Medicinal Use Patterns of *Parkia biglobosa* (Jacq.) Benth. and *Vitellaria paradoxa* (gaertn. F), two Important Traditional Agroforestry Species in Benin, West-Africa

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Abstract

In West Africa, African locust bean (*Parkia biglobosa* (Jacq.) Benth.) and Shea (*Vitellaria paradoxa* (Gaertn. F) are among the most important multipurpose plant species commonly found in traditional agroforestry systems. Most of research on these species are dominated by patterns and properties of their food uses, and additionally cosmetics for the shea. Yet, the species also have interesting medicinal properties that have been little explicitly explored. Using an ethnobotanical survey, we explored the patterns of diseases and other human disorders healed by the species, the different plants parts involved in diseases treatment, the recipes adapted for the treatment of the diseases and disorders and the other species involved in recipes composition in northern Benin where they are widely distributed and used. Plants parts used by respondents were subjected to a Principal Component Analysis together with the ethnic groups. Alpha diversity indices were used to compute disease diversity while the Intraspecific Use Values index was applied to assess the frequency of utilization of each plant part. Results showed that 11 categories comprising 51 diseases and disorders were listed by respondents for the two species, with the predominance of gastro-intestinal diseases (RFC = 31.10 % for *P. biglobosa* and RFC = 31.81 % for *V. paradoxa*) and Infectious diseases (RFC = 26.82 % for *P. biglobosa* and RFC = 27.27 % for *V. paradoxa*). Most used plants parts were nuts (IVU = 90.90 %) and roots (IVU = 90.90 %) for V. paradoxa and roots (IVU = 90.24 %) and bark (IVU = 70.73 %) for *P. biglobosa*. The PCA analysis showed a strong variation in the used plants parts across the sociocultural groups.

Keywords: Benin, medicinal uses, Natitingou, *Parkia biglobosa*, *Vitellaria paradoxa*

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