



New source

Flavonoid profiles of some Argentine species of *Chuquiraga* (Asteraceae)

María Elena Mendiando, Berta Estela Juárez, Peter Seeligmann*

Facultad de Ciencias Naturales e Instituto Miguel Lillo, Universidad Nacional de Tucumán, Fundación Miguel Lillo, CONICET, Miguel Lillo 205/51, 4000 San Miguel de Tucumán, Argentina

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1. Subject and source

Chuquiraga avellanadae Lorentz; *C. erinacea* D. Don; *C. erinacea* subsp. *hystrix* (D. Don) C. Ezcurra; *C. incana* D. Don; *C. oppositifolia* Don; *C. rosulata* Gaspar were collected in Mendoza Province, Argentina. A voucher of each specimen is deposited at the Herbarium Ruiz Leal. The voucher numbers are: *Chuquiraga avellanadae* (MERL 21454); *C. erinacea* (MERL 11049); *C. erinacea* subsp. *hystrix* (MERL 11123); *C. incana* (MERL 19012); *C. oppositifolia* (MERL 30473); *C. rosulata* (MERL 21449).

2. Previous work

Previous work of flavonoids in other species of *Chuquiraga* (Bohm and Stuessy, 1995), (Mendiando et al., 1997).

* Corresponding author. Fax: + 54-381-4330868.

E-mail address: bejmeme@csnat.unt.edu.ar (P. Seeligmann)

Table 1
Distribution of flavonoids in *Chuquiraga* species

	<i>Chuquiraga avellanadae</i>	<i>Chuquiraga erinacea</i>	<i>Chuquiraga erinacea subsp.hystrix</i>	<i>Chuquiraga incana</i>	<i>Chuquiraga oppositifolia</i>	<i>Chuquiraga rosulata</i>
Q-3-Gl	+	+	+	+		+
G-3-Rut		+			+	+
K-3-Gl	+	+	+	+	+	+
K-3-Rut	+	+			+	+
K		+			+	+

Compounds: Q-3-Gl = quercetin-3-O-glucoside; Q-3-Rut = quercetin-3-O-rutinoside; K = kaempferol; K-3-Gl = kaempferol-3-O-glucoside; K-3-Rut = kaempferol-3-O-rutinoside; K = kaempferol.

3. Present study

Aerial vegetative parts were extracted, and flavonoids were isolated and identified as described in an earlier paper (Juárez et al., 1995). Results are given in Table 1.

4. Chemotaxonomic significance

The genus *Chuquiraga* is represented in Argentina by 15 species distributed along the Andes and Patagonia. They are xerophytic plants with coriaceous leaves and grow in arid regions.

Flavonoid patterns of *Chuquiraga erinacea* and *C. rosulata* were identical: the following flavonoids were identified: quercetin-3-O-glucoside, quercetin-3-O-rutinoside, kaempferol-3-O-glucoside, kaempferol-3-O-rutinoside and kaempferol.

In *Chuquiraga erinacea subsp. hystrix*, *C. incana* and *C. avellanadae* quercetin-3-O-glucoside and kaempferol-3-O-glucoside were found, but the latter species also produced kaempferol-3-rutinoside.

The major flavonoids identified in the species of *Chuquiraga* noted above, are identical to those previously detected in other species of the same genus (Bohm and Stuessy, 1995; Mendiondo et al., 1997). Thus, its presence, strongly suggests that flavonoids are useful phylogenetic micromolecular markers in the genus.

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