

Mycology 2020: Four threatened fungal species: a step toward the global conservation action of fungi in Benin (West Africa)- Aignon L H, University of Parakou, Benin

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Nowadays, human activities pressure on the vegetation have increased. This study aims to determine the most endangered fungi species in Benin and their partner's trees. The data was collected in the Sudanian region of Benin. Six vegetation groups dominated by *Afzelia africana*, *Berlinia grandiflora*, *Isoberlinia doka*, *Isoberlinia tomentosa*, *Uapaca somon* and *Uapaca togoensis* have been identified for data collection. Twelve transect of 3 km long and 100 m wide were installed in four forest. Each two days, on each transect, all ectomycorrhizal fungi have been collected during June-October. The data have been combined with Benin global fungal data (2003-2017), harvested under the same conditions. Three main factors were considered in the analysis for the determination of rare species namely: each fungal species, its area of occupancy, and potential threats to these habitats. Global diversity shows that, most than 9803 specimens were collected, herborized and stored in the mycological herbarium of the University of Parakou. The genus such as *Amanita*, *Cantharellus*, *Lactifluus*, *Lactarius* and *Russula* are the most dominant. *Cantharellus solidus*, *Lactifluus luteopus*, *Amanita xanthogala* and *Russula pellucida* have been identified as critically endangered in Benin. The Canonical Correlation Analysis show that the endangered species remain in symbiosis relationship with forest trees such as *Berlinia grandiflora*; *Isoberlinia*

doka; *Monotes kerstingii* and *Uapaca guineensis*. The local populations must therefore limit the threats on these partner trees to avoid the disappearance of these fungal species. In the wide and assorted field of science, it is important to contemplate parasites. Growths are an amazingly speciose, and naturally and morphologically various gathering, with gauges showing at any rate an anticipated 1.5 million animal types on Earth. A portion of these organisms are obvious to people as bigger parasites, for example, mushrooms, however others are microbial with inconceivably high quantities of species and people present in any substrate on earth, for example soil, water, air, or in dead or living plants. They exist as saprotrophs that separate natural material, parasites causing maladies, and different kinds of symbionts of a wide range of bigger living beings. It is apparent that growths assume a key job in the biology and smaller scale nature of any biological system, and add to the wellbeing of living beings in either a positive or negative manner. All the more straightforwardly in the lives of people, growths assume an extraordinarily significant job as wellsprings of food or in preparing food, novel wellsprings of mechanically significant catalysts and mixes, human, creature and plant pathogens, ruining or debasing food with mycotoxins, specialists for natural control, and biological pointers.