ecosystems. All this forms part of biological diversity. Unfortunately, humanity's endeavors to cover its nutritional and other needs strongly affect biodiversity. This happens through simple extraction, through activities that create an imbalance in habitats or ones that, through cumulative impacts, change biodiversity conditions and life cycles. As a result, some animal and plant species disappear, or their number decreases drastically. Hence the idea of creating natural spaces that are dedicated to the conservation of biodiversity: protected areas. The goal is to create environments that promote the survival of animal and plant

species, that maintain habitats and ecological processes, and conserve natural or geological heritage. For all these reasons, several countries have established protected areas.

In Burkina Faso, the authorities of the Office National des Aires Protégées (national office of protected areas) manage a vast grid of protected areas. The classified forest called Nazinga Game Ranch (NGR) is one of these protected areas (PA). As always, PAs are subject to pressures of various kinds, and in the case of NGR, over a decade ago, a plant started its invasion. It takes over the pastures of the Ranch and dominates other local plant species. The real problem is that the ranch's herbivores do not properly eat it, and we know what invasion means: dominion followed by disappearance of other plant species normally eaten by animals. This situation worries the conservation managers of the ranch and troubles scientists and conservation experts.

For this reason, in 2021, we paid closer attention to this matter as it became necessary to carry out a study to understand how and why this plant is progressing on the ranch, and how to keep it under control. The general purpose of the work was to identify the factors determining the invasion in order to propose methods of control and containment. The plant in question is called *Triumfetta lepidota* (K. Schum). What do we know about it?

## TRIUMFETTA LEPIDOTA (K. SCHUM): THE PLANT THAT INVADES THE PASTURES OF NAZINGA!

### Systematic position of *Triumfetta lepidota* (K. Schum)

*Triumfetta lepidota* (K. Schum) is also called *Ancistrocarpus tomentosus* A. Chev. In Burkina Faso, the plant is called Kouli, Kuili, Koula in Gourounsi or Sonsouga, Lengpaéré in Mooré and Faataa among the Mossi, who live near the ranch.

**Tableau 1: Place of the taxon in the *Triumfetta lepidota* (K. Schum) classification**

<b>REIGN</b>	VEGETAL
<b>SUBGENUS</b>	PLANTAE
<b>PHYLUM</b>	TRACHEOPHYTES OR TRACHEOBIONTS
<b>CLASS</b>	MAGNOLIOPSIDAE
<b>ORDER</b>	MALVALES
<b>FAMILY</b>	MALVACEAE
<b>SUBFAMILY</b>	GREWIOIDEAE
<b>TRIBE</b>	TRIUMFETTEAE
<b>GENUS</b>	TRIUMFETTA
<b>SPECIES</b>	<i>TRIUMFETTA LEPIDOTA</i> (K. SCHUM)

In 1926, a study by Pasqualet on the contribution of the textile Tiliaceae of Equatorial Africa and Cameroon states that there are 59 species of *Triumfetta*. But other sources inform that there are a hundred species of the genus

*Triumfetta*, of which about sixty are known and described. How does *Triumfetta lepidota* (K. Schum) live and how can we recognize it?

### Biology and morphology of *Triumfetta lepidota* (K. Schum)

*Triumfetta lepidota* (K. Schum) is found in savannas. It is a chamaephyte and possibly even a phanerophyte that grows to between 90 and 150 cm. The upper leaves are oblanceolate and the lower leaves are suborbicular and subtrilobate, reaching 14 cm in diameter. The flowers are yellowish and the sepals are free, scaly on the outside. The petals are yellow, glandular at the base with the presence of the androgynophore. The flower has about sixty free stamens with anthers much shorter than the filaments. The carpels are fused. The tubercle of the ovary is hairy and ends in several spinules. The fruits are round or ovoid, covered with thorns. It is a dicot. Flowering and fruiting occur around July and September.



Photo 1: A *Triumfetta lepidota* plant (K. Schum) with several stems.





Photo 2: *Triumfetta lepidota* (K. Schum) fruit with a round shape, covered with small thorns

## NAZINGA GAME RANCH: AN ATTRACTIVE LANDSCAPE WHERE ELEPHANTS ARE AT THE CENTER OF ECOTOURISM

NGR was first a simple classified forest called Nazinga created by decree 8327/SE on 4 December 1953, covering 8,200 hectares. In 1973, after its enlargement negotiated with the neighboring villages, it became Ranch de Gibier de Nazinga (Nazinga Game Ranch) covering 91,300 hectares. The goal of this extension was to ensure the survival of wildlife in its habitat for better exploitation, for the benefit of local populations. Its name “Nazinga” which means “good water” in Kassena comes from one of the tributaries of the Sissili river, the “Nazinga”. Between 2003 and 2004 the demarcation took place along the Ghana border. This allowed the NGR to reach its current surface area which is 97,436 hectares.

NGR is located in the Center-South region of Burkina Faso, straddling the municipalities of Pô and Guiaro in the Provinces of Nahouri and Bièha in the Province of Sissili. The main part of NGR is in in the province of Nahouri (90%) and a small portion is in the province of Sissili. The Ranch is located in the South-Sudanian climate zone. On its outskirts, 10 ZOVIC were created where it is possible to hunt recreationally.

### Biological characteristics

**Vegetation:** it mainly consists of shrubby and wooded

savannas. As one moves to the south, the density of woody vegetation increases. Along the main rivers there are gallery forests that are sometimes bordered by grassy penneplains.

**Wildlife:** wildlife in NGR mainly includes animal species of the Sudan-savanna. Numerous studies confirm there are more than 10 ungulate species of great hunting and touristic value. The Ranch’s most attractive feature is its large population of elephants (*Loxodonta africana*).

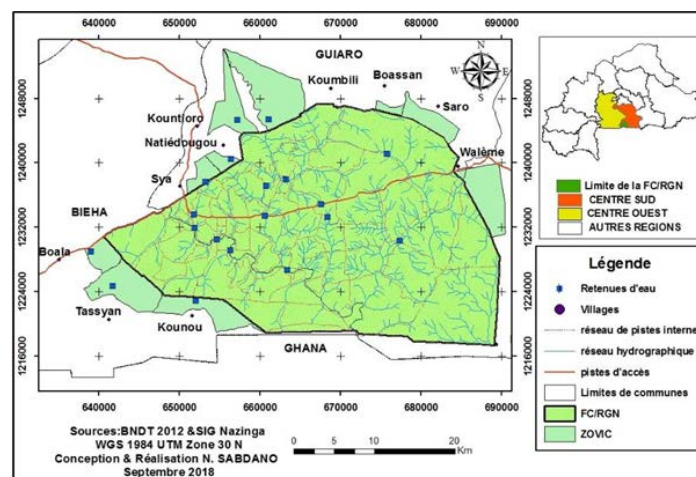


Figure 1: Location map of the study site (NGR)

### How did we conduct the study?

To carry out the study, the following activities took place: documentary review, field visit and observation, interviews with conservators and local populations, plant inventory, photographs, creation of a herbarium for the species, processing and analysis of the collected data, mapping of the distribution of the species on the ranch. These activities are detailed in a book to be published soon.

## STUDY RESULTS: INFORMATION PASSES US TO TAKE ACTION AND BE DILIGENT IN ORDER TO GAIN CONTROL OVER THE SITUATION

The results of this study are long. In this issue of the NAPA, we’ve chosen to focus on the most important ones.

### Triumfetta lepidota (K. Schum) distribution in the Nazinga ranch

The inventory taking phase showed where *Triumfetta lepidota* (K. Schum) was found. Stands of *Triumfetta*

*lepidota* (K. Schum) were seen in shrubby and grassy savannahs, wooded savannahs, gallery forests, uncultivated ZOVICs, along roads and tracks. The plant has preferences for these environments; thus, it can be seen mainly along the tracks in the ranch, along the corridor between the NGR and KABORE Tambi National Park as well as around the Sissili forest.

It was also noted that *Triumfetta lepidota* (K. Schum) is absent from humid areas, and rarely found along existing waterways. In agroforestry areas, the species is cleared to make room for agriculture as it is the case in the ZOVIC of Koumbili.



Picture 4: Abundant *Triumfetta lepidota* (K. Schum) along the roads in NGR

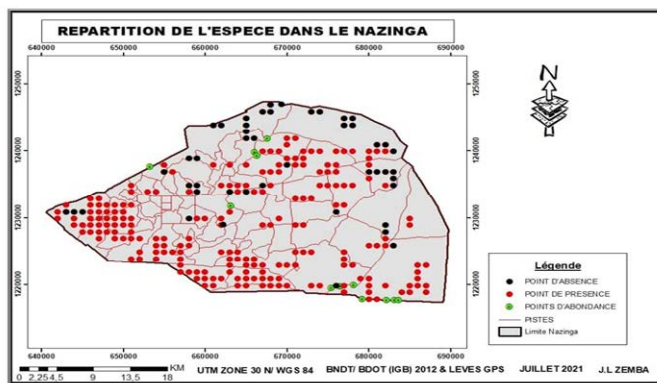


Figure 2: Distribution of *Triumfetta lepidota* (K. Schum) in NGR

The red dots indicate the presence of *Triumfetta lepidota* (K. Schum). Black dots indicate absence. Green dots indicate areas of abundance. The photo below shows the invasion by *Triumfetta lepidota*.



Photo 3: Savanna invaded by *Triumfetta lepidota* (K. Schum) in NGR

### Density and abundance of *Triumfetta lepidota* (K. Schum) stands

*Triumfetta lepidota* (K. Schum) density and abundance are recorded in Table 2.

According to this table and with a density of 98,400 individuals/ha, *Triumfetta lepidota* (K. Schum) stands are more abundant in shrubby and grassy savanna. Next come gallery forests and wooded savannas with respectively 50,955 and 19,720 individuals/ha. To date, the population of *Triumfetta lepidota* (K. Schum) is estimated to 8,971,158,533 (eight billion, nine hundred seventy-one million, one hundred fifty-eight thousand, five hundred thirty-three) individuals in the entire ranch. Data confirms the absence of *Triumfetta lepidota* (K. Schum) in areas of rainfed crops; in agroforestry areas, near water, in wetlands, on bare soils, dunes and sands.

### Anthropogenic actions in NGR

When the inventory was taken, human actions in the entire NGR were assessed. These actions are either linked to fit-up work (track repairs, track clearing, water point repairs, etc.), construction work (buildings for accommodation, watchtowers maintenance), surveillance patrols (trackers and foresters on motorcycles), recreational hunting, early fires, woodcutting etc. Figure 08 shows the link between the *Triumfetta lepidota* (K. Schum) presence and human actions in the different areas.



Table 2: Summary of densities and abundances by type of vegetation in *Triumfetta lepidota* (K. Schum)

TYPES OF VEGETATION	TOTAL AREAS (HA)	DENSITY BY TYPE OF VEG-ETATION (INDIVIDUALS/HA)	ABSOLUTE ABUNDANCE (TOTAL NUMBER OF INDIVIDUALS)
AREAS OF RAINFED CROPS AND AGROFORESTRY	6,52	0	0
GALLERY FOREST	3502,98	50955	178 494 346
TREE SAVANNA	5193,96	19720	102 424 891
SHRUB AND GRASS SAVANNA	88315,44	98400	8 690 239 296
BARE GROUND, DUNE, AND SAND	105,31	0	0
WETLAND	82,79	0	0
WATER	227,91	0	0
<b>TOTALS</b>	<b>97434,91</b>		<b>8 971 158 533</b>

From this figure, we understand that human actions are more pronounced in grassy and shrubby savannas. *Triumfetta lepidota* (K. Schum) stands are also higher in these savannas (grassy and shrubby). We can therefore say that the more human actions there are, the more *Triumfetta lepidota* (K. Schum) spreads. These actions (especially early fires and wood cuts) have led to a reduction in vegetative cover and enabled the proliferation of *Triumfetta lepidota* (K. Schum) stands in the ranch.

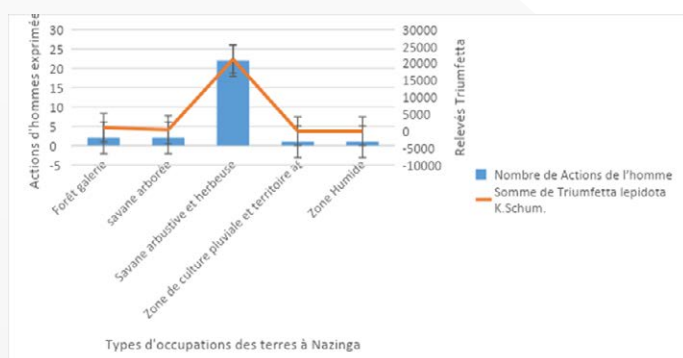


Figure 3: The link between the *Triumfetta lepidota* (K. Schum) and human action in the different areas

### *Triumfetta lepidota* (K. Schum) invasion in NGR: the opinions of the neighboring villages

All the surveyed community members have been familiar with *Triumfetta lepidota* (K. Schum) in their own villages since they were young. They confirm that their parents also know it and have transmitted its medicinal uses to them. This shows that the plant is either native to the environment or that its intrusion happened a very long time ago. The invasion has been observed in NGR for 30 years, since the early 1990s. The plant was near the roads, then gradually it invaded the ranch. Other reasons related to the proliferation of the species include:

- seed dispersal by water streams and elephants (*Loxodonta africana*),
- the fact that it is not eaten by animals (especially mature leaves),
- the strong regenerative power of the plant: immortality of the roots resulting in new shoots in the next season as well as seeds,
- the decrease in the number of animals resulting in less consumption of plant organs,



- late awakening of surrounding plants: *Triumfetta lepidota* (K. Schum) plants grow very early in March and April. Thus, they reach the ground before the others,
- elephants (*Loxodonta africana*) trample the dried fruits into the ground leading to their germination,
- rich soils: the species is often found on rich soils.

Now that we understand how and why the species quickly spreads on the ranch, what should we do?

## WHAT TO DO? THE MOST URGENT MEASURES TO TAKE TO CONTROL THE SITUATION

After the final results of the inventory work were obtained and interviews with local communities on the spread of *Triumfetta lepidota* (K. Schum) in NGR were over, a management plan on how to handle the plant's situation in the ranch was proposed. It is based on some of the challenges to take on:

- to mobilise the necessary resources for the execution of the plant's management plan
- to inform all parties involved: not all parties have the same perception of the risks related to the invasion
- to develop deeper knowledge on the species: there is little data on *Triumfetta lepidota* (K. Schum) in the NGR
- to adopt a plan to valorise the species: the plant has some benefits to be valorised
- to develop a strategy to control the species: despite everything, the current abundance of the species poses a threat to the biodiversity that surrounds it. Practical arrangements must therefore be made.
- to consider the situation beyond the ranch: currently, the species is gaining other lands around the ranch. It will be necessary to extend the work by considering the PONASI complex or even in the entire Volta basin (Burkina Faso-Ghana cross-border area).

## OUR CLOSING COMMENTS

In short, the plant has medicinal uses for the neighboring

villages and some animals do not eat its young shoots nor the roots and fruits. The speed of the invasion prompts the urgent implementation of a control and valorisation program in order to reduce its population. In the long term, the execution of this program beyond the ranch borders into the PONASI complex and the Volta basin is strongly recommended in order to tackle the situation as a whole. This program considers *Triumfetta lepidota* (K. Schum) a special species (a very delicate situation and a useful species) to be valued for the purpose of creating jobs and wealth (not as an undesirable plant to be systematically eradicated). Concretely, in the short term, this will involve strengthening communication and the knowledge base on the species (axis O1). In the medium term, adopting a plan for the valorisation and control of the species (axis O2). In the long term, extending this work in the PONASI complex and in the Volta Basin (axis O3). This NAPA issue cannot contain the entire proposed management plan.

## WILLING TO DIVE DEEPER?

Many angles remain to be explored on this subject. Prospects for scientific work (from doctorates to longer study time) would be welcome in order to understand:

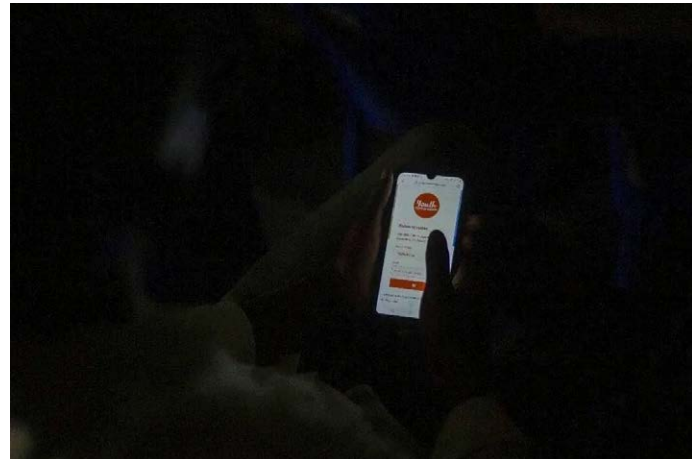
- Effects of climate variations on the spread of *Triumfetta lepidota* (K. Schum)
- Assessment of valorisation projects (compost and charcoal production) and plant (*Triumfetta lepidota* (K. Schum)) control measures
- Chemical composition of the plant (*Triumfetta lepidota* (K. Schum))
- chemical composition of the different soils on which the plant grows (*Triumfetta lepidota* (K. Schum))
- Establishing a distribution map of *Triumfetta lepidota* (K. Schum) at a national scale (Burkina Faso)
- Assess the dynamics of *Triumfetta lepidota* (K. Schum) invasion in the PONASI complex.
- You can consult the version of this same article including the bibliographical references through [this link](#).

# YOUTH CONSERVATION

The [youth-conservation.org](https://youth-conservation.org) platform is dedicated to the youth ages 10 to 17 years old. The goal is to make them aware of preserving the environment.

On 29 April, the Gorilla Ambassadors programme in Goma, DRC organised a meeting to make Youth Conservation known. Many were present at Yole Africa to Discover, Understand and take action for the survival of our planet.

A next meeting will be held 4 May at the French Institute of Goma. Contact the Gorilla Ambassadors Programme: [mail](mailto:info@youth-conservation.org), [Facebook](#), [Linkedin](#).





# ANNOUNCEMENTS

## JOBS

### FINANCE ASSISTANT @ BIRDLIFE

**Where?** Nairobi, Kenya

**Application deadlines:** 12 May 2023

[>> Cliquez ici pour accéder à l'offre <<](#)

### FINANCE OFFICER @ BIRDLIFE

**Where?** Dakar, Senegal

**Application deadlines:** 12 May 2023

[>> Cliquez ici pour accéder à l'offre <<](#)

### GUINEAN FOREST PROJECTS MANAGER @ BIRDLIFE

**Where?** Dakar, Senegal

**Application deadlines:** 15 May 2023

[>> Cliquez ici pour accéder à l'offre <<](#)

### AFRICA FOREST COORDINATOR @ BIRDLIFE

**Where?** Nairobi, Kenya

**Application deadlines:** 15 May 2023

[>> Cliquez ici pour accéder à l'offre <<](#)



## CONTACTS - PAPACO

[geoffroy.mauvais@iucn.org](mailto:geoffroy.mauvais@iucn.org)

// Coordinator - PAPACO

[madeleine.coetzer@iucn.org](mailto:madeleine.coetzer@iucn.org)

// Programme officer - Communications