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LEAF ALKALOIDS OF *SOPHORA MACROCARPA*

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The seeds of *Sophora macrocarpa* Sm. (Fabaceae) are a promising source of edible oil (1), and contain matrine, *N*-methylcytisine and baptifoline (2). Glc analyses of the leaves of this species suggested that matrine is always, by far, the major alkaloid, accompanied by several unidentified minor bases (3). Fractionation of the crude leaf alkaloids has now afforded matrine, matrine *N*-oxide, sophoranol, *N*-methylcytisine and cytisine.

EXPERIMENTAL[1]

PLANT MATERIAL.—*Sophora macrocarpa* leaves were harvested in November, 1978, after flowering, at the eastern foot of La Dormida Pass, about 40 km north of Santiago, Chile. Voucher specimens are deposited at the Natural History Museum in Santiago.

EXTRACTION AND ISOLATION OF ALKALOIDS.[2]—Air-dried leaves of *Sophora macrocarpa* (9.0 kg), when worked up by standard procedures, yielded 130 g of crude alkaloids. Matrine, *N*-methylcytisine, cytisine, matrine *N*-oxide and sophoranol were identified by mp, $[\alpha]_D$, uv, ir, ms, ^1H and ^{13}C nmr. The first three alkaloids were further characterized by tlc comparison with reference samples and mp of derivatives. Matrine *N*-oxide was compared with a synthetic sample prepared from matrine and H_2O_2.

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[1]Melting points were determined on a Reichert Kofler hot plate and are uncorrected. Uv spectra were recorded on a Zeiss DMR-21 spectrophotometer, and ir spectra were determined on a Leitz III G instrument. ^1H and ^{13}C nmr spectra were recorded with Varian HA-100 and CFT-20 spectrometers, respectively. Electron impact ms were obtained at 70 eV with a Varian Mat CH-7 instrument. Optical rotations were measured on Perkin-Elmer 141 and 241 polarimeters.

[2]Full details of the isolation and identification of the compounds are available on request to R.N.