

## Direct characterization of phenolic constituents in infusions from the Chilean crude drug “baylahuen” (*Haplopappus* spp., Asteraceae) by HPLC-DAD-MS/MS

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The aerial parts of several Asteraceae known under the common name “baylahuen” are used in Chilean traditional medicine for digestive and liver diseases. The “baylahuen” complex comprises *H. multifolius*, *H. taeda* and *H. baylahuen*. The related species *H. rigidus*, grows in the same habitat as *H. baylahuen* and can be collected by mistake. The antioxidant activity and thin layer chromatography characterization of four “baylahuen” species as well as the biomass and resin content in different natural populations was reported [1,2]. While the chemistry of *Haplopappus* species has been investigated mainly for the exudate composition and lipophylic compounds, little is known on the chemical identity of the infusion constituents [3-6]. The aim of the present work was the characterization of the phenolics occurring in the infusions of *H. baylahuen*, *H. deserticola*, *H. multifolius*, *H. rigidus* and *H. taeda* by HPLC-DAD-MS/MS. The resinous exudate of the leaves was compared by <sup>1</sup>HNMR and GC-MS before and after methylation. Some 27 phenolics were tentatively identified in the infusions, including 10 chlorogenic acid (caffeoylquinic acid) derivatives, 15 flavonol glycosides and genines and two ellagic acid derivatives. The exudates showed mainly terpenes and coumarins not detected in the analysis of the infusions. While some constituents are common in the infusions, the HPLC patterns allow a clear differentiation of the species.

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