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INTRODUCTION

A report published by FAO (Boa 2006) classified the Republic of Congo among countries where little is known about wild edible mushrooms (WEM). Ngoliele (2014) mentioned the word fungi only once in the 4th national report on Biodiversity. This motivated us to study and document fungi in the country (e.g. Buyck *et al.* 2020; Ndolo Ebika *et al.* 2013, 2018). According to Bishop (1998), monitoring and evaluating benefits of Non-Timber Forest Products on a national and local scale should be a priority as resulting information can be used in forestry regulations, pricing policy, etc. Thus, this study aimed at (i) generating data on the circuit of WEM; (ii) inventorying species of WEM sold in the markets and (iii) identifying potential threats on WEM and their habitats.

MATERIEL AND METHODS

The study was conducted from January to November 2021 in three localities (map 1): Brazzaville, Sibiti (Lekoumou Department) and Ouesso (Sangha Department) to:

- (1) monitor markets for interviewing retailers of WEM (Zent & Zent 2011; Pfoze *et al.* 2012, Koné *et al.* 2013, Mienandi *et al.* 2019) and buying mushrooms sold there;
- (2) weigh and identify the WEM bought and
- (3) conduct fieldwork with harvesters to assess harvesting techniques and potential threats on WEM habitats.



Picture 1 – Activities on WEF.

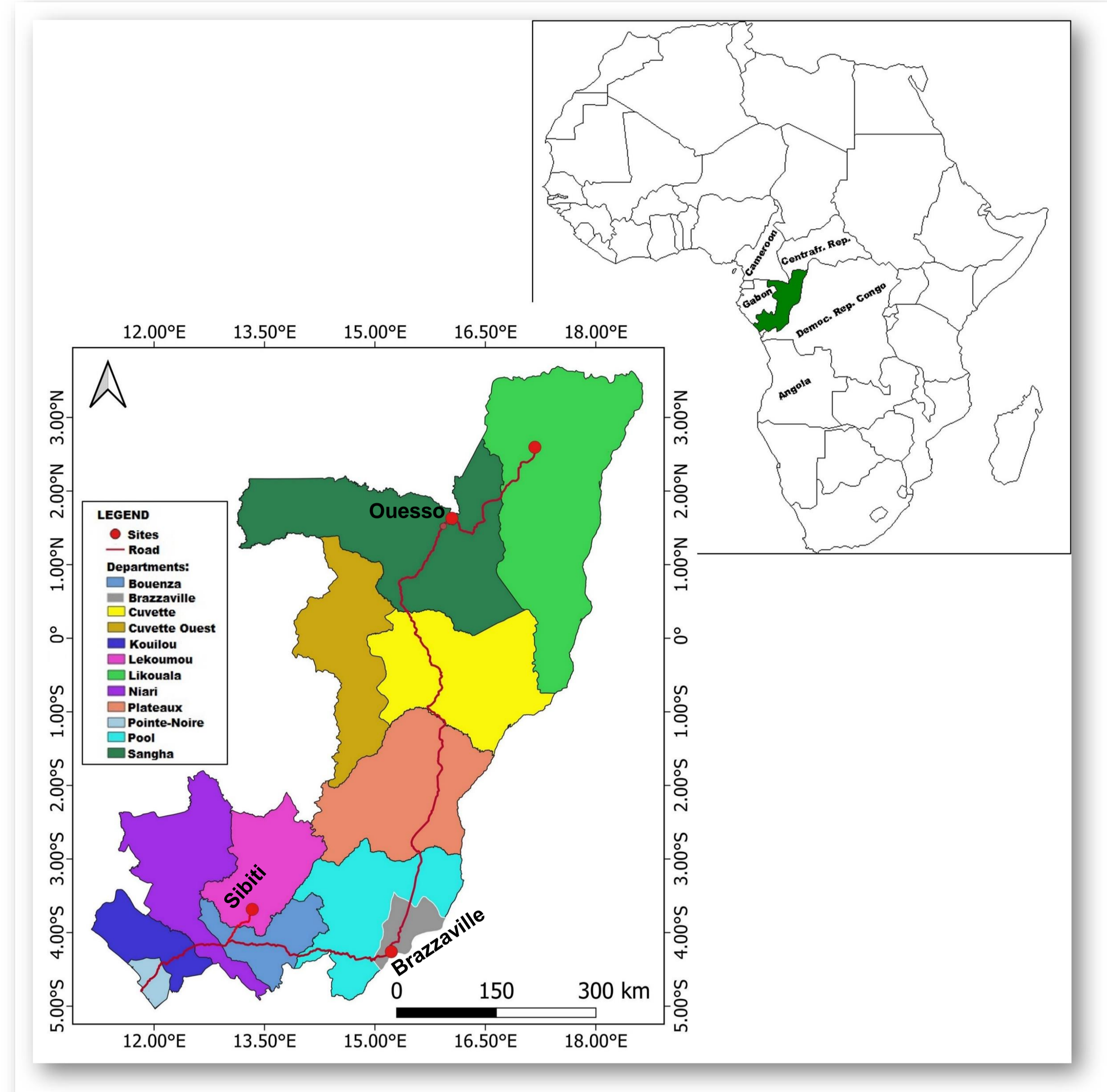
A-C: Fresh carpophores of *Termitomyces aurantiacus* displayed on market stand with price in XAF. (500 XAF = 0,75 € 1.000 XAF = 1,5 €)

D&E: Searching and harvesting rhizomorphs in Ingolo 1;

F: Weighing fresh carpophores of *Termitomyces le-testui*, weight of 619.5 g for 2.000 XAF (3 €).

Photo credits:

A: Ndzai, C. (Dragage market)
B&C. Mbon, N.C. (Texaco market)
D&E. Atikani, G.B.
F: Ndolo Ebika, S.T. (Total market)



Map 1 – Location of the study sites in the Republic of Congo.

One particularity. While the edible part of the 15 fungal species sold in the markets are carpophores, it was very interesting to notice that rhizomorphs (white filamentous and thickened hyphae of *Termitomyces* sp.) were also sold mainly in Sibiti market (Sibiti) and Total market (Brazzaville). The rhizomorphs are only found in Lekoumou department (probably in Niari department also).



Picture 2 – Rhizomorphs of *Termitomyces* sp. A, underground network pattern; B, freshly collected; C, sold in Sibiti market. Photos: Ndolo & Atikani

RESULTS

Number of markets and sites. Five main markets (Dragage, Moukondo, Texaco and Total in Brazzaville and Péage in Kintele) and four sites (Ingolo 1 and Tala in Sibiti; Maboko and Mbalouma in Ouesso) were monitored.

Species diversity and harvesting zones. Sixteen species of WEM are recorded from markets (*Auricularia delicata*, *A. cornea*, *Lentinus cladopus*, *L. squarrosulus*, *Pleurotus* sp., *Marasmium buzungolo*, *Russula* sp., *Termitomyces aurantiacus*, *T. clypeatus*, *T. fuliginosus*, *T. globulus*, *T. le-testui*, *T. mammiformis*, *T. reticulatus*, *T. singidensis*, *T. striatus* and *T. sp.*). These WEM come from 40 harvesting zones but Sibiti and Île Mbamou being the main ones.

Fungal conservation issue. Clearing of *Gilbertiodendron dewevrei* forest for agricultural and urbanization purposes constitutes the main threat to ectomycorrhizal fungi.



Picture 3 – Clearing of *Gilbertiodendron dewevrei* forest (A) and replaced by a young crop field (B)

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Conclusions

A continuous gathering of solid evidence is needed to propose recommendations to authorities in charge of forest, biodiversity and policy makers in the Republic of Congo for conservation of wild fungi in the country.

Selected Literature

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