

# Alkaloid Profile of Leaves and Seeds of *Lupinus hintonii* C. P. Smith

Kalina Bermúdez Torres<sup>a,\*</sup>, Norma Robledo Quintos<sup>a</sup>, Laura L. Barrera Necha<sup>a</sup> and Michael Wink<sup>b</sup>

<sup>a</sup> Centro de Desarrollo de Productos Bióticos- Instituto Politécnico Nacional, P. O. Box 24, Yautepec, Morelos 62731, Mexico. Fax: 052 73 53 94 18 96. E-mail: kbermud@hotmail.com

<sup>b</sup> Institut für Pharmazeutische Biologie, Ruprecht-Karls Universität, D-69120 Heidelberg, Germany

\* Author for correspondence and reprints request

Z. Naturforsch. **57c**, 243–247 (2002); received October 9/November 11, 2001

*Lupinus hintonii*, Quinolizidine Alkaloids, Alkaloid Profile

*L. hintonii* C. P. Smith grows in the Central Highland forests of Mexico at altitudes between 2800 m to 3200 m above sea level. Members of the genus *Lupinus* produce quinolizidine alkaloids as main chemical defensive compounds against herbivores. Surprisingly alkaloid profiles are rather constant within this species, while substantial variation was found when compared to morphologically closely related other taxa. As part of a phytochemical project on Mexican wild lupins, we report on the alkaloid profiles of seeds and leaves of *L. hintonii*. 19 alkaloids could be identified by capillary GLC-MS. Six major alkaloids occurred in leaves and seeds: 13-hydroxylupanine (28% and 45% respectively), tetrahydrorhombifoline (31% and 23% respectively), angustifoline (2% and 4% respectively), lupanine (7% and 5% respectively), 13 $\alpha$ -tigloyloxylupanine (19% and 5% respectively) and 4 $\alpha$ -angeloyl-3 $\beta$ -hydroxylupanine (9% and 2%). This chemical pattern resembles that of the North American lupin *L. floribundus*.