



**Antibacterial activity of essential oil from fresh leaves of *Conobea scoparioides* (Cham. & Schltld.) Benth. from Santarém, Pará, Brazil.**

Carlena S. M da Silva, Daiane Silva Rodrigues, Josiane Elizabeth Almeida e Silva, Elaine Cristina Pacheco de Oliveira

Federal University of Western Pará / UFOPA - Pará, Brazil  
Karlana\_sinara@hotmail.com

Keywords: Pataqueira, Essential Oil, Antibacterial activity.

Essential oils are used for centuries for medicinal purposes, which has stimulated the search for biologically active substances, especially for microorganisms. The bacteriostatic activity and/ or bactericidal activity in essential oils are mainly exerted by terpenoids. *Conobea scoparioides* (Cham. & Schltld.) Benth., popularly known as "pataqueira" is a species from the Amazon with very high interest to the pharmaceutical and cosmetic Brazilian industries, and one of the main sources of thymol from aromatic plants (1,2). The objective of this study was to evaluate the antibacterial activity of "pataqueira" essential oil on strains of microorganisms: *Escherichia coli*, *Staphylococcus aureus* and *Salmonella enteritidis* by disk diffusion technique. The essential oil was obtained by standard methodology hydrodistillation using a Clevenger-type apparatus. Clinical isolates of bacteria kept in the microbiology laboratory of the Federal University of Western Pará – UFOPA were tested. The essential oil obtained was tested by diffusion method in paper disc into Petri plates containing Mueller-Hinton medium, seeded with bacterial suspension previously adjusted. Discs containing 10 µL of the essential oil without any dilution were added to the plates at 36 °C for 24 h. Ciprofloxacin discs (CIPRO) of 50 mg were used as positive control and Tween 80 discs as negative control. The test was performed in triplicate. For the comparative analysis between treatments, we used the statistical software PRISM (version 3.0), by ANOVA followed by Tukey test, statistical differences were considered significant in situations where  $p < 0.05$ , demonstrating the potential difference antibacterial tested oil. It was found that the essential oil of "pataqueira" presented antibacterial activity to *S. aureus*, *S. enteritidis* and *E. coli*, with halos of 14.67, 16.33 and 12.33 mm, respectively, where  $p < 0.001$  compared to the negative control group, allowing to conclude that the essential oil of "pataqueira" (*C. scoparioides*) showed antibacterial activity to bacteria tested.

1. Costa et al. Production of seedlings in vitro for the perfumery industry. Seminário para alunos de graduação. Belém, PA: Embrapa Eastern Amazon, 2014.
2. Burt, S. Int. J. Food Microbiology, 2004, **94**, 223-253.

Acknowledgements: Laboratory of Plant Biotechnology UFOPA Microbiology Laboratory of UFOPA, CAPES.