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Ethnobotanical study and vulnerability of medicinal plants used against the symptoms of COVID-19 in the Lomié subdivision, East Region of Cameroon

Science has advanced to the point that traditional medicine is now a useful instrument for treating a wide range of human ailments. Indigenous peoples and local communities (IPLCs) do not, however, have access to the contemporary healthcare system. As a result, they turn to biological resources, which are the only readily available and accessible means of treating diseases like COVID-19 and flu outbreaks. In response to worldwide illnesses, this study aligns with the perspectives of traditional knowledge of biological resources, particularly therapeutic plants. Therefore, this study was aimed to document the use of the potential of medicinal plants by IPLCs in the Lomié subdivision to manage COVID-19 symptoms. In four villages in the Lomié subdivision Ekom, Payo, Eschiambor, and Kongo, ethnobotanical surveys, including semi-structured interviews on traditional usage of plants against Covid-19 symptoms, were carried out with 80 participants in order to meet all of the study specific objectives. To analyze the data, both descriptive and inferential statistics were applied. The findings show that the respondents are well aware of the symptoms of the COVID-19 and that gave them the ability to provide timely and efficient responses. The survey identified 43 species from 39 genera grouped in 28 families were used to treat COVID-19 symptoms, with bark being the most commonly used plant part (43.8%). Decoction was the most frequently used method of preparation (50%), and oral administration was the main route of administration (56.3%). A total of 30 species were recorded to be vulnerable, with *Entandrophragma cylindricum* (Sprague) Sprague, *Milicia excelsa* (Welw.) Benth, *Myrianthus arboreus* P.Beauv., and *Trichoscypha aborea* (A. Chev.) A. Chev being the most vulnerable, with vulnerability index of 2.4. Most of the plant species were harvested from secondary forests (44.2%), of which trees formed 48.8%. It can also be very beneficial in the development of new medications for a variety of illnesses.

Keywords

COVID-19, Ethno-medicine, Indigenous knowledge, local communities, Medicinal plants, Vulnerability

Biography

My name is Karimou Ngamsou Abdel, I am Ph.D. student at department in Plant Biology, Option Botany-Ecology, at University of Yaoundé I in Cameroon. The aim of my research is the valorization of traditional knowledge, in particular medicinal plants. My thesis project concerns the ethnobotanical study and quality control of the preparation of recipes based on medicinal plants used in the treatment of malaria in Cameroon.