Phytochemical screening of ethereal extract from *Tecoma* sp. seeds and evaluation of larvicidal activity on *Culex quinquefasciatus*

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**Introduction:** Many diseases affect the Brazilian population, providing a high financial impact on the public health system. An important vector of urban endemic diseases is *Culex quinquefasciatus*, which transmits filariasis. The insecticides most used to combat this vector cause great environmental impact, which encourages the search for new insecticides with less toxicity and higher effectiveness. There are species in the Plantae kingdom that have developed defense mechanisms through the synthesis of secondary metabolites, which present several biological activities. The Bignoniaceae family, belonging to this kingdom, is composed of 120 genera which are distributed mainly in the American tropics. Species of *Tecoma* genus synthesize secondary metabolites with various activities, such as antibacterial, antioxidant, antidiabetic and larvicidal. Thus, the objective of this study was to verify the presence of different classes of secondary metabolites in the ethereal extract (EE) of *Tecoma* sp. seeds and to evaluate the larvicidal activity on *Culex quinquefasciatus*.

**Method:** EE was obtained by extraction in Sohxlet apparatus at 40 °C, using petroleum ether as solvent. Phytochemical screening was performed to verify the presence of steroids, triterpenoids, flavonoids, saponins, tannins, alkaloids, coumarins and anthraquinones. The larvicidal activity was evaluated using 20 larvae of *C. quinquefasciatus* in recipients containing EE, at concentrations of 1000, 500, 250 and 125 μg/mL, with three replications for each treatment, and mortality was verified up to 144 hours after the experiment.

**Results:** Phytochemical analysis revealed the presence of esteroids, triterpenoids, tannins and alkaloids. At concentrations of 1000, 500 and 250 μg/mL, the mortality of *C. quinquefasciatus* larvae was greater than 50% when treated with EE, which presented lethal dose 50% (LD₅₀) and 90% (LD₉₀) values of 133.21 μg/mL and 386.61 μg/mL, respectively.

**Conclusion:** From the results obtained, EE showed larvicidal effect on *C. quinquefasciatus*, suggesting that this activity may be attributed at least partially to the presence of esteroids, triterpenoids, tannins and alkaloids.

**Keywords:** *Tecoma, C. quinquefasciatus*, larvicidal.

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