

Ethnophytomedicine in the Amazon: a Future Threatened by Deforestation and COVID-19 Pandemic

Patricia Chaves de Oliveira*

Federal University of Western Pará – UFOPA, Institute of Biodiversity and Forest, Brazil

*Corresponding author: Patricia Chaves de Oliveira, Federal University of Western Pará – UFOPA, Institute of Biodiversity and Forest, Brazil



ARTICLE INFO

Received: 📅 January 27, 2021

Published: 📅 February 08, 2021

ABSTRACT

Citation: Patricia Chaves de Oliveira. Ethnophytomedicine in the Amazon: a Future Threatened by Deforestation and COVID-19 Pandemic. Biomed J Sci & Tech Res 33(5)-2021. BJSTR. MS.ID.005451.

Opinion

The Amazon of the 21st century, with its rich biodiversity and culture of traditional peoples, has in recent decades suffered severe deforestation, which today coincide with the tragic pandemic by COVID-19 that we experienced. The interaction between these two processes, deforestation of primary forests and COVID19 on traditional populations in the Amazon Biome threatens not only the future of the next generations, but also the future of Ethnopharmacology and Ethnophytomedicine that has in the traditional knowledge of indigenous peoples and afro-descendants (*quilombolas*) about medicinal plants, its basis for the development of new biomedical technologies and new drugs. Considering the potential of the Amazon forest regarding the diversity of medicinal plants pointed out by numerous ethnobotanical research [1-5], then it is to be expected that the disturbances in the floristic composition and richness of these environments drastically affect the survival of traditional populations living in remote areas, away from hospitals, as it has in the forest, their cure [6]. Unfortunately, such disturbances already happen as demonstrated by the data of the National Institute of Space Research [7] which observed an increase in deforestation between 2019 and 2020 of 9,781.29 km² in the Amazon. Among the nine states that make up the Amazon, in Pará, it obtained the largest increase in deforestation, about 39,866 km² in the 12-year interval, which represents a drastic loss of diversity and plant richness. However, the worst-case scenario is when deforestation advances on conservation units and indigenous territories where deforestation is illegal. According to [7], only the Triunfo do Xingu Environmental Protection Area had 2982.89 km² deforested between 2008 and 2020. These results alert us to

a large socio-environmental disturbance, as they worsen with the pandemic in indigenous and afro-descendant territories.

If, on the one hand, deforestation plagues indigenous and afro-descendant territories, on the other hand, many studies show that these traditional populations are extremely vulnerable for COVID-19 infections. The interaction between these populations and urban people accelerates the contagion. In thirty-four Special Indigenous Health Districts (DSEI) in Brazil, 533 deaths of indigenous peoples were identified, almost without the elderly (data from 01/22/2021) according to the Department of Indigenous Health Care (DASI) of the Ministry of Health-Brazil. Death rate among indigenous is twice higher than other groups. These aspects when associated at the same time with the high rates of deforestation are the beginning of a serious threat to traditional peoples and medicinal plants, and consequently to Ethnopharmacology and Ethnomedicine soon.

Considering that the traditional knowledge about medicinal plants by indigenous populations or afro-descendants (*quilombolas*) in the Amazon is always under the control of older people, and that it is these same elderly people who are preferably the most vulnerable to COVID-19, then this confluence of facts ends up designing scenarios where one can expect:

Erosion of ethnoknowledge about medicinal plants: it happens every time this traditional knowledge is not passed on between generations and when the elderly die, holders of this knowledge, then knowledge gradually disappears, since it is no longer transmitted by orality.

Less richness in ethnobotanical diagnoses: once the processes of erosion of traditional knowledge about medicinal plants in indigenous and Afro descendant territories have begun, causing deforestation directly and therefore by the elimination of this medicinal flora, the tendency is that ethnobotanical diagnoses have fewer medicinal species mentioned.

Whereas Ethnobotany is the main tool for phytochemicals in the search for new plants for diseases of modern societies, and therefore, of great importance for phytomedicine, any quantitative reduction in the number of medicinal plants mentioned in these ethnobotanical diagnoses will directly affect the diversity of treatments and Phyto-therapeutic indications to be offered to patients. It loses society, scientists lose, but above all, traditional populations lose the right to safeguard their culture about medicinal plants, where the Brazilian State had a duty to contribute to this process, with stricter policies to deforestation in the Brazilian Amazon for example.

Given this chaotic socio-environmental scenario in the Amazon, the outputs of these moments in which we live are the worst possible, which reflect the dismay with the environment and with health of traditional populations. In this scenario, what kind of Ethnophytomedicine to expect soon? Whereas Ethnophytomedicine corresponds to a particular form of medicine practiced by traditional or Afrodescendants populations and that such peoples are currently under threat, not only their territories, but their lives as a function of the pandemic by Covid-19 then you can expect some scenarios:

Erosion of Ethnophytomedicine: whenever there is a reduction in the sources of traditional knowledge about medicinal plants that are used in Ethnophytomedicine, this practice is then at risk, as well as part of the culture of traditional populations in the Amazon, this biome, which has contributed to its rich medicinal flora for local and global societies.

Tendency to worse than current scenarios in the health of traditional populations in the Amazon: considering the remote area in which indigenous families and quilombolas live, with deficient health systems, associated with the advance of deforestation and Covid-19, and with the fact that forests are the environment where most medicinal plants are located and therefore the cure for many diseases, then, expects a complex scenario in these territories. It is important to think that there is not only the loss of biodiversity with current deforestation in the Amazon, but the imminent risk in the health of traditional populations, because the forest-health binomial is inseparable. Although it is explicit the chaotic scenario in the Brazilian Amazon, combined with an Ethnophytomedicine threatened with time, research and projects of a scientific-technological nature, embedded with the spirit of solidarity necessary to make truly sustainable development is what is sought tirelessly through international partnerships, where scientists and traditional peoples are one.

References

- Oliveira PC, Braga J (2017) Ethnobotany of Borari-Arapiuns indigenous people, Amazon, Brazil. *Journal of Medicinal Plants Studies* 5: 164-170.
- Oliveira PC, Cavalcante S (2017) Ethnobotany in the Amazon floodplain ecosystem: a case study, Quilombo Saracura, Pará, Brazil. *International Journal of Botany Studies* 2: 89-99.
- Oliveira PC, Souza B (2020) Traditional Knowledge of Forest Medicinal Plants of Munduruku Indigenous People - Ipaupixuna. *European Journal of Medicinal Plants* pp. 20-35.
- Oliveira PC, Souza BC O, Gasparin E (2020) Floristic Diversity in Secondary Forest under Munduruku Indigenous Agroextractivism. *Asian Plant Research Journal* 6: 33-40.
- Souza B, Oliveira PC (2018) Flora of Savannah Threatened in the Tapajós River Basin. *International Education & Research Journal* 4: 1-7.
- Oliveira PC (2021) Rural Science and Technology in Territories under Conflicts on Amazon - The Case of Ipaupixuna Village. *Brazilian Journal of Development Curitiba* 7(1): 8054-8073.
- (2021) Ministério Da Saúde. Boletim Epidemiológico da SESAI. Departamento de Atenção à Saúde Indígena (DASI).

ISSN: 2574-1241

DOI: 10.26717/BJSTR.2021.33.005451

Patricia Chaves de Oliveira. Biomed J Sci & Tech Res



This work is licensed under Creative Commons Attribution 4.0 License

Submission Link: <https://biomedres.us/submit-manuscript.php>



Assets of Publishing with us

- Global archiving of articles
- Immediate, unrestricted online access
- Rigorous Peer Review Process
- Authors Retain Copyrights
- Unique DOI for all articles

<https://biomedres.us/>