

# KNOWLEDGE AND MEDICINAL USE OF EDIBLE MUSHROOMS OF THE SIERRA TARAHUMARA, CHIHUAHUA, MÉXICO.

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## Background

Chihuahua is the largest state in Mexico. It takes 12.6% of the country's area. The southwestern portion of the Sierra Madre Occidental in this state also known as Sierra Tarahumara named as it is occupied by an ethnic group known as the Raramuri or Tarahumara (Figure 1-2), which means "light footed people". The territory consists of canyons and ravines with pine, oak and pine-oak forests in the higher plateaus. There is a great diversity in edible and medicinal mushrooms all-around of the Chihuahua state counties (Quiñónez *et al.*, 2015). Their residents are the only consumers of wild mushrooms in the Northern Mexico; they have a long tradition of collecting, using and eating them during the "rainy season." However, despite the wide diversity of edible mushrooms that grow in these areas, residents have a selective preference. This paper aims to record evidence of the knowledge and use of wild potentially edible and medicinal mushroom species by inhabitants of towns in the Sierra Tarahumara of Chihuahua, Mexico.



Figure 1. Pine forest of San Juanito, Chihuahua.



Figure 2. Tarahumara woman.

## Results

In the forests of the Sierra Tarahumara, there are records of around 450 species of fungi; 50 of them with edible importance at nationwide and apparently only 16 fungi species of those 50 are being consumed by the inhabitants of the municipalities of Bocoyna and Urique with *Amanita caesarea* complex being the most preferred by mestizos and Raramuris. We observed no apparent differences in the population studied in terms of gender, occupation, or language, regarding the recognition and consumption of species; however, this is not conclusive and so it is important to continue with a greater number of such studies to check whether this knowledge and use is differential (Quiñónez *et al.*, 2014).



*Boletus edulis*



*Amanita rubescens*



*Amanita caesarea*

Currently, studies on nutritional analysis, antibacterial activity and antioxidant capacity in many species of fungi are generating very beneficial results for health and human consumption.

As medicinal mushrooms, three species are used for the purpose of healing wounds of the skin, and to remove pimples in the face: *Calvatia*, *Lycoperdon* and *Astraeus hygrometricus*.



*Lycoperdon echinatum*

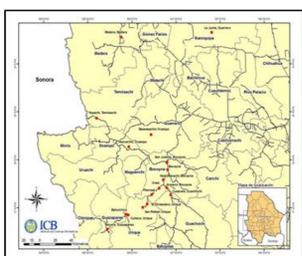


*A. hygrometricus*



The valley of the mushrooms.

## Method



Study areas.



Collection and characterization of fungi.



Photography and drying of mushrooms.



Children selling *Amanita caesarea* in San Juanito, Chihuahua.



Interview with residents of the Sierra Tarahumara.

## Reference:

Quiñónez M. M., F. Ruan, I.E. Aguilar, F. Garza, T. Lebgue, P. A. Lavin, I. D. Enriquez (2014). **Knowledge and use of edible mushrooms in two municipalities of the Sierra Tarahumara, Chihuahua, Mexico.** Journal of Ethnobiology and Ethnomedicine. 10:67.

Quiñónez M.M., F. Garza (2015). **Hongos comestibles de la Sierra tarahumara** (2015). Editorial de la Universidad Autónoma de Ciudad Juárez. Ciudad Juarez, Chihuahua. 150 pp.