

Seasonal and Intraspecific Variation of Flavonoids and Proanthocyanidins in *Cecropia glaziovii* Sneth. Leaves from Native and Cultivated Specimens[§]

Pilar Ester Luengas-Caicedo^a, Fernão Castro Braga^b, Geraldo Célio Brandão^b, and Alaíde Braga de Oliveira^{b,*}

^a Universidad Nacional de Colombia, Facultad de Ciencias, Departamento de Farmacia, Ciudad Universitaria, Bogotá, Colombia

^b Faculdade de Farmácia, Departamento de Produtos Farmacêuticos, Universidade Federal de Minas Gerais, Av. Antônio Carlos, 6627, CEP 31.270-901 Belo Horizonte, MG, Brazil. E-mail: alaidebraga@terra.com.br

* Author for correspondence and reprint requests

Z. Naturforsch. **62c**, 701–709 (2007); received February 2/March 23, 2007

Cecropia glaziovii Sneth. (syn. *C. glaziovii*, *C. glazioui*) (Cecropiaceae) is a South American medicinal plant whose antihypertensive activity is attributed to its flavonoid and proanthocyanidin contents. The seasonal and intraspecific variations of these two classes of compounds in *C. glaziovii* leaves were assayed by spectrophotometry in samples of young and mature leaves collected from native, cultivated and micropropagated trees in the dry and rainy periods of the year. The total flavonoid and proanthocyanidin contents ranged from $(0.64 \pm 0.21)\%$ to $(3.44 \pm 0.45)\%$ and $(2.23 \pm 0.92)\%$ to $(5.36 \pm 0.95)\%$, respectively, among the assayed populations. The flavonoid contents in native plants did not differ statistically between young and mature leaves within the same season, whereas it was higher in both young and mature leaves collected in the dry compared to those collected in the rainy period. For cultivated specimens, the results pointed to higher contents in the dry season, whereas no significant difference was observed for leaves of micropropagated (clone) plants collected in both periods. For the assayed populations, higher proanthocyanidin contents were found in the dry season, excepting the micropropagated (clone) plants, whose contents did not differ significantly between the dry and the rainy periods. Leaves of micropropagated (clone) and cultivated specimens showed less intraspecific variation in the flavonoid and proanthocyanidin contents than those from native trees. These features suggest that, as expected, cultivation of *C. glaziovii* is of great interest providing raw herbal material of better uniform quality.

Key words: *Cecropia glaziovii* Sneth., Flavonoids, Proanthocyanidins, Seasonal and Intraspecific Variation