

Genus *Detarium*: Ethnomedicinal, phytochemical and pharmacological profile

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Abstract

The genus *Detarium* (Fabiaceae, Sub family Caesalpiniaceae) is indigenous to Africa. In west Africa the genus is represented by 8 species, however only 3 species *D. macrocarpum*, *D. microcarpum* and *D. senegalense* are of ethnomedicinal and pharmacological interest. These three species are morphologically similar, but tend to vary in regional distribution. *Detarium* species are widely and commonly used in traditional medicine in the treatment of diverse ailments, including, fever, malaria, bronchitis, convulsions, diabetes, microbial infections, etc. Some pharmacological studies have been carried out to authenticate some of these claims. Phytoconstituents with biological activities have been isolated from the genus. Among the identified compounds include, flavenes, polysaccharides, clerodane diterpenes, dihydroclerodane diterpenes, tetranoditerpenes, anthocyanidin alkaloids, as well as other secondary metabolites. This paper reviews the comprehensive information on the ethnomedicinal uses, phytochemical profile and pharmacological activities of the genus *Detarium*.

Keywords: *Detarium*, Folkloric uses; phytochemistry; biological activities

Introduction

The genus *Detarium* (Fabiaceae, Sub family. Caesalpiniaceae) is a native of Africa. It belongs to the tribe Detarieae. It comprises three important species. *Detarium microcarpum* Guill & Perr, *Detarium senegalense* J.F. Gmelin and *Detarium macrocarpum* Harms. These three species are very similar morphologically but appear to differ in ecological distribution. *D. microcarpum* is a small tree up to 10 m tall, with horizontal root system. It is confined to drier regions of west and central Africa. It is typically a specie of dry savanna (Leung *et al.*,1968). Different parts of the plant have been reported to possess medicinal activities (Abreu *et al.*, 1998, Kouyate 2005, Okolo *et al.*, 2012). Among the Ibo tribe of south eastern Nigeria, the plant known as “Ofo” is believed to be a “religious” tree which