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Ethnobotanical Survey of Medicinal Plants Used in the Zacatecas State, Mexico

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Abstract

The medicinal plants used by the population in Mexico have an important role in the local health care system. Despite the use of wide plant diversity, contributing to the socio-ecological resilience and cultural diversity of each community, there are still regions without plant uses documented. The aim of this study was to record, analyse and identify the medicinal plant knowledge of the local people in the state of Zacatecas, Mexico. A total of 132 semi-structured interviews were performed. The age of the informants were between 20–86 years and the gender proportion was 44% male and 56% female. The Medicinal plants were identified taxonomically, and data were analysed and compared using Relative frequency of citation (RFC), Family importance value (FIV), Cultural importance index (CI), and Informant consensus Factor (ICF). The results showed that 96% of the respondents actively use plants. A total of 168 medicinal species belonging to 151 genera and 69 botanical families were documented. The family *Asteraceae* (20 species; FIV=15.15) represented the highest number of species. The majority of herbal remedies are used orally and predominantly in the form of infusion (52%). The most culturally important species was *Matricaria chamomilla* L., followed by *Arnica Montana* L. and *Artemisia ludoviciana* Nutt. Diseases of the reproductive system reached the highest consensus ratio (ICF=0.81). The highest number of UR (N=389; 25% of all UR) as well as plant species (68) was determined for diseases of the digestive and gastrointestinal system. This is the first explorative and analytic study conducted dealing with the relative importance of medicinal plants based on quantitative tools in the semi-arid region of Zacatecas, México. The results revealed a high diversity of medicinal plant species and their uses in local traditional medicine. The new generation maintains ancestral knowledge of the use of medicinal plants in the sample studied. The practice of traditional herbal medicine is also applied as a complementary treatment for common and chronic diseases. This practice is co-evolving with the modern health system due to the lack of accessibility to, and perceived low effectiveness of, conventional medicines.

Keywords: *Arnica montana*, ethnomedicine, human health disorders, *Matricaria chamonilla*, medicinal plants, traditional medicine

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