International Journal of Plant & Soil Science

Volume 37, Issue 10, Page 355-368, 2025; Article no.IJPSS.142498
ISSN: 2320-7035

Ethnomycological Survey of Edible Wild Mushrooms in the Sinfra Department (Ivory Coast)

KANGA Yao [a*], YIAN Gouvé Claver [b], COULIBALY Kiyinlma [a], THOMAS Lou Doba Melem Glawdys [a] and ZIRIHI Guédé Noel [b]

[a] Department of Plant Biology, UFR Biological Sciences, Peleforo Gon Coulibaly University, Korhogo, Ivory Coast.
[b] Laboratory of Natural Environments and Biodiversity Conservation, Félix Houphouet-Boigny University, Ivory Coast.

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

DOI: https://doi.org/10.9734/ijpss/2025/v37i105791

Open Peer Review History:
This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: https://pr.sdiarticle5.com/review-history/142498

Original Research Article

Received: 02/08/2025
Published: 18/10/2025

ABSTRACT

Edible wild mushrooms are non-timber forest products (NTFPs) of dietary, nutritional, economic, and medicinal importance. This study aims to highlight the importance of edible wild mushrooms with a view to promoting their use. To this end, an ethnomycological survey was conducted among 81 people in the localities of Ganoufla and Gonazofla in the department of Sinfra. The results of the survey identified 14 species belonging to six families, namely Psatyrellaceae, Lyophillaceae,

**Corresponding author: E-mail: kanga.yao@yahoo.fr;*

Cite as: *KANGA Yao, YIAN Gouvé Claver, COULIBALY Kiyinlma, THOMAS Lou Doba Melem Glawdys, and ZIRIHI Guédé Noel. 2025. "Ethnomycological Survey of Edible Wild Mushrooms in the Sinfra Department (Ivory Coast)". International Journal of Plant & Soil Science 37 (10):355–368. https://doi.org/10.9734/ijpss/2025/v37i105791.*

Agaricaceae, Strophariaceae, Auriculariaceae, and Pluteaceae. The most commonly consumed species are *Volvariella volvacea*, *Psathyrella tuberculata*, and *Termitomyces letestui*, with respective proportions of 95.45%, 90.9%, and 70%. These three mushrooms have a fairly good shelf life, ranging from one to four days depending on their stage of development. They are most commonly used for food, with an estimated proportion of 70.60%. Taken together, these results show the importance of edible wild mushrooms in the daily lives of local populations.

Keywords: Ethnomycological survey; edible wild mushrooms; non-timber forest products.

1. INTRODUCTION

Non-timber forest products (NTFPs) play an essential role in food security and the livelihoods of rural populations (Moupela *et al*., 2011; Zanh *et al*., 2016). These non-timber forest products have a significant influence on the lives of local populations, even though their exploitation remains empirical. Among these, edible wild mushrooms occupy an important place due to their nutritional value, medicinal properties, and contribution to the income of local populations. In Côte d'Ivoire, wild edible mushrooms are an excellent source of income and food for many Ivorians (Yian, 2018). During their fruiting season, mushrooms are harvested for direct consumption or sold by rural populations to support their families (Koné *et al*., 2013; Soro *et al*., 2019; Yian *et al*., 2020). Sometimes, these mushrooms are used during periods of food shortages to replace vegetables, meat, or fish in meals (De Kesel *et al*., 2002). Given their importance in the world in general, in sub-Saharan Africa and in Côte d'Ivoire in particular, several scientific studies have been carried out on these mushrooms with a view to promoting them. Examples include the work of Kouame *et al*. (2018) on the physicochemical characterization of certain species of edible wild mushrooms and that of Yian *et al*. (2020) on the use of edible mushrooms in traditional medicine. It is in this context of promotion that this work is being carried out, with the aim of documenting the diversity and uses of edible wild mushrooms in the department of Sinfra in order to assess their nutritional, medicinal, and socio-economic role.

2. MATERIALS AND METHODS

- **Study area**

The study was conducted in the villages of Ganoufla and Gonazofla, located in the department of Sinfra in central-western Côte d'Ivoire. This area is characterized by a hot and humid climate favorable to mushroom growth (Fig. 1).

2.1 Materials

2.1.1 Biological material

The biological material consists of various species of edible wild mushrooms harvested from plots belonging to villagers in Ganoufla and Gonazofla in the department of Sinfra.

2.1.2 Technical equipment

The technical equipment used to conduct the study activities consisted of:

- a survey form containing information on the people surveyed;
- a container for transporting mushroom samples;
- a tarpaulin on which to spread the mushrooms out to dry;
- plastic bags for storing the mushrooms after they have dried.

2.2 Methods

2.2.1 Data collection methods

2.2.1.1 Ethnomycological survey

Data collection took place between August and September 2024. During this period, a total of 81 people were interviewed, including 42 in Ganofla and 39 in Gonazofla. Respondents were interviewed on a voluntary basis, taking into account their experience in collecting and using mushrooms. The interviews were conducted using a semi-structured questionnaire covering (1) sociodemographic data (age, gender, ethnicity, level of education, and occupation) and (2) endogenous knowledge (vernacular names, habitats, fruiting periods, uses, consumption methods, and shelf life). Respondents were grouped into three age categories: under 40, between 40 and 50, and 50 and over.

2.2.1.2 Collecting and identifying mushrooms

The mushrooms mentioned by respondents were collected in anthropized environments such as village plantations and in the surrounding forests of the study area. The specimens were photographed, dried, and identified at the National Center for Floristics at Félix Houphouët-Boigny University. This identification was based primarily on morphological criteria.

2.2.1.3 Analysis of ethnomycological data

The data collected was processed using Excel spreadsheets and XLSTAT 2016 software. The frequencies and percentages of the sociodemographic variables of the respondents were determined. Chi-square tests were performed for qualitative variables, and analysis of variance (ANOVA) was used to compare the means of the age groups.

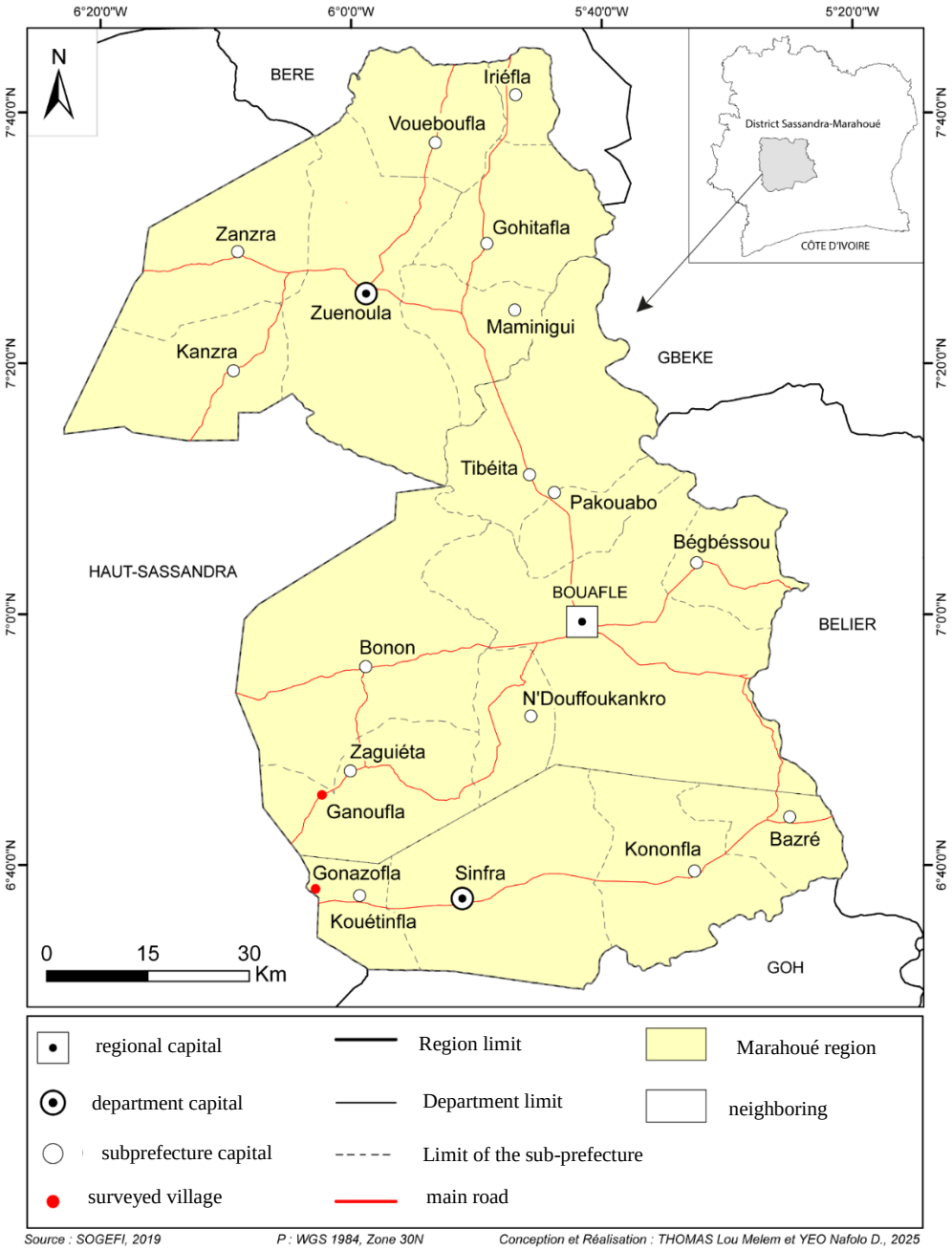

Fig. 1. Map showing the location of the study area

3. RESULTS

3.1 Ethnomycological Survey

The survey was conducted on a sample of 81 people, 42 of whom were from Ganoufla and 39 from Gonazofla. The results on sociodemographic variables focused on the gender, age groups, ethnicity, level of education, and occupation of the respondents.

3.1.1 Sociodemographic characteristics of the respondents

❖ **Gender**

The majority of respondents were women in both localities visited, with proportions of 92.86% in Ganoufla and 89.74% in Gonazofla. The proportions of men in the two localities were 7.14% and 10.26%, respectively. Statistical tests showed that there was no significant difference between the locality and gender of the respondents (Khi 2 = 0.011; P-value >0.05) (Fig. 2).

❖ **Age group**

In terms of age groups, respondents aged between 40 and 50 make up the majority, at 44.44%. They are followed by those aged under 40 and over 50, at 28.40% and 27.16% respectively (Table 1). The analysis of variance shows that the mean values for the three age groups are not significantly different (Table 2).

❖ **Ethnic group of respondents**

In terms of ethnicity, the indigenous population (Gouro) is in the majority, followed by the non-indigenous population (Baoulé, Bété) and finally the foreign population (Moré and Guineans), with respective proportions of 62.96%, 33.33%, and 3.7%. Statistical analysis revealed that there is no significant link between the localities and ethnicities of the respondents. (Khi 2 = 3.098; P-value >0.05) (Fig. 3).

❖ **Educational level and occupation of respondents**

Regarding the educational level of the surveyed population, those with no schooling were the most numerous, accounting for 50.62% (Fig. 4). They were followed by those with primary and secondary education, accounting for 27.16% and 22.22% respectively. No respondents had attained higher education. In terms of occupation, the majority of respondents were housewives, accounting for an estimated 69.49%, followed by farmers or planters, accounting for 27.16%, and traders, who accounted for the smallest proportion, at 8.64% (Fig. 5).

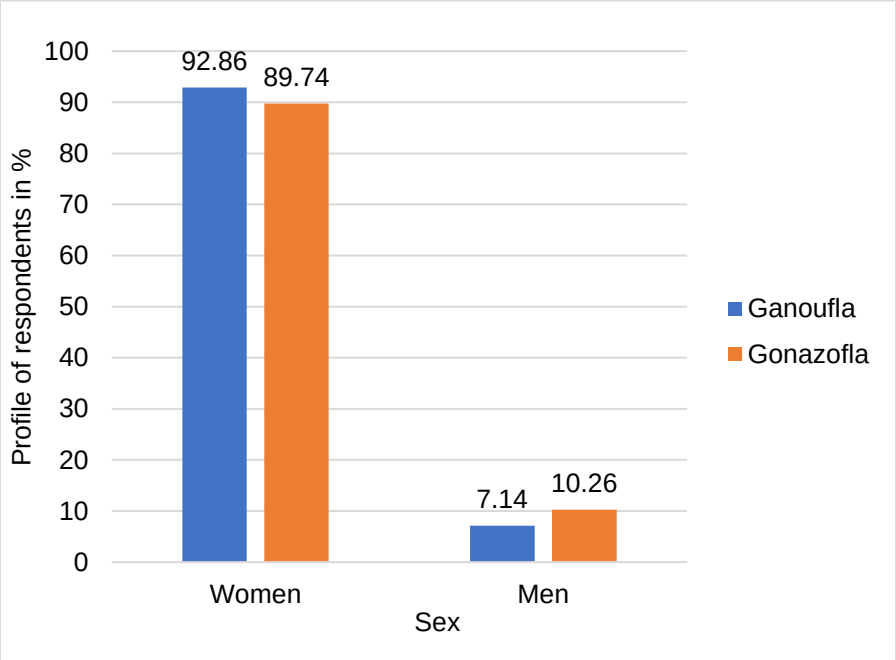

Fig. 2. Profile of respondents by gender

Table 1. Proportions of age groups of respondents by location

Localities	Age group	Number	Proportion
Ganoufla	Under 40 years old	14	33,33
Ganoufla	[40 ;50 years old [	14	33,33
Ganoufla	50 years old and older	14	33,33
Gonazofla	Under 40 years old	9	23,08
Gonazofla	[40 ;50 years old [	22	56,41
Gonazofla	50 years old and older	8	20,51

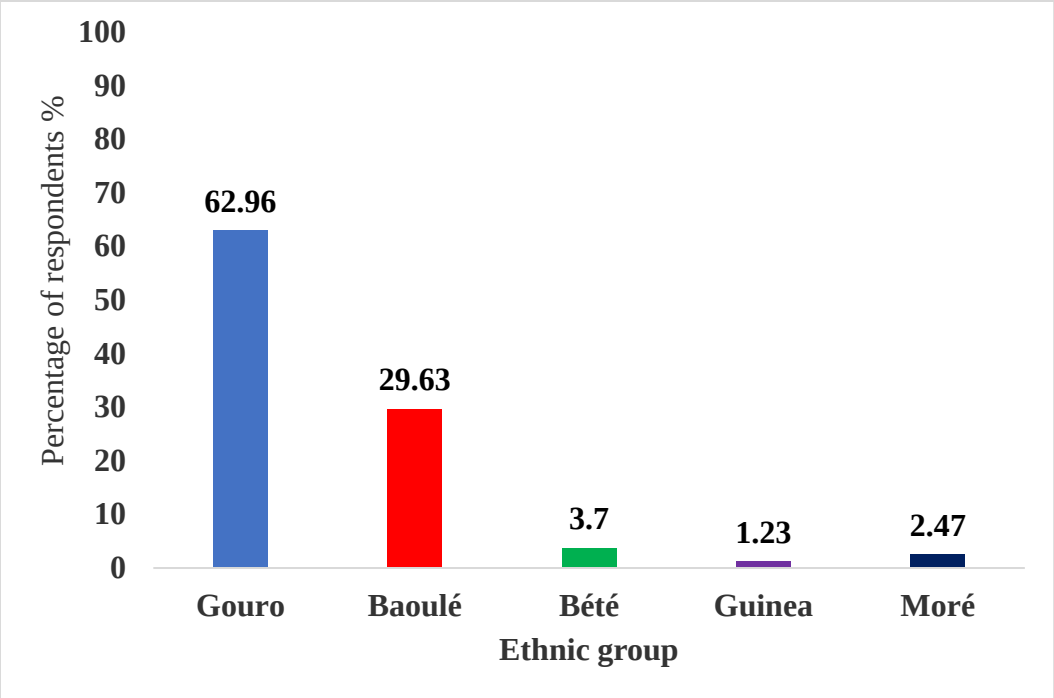

Fig. 3. Distribution of respondents by ethnicity

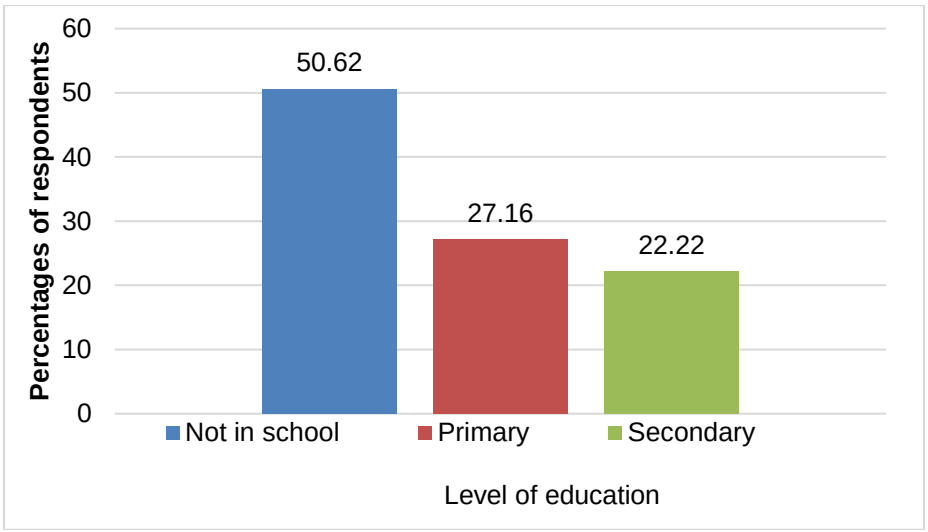

Fig. 4. Distribution of respondents by level of education

Table 2. Grouping of age categories of respondents

Methods	Estimated averages	Standard error	Lower bound (95%)	Upper bound (95%)	Groups
[40 ;50 years old [	18,000	3,227	7,729	28,271	A
Under 40 years old	11,500	3,227	1,229	21,771	A
Over 50 years old	11,000	3,227	0,729	21,271	A

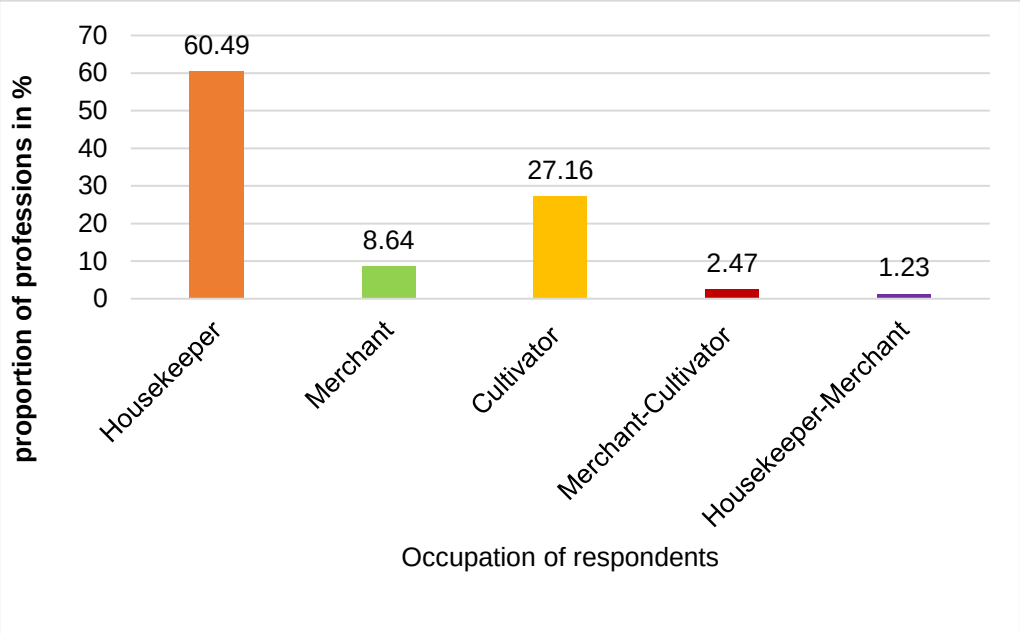

Fig. 5. Distribution of respondents by occupation

3.1.2 Indigenous knowledge of edible wild mushrooms

3.1.2.1 Diversity of edible wild mushrooms

Fourteen species of edible mushrooms belonging to six families were recorded. These are Lyophillaceae (6 species), Agaricaceae (3 species), Psathyrellaceae (2 species), Strophariaceae (1 species), Auriculariaceae (1 species), and Pluteaceae (1 species). The different genera encountered are *Psathyrella, Volvariella*, *Termitomyces*, *Coprinus*, *Gymnopilus,* and *Auricularia* (Table 3). However, the most frequently cited species among the most common species found by the population in both locations are *Psathyrella tuberculata* and *Volvariella volvacea*, each accounting for 27.16%, followed by *Termitomyces letestui* with 12.35% (Fig. 6).

3.1.2.2 Ecological habitats of edible mushrooms

With regard to the ecological niches of the edible mushrooms surveyed, the niche with the highest proportion of mushrooms was decaying tree trunks, with a proportion of 35.48%. Soil and termite mounds accounted for 24.13% and 23.81%, respectively. Dead tree roots and the areas surrounding termite mounds had the lowest proportions, with 9.43% and 7.14% respectively (Fig. 7).

3.1.2.3 Categories of edible mushroom use

The mushrooms identified are used in several ways by the respondents. More than 90% of the mushrooms are used for food by the respondents rather than for other purposes. Among the 14 mushrooms identified, the most commonly consumed and sold are *Volvariella volvacea*, *Psathyrella tuberculata*, *Termitomyces schimperi,* and *Termitomyces letestui* (Fig. 8). However, three (03) species of edible mushrooms are used in traditional medicine in our study. These are: Auricularia cornea, used to treat high blood pressure; *Psathyrella tuberculata*, used to treat diabetes, high blood pressure, malaria, eye pain, and earache; and *Termitomyces eurrhizus*, cited as a remedy for yellow fever (Table 4).

3.1.2.4 State of mushrooms consumed

Mushrooms are consumed more often fresh than dried. The respective proportions are as follows: 67.01% for those used fresh and 32.99% for those used dried. In addition, mushroom species such as *Volvariella volvacea* and *Psathyrella tuberculata* are consumed fresh rather than dried, with equal proportions of 50% each. However, the species *Termitomyces letestui* and *Termitomyces schimperi* are consumed more in dried form (83.33%) than fresh, with a proportion of 16.67% (Fig. 9).

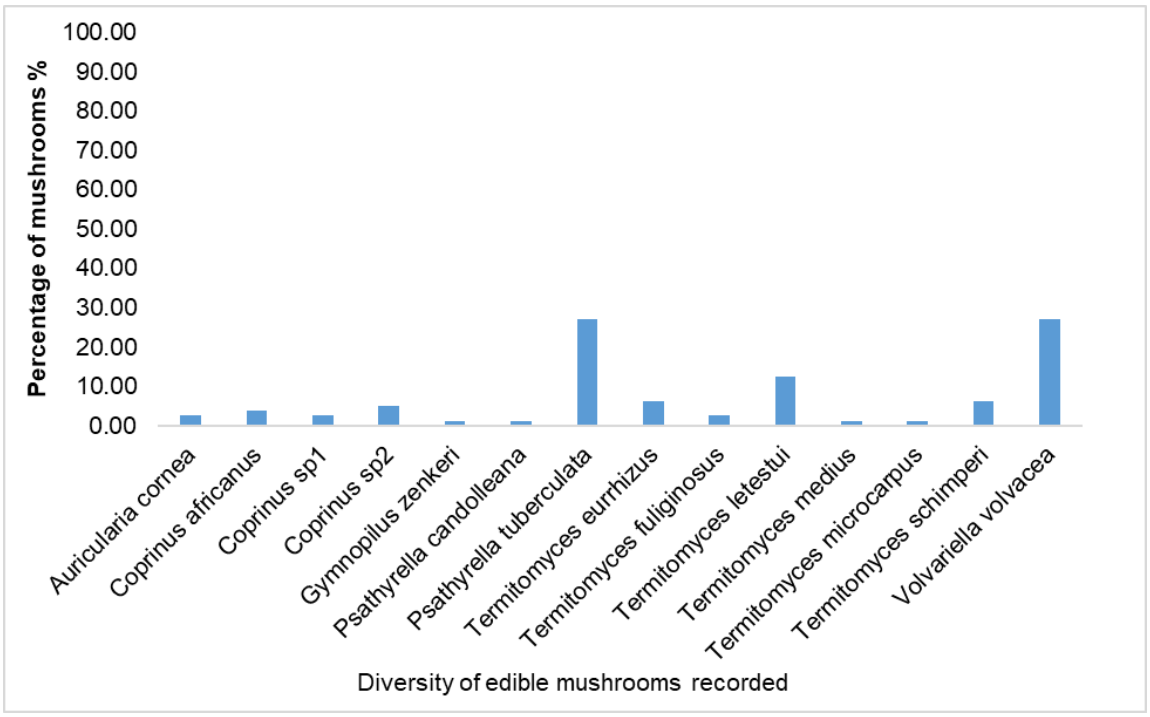

Fig. 6. Distribution of different species of edible mushrooms

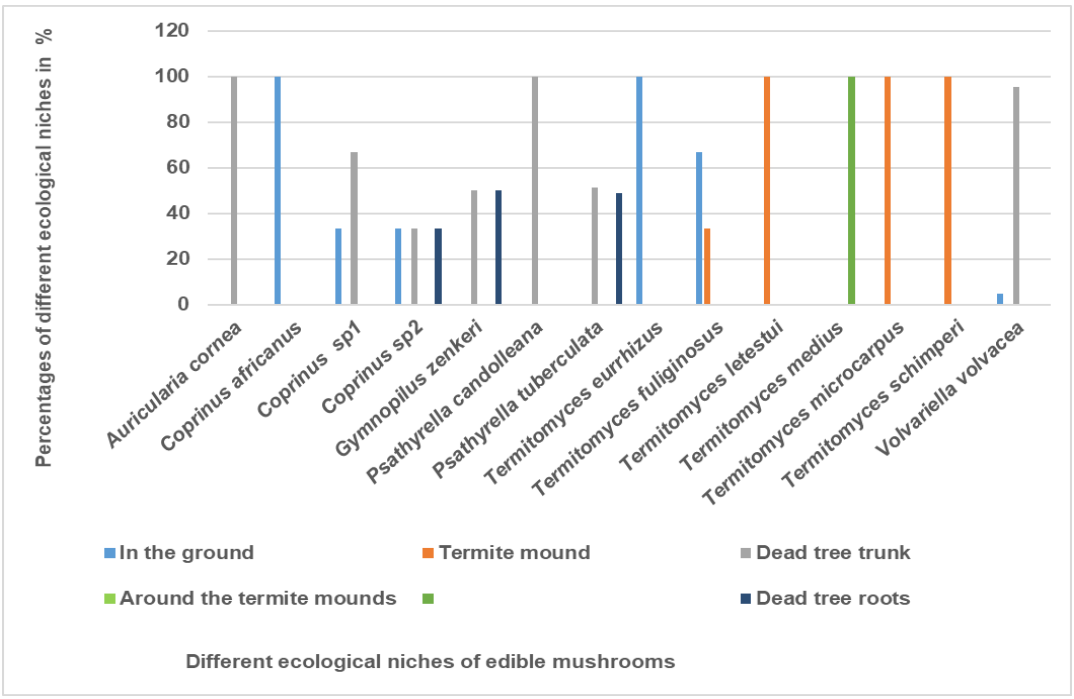

Fig. 7. Distribution of the different ecological habitats of edible mushrooms

Table 3. Classification of edible wild mushrooms into families, genera, and species

Families	Genras	Species
Lyophillaceae	*Termitomyces*	*Termitomyces letestui,* *Termitomyces schimperi,* *Termitomyces medius,* *Termitomyces eurrhizus,* *Termitomyces microcarpus* *Termitomyces fuliginosus*
Agaricaceae	*Coprinus*	*Coprinus africanus,* *Coprinus* sp1 *Coprinus* sp2
Psathyrellacea	*Psathyrella*	- *Psathyrella tuberculata* - *Psathyrella candolleana*
Strophariaceae	*Gymnopilus*	- *Gymnopilus zenkeri*
Auriculariaceae	*Auricularia*	- *Auricularia cornea*
Pluteaceae	*Volvariella*	- *Volvariella volvacea*

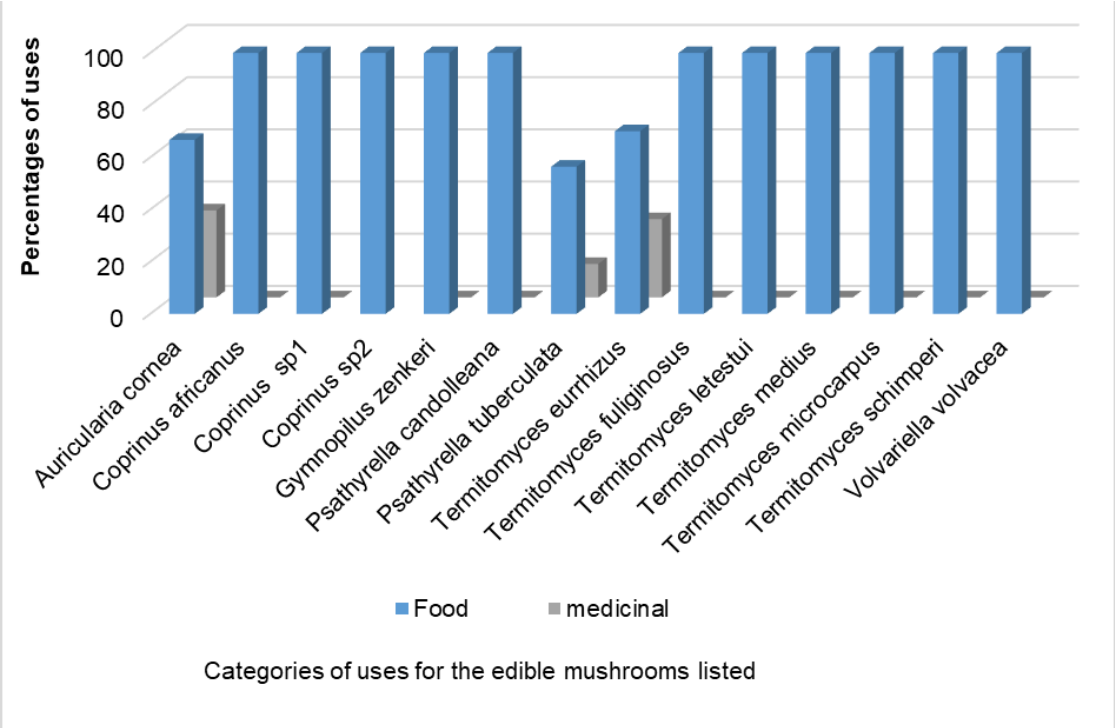

Fig. 8. Distribution of mushrooms according to their category of use

Table 4. Mushrooms with medicinal uses

Scientific names of edible mushrooms with medicinal uses	Diseases treated
Psathyrella tubercula	- Eye pain in people who squint and newborns whose eyes bleed- Diabète - Tension - Helps heal the umbilical cord - Malaria - Earaches
Auricularia cornea *Termitomyces eurrhizus*	- Tension - malaria

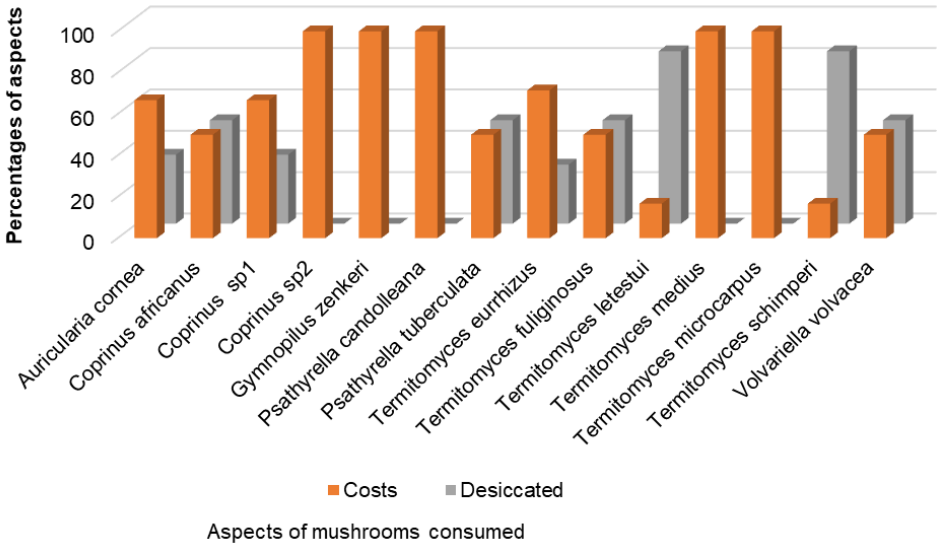

Fig. 9. Distribution of edible mushrooms according to their state of consumption

3.1.2.5 Organoleptic qualities of edible mushrooms

The identified mushrooms have different tastes from one individual to another. The mushroom species *Volvariella volvacea*, *Psathyrella tuberculata*, and *Termitomyces letestui* were classified as having exceptional organoleptic qualities (taste), with respective proportions of 95.45% for *Volvariella volvacea* and *Psathyrella tuberculata* and 80% for *Termitomyces letestui*. Statistical tests showed that there is no significant link between mushrooms and their organoleptic quality. (Khi 2 =10.108; P-value >0.05).

3.1.2.6 Shelf life of identified edible mushrooms

With regard to the shelf life of the species listed, surveys have shown that the shelf life of an edible mushroom differs from one species to another. Species such as *Termitomyces schimperi*, *Termitomyces medius*, *Termitomyces fuliginosus*, *Termitomyces eurrhizus*, *Psathyrella candolleana*, *Coprinus* sp2, and *Coprinus africanus* are species that decay within one day of harvesting. However, *Volvariella volvacea*, *Psathyrella tuberculata*, and *Termitomyces letestui* can last four days before decomposing. In contrast, the species *Auricularia cornea* can be preserved for up to a week or more.

3.1.2.7 Availability periods for the edible mushrooms listed

The availability period for the mushrooms listed varies from one species to another. Some edible mushrooms are only available during the rainy seasons. These include *Auricularia cornea*, *Psathyrella tuberculata*, *Coprinus* sp2, and *Gymnopilus zenkeri*. Species such as *Volvariella volvacea*, *Gymnopilus zenkeri*, and *Coprinus africanus* are available in all seasons. However, the availability period for some edible mushrooms is specific to one or more months. This is the case for the species *Termitomyces medius*, *Termitomyces schimperi*, *Psathyrella candolleana*, and *Coprinus* sp1. These mushrooms were found to be specific to the months of August and September in our study. The species *Termitomyces letestui*, *Termitomyces fuliginosus*, and *Termitomyces eurrhizus* are specific to the months of March, April, and May.

3.2 Morphological Description of Some Edible Wild Mushrooms Harvested

❖ *Psathyrella tuberculata* (Psathyrellaceae)

Description:

This species belongs to the Psathyrellaceae family and measures 2.8 to 3.1 cm in diameter. The cap is initially subglobular to globular, bell-shaped, convex, and becomes flat when mature. The surface is covered with small, fine scales with a dry, hygrophane coating. It is pale brown in the center; the margin is initially inflected then straight, often finely fissured with a light gray color. The flesh is fragile and thin. The gills are very tightly packed, closely adnate, thin, simple, fragile, arched, uniform with a smooth edge.

They are initially whitish in color when young, then grayish, and finally blackish when mature. They tend to liquefy with age. The stipe, measuring 3.1-9.3 × 0.2-0.5 cm, is central, dry, separable, cylindrical, straight or curved, circular, uniform at the base, glabrous, shiny to flaky, hollow and fibrous. It is white with a membranous ring, fragile and sometimes mobile (Fig. 10).

Fig. 10*. Psathyrella tuberculata*
(A: young fruiting body, B: mature fruiting body)

❖ *Volvariella volvacea* (Pluteaceae)

Description:

Volvariella volvacea is an edible wild mushroom species belonging to the Pluteaceae family. The cap has a diameter of 3.4 to 3.8 cm. It is initially subglobular, ovoid to convex, then slightly umbonate in the center of the cap. The surface layer is dry, smooth, and fibrillose, with radially arranged fibrils. This mushroom is dark gray in the center and light gray at the margin. The margin is inflected, then straight and torn when mature. The gills are simple, uniform with irregular lamellulae, more or less spaced, free, bulbous, flexible with a whitish-pink to pink tint. The stipe measures 3.8-11.2 x 0.4-1.1 cm, may be curved or straight when mature, is central, solid, cylindrical, straight, sometimes curved, dry, finely silky or fibrous; it is whitish, attenuated towards the top, slightly bulbous at the base with a sac-like volva, developed, membranous, lobed, smooth, and velvety (Fig. 11).

Fig. 11. *Volvariella volvacea*

❖ *Termitomyces schimperi* (Lyophyllaceae)

Description:

Termitomyces schimperi has a hemispherical-globular cap that becomes plano-convex and then flat with age. It is bumpy and its surface is dry, smooth, uniform, silky, and white. The rest of the cracked veil forms light brown scales on the surface of the cap. Its width varies between 13.1 and 26.2 cm.

The margin is initially curved and then becomes straight. The flesh is firm and fleshy with a uniform, unchanging whitish color. The gills are tightly packed, forked, uniform, free, and whitish to pinkish in color. They are flexible, bulbous, and dense. The stem is central, cylindrical, straight, firm, brittle, scaly, and tapering towards the bottom. It is whitish in color and has a wide, thick, simple, fixed, fibrous-silky, more or less flaky, whitish, felted ring with a curved edge. It is located in the upper 3/4 of the stipe (Fig. 12).

Fig. 12. *Termitomyces schimperi*
(A: Young carpophore, B: Mature carpophore)

❖ *Termitomyces medius* (Lyophyllaceae)

Description:

Termitomyces medius belongs to the Lyophyllaceae family. The cap, with a diameter of 1.7 to 6.3 cm, is initially conical and becomes flat-conical with age. The surface is dry, smooth, shiny or silky, uniform, sometimes depressed around the perforation and grayish brown in the center. The whitish margin is inflected with a curved edge, often straight, cracked up to half the distance from the center. The flesh is thin, firm, uniformly whitish and unchanging. The gills are single with irregular lengths, free, crowded, whitish to pinkish; they are fragile, arched with crenulated edges. The stem is characterized by the absence of a ring and measures 5-9.6 × 0.3-0.8 cm. It is central, cylindrical, straight in its epigeal part, with firm, fibrous flesh, tapering towards the bottom, glabrous, shiny, and striated. The stipe is extended by a fragile, whitish pseudorhizome. Its color is whitish or light gray with a whitish, cylindrical stem (Fig. 13).

Fig. 13. *Termitomyces medius*

❖ *Gymnopilus zenkeri* (Strophariaceae)

Description:

A member of the Strophariaceae family, *Gymnopilus zenkeri* has a cap ranging from 2.8 to 8.4 cm in diameter. It is subglobose to globose, flat-convex and sometimes depressed, pale purple in the

juvenile stage and orange-yellow in the adult stage. It is hygrophanous. The margin is inflexed and then straight when mature. The gills are more or less crowded, subdecurrent to decurrent by one tooth, arched, and yellowish in color. The stem, measuring 5.8-6.7 × 0.4-0.8 cm, is central, cylindrical, uniform, striated, hollow, fibrous, scaly, silky, and yellow-brown. The ring is membranous and fleeting (Fig. 14).

Fig. 14. *Gymnpilus zenkeri*
(A: on a decaying palm tree, B: on a decaying tree trunk)

4. DISCUSSION

The results of the ethnomycological survey conducted among the populations of the villages of Ganoufla and Gonazofla in the department of Sinfra showed that the majority of respondents were women. This high proportion of women could be explained by the fact that endogenous knowledge of edible wild mushrooms is held and transmitted by women in this area. Indeed, women know when edible mushrooms are in season and where to harvest them. In addition, women are responsible for the daily subsistence of the family and the traditional care of children. Consequently, they use edible mushrooms for their culinary flavor, medicinal properties, and also for the nutritional balance of the family diet. Our results are similar to those of Yorou and De Kesel, (2001), who reported that 100% of women in the city of Parakou, Benin, are familiar with and eat edible wild mushrooms. Fourteen species of edible mushrooms were cited by the population during the ethnomycological survey. Among these species, the genus *Termitomyces* is the most represented with six species cited. This high diversity of species of the genus *Termitomyces* is thought to be due to a combination of ecological and biological factors and their symbiotic association with termites. Indeed, Côte d'Ivoire has a hot and humid climate favorable to the growth of edible mushrooms, particularly those of the *Termitomyces* genus, whose development depends on the humidity from February to April and the presence of termites. *Termitomyces* live in symbiosis with termites of the genus *Macrotermes*, decomposing organic matter and providing them with food (Koné, 2013). Consequently, the high diversity of termites in tropical areas leads to a high presence of these fungi. These results are similar to those of Onguene et al. (2018), who identified and catalogued nearly fifteen species of the *Termitomyces* genus in the rainforest of southern Cameroon. Most of the edible wild fungi inventoried in the area were collected from decaying dead tree trunks. Decaying dead wood provides essential nutrients for the establishment and survival of almost all of the fungi collected. These results are similar to those of Eyi-Ndong et al. (2014), who collected mushrooms of the genera *Psathyrella, Gymnopilus*, *Auricularia*, and *Coprinus f*rom stumps or dead tree trunks in the dense forests of Central Africa. The ethnomycological survey enabled us to identify the edible mushrooms most appreciated and traded by the Ivorian population, particularly in rural areas. These are *Volvariella volvacea*, *Psathyrella tuberculata*, *Termitomyces schimperi*, and *Termitomyces letestui*. This could be due to their availability, abundance, ease of cultivation, and culinary value. Indeed, the species *Psathyrella tubercula* is generally found in agricultural and forest environments, which makes it more or less accessible and easy to collect. As for the species *Volvariella volvacea*, it is commonly cultivated on agricultural substrates

such as rice straw, cassava peelings, and palm fronds (Yian, 2018), which facilitates its supply to the market and then to households. With regard to the *Termitomyces letestui* species, Côte d'Ivoire's hot and humid climate favors the growth of edible mushrooms, particularly those of the *Termitomyces* genus, whose development depends on humidity. In addition, these mushrooms have flavors and textures that are highly appreciated by consumers. These results corroborate the work of Yian (2018) in his study on the diversity of edible mushrooms found in Abidjan. These three mushrooms are generally preserved in dried form for trade and later consumption (Codja, 2013, Yian, 2018). However, three of the 14 edible mushroom species mentioned are used in traditional medicine: Auricularia cornea is used to treat high blood pressure, *Psathyrella tuberculata* is used to treat diabetes, high blood pressure, malaria, eye pain, and earache, and *Termitomyces eurrhizus* is cited as a remedy for yellow fever. This use is based on traditional knowledge, experience, and observation. These results are similar to those of Yian et al. (2020), who also listed Auricularia cornea and *Psathyrella tuberculata* among the eleven species of edible mushrooms used in traditional pharmacopoeia. The survey results revealed that some species of edible mushrooms are more resistant to decay than others after harvesting. This difference in mushroom shelf life could be explained by several factors, such as the water content of the mushrooms and the environmental conditions (humidity or heat) in which they are stored. However, better preservation methods, such as drying and refrigerated storage, can extend the shelf life of edible mushrooms.

5. CONCLUSION

The study undertaken on the value of edible wild mushrooms through an ethnomycological survey of 81 people in the localities of Ganoufla and Gonazofla highlighted the sociodemographic characteristics of the respondents (gender, age, ethnicity, level of education, and occupation), as well as their endogenous knowledge of edible mushrooms and their usefulness in defending the body. This survey not only provided an overview of the demographic characteristics of the respondents, but also revealed that women constitute the population with the most traditional knowledge about edible mushrooms. During the survey, 14 species of edible mushrooms were mentioned by the population. These edible mushrooms belong to six families, two of which are predominant (Lyophillaceae and Agaricaceae). The species *Volvariella volvacea*, *Termitomyces letestui*, and *Psathyrella tuberculata* are the wild mushrooms most commonly consumed by rural populations in the department of Sinfra.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc) and text-to-image generators have been used during writing or editing of this manuscript.

ACKNOWLEDGEMENTS

We are grateful to all the communities in Ganoufla and Gonazofla for participating in this study.

COMPETING INTERESTS

Authors have declared that they have no known competing financial interests or non-financial interests or personal relationships that could have appeared to influence the work reported in this paper.

REFERENCES

Codjia, J. E. I. (2013). *Diversity and use of wild mushrooms in the municipality of Pobe*, 66 p.

De Kesel, A., Codjia, J. T. C., & Yorou, N. S. (2002). *Guide to edible mushrooms in Benin*. National Botanical Garden of Belgium, Meise (Belgium) and Cotonou (Benin), CECODI, 274 p.

Eyi-Ndong, C., Mounguengui, S., Attéké, C., & Ndong, G. (2014). Variation of the consumption of mushrooms by Pygmies and Bantus in the North of Gabon. *Advances in Microbiology, 4*, 1212–1221.

Koné, N. A. (2013). *Termite-fungus symbiosis: Origin, co-diversification and determinism of seasonal fruiting of the symbiotic fungus (Termitomyces spp.)*. Doctoral thesis, Nangui Abrogoua University, Abidjan, Ivory Coast, 185 p.

Kouame, K. B., Anauma, C. K., Massé, D., Ibrahim, K., & Nogbou, E. A. (2018). Physicochemical characterization

of three species of edible wild mushrooms commonly found in the Haut Sassandra region (Côte d'Ivoire). *Journal of Applied Biosciences, 121*, 12110–12120.

Moupela, C. (2011). The African hazelnut tree (*Coula edulis* Baill.). A little-known non-timber forest product. *Biotechnology, Agronomy, Society and Environment, 15*(3), 485–495.

Onguene, A., Tchudjo, T. A. N., & Kuyper, T. W. (2018). Biodiversity of edible wild macrofungi in the humid forest of southern Cameroon. *Bois et Forêts des Tropiques, 338*, 87–99.

Soro, B., Koné, N. A., Vanié-Léabo, L. L. P., Konaté, S., Bakayoko, A., & Koné, D. (2019). Phytogeographical and sociolinguistical patterns of the diversity, distribution, and uses of wild mushrooms in Côte d'Ivoire, West Africa. *Journal of Ethnobiology and Ethnomedicine, 15*(5), 12 p.

Yian, G. C. (2018). *Edible mushrooms in southern Côte d'Ivoire: The case of the Gôh, Agnéby-Tiassa, and Abidjan District regions*. Doctoral thesis, Félix Houphouët-Boigny University, Abidjan, Côte d'Ivoire, 226 p.

Yian, G. C., Pitta, B. M. S., & Tiébré, M. S. (2020). Edible wild mushrooms and traditional pharmacopoeias in the forest zone of Côte d'Ivoire. *IOSR Journal of Pharmacy and Biological Sciences (IOSR-JPBS), 15*(2), 35–45.

Yorou, N. S., & De Kesel, A. (2001). Ethnomycological knowledge of the Nagot peoples of central Benin (West Africa). In *Proceedings of the XVIth AETFAT Congress, Brussels, Systematic and Geographic of Plants, 72*, 627–637.

Zanh, G. G., Barima, Y. S. S., Kouakou, K. A., & Sangne, Y. C. (2016). Uses of non-timber forest products by communities living near the Haut-Sassandra classified forest (central-western Côte d'Ivoire). *International Journal of Pure and Applied, 4*(5), 212–225.

Peer-review history:
The peer review history for this paper can be accessed here:
https://pr.sdiarticle5.com/review-history/142498