## 1,4-Benzoxazin-3-one, 2-Benzoxazolinone and Gallic Acid from Calceolaria thyrsiflora Graham and their Antibacterial Activity

Héctor R. Bravo<sup>a,\*</sup>, Sylvia V. Copaja<sup>a</sup>, Sebastián Figueroa-Duarte<sup>a</sup>, Madeleine Lamborot<sup>b</sup>, and José San Martín<sup>c</sup>

Departamento de Química, Facultad de Ciencias, Universidad de Chile, Casilla 653, Santiago, Chile. Fax: 56 (2) 2713888. E-mail: scopaja@uchile.cl

b Departamento de Ciencias Ecológicas, Facultad de Ciencias, Universidad de Chile, Casilla 653, Santiago, Chile Instituto de Biología Vegetal y Biotecnología, Universidad de Talca, Casilla 747,

Talca, Chile \* Author for correspondence and reprint requests

Z. Naturforsch. **60 c**, 389–393 (2005); received November 18, 2004/January 5, 2005 Secondary metabolites, DIBOA, HBOA, 7-OH-HBOA, BOA and gallic acid, were isolated and quantified from Calceolaria thyrsiflora Graham, a native medicinal plant of Chile belonging to the Scrophulariaceae family. The highest DIBOA contents were determined in leaves (145 mmol kg<sup>-1</sup> dry wt) and flowers (161 mmol kg<sup>-1</sup> dry wt). Antibacterial activities of DIBOA, HBOA, BOA, gallic acid and infusions of flowers and leaves were determined. The

phytomedicinal properties attributed to C. thyrsiflora Graham could be understood on the

basis of its antibacterial activity. Key words: Calceolaria thyrsiflora Graham, Hydroxamic Acid, Antibacterial Activity