



## Chemical composition of essential oils isolated by steam distillation of *Croton ferrugineus*, *Hyptis pectinata* and *Caleases siliflora*

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The species *Croton ferrugineus* (Euphorbiaceae), *Hyptis pectinata* (Lamiaceae) and *Caleases siliflora* (Asteraceae) are distributed through the andean and pacific regions of Colombia (1). *C. sessiliflora* is endemic of the American continent, *C. ferrugineus* is a native plant that grows in Cauca, Cundinamarca, Huila, Nariño, Quindío, Tolima and Valle del Cauca departments, between 500-2000m above sea level (2). *H. pectinata* is a cosmopolitan plant (3,4). In this work, *C. ferrugineus*, *H. pectinata* and *C. sessiliflora* (COL 582569, 582529, 582603) essential oils (EO) were obtained from dry plant material using steam distillation and were analyzed by gas chromatography-mass spectrometry (Agilent Technologies 6890 Plus GC with either 5973 or 5975MSD). DB-WAX (60 m X 0.25 mm X 0.25  $\mu$ m) and DB-5MS (60 m X 0.25 mm X 0.25  $\mu$ m) capillary columns were employed. Injection volume was 2  $\mu$ L in split (1:30) injection mode. Compounds identification was carried out by comparison of their mass spectra and linear retention indexes with those from databases (Adams, Wiley, and NIST) and scientific literature. *C. ferrugineus*, *H. pectinata* and *C. sessiliflora* EO yields were 0.01, 0.01 and 0.06 % (w/w), respectively. The major compounds identified in *C. ferrugineus* oil were *trans*- $\beta$ -caryophyllene (36.8 %), dill apiole (22.8 %), germacrene D (13.2 %), *cis*-chrysantenyl acetate (7.3 %),  $\alpha$ -humulene (3.2 %), and bicyclogermacrene (2.6 %). The main compounds found in *H. pectinata* oil were *trans*- $\beta$ -caryophyllene (37.5 %), germacrene D (27.5 %), bicyclogermacrene (11.1 %),  $\beta$ -cubebene (3.2 %),  $\alpha$ -copaene (3.0 %), and caryophyllene oxide (2.6 %); EO was rich in sesquiterpenes, according to other authors (3,4). The main compounds of *C. sessiliflora* oil were identified as  $\alpha$ -zingiberene (34.5 %), germacrene D (16.9 %), *ar*-curcumene (12.6 %), *trans*- $\beta$ -caryophyllene (7.1 %), and  $\beta$ -sesquiphellandrene (3.5 %). No other research about the chemical composition of *C. ferrugineus* and *C. sessiliflora* essential oils has been reported.

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