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PHYTOCHEMICAL PROSPECTING OF PSYCHOACTIVE INDOLE ALKALOIDS FROM Mimosa tenuiflora

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Mimosa tenuiflora (Fabaceae), popularly known as Jurema-preta, is an endemic species of the Caatinga biome and widely distributed throughout Northeastern Brazil. With high ethnobotanical relevance, it has been traditionally employed in medicinal and ritual contexts and is recognized as a natural source of N,N-dimethyltryptamine (DMT), an indole alkaloid with marked psychoactive properties. Considering the increasing interest in psychedelic compounds for the treatment of resistant mental disorders, this study aimed to isolate and characterize DMT from the root bark of *M. tenuiflora*, evaluate its pharmacological effects, and perform *in sílico* analyses of analogous tryptamines. The isolation was carried out by alkaline extraction, followed by structural characterization using ^{1}H and ^{13}C NMR, TG/DTG, DSC, and thin-layer chromatography. *In vivo* assays with zebrafish (*Danio rerio*) demonstrated potential anxiolytic activity without evidence of acute toxicity. Computational analyses performed with SwissADME software indicated that DMT and related molecules exhibit pharmacokinetic parameters consistent with Lipinski's and Veber's rules, in addition to favorable oral bioavailability. Altogether, the findings reinforce the pharmacological relevance of *M. tenuiflora* as a source of bioactive metabolites and highlight DMT as a promising candidate for the development of novel therapeutic approaches targeting mental disorders, particularly treatment-resistant depression.

Keywords: *Mimosa tenuiflora. N,N-dimethyltryptamine. Zebrafish. Psychedelics*