



## Essential oil yield and composition of *Baccharis* species from Araucaria Forest of Parana State, Brazil.

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The *Baccharis* genus presents great diversity of essential oils. The chemical composition has been studied due the economic importance for the fragrance and flavoring industries. This study aimed to evaluate the essential oil yield and composition of 10 species of *Baccharis* of Araucaria Forest, Piraquara - PR. Essential oil samples from fresh leaves of *Baccharis articulata* Pers., *B. trimera* (Less) DC., *B. milleflora* DC., *B. oblongifolia* Pers., *B. anomala* DC., *B. calvescens* DC., *B. uncinella* DC., *B. axillaris* DC., *B. mesoneura* DC., and *B. myriocephala* DC were obtained by hydrodistillation in a Clevenger apparatus during 4.5 hours. The chemical constituents were analyzed by GC-MS. In both analyzes fused silica capillary column was applied, HP-5MS (30 m x 0.25 mm x 0.25 µm), using helium as the carrier gas (1.0 mL min<sup>-1</sup>) at a temperature of 120 °C. The oven temperature ranged from 60 °C to 240 °C at a heating rate of 3 °C min<sup>-1</sup>. Identification of essential oil component was done by comparison of both mass spectra and retention indices values with compounds described in the stored data and literature (1,2). The essential oil content of *B. articulata*, *B. trimera*, *B. milleflora*, *B. oblongifolia*, *B. anomala*, *B. calvescens*, *B. uncinella*, *B. axillaris*, *B. mesoneura* e *B. myriocephala* were 0.07; 0.76; 0.90; 0.69; 0.72; 0.70; 1.89; 0.03; 0.97; e 0.02%, respectively. It were identified 32 constituents (90.1 %) in the essential samples of *B. articulata*, 30 (91.9 %) in *B. milleflora*, 20 (96.2 %) in *B. oblongifolia*, 24 (81.3 %) in *B. anomala*, 29 (96.0 %) in *B. calvescens*, 29 (96.7 %) in *B. uncinella*, 23 (94.3 %) in *B. axillaris*, 25 (70.3 %) in *B. trimera*, 23 (82.0 %) in *B. mesoneura* and 28 (91.6 %) in *B. myriocephala*. The major constituents of *B. articulata* were limonene (38.4 %) and β-pinene (30.2 %); of *B. trimera* carquejila acetate (52.7%) and limonene (18.6 %); of *B. milleflora* viridiflorol (24.1 %) and limonene (22.6 %); of *B. oblongifolia* limonene (32.7 %) and germacrene D (6.3 %); of *B. anomala* limonene (23.9 %), germacrene D (19.7 %) and δ-cadineno (8.0 %); of *B. calvescens* limonene (39.5%) and β-pinene (13.7 %); of *B. uncinella* limonene (24.1 %) and spathulenol (17.2 %); of *B. axillaris* α-pinene (41.9 %) and limonene (31.9%); of *B. mesoneura* limonene (32.2 %), α-pinene (15.5 %) and α-thujene (14.4 %); of *B. myriocephala* limonene (41.9 %) and β-pinene (16.7 %).

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