

# Diversity of Edible and Medicinal Mushrooms Used in the Noun Division of the West Region of Cameroon

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**ABSTRACT:** This article presents discussions of mushrooms as a source of food, income, as well as medicine among the Bamoun people of the highlands of West Cameroon, where the vegetation is mainly savannah mixed with forest galleries. Like most tribes in tropical Africa, the Bamoun people use a wide range of natural products as mushrooms. This study attempts to identify the various mushrooms exploited by the Bamoun. Ethnomycological surveys and field trips were conducted over 4 years in several villages in the Noun Division. Samples of wild mushrooms were collected from both the savannah and the forest galleries. These were described, preserved, and identified. The study shows that the Bamoun people use at least 40 species of mushrooms for either food or medicine. These species belong to 8 genera: *Auricularia*, *Cantharellus*, *Ganoderma*, *Pleurotus*, *Lactarius*, *Lactifluus*, *Russula*, and *Termitomyces*. Species of genera *Lactarius*, *Lactifluus*, *Russula*, and *Termitomyces* are most often used for food, whereas *Ganoderma* spp. and *Pleurotus tuber-regium* are mainly exploited for medicinal purposes. This survey provides an overview of the diversity of mushrooms and their importance to the local people of this area. Since some of the species mentioned by the local population were not fruiting at the time of our field trips, additional investigations are needed to further clarify the diversity and the usage of mushrooms in this region.

**KEY WORDS:** medicinal and edible mushrooms, Bamoun people, Central Africa, ethnomycology, utilization, non-timber forest products

**ABBREVIATION:** NTFP, nontimber forest product

## I. INTRODUCTION

Natural resources in developing countries, especially in tropical regions, play an important socioeconomic and ecological role in the lives of the people, particularly in local communities. Among these resources are wild mushrooms, which are a valuable non-timber forest product (NTFP) used all over the world, though it is underestimated or neglected in Africa.<sup>1,2</sup> Mushrooms are used as food, medicine, and income-generating sources through trading, as well as for spiritual or ritual purposes.<sup>3-7</sup>

In tropical regions, particularly tropical Africa, knowledge of the diversity and uses of fungi is scanty; however, some research done in Central,

East, and West Africa has shown that there is a great diversity of edible and medicinal mushrooms.<sup>8-12</sup>

Cameroon is referred to as “Africa in miniature” because of its highly diverse human population, topography, vegetation, ecosystems, and flora, with 7850 species of vascular plants documented.<sup>13</sup> While using the ratio of 6 species of fungi for 1 species of vascular plant, the number of fungal species in Cameroon can be estimated at about 50,000 species, of which only 1,050 are known.<sup>14,15</sup> In addition to the limited information on the fungal diversity in tropical regions, very little is known about their ethnomycological importance.

Cameroon comprises more than 250 tribes or ethnic groups, each with specific cultural knowledge,

uses, and behaviors related to various groups of living organisms, such as fungi. Despite this large number of tribes in Cameroon, ethnomycological knowledge is still insufficiently documented within the various tribes. Nevertheless, authors such as Van Dijk et al.<sup>16</sup> investigated the knowledge and utilization of edible mushrooms by the Bantu and Bagyeli (pigmy) populations of the rain forest in the South Region of Cameroon and found that more than 35 species of mushrooms were used as food. Yongabi et al.<sup>17</sup> and Kinge et al.<sup>18</sup> reported the use of 22 and 15 species of edible and medicinal mushrooms, respectively, in the Northwest and Southwest Regions, respectively. Moreover, Douanla-Meli<sup>19</sup> mentioned the use of some mushrooms as food or medicine around the Mbalmayo Reserve Forest in the Center Region, whereas Mossebo et al.<sup>20</sup> revealed the common uses of *Termitomyces* species in the Center and West Regions.

The vegetation of the West Region of Cameroon is mostly savannah with numerous gallery forests along rivers and streams. The populations have settled in several traditional kingdoms with a rich and diversified cultural patrimony that is unique in the world. Most of the populations of this region use mushrooms as part of their diet or in their traditional medicine and have developed a wild mushroom trade at their local markets or alongside main roads. However, knowledge of the taxonomic diversity of wild mushrooms used in this region has remained unpublished.

The Bamoun Kingdom, created in 1394 by King Nchare Yen, covers the land corresponding to the administrative division of the Noun.<sup>21</sup> The Bamoun are mostly known for their rich culture and by the works of one of its famous kings, Njoya (1860–1933), who, among others, drew the map of his kingdom without the help of settlers and developed a writing named “*shümom*,” in which several books were written, such as *Libonar konfen* (Book of medicines) on the medicinal plants of the Bamoun people.<sup>21,22</sup> In his notes on medicinal plants of the kingdom, King Njoya mentioned some mushroom species used in traditional medicine. Moreover, we observed that mushrooms are still generally evoked in some popular expressions. Hence, there

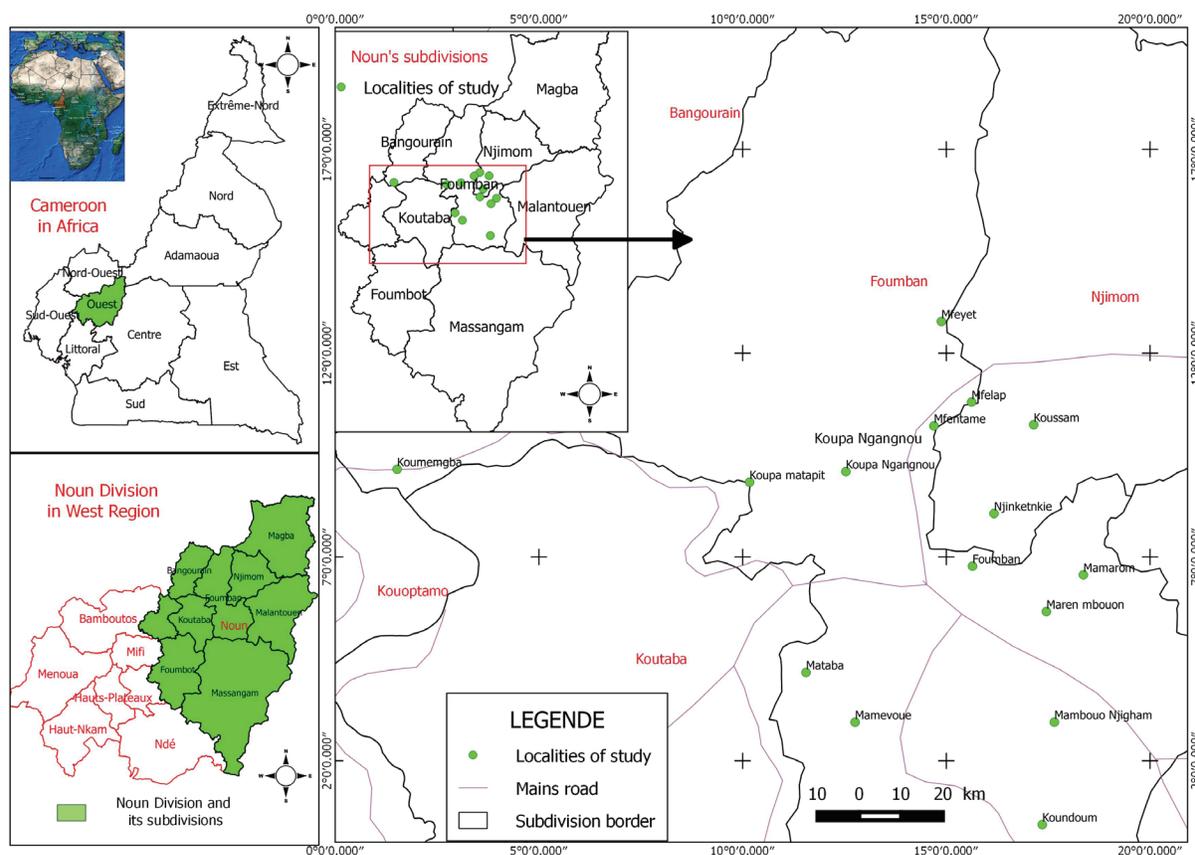
is evidence that the edible and medicinal properties of mushroom have long been exploited by the ancient Bamoun.

Considering that the ethnomycological knowledge of various tribes could serve as a tool to assess the fungal diversity in a country, this work is a contribution to the documentation of the medicinal and edible mushroom diversity in Cameroon, particularly of the Bamoun people.

## II. MATERIALS AND METHODS

This study was conducted in the Noun Division (Fig. 1), located in the West Region of Cameroon. It comprises plateaus, plains, and mountains between 1200 and 1600 m. The vegetation is mostly savannah, with bands of forest galleries rich in *Uapaca guineensis* Müll. Arg., the main ectomycorrhizal host tree. This vegetation is progressively being altered by the building of new dwellings, intensive agriculture, and grazing. A typical tropical climate occurs in this region, with two main seasons: a dry season from November to March, with an average temperature of 30–35°C, and a rainy season that extends from March to November, with an average temperature of 27–28°C. The average annual rainfall is about 2054 mm/year. In 2008 the population of Noun Division was estimated at approximately 800,000 inhabitants, with an average density of 104 inhabitants/km<sup>2</sup>. The Noun society, mainly made up of the Bamoun people (approximately 88% of the population), depends principally on agriculture, which occupies 60% to 70% of its working population and contributes to more than 60% of its wealth.

This ethnomycological study was initiated in 2009, but the fieldwork began in 2011 and was carried out until 2014. The investigations were based on the identification of mushrooms sold in local markets, on ethnomycological surveys using questionnaires, and on field trips with the participation of the local population. To observe the sale of mushrooms in the markets, 2 local, popular periodic markets, Fouban and Koutaba, were visited several times during the study period. Each of these markets also receives habitants of surrounding villages who come to sell and buy manufactured, agricultural, and



**FIG. 1:** Situation of the studied region of Cameroon in Africa.

natural products. The natural products were mostly NTFPs used for food and traditional medicine. In each market, data such as the vernacular names of species, the place and habitat of their collection, their uses, and other relevant information related to the wild mushrooms were acquired from sellers. Based on the information obtained at both markets, 16 villages including Fouban (Fig. 1) were selected for further ethnomycological surveying and field trips to collect mushrooms specimens.

More than 150 persons, both males and females of different ages (8–85 years) participated in the survey, sharing their knowledge of various mushrooms. Initial established questions were addressed by interviewing volunteers individually, but to confirm the information obtained, the same questionnaire was also used during structural group discussions in most of these villages. The questionnaire dealt with

issues such as the local identification system and the names of mushrooms used by the population, their fructification period, and the habitat in which they grow. For a good spelling of local names in the local language, a dictaphone was used to register species names and other information. The phonetic spellings (in parentheses after the local species names in Table 1) are based on the general alphabet of Cameroonian languages.<sup>23</sup>

To substantiate the information on known mushroom species and their uses, as well as their ecology, field trips were undertaken with the participation of village guides. Various samples of mushrooms were photographed and collected in the savannah and forest galleries using opportunistic sampling methods.<sup>24</sup> After each field trip, freshly collected samples were presented to the village elders for identification or confirmation of local names and

**TABLE 1:** List of Mushroom Species Used in the Noun Division

| Family/Species  | Local Name   | Uses          | Ecology              |           |
|---|--|---------------|----------------------|-----------|
|   |  |               | Habitat              | Substrate |
| Order Agaricales  |  |               |                      |           |
| Pleurotaceae  |  |               |                      |           |
| <i>Pleurotus pulmonarius</i> (Fr.) Quél.                          | Puo' tutu (pwó' tətá)  | Food          | Forest/plantation    | Dead wood |
| <i>Pleurotus tuber-regium</i> (Fr.) Fr.                           | Puo' wen (pwó' wɛŋ)  | Medicine      | Plantation           | Soil      |
| Pluteaceae  |  |               |                      |           |
| <i>Volvariella speciosa</i> (Fr.) Singer                          | Puo' mandù ndun vom (pwó' mändù' ndù vóm)                      | Food          | Savannah or farmland | Soil      |
| Tricholomataceae  |  |               |                      |           |
| <i>Termitomyces aurantiacus</i> (R. Heim) R. Heim                 | Puo' mesisi (pwó' mäsísí)                                      | Food          | Savannah or farmland | Soil      |
| <i>Termitomyces clypeatus</i> R. Heim                             | Puo' njé njé (pwó' njénje)                                     | Food          | Savannah or farmland | Soil      |
| <i>Termitomyces letestui</i> (Pat.) R. Heim                       | Puo' wu' (pwó' wú')  | Food          | Savannah or farmland | Soil      |
| <i>Termitomyces mammiformis</i> R. Heim                           |  | Food          | Savannah or farmland | Soil      |
| <i>Termitomyces mboudaeina</i> Mossebo                            | Puo' nji' or Puo nkü memgbié (pwó' nji' i/ pwó' nkwyi mængbye) | Food          | Savannah or farmland | Soil      |
| <i>Termitomyces microcarpus</i> (Berk. & Broome) R. Heim          | Puo' me fufü (pwó' mə fífí)                                    | Food/medicine | Savannah or farmland | Soil      |
| <i>Termitomyces schimperi</i> (Pat.) R. Heim                      | Puo' shit (pwó' shit)  | Food          | Savannah or farmland | Soil      |
| <i>Termitomyces striatus</i> (Beeli) R. Heim                      |  | Food          | Savannah or farmland | Soil      |
| <i>Termitomyces striatus</i> f. <i>grisumboides</i> Mossebo       |  | Food          | Savannah or farmland | Soil      |
| <i>Termitomyces subumkwanii</i> Mossebo                           |  | Food          | Savannah or farmland | Soil      |
| <i>Termitomyces</i> cf. <i>umkwaani</i> (Cooke & Masee) D.A. Reid | Puo' Mepkii/puo' mbikure (pwó' məkpey'/pwó' mbikurə)           | Food          | Savannah or farmland | Soil      |
| Order Auriculariales  |  |               |                      |           |
| Auriculariaceae   |  |               |                      |           |
| <i>Auricularia</i> cf. <i>cornea</i> Ehrenb.                      | Puo' kombuo'/Puo' kpaliét (pwó' kəmbwó'/pwó' kpalyɛt)          | Food          | Farmland and forest  | Dead wood |
| Order Cantharellales  |  |               |                      |           |
| Cantharellaceae   |  |               |                      |           |

TABLE 1: (continued)

|  |  |          |                        |                                      |
|--|--|----------|------------------------|--------------------------------------|
| <i>Cantharellus platyphyllus</i><br>Heinem.                        | Puo' ntuo mengop/Puo' Na<br>meküküt püte (pwó' ntwó<br>məgəp/pwó' nə məkət fi) | Food     | UFG                    | Soil                                 |
| <i>Cantharellus</i> sp.  | Puo' Na meküküt fū<br>(pwó' nə məkət fi)                                       | Food     | UFG                    | Soil                                 |
| Order Polyporales  |  |          |                        |                                      |
| Ganodermataceae  |  |          |                        |                                      |
| <i>Ganoderma</i> cf. <i>lucidum</i> (Curtis)<br>P. Karst.          | Puo' kuo' tuen<br>(pwó' kwó' tʉən)   | Medicine | Farmland<br>and forest | Dead wood<br>and living<br>palm tree |
| Polyporaceae   |  |          |                        |                                      |
| <i>Lentinus squarrosulus</i> Mont.                                 | Puo' tutu (pwó' tʉtʉ)  | Food     | Farmland               | Dead wood                            |
| Order Russulales   |  |          |                        |                                      |
| Russulaceae  |  |          |                        |                                      |
| <i>Lactarius tenellus</i> Verbeken &<br>Walley                     |  | Food     | UFG                    | Soil                                 |
| <i>Lactarius atro-olivinus</i> Verbeken<br>& Walley                |  | Food     | UFG                    | Soil                                 |
| <i>Lactifluus</i> aff. <i>goossensiae</i><br>(Beeli) Verbeken      | Puo' mbum mon<br>(pwó' mbʉm mon)   | Food     | UFG                    | Soil                                 |
| <i>Lactifluus longipes</i> (Verbeken)<br>Verbeken                  | Puo' tita (pwó' títá)  | Food     | UFG                    | Soil                                 |
| <i>Lactifluus gymnocarpus</i> (R.<br>Heim ex Singer) Verbeken      | Puo' mbit (pwó' mbiit)   | Food     | UFG                    | Soil                                 |
| <i>Lactifluus</i> cf. <i>rubroviolascens</i><br>(R. Heim) Verbeken | Puo' nga' lare püte<br>(pwó' nga' láré pətá)                                   | Food     | UFG                    | Soil                                 |
| <i>Lactifluus brunnescens</i> (Ver-<br>beken) Verbeken             |  | Food     | UFG                    | Soil                                 |
| <i>Lactifluus inversus</i> (Gooss.-Font.<br>& R. Heim) Verbeken    |  | Food     | UFG                    | Soil                                 |
| <i>Lactifluus</i> cf. <i>pelliculatus</i> (Beeli)<br>Buyck         | Puo' tita (pwó' títá)  | Food     | UFG                    | Soil                                 |
| <i>Lactifluus</i> sp.1   | Puo' nga' lare fū (pwó' nga'<br>láré fi)                                       | Food     | UFG                    | Soil                                 |
| <i>Lactifluus</i> sp.2   | Puo' mbum mon (pwó' mbʉm<br>mon)   | Food     | UFG                    | Soil                                 |
| <i>Russula meleagris</i> Buyck                                     | Puo' na' nkié (pwó' pwó' nǰá'<br>nkye)   | Food     | UFG                    | Soil                                 |
| <i>Russula meleagris</i> var.<br><i>meleagris</i>                  | Puo' na' nkié/Puo' metu si<br>(pwó' nǰá' nkye/pwó' mətusí)                     | Food     | UFG                    | Soil                                 |
| <i>Russula ochrocephala</i> Buyck                                  | Puo' fū (pwó' fi)  | Food     | UFG                    | Soil                                 |

TABLE 1: (continued)

|   |  |      |                         |      |
|---|--|------|-------------------------|------|
| <i>Russula cf. cellulata</i> Buyck            | Puo' mbit ngop<br>(pwó' mbit ngap)                                     | Food | UFG                     | Soil |
| <i>Russula cf. sesenagula</i> Beeli           | Puo' ndüete (pwó' duətə)   | Food | UFG                     | Soil |
| <i>Russula sp. (R. sect. Polychromae)</i>     | Puo' nga'mbiit/Puo' sho'<br>mbiit (pwó' ngá' mbiit/<br>pwó'shó' mbiit) | Food | UFG                     | Soil |
| Uncollected/unidentified species              |  |      |                         |      |
| <i>Termitomyces titanicus</i> Pegler & Pearce | Puo' ndap meshé (pwó' ndap<br>məshyé)                                  | Food | Savannah or<br>farmland | Soil |
| Mushroom 1 (cf. <i>Macrolepiota</i> )         | Puo' ngùgùe (pwó' ngunguə)   | Food | Savannah                | Soil |
| Mushroom 2                                    | Puo' pkapkara (pwó'<br>pkápkára')                                      | Food | Forests/<br>savannah    | Soil |
| Mushroom 3 (cf. <i>Agaricus</i> )             | Puo' singbié (pwó' sĭmbgyé)  | Food | Savannah                | Soil |

UFG, Uapaca forest galleries.

uses. Macroscopic descriptions were created before drying the specimens for conservation; duplicates of some dried specimens were deposited in the Brussels Botanical Herbarium. After microscopic observations, species were identified and named using some existing documentation on tropical African mushrooms.<sup>11,25–27</sup>

### III. RESULTS AND DISCUSSION

#### A. Local Naming and Classification of Mushroom Species in the Noun Division

Mushrooms are called “puo” (pwó') in the Bamoun language. This name also refers to fruits of melon and squash (*Cucumis melo* L. and *Cucurbita maxima* Duchesne). In many Bamileké groups (others tribes of the West Region of Cameroon), the general name given to mushrooms is slightly similar to that of the Bamoun, except for the intonation or pronunciation. The tendency to assign a similar name to both mushrooms and melon fruits is common in some areas of the region, but the reason for this is unknown.

The study indicates that although there is no particular system of grouping mushrooms, some species are generally grouped based on some common characteristics that could be the substrate, the

habitat, or the suspected toxicity. The name “puo' Süssame” (pwó' səsām) is given to all ectomycorrhizal fungi associated with *U. guineensis*; the name “puo' tütü” (pwó' tutú) is assigned to all mushrooms growing on wood, and “puo' nùmvom” (pwó' námvm) is attributed to all suspected toxic mushrooms. Species are generally identified as toxic based on an exceptional characteristic (a very bright color, for example) or by the fact that the species is uncommon. Nevertheless, during ethnomycological survey, we observed that the local population is open to scientific knowledge concerning the edibility of mushrooms and wish to learn mushroom cultivation.

Specific names are given to certain species, especially to edible species. In this case, names generally comprise 2 words. The first word is *puo*, followed by a specific epithet that refers to a character of the sporophore (color, structure), the associated termite, the resemblance to other organisms, the taste, or local behaviors. The fact that the Bamoun people apply epithets derived from morphological or ecological characteristics to most of the named mushroom species brings their system of mushroom nomenclature close to the conventional (Latin) nomenclatural system. This differs from the nomenclatural system of other mycophagous populations, such as the Bofi pygmies or the Lissongos of

the Central African Republic, who take their inspiration from a comparative synthetic resemblance to a plant or an animal to name a species.<sup>28,29</sup>

In the various localities where the study was performed, mostly elders and parents were the ones who recognized and named the edible species. This also occurred in Papua New Guinea<sup>30</sup>; it is a common trend in most regions, especially in tropical Africa, and could be explained by the loss of certain traditions as a result of a rural exodus and change of lifestyle.

## B. Systematics and Diversity of Mushroom Species Used by the Bamoun People

In this study, 40 species, including 2 varieties, were identified as being useful to the Bamoun people as either food or medicine. These species belong to different taxonomical groups. The genera *Termitomyces*, *Lactifluus*, and *Russula* are the most diversified, with 10, 9, and 5 species used, respectively (Table 1).

*Termitomyces* is a paleotropical genus of fungi, and its species live in a compulsory symbiotic association with termites of the subfamily Macrotermitinae (Isoptera).<sup>31,32</sup> Because of this association, these mushrooms have never been domesticated, although they are the most common and largely consumed mushrooms in tropical regions, especially tropical Africa and Cameroon.<sup>8,11,20,33</sup> *Termitomyces titanicus* Pegler & Pearce, which was described in all the villages but was not found during our field trips, is one of the world's largest mushrooms, of which the pileus (cap) can be up to 1 m in diameter. This species was originally described in Zambia and has also been found in many tropical African areas, especially in the savannah zone.<sup>9,34,35</sup> It has been listed among edible species of mushrooms in the Northwest Region of Cameroon.<sup>17</sup>

The genera *Lactarius* and *Lactifluus* are among the most popular edible mushrooms in the world and possess some putative medicinal species.<sup>1,36</sup> Other groups of ectomycorrhizal mushrooms used by the Bamoun people are *Russula* and *Cantharellus*. Many species of both genera are listed among the most gourmet mushrooms worldwide.<sup>1</sup>

Natives of the Noun Division group *Cantharellus*, *Lactarius*, *Lactifluus*, and *Russula* under the

common name of *U. guineensis* mushrooms, “pùo sùsam”(pwó' səsám), because of their association with this tree species that is dominant in most of the forest galleries in the area. These mushrooms are widespread in villages where *U. guineensis* exists or is conserved. In villages such as Koumemgba, Koupa Matapit, and Koupa Ngagnou, where the tree species has almost totally disappeared, only a few elders and parents know about puo' sùsam. Hence, environmental disturbance jeopardizes not only the biodiversity but also the local knowledge of living organisms. In addition to being used as food, edible ectomycorrhizal mushrooms are also traded by women in many local markets, especially Fouban and Koutaba. Ectomycorrhizal fungi are thus important sources of food and income in many tropical African countries, even if they are not subject to intensive trading.<sup>8,9,37</sup>

There are about 200 common edible ectomycorrhizal mushroom species widely eaten in the Northern Hemisphere, although many more are yet to be recorded, particularly in Africa and South America.<sup>38</sup> In the forest zone of Cameroon there are 21 ectomycorrhizal tree species associated with more than 100 putative ectomycorrhizal fungal species in 27 genera, and many of these species are used by natives.<sup>16,39</sup> In the savannah zone, the most known ectomycorrhizal tree species is *U. guineensis*, found in forest galleries along the riverside. This particular ecosystem is for natives a putative reservoir of diversified mushrooms and many other NTFPs. Because of the effects of climate changes, this habitat is constantly being destroyed by farmers in the search of wetlands for their plantations. The result is the disappearance of many fungal species; however, many are yet to be described for the first time. Hence, these forests need to be protected and sustained.

In addition to the previously described groups that are more or less symbiotic, some typical saprobes species are eaten. These include the wood-inhabiting *Lentinus squarrosulus* Mont., *Pleurotus pulmonarius* (Fr.) Quéf. *Auricularia* spp., and the terrestrial *Volvariella speciosa* (Fr.) Singer. Their uses are rather uncommon in the area, and their edibility is mostly known by only a few elders. *L. squarrosulus* is, however, one of

the most widespread edible mushrooms in the forest zone of Cameroon, where it is called “Bikôkô biyôkô” (bikôkôbiyôkô).<sup>16</sup> *P. pulmonarius* is one of the largest cultivated edible and medicinal mushrooms common in the tropical world. In the Noun Division, as well as in the forest zone of Cameroon, this species is only known as food.<sup>40</sup> *Auricularia* species are appreciated as food not only in the Noun Division but also in other parts of Cameroon.<sup>15–18</sup> The genus *Volvariella* comprises many edible species, of which *V. volvacea* (Bull.) Singer is the most cited in tropical Africa.<sup>11,41,42</sup> *V. gloiocephala* (DC.) Boekhout & Enderle was listed among species used as food in the Northwest Region of Cameroon, but this species is synonymised with *V. volvacea*.<sup>17,23</sup> *V. speciosa*, which is also widespread, is rarely mentioned among edible mushrooms in tropical Africa.

Of the all species identified, only 3 were said to be used in the local traditional medicine; these are: *Pleurotus tuber-regium*, *Termitomyces microcarpus*, and *Ganoderma* cf. *lucidum*. Bamoun traditional healers generally use *Ganoderma* spp. growing on palm trees (*Elaeis guineensis* Jacq.) to cure anaemia and diabetes. Among medicinal mushrooms, *Ganoderma* species are the most exploited and have been considered the kings of medicinal mushrooms.<sup>43</sup> They are also used as a supplement in chicken feed.<sup>44</sup> Elsewhere in Cameroon, *Ganoderma* species are also used in traditional medicine. In the Northwest and Southwest Regions, specifically in Baligham, they are used to treat skin infections, boils, abscesses, and tumors, and they are used as a component in other medicinal preparations.<sup>17</sup>

In the Noun Division, the sclerotium of *P. tuber-regium* is used to heal palpitations and stomach pains. It has been reported to be largely used in traditional medicine and sorcery in Africa and Far East Asia.<sup>9</sup> Its medicinal properties have been scientifically tested and it was found to have antimicrobial and antiviral activities. In general, *Pleurotus* species exhibit various medicinal properties, so they are considered not only as a functional food but also in holistic mushroom medicine.<sup>43,45</sup>

In addition to being used as food, *Termitomyces microcarpus* is also used as medicine by some traditional doctors in the Noun Division. When combined

with the leaves of some plants its basidiocarps are said to be efficient against whitlow. In Nigeria they are used against gonorrhoea.<sup>4</sup> Other *Termitomyces* spp. are used in traditional medicine: *T. titanicus* is used by the Hausa to feed children who are underweight<sup>17</sup>; *Termitomyces* species in general possess antiradical, antimicrobial, and antioxidant properties, with *T. microcarpus* having the highest activity in most of the cases, with large amounts of phenols, flavonoids,  $\beta$ -carotene, lycopene, and vitamin C.<sup>34</sup>

In addition to the 40 species that are used for food or medicine by the Bamoun people, various local wild mushrooms are discarded, such as *Amanita loosii* Beeli, *A. rubescens* Pers., *Armillaria heimii* Pegler, *Phlebopus sudanicus* (Har. & Pat.) Heinem., and *Schizophyllum commune* Fr.; these are, however, well appreciated by other ethnic groups in Central and West Africa.<sup>11,38,46</sup>

This study was carried out in villages of only 4 subdivisions of the Noun Division and showed that the Bamoun people have a good knowledge of mushrooms and their uses. Moreover, their local environment has a rich and diversified mycobiota, with putative new species. This knowledge and the mycobiota themselves might disappear because of the lack of education (traditional and conventional), a lack of documentation, and the destruction of the ecosystem for farming. Thus it is important to extend such studies to other areas of this division, and to Cameroon as a whole, for the recognition, preservation, and documentation of mushrooms in the country.

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