Safeguard of *Faidherbia albida* based on phytochemical study of parts used in Phytomedicine of Benin, Niger and Togo

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Abstract

Faidherbia albida (FA) is one of the plants that could be threated due to its parts used to feed animal and curing livestock's/human diseases in phytomedicine.This study aims to compare through a phytochemical screening, secondary metabolites present in fruits (F), leaves (L) and stem bark (SB) of FA for good practices in the identification of best part to use for safeguard and conservation of FA. The GPS helped to locate the species in Togo, Benin and Niger. The F, L and SB of FA were used to carry out the screening. The three parts of FA were collected in the North of Togo at Dapaong. Phytochemical screening established by Houghton (1998) and described by Houngbeme *et al.* (2014) was the comparative method used. Sustainable part of the plant's identification and the threat evaluation followed technics of Koudouvo *et al.* (2017). Ten of the 18 secondary metabolites evaluated were present variably in L, F and SB of FA (Table 1). Coumarins, Gallic Tannins, Leucoanthocyanes, Mucilage and Saponosides were present in the three parts, Anthocyanes only in L and SB: Possibility of substitution of the SB by F and L. Flavonoids and Reducing compounds, present in SB were absent in F and L: Impossibility of substitution of SB. Due to the presence of these common secondary metabolites in F, L and SB, the usage of L and F in replacement of SB in veterinary phytomedicine could contribute to safeguard FA from biodiversity threat.

Key-words: *Faidherbia albida*, phytochemistry, biodiversity conservation