

Federal da Paraíba, João Pessoa, also in January 1983. The herbarium specimens are kept at the LPX Herbarium of the Universidade Federal da Paraíba.

EXTRACTION AND PURIFICATION OF SOLASODINE.—The dried and ground fruits of *S. asperum* (730 g) were boiled with EtOH-H₂O-HOAc (90:7:3) and filtered. The process was repeated several times, and the combined filtrate after concentration in vacuo was treated in the usual way (2) to furnish a crude mixture of free bases (4.05 g). Tlc showed a mixture of three compounds. Column chromatography gave solasodine (3.1 g), mp 198-200°, as the major constituent, which was identified by comparison (mmp, ir, ms) with an authentic sample.

The fresh fruits of *S. paludosum* (539 g) were subjected to the same extraction procedure to give a free base, which, upon crystallization, furnished solasodine (3.62 g) as the sole product.

The full details of isolation are available from the author upon request.

ACKNOWLEDGMENTS

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NATIVE AMERICAN FOOD AND MEDICINAL PLANTS, 5. ISOLATION OF THE LIPID ALTERING VISNAGIN FROM *MUSINEON DIVARICATUM*¹

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While investigating the coumarin profile of *Musineon divaricatum* Pursh. (1), we isolated a small amount of the known furanochromone visnagin. Examination of the ¹H-nmr, ms, and ir spectra for our isolate led to the identification of visnagin as the structure of this compound, and comparison with literature data (2,3) confirmed the identification.

Visnagin is previously known from but two plants, *Ammi visnaga* (Umbelliferae) (4) and *Cimicifuga daburica* (Ranunculaceae) (5). Originally objects of study for their spasmolytic and vasodilating activities, visnagin and its structural analogs have recently developed new significance for their lipid altering activity, i.e., their capacity to affect the relative levels of high density and low density lipoproteins (6,7).

EXPERIMENTAL

Isolation of Visnagin.—The preparation and initial chromatographic separation of the extracts of *M. divaricatum* are described elsewhere (1). Visnagin was isolated from Florisil column fraction 10, eluted with EtOAc-MeOH (49:1). Gel permeation chromatography of this fraction through Sephadex LH-20 and Bio-Beads S-X8 yielded 6 mg of visnagin as a white solid, mp 135-139°, lit. mp 142-145° (4,5).

Full details of the isolation and identification are available on request to the senior author.

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