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GC-MS ANALYSIS OF HEXANE EXTRACTS OF LEAVES AND STEMS FROM *Eryngium glaziovianum* (APIACEAE)

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Abstract: Genus Eryngium (Apiaceae) has about 250 species, widespread in temperate regions of every continent, specially in South America is one of its main centers of diversity. Eryngium is characterized as the richest genus of the family Apiaceae with a diversified chemistry [1]. *Eryngium glaziovianum* is a shrub found mainly in Mata Atlântica areas of Brazil, in the states of Minas Gerais, São Paulo and Rio de Janeiro [2]. This study aimed a chemical profiling of non-polar extracts of the leaves and stems from *E. glaziovianum* by GC-MS. Leaves and stems of *E. glaziovianum* were collected in the Itatitaia National Park in March, 2013. Plant material was separated, dried and grounded to a fine powder. 1 g of both powders were cold extracted with n-hexane and, after removal of the solvent, yielded 40.7 mg and 39.8 mg of hexane extracts respectively. Extracts were resuspended in dichloromethane and subjected to GC-MS analysis in a Shimadzu GC-2010 instrument equipped with a DB5 ms column coupled with a quadrupole detector. Column flow was 1.00 $mL.min^{-1}$ and carrier gas helium 5.5; ionization energy 70 eV. Peaks were identified by matching their mass spectra with those of the library NIST (vers. 2.0, 2011) and literature data as well. Results showed that the main constituents of the hexane extract of the leaves are cholest-4-en-3-one (23.21%), alpha-spinasterone (8.15%), tetratriacontane (7.00%) and gamma-sitosterol (6.84%). Hexane extract of the stems showed the steroids gamma-sitosterol (23.12%), stigmasterol (18.64%), and also hexadecanoic acid (10.90%) as major compounds. Data suggest that there are differences between the main chemical constituents of the leaves and stems, and it was also different from the ones found in the inflorescences of the plant, described in a previous work, where sesquiterpenes eudesmol and guaiol, besides monoterpene *O*-menth-8-ene-4-methanol are the major components of the extract. GC-MS technique proved, once more, to be a reliable option for a quick chemical profiling of non-polar plant extracts.

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