

P 132. Scents from Brazilian Cerrado: The essential oil from *Porophyllum angustissimum*

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Cerrado (savannah) is the second largest Brazilian bioma, but the first in number of endemic species and the most threaten by anthropic pressure. A huge amount of non investigated aromatic species make the Cerrado a very promising source for flavour and fragrance applications. Considering this, Embrapa has started a research project to study the aromatic species from this bioma in order to propose sustainable alternatives for their commercial use. *Porophyllum angustissimum* Gardner (Asteraceae) is a herbaceous plant endemic to the Brazilian Cerrado flora, presenting a strong scent [1]. It has brown inflorescences, leaves slightly blue, and occurs on a disperse and small population. Plant material was collected from six individuals in the Ecological Reserve of the Brazilian Institute of Geography and Statistics (IBGE) in Brasília, on April 2012. Vouchers were deposited on Embrapa Genetic Resources and Biotechnology herbarium (CEN 2419). The dried plant (aerial parts) was extracted in a Clevenger type apparatus for 2 hours. The oil was analyzed by gas chromatography and mass spectrometry using an Agilent 6890GC equipped with a FID and a 5973N MSD. For separation of the oil components a DB-5 (30m X 0.25mm X 0.25 µm) capillary column was used, with either helium (for MS) or hydrogen (for FID) as carrier gas (at 1.0mL/min). Column temperature rised from 60°C to 240°C at 3°C/min. Mass detector was operated in electronic ionization mode at 70eV. For identification, both mass spectra and retention indices were used [2]. The essential oil was obtained in 0.2% yield. The major compounds present were myrcene (40.6%), (E)-2-dodecenal (37.5%) and limonene (3.4%).

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1. Nakajima J (2012) Lista de Espécies da Flora do Brasil. Jardim Botânico do Rio de Janeiro, Rio de Janeiro.

2. Adams RP (2007) Identification of Essential Oil Components by Gas Chromatography / Mass Spectrometry. 4th Allured, Illinois.