Flavonoids as Chemotaxonomic Markers for *Erythroxylum australe*

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Methanolic leaf extracts of *Erythroxylum australe* F. Muell. produced eight *O*-conjugated flavonoids. Six of the flavonoid aglycones were dihydroisoflavones (all dihydro-orobol derivatives), one a flavanone, eriodictyol, and one a flavonol, quercetin. The major glycosides of the flavonoids included mono-glucosyl-rhamnosyls and dirhamnosyl-glucosides with either 3,5,7 or 3′,4′ linkage or a combination thereof. The array of flavonoids present in *E. australe* suggests kinship to *E. ulei* and linkage to the four cultivated alkaloid-bearing *Erythroxylum*, especially the ancestral *E. coca* var. *coca.* Because of the uniqueness of the flavonoids present in leaf tissue of *E. australe* they are unambiguously useful as chemotaxonomic markers for the taxon.

Key words: Erythroxylum australe, Flavanone, Isoflavone