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ISOLATION AND MOLECULAR CHARACTERIZATION OF A NEW XANTHONE FROM THE BRANCHES OF VISMIA SANDWITHII EWAN (HYPERICACEAE)

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Species of the genus *Vismia* present anthraquinones, xanthones, benzophenones, flavonoids, triterpenes, and other classes of metabolites. Despite their pantropical distribution, many species found in the Amazon rainforest region have a gap in phytochemical studies, such as *Vismia sandwithii* Ewan. Anthraquinones and triterpenes have been isolated from this species, but only the hexane extracts have been evaluated. Therefore, the objective of this study was to conduct a phytochemical study of methanolic extracts. To explore the potential of this species, the methanolic extracts of the branches were fractionated. Initially, this extract's dichloromethane phase showed signs of phenolic substances. After chromatographic fractionation, a xanthone was isolated. The isolated substance was analyzed by nuclear magnetic resonance (NMR), and the spectroscopic data were compared with the literature. The analysis of the ^{1}H spectra revealed a potential quinone in which one of the rings had only a single hydrogen and would be substituted at C-6, C-7, and C-8, and only one chelated hydroxyl. Among the correlations observed from the two-dimensional experiments, it was possible to determine the position of this hydrogen at H-5, which correlated with two carbons bonded to phenolic hydroxyls (C-6 and C-7) and the carbonyl at C-9. These correlations were key to determining the substitution of the second ring. After the analysis was complete, the structural information, including the molecule's design in SMILES code, was search on the SciFinder (Chemical Abstracts Service) and PubChem (National Center for Biotechnology Information, NCBI) databases. It was observed that this substance was not found in these databases, only those xanthones with substituents in different positions. Based on this, the isolated substance's structure was elucidated as 1,7,6-trihydroxy-8-methoxy-9H-xanthen-9-one, a new xanthone from *Vismia sandwithii*. The authors would like to thank CAPES, CNPq, FAPEAM, FINEP and LTQPN-INPA.

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