



***Baccharis* (Asteraceae): a source of odorants compounds diversity from South Brazilian highlands**

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Asteraceae is the biggest flowering plant family worldwide. Into such family, *Baccharis* genus is represented by more than 360 species exclusively in the American continent (1). In particular, South Brazil is a very rich region for this genus, mainly in highlands, an area of transition between different biomes and which is supposed to be a center of biodiversity (1); a reason by which this region might be preserved (1,2). Odorant chemistry diversity of the *Baccharis* genus is a characteristic fact and a reason to develop new aromatic products (2). In the frame of our study about the biologic impact of volatile composition in the *Baccharis* genus, we collected eight species (*B. anomala*, *B. articulata*, *B. milleflora*, *B. megapotamica*, *B. tridentata*, *B. trimera*, *B. uncinella* and *B. vulneraria*) from the highlands at the 'Estação de Conservação e Pesquisa Pró Mata' (S.F. de Paula, Rio Grande do Sul). Aerial parts were dried and the volatile compounds extracted by simultaneous distillation extraction. Chemical analyses were performed by GC/MS using two capillary columns of different polarity and calculating the linear retention index for identification purposes (3). For the most promising species (*B. anomala*, *B. articulata* and *B. uncinella*) key odorants compounds were evaluated by GC/O. In all cases, a very complex volatile profile was found, with almost 200 compounds identified and many co-elutions detected (3). Mono and sesquiterpenes were the predominant components in all species with minor amounts of phenylpropanoids and aliphatic compounds (2-5). Composition (identity and percentage proportion of each component) of species collected at the same time (*B. milleflora*, *B. tridentata*, *B. trimera* and *B. uncinella*) were used as raw data for statistical multivariate analyses. The results showed two separated groups: the first brings together *B. milleflora*, *B. trimera* and *B. uncinella* volatile extracts, characterized by the presence of higher proportions of sesquiterpene compounds especially spathulenol (3). The second cluster was formed by *B. tridentata* containing α -pinene, β -pinene, limonene and (*E*)- β -ocimene as main components (3). *B. vulneraria* showed in its volatile profile the diterpene abienol as a major compound (4). Key odorants of *B. anomala* give to its essential oil an olfactive character sweet and woody (2) while the aromatic notes of *B. articulata* and *B. uncinella* were mainly green, burnt and woody (5).

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