

Supplementary Information

Eugenia neonitida Sobral and *Eugenia rotundifolia* Casar. (Myrtaceae) Essential Oils: Composition, Seasonality Influence, Antioxidant Activity and Leaf Histochemistry

Anna C. A. Defaveri,^{a,b} Alice Sato,^{*,a,b} Leandro B. Borré,^c Daniel L. M. Aguiar,^c
Rosane A. S. San Gil,^c Rosani C. O. Arruda^d and Carlos A. S. Riehl^e

^aCentro de Ciências da Saúde, Universidade Federal do Rio de Janeiro, Av. Carlos Chagas Filho, 373, Bloco K, Cidade Universitária, Ilha do Fundão, 21941-590 Rio de Janeiro-RJ, Brazil

^bInstituto de Biociências, Universidade Federal do Estado do Rio de Janeiro, Av. Pasteur 458, Urca, 22290-240 Rio de Janeiro-RJ, Brazil

^cInstituto de Química, Universidade Federal do Rio de Janeiro, Av. Athos da Silveira Ramos, 149, Bloco A, Cidade Universitária, Ilha do Fundão, 21949-900 Rio de Janeiro-RJ, Brazil

^dCentro de Ciências Biológicas e da Saúde, Universidade Federal de Mato Grosso do Sul, Av. Senador Felinto Müller s/n, Cidade Universitária, 79070-900 Campo Grande-MS, Brazil

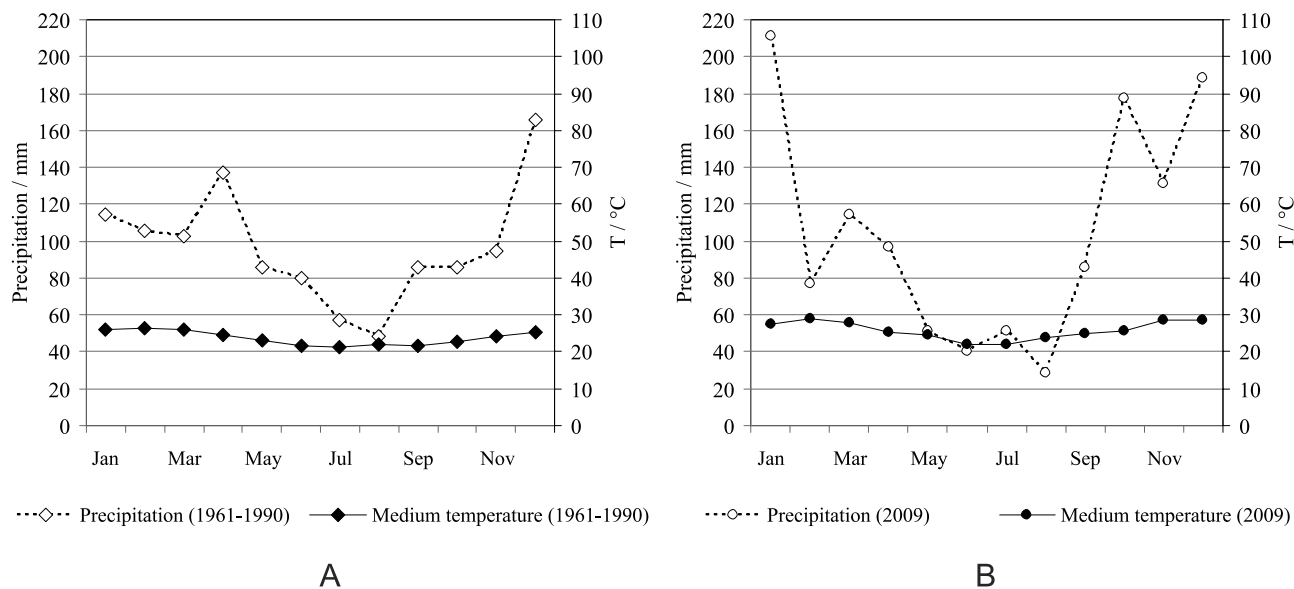


Figure S1. Gausson-Gagnouls ombrothermic diagrams built using medium temperature (°C) and precipitation (mm) month means in Rio de Janeiro City during the period between 1961 and 1990 (climatological normal) (A) and also during 2009 (B). Data collected from reference 7.

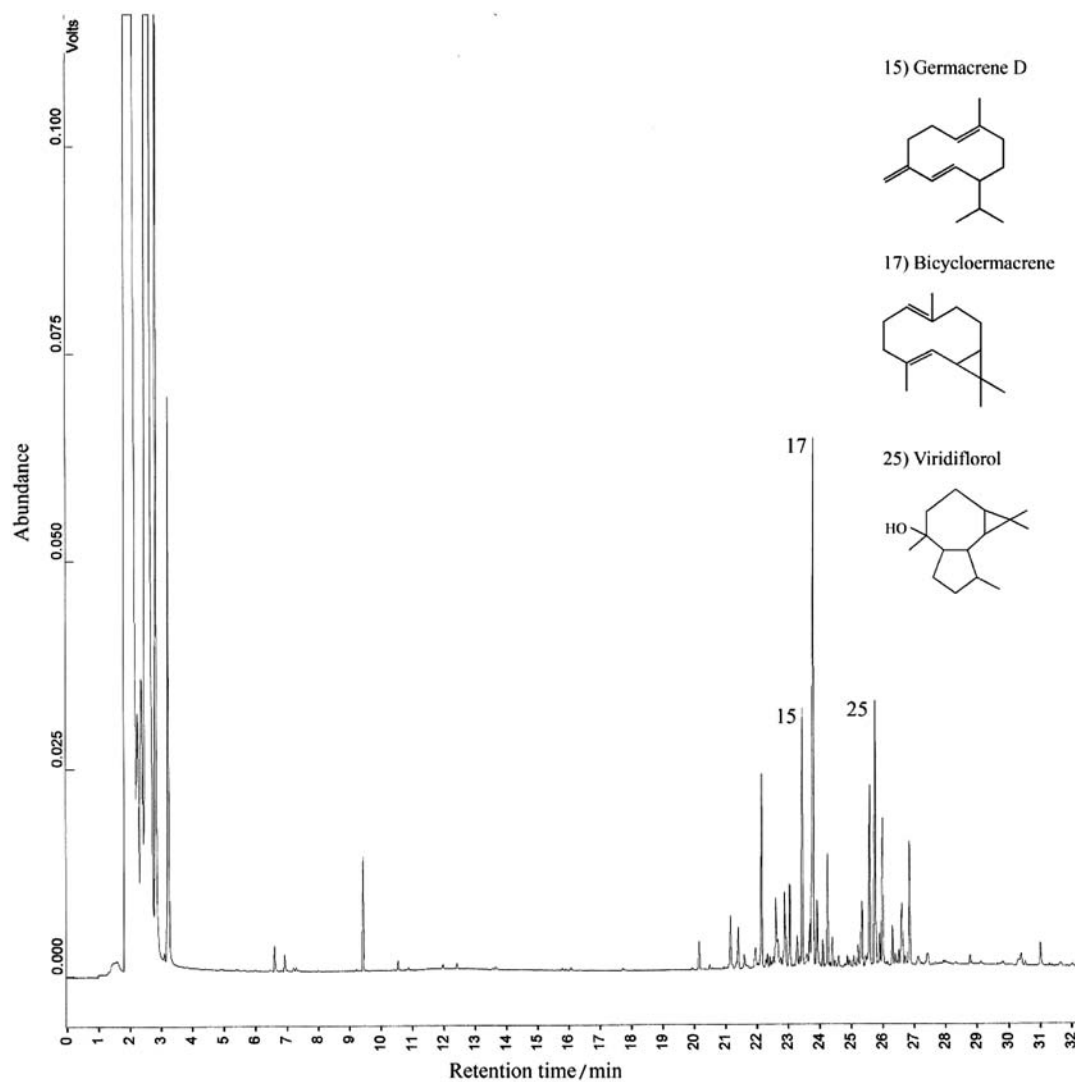


Figure S2. GC-FID of the essential oil obtained from *Eugenia neonitida* fresh leaves collected in February 2009 and the chemical structure of its major compounds.

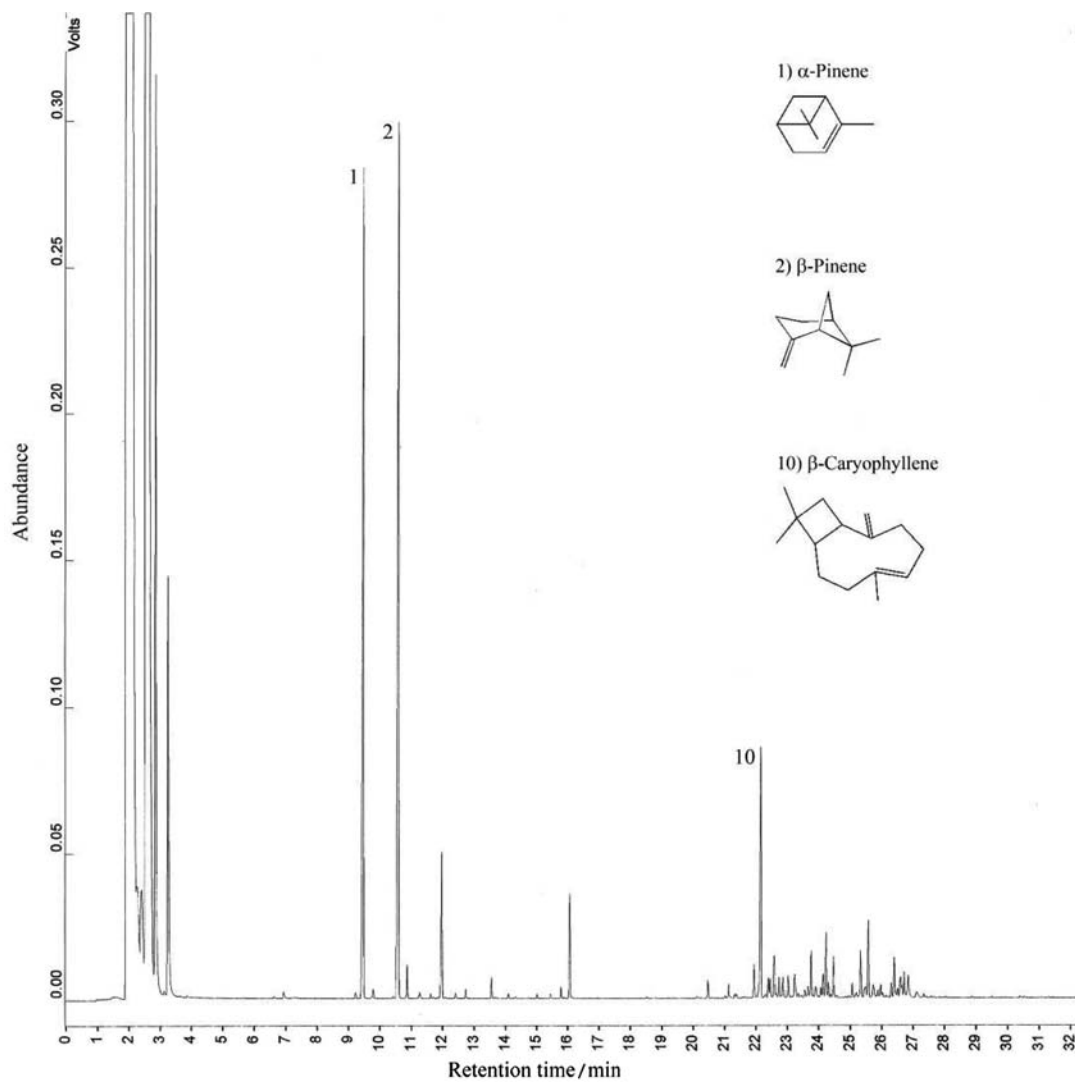


Figure S3. GC-FID of the essential oil obtained from *Eugenia rotundifolia* fresh leaves collected in February 2009 and the chemical structure of its major compounds.

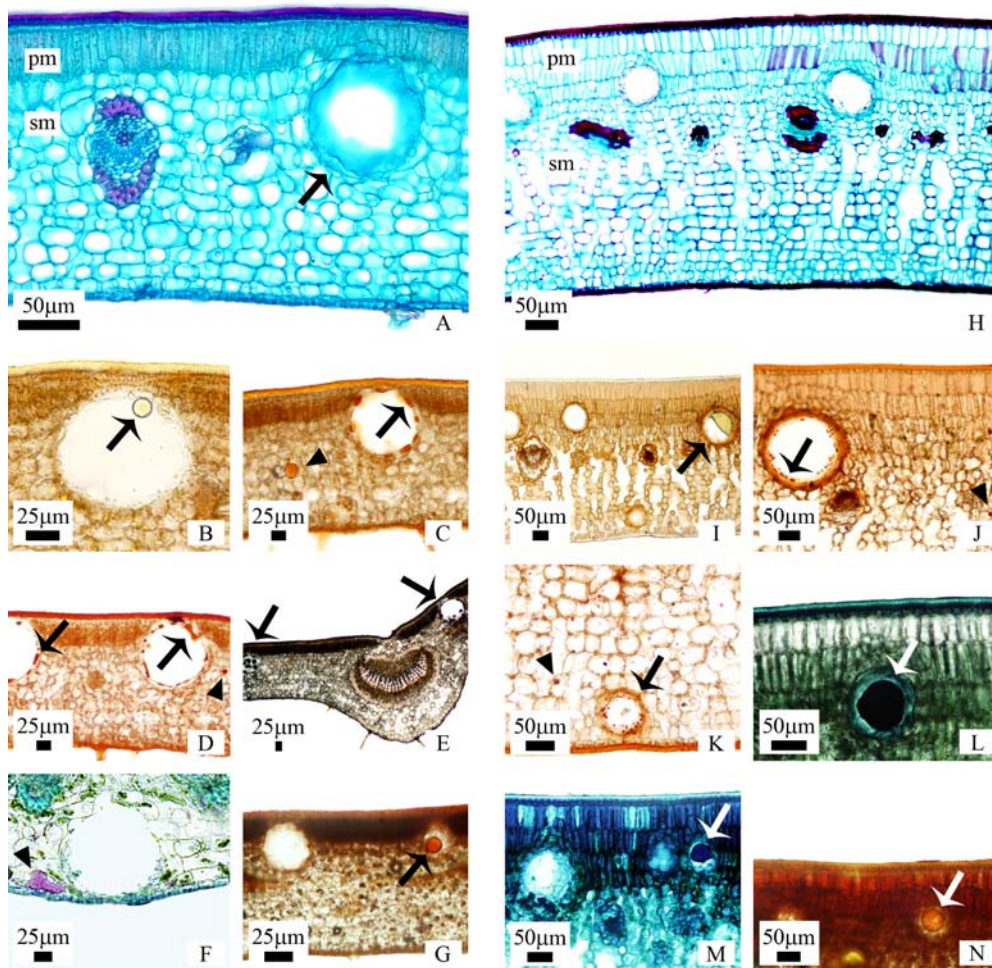


Figure S4. Transversal hand sections in *Eugenia neonitida* (A-G) and *Eugenia rotundifolia* (H-N) fresh leaves and its histochemistry, highlighting the response of secretory cavities (arrows) and parenchyma cells (arrowheads) to histochemical tests. A and H: transversal hand sections profiles stained with alcian blue and fucsin, showing the secretory cavities (arrows) overall distribution. B and I: arrows show the essential oil droplets in its natural color inside secretory cavities. C and J: lipids orange stained with Sudan III. D and K: lipids orange stained with Sudan IV. E and L: lipids dark stained with Sudan black B. F and M: pink neutral and blue acid lipids stained with Nile blue sulphate. G and N: rubber orange stained with Oil Red O. Legend: pm = palisade mesophyll, sm = spongy mesophyll, arrows = secretory cavities content, arrowheads = parenchyma cells content.