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The systematic value of pollen morphology in *Chresta* Vell. ex DC. (Vernonieae, Asteraceae)

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Abstract

Chresta encompasses 15 species of Compositae, mostly restricted to the Brazilian Cerrado and Caatinga. Previous taxonomic studies have shown there is variation in pollen types among species, but did not fully describe them. In order to provide full pollen descriptions and analyze their relation to the group's taxonomy and phylogeny, pollen grains from 14 species were examined using light and scanning electron microscopy. Acetolysed pollen grains were measured and photographed on light microscope and non-acetolysed pollen grains were examined using scanning electron microscopy. Three pollen types were found in the genus, corresponding to *Vernonia*-types A, C and F. In general, pollen grains are isopolar, large, prolate-spheroidal, spheroidal or oblate-spheroidal and the polar area is usually small. The variation in quantitative characters allowed the construction of a dichotomous identification key. Pollen type do not correlate to clades found in the most recent phylogeny of the genus. Similarities and differences of pollen patterns of *Chresta* and other Vernonieae genera are briefly discussed.

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