

## Mycomedicine and Ethnomycology: The Nigerian Experience

*John Aroye Okhuoya & Emmanuel Oluwadare Akpaja*

Botany Department, University of Benin, Benin City, Nigeria, email: akpajauniben@yahoo.com, okhuoya@yahoo.com

There is a dearth of information in the scientific literature on the indigenous uses of mushrooms in Nigeria. There is also a poor documentation of ethnoknowledge among our people, which is still contributing to a loss of vital information, on almost a daily basis. This paper, therefore, sheds light on the current status of mycomedicine and ethnomycology of mushrooms in Nigeria. It also emphasizes the need for documenting indigenous knowledge and the empirical confirmation of our local people's claims about the therapeutic effects of mushrooms in our environment. The authors stress the need for progress in mycomedicine if serious attention is given to eliciting the vital information from rural community dwellers, where reliance on natural materials for treatment of ailments is still much observed.

Pertinent questions that may reveal the relevance of ethnomycology include: How fast can we progress in mycomedicine without ethnomycology? How much has ethnomycology contributed to the present status of mycomedicine? How do we gather basic information on medicinal mushrooms? Is it not more cost-effective to seek indigenous knowledge on the uses of mushrooms, along with the legends with which they are associated (ethnomycology), than to study the medicinal relevance of all the mushrooms in the wild?

Mycological concepts and their applications are also much observed in Nigerian cultures. Many proverbs and other sayings involve mushrooms

and show age-long interactions with mushrooms. Documentation of ethnomycological and ethnomycomedicinal information is being advocated to encompass all the fungi used in one way or another by a particular culture.

Another aspect of this presentation includes soil fertility information, based on the ethnoknowledge of a particular tribe in Nigeria, and how this can be used to educate the custodians of this knowledge on soil fertility involving mushrooms. Ethnoknowledge among the diverse Nigerian cultures also includes the use of fungi in food and drink fermentation. Notable among such foods are "yan olude" from maize grains, "pito" from the grains of *Sorghum bicolor*, and "shekete" from plantain (*Musa parasidiaca*). Out of the three fermented products, the one that involves direct use of culture of organisms is pito. Much effort is being made to preserve the culture at different stages of the preparation of the drink. It is also important to note that some of the ethnomycological practices cannot be explained by science, while quite a number of them can be confirmed and improved upon in the laboratory.

In addition, many precautions observed by the indigenous people can certainly be explained by science. A good reference point is the observation by the indigenous cultures in southern Nigeria that fermented drinks would "spoil" if exposed to orange fruits or even to the peels. Orange peels are usually kept at quite an appreciable distance from such fermented drinks, during and after preparation.

Furthermore, the dregs from palm wine are usually reserved for newly married young men. This is because the dregs are believed to contain “something” that will energize the drinker before and after meeting his wife. The size, behavior, and habitat of mushrooms are used by many witch doctors as tools for impoverishing or favoring their adversaries. For example, “Olu oron” (*Termitomyces microcarpus* (Berk. et Br.) R.Heim) is used as an instrument for reducing the status of their enemies because of its small size. Hence, the incantation that accompanies the concoction refers to the fact that 200 sporocarps of the mushroom are not enough for a pot of soup.

On the other hand, the sclerotium of *Pleurotus*

*tuberregium* (Rumph.:Fr.) Singer is a major ingredient in a concoction that is used for effecting a bumper harvest. This is done by some cocoa (*Theobroma cacao*) and yam (*Dioscorea* sp.) farmers in the southern part of Nigeria. The mode of preparation and the accompanying incantations of these concoctions leave no doubt that some unseen force/powers are at work. One can't just discard these claims and practices as unscientific, because the positive and negative effects of these indigenous practices evoke regard, dislike, and fear (as the case may be) among the general populace.

Finally, the paper highlights the need to put more effort into the documentation of indigenous knowledge about edible and medicinal mushrooms.