



**PHYTOCHEMISTRY AND *IN VITRO* BIOLOGICAL ACTIVITY OF BIOACTIVE COMPOUNDS FROM MEDICINAL PLANTS - POSTER 80**

**PHYTOCHEMICAL TRIAL AND TOXICITY ON *Artemia salina* OF THE ETHYL ACETATE FRACTION OBTAINED FROM *Tecoma* spp. FLOWERS**

**Thaís Paula Rodrigues Gonçalves<sup>1,2\*</sup>, Lucas Santos Azevedo<sup>1,2</sup>, Luciana Alves Rodrigues dos Santos Lima<sup>1,2</sup>**

<sup>1</sup>Biotechnology Pos-Graduation Program, Federal University of São João del-Rei, MG, Brazil.

<sup>2</sup>Phytochemistry Laboratory, Federal University of São João del-Rei, MG, Brazil

\*[thaispaula.rgs@gmail.com](mailto:thaispaula.rgs@gmail.com)

Keywords: *Bignoniaceae*, toxicity, phytochemical compounds

### Introduction

Flowers of *Tecoma* spp. (Bignoniaceae) is used in traditional medicine to treat diabetes, stomach pain and digestive problems. However, the use of medicinal plants may have unknown adverse effects and studies that evaluated the toxicity of *Tecoma* spp flowers are scarce. In this sense, the objective of this work was to evaluate the presence of phytochemicals compounds and the toxicity of the ethyl acetate fraction of *Tecoma* spp.

### Results

**Phytochemical Analysis**

The presence of alkaloids, flavonoids, coumarins, saponins and tannins condensed was detected in the ethyl acetate fraction of *Tecoma* spp. flowers.

**Toxicity *Tecoma* spp.**

The mortality of *A. salina* was 100%, 100%, 88.33% and 61.66% at concentrations of 1000, 500, 250 and 125 µg/mL, respectively.

### Methods

The ethanol extract was obtained by turbo-extraction using ethanol 70° GL;

Acetate fraction was obtained by partition with ethyl acetate;

This fraction was submitted to phytochemical screening to detect the main classes of secondary metabolites;

The lethality on *Artemia salina* was verified by the mortality of the nauplii, after 24 hours of exposure to fraction and to the control (DMSO at 1%). Tests performed in triplicate.

### Conclusion

Data in the literature show that mortality greater than 50% for *A. salina* at concentrations below 1000 µg/mL indicates toxicity. In this context, it suggested that the ethyl acetate fraction was toxic to *A. salina* at all concentrations tested. Alkaloids, tannins and saponins are among the substances that can produce toxic effects in the body, and the presence of these compounds in the ethyl acetate fraction may be correlated with the toxicity of *Tecoma* spp. found in this work.

**Acknowledgment: UFSJ, CNPq (PhD scholarship holder), FAPEMIG (PhD scholarship holder) and CAPES (Finance Code 001).**