

COMPOUND IDENTIFICATION.—Compound identifications were achieved by computer library search programs (3) and confirmed by visual comparison of the full ms with published standards (18, 19).

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#### A GUAIANOLIDE FROM *CHROMOLAENA GLABERRIMA*

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In the course of our work on terpenoids in the family Compositae, we have investigated *Chromolaena glaberrima* (D.C.) King & H. Rob. (tribe Eupatorieae). In addition to two heliangolides reported previously (1), we isolated the guaianolide 8 $\beta$ -(4'-hydroxytigloyl)-oxypreupatundin. After completion of the work described here, this was reported as a new compound from *Elephantopus carolinianus* Willd. (tribe Vernonieae). The <sup>13</sup>C nmr is here reported for the first time.

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*C. glaberrima* (subgenus *Osmiella*) is the only species of *Chromolaena* known to produce germacrane-derived sesquiterpene lactones. Most of the other species studied belong to the subgenus *Chromolaena* (3); these elaborate a different series of sesquiterpenes, including cadinanes, and sometimes also prostaglandin-like fatty acid derivatives (4-10). The only other species studied from subgenus *Osmiella* is *Chromolaena colinum*, which produces labdane diterpenes (11). However, this species is also aberrant in taxonomically important characters of its involucre and receptacle (12) and may not be correctly placed in *Chromolaena*.

#### EXPERIMENTAL

EXTRACTION OF *C. GLABERRIMA*.—Leaves were collected (weight 500 g) on March 18, 1982, between Tepic and Jalcoctan, Nayarit, Mexico (voucher: Whittemore s. n., Herbarium of the University of Texas [TEX]). The unground plant material was washed with  $\text{CH}_2\text{Cl}_2$  and the extract worked up in the usual manner. The crude syrup obtained (7.5 g) was chromatographed on a Si gel column (160 g) packed in  $\text{CH}_2\text{Cl}_2$ . The column was eluted with a  $\text{CH}_2\text{Cl}_2$ /iPrOH gradient, increasing the polarity with iPrOH; 20 fractions of 300 ml each were collected. Fractions 18-22 (2% iPrOH) gave 30 mg of an oily material. The new compound was purified by preparative tlc (Si gel, 1.5 mm,  $\text{CH}_2\text{Cl}_2$ -iPrOH, 10:1) to give 20 mg of oil.

$8\beta$ -(4'-Hydroxytigloyl)-oxypreepatundin.—Ms and  $^1\text{H}$  nmr were as reported previously (2). The  $^{13}\text{C}$ -nmr spectrum was obtained at 22.6 MHz in  $\text{CDCl}_3$  with TMS as internal standard. Assignments were based chiefly on correlation with eupahakonesin (14); assignments designated with superscripts <sup>a</sup>, <sup>b</sup>, <sup>c</sup> are interchangeable:  $^{13}\text{C}$  nmr  $\delta$  52.5 (d, C-1), 78.4 (d, C-2<sup>a</sup>), 129.3 (d, C-3), 147.2 (s, C-4<sup>b</sup>), 56.0 (d, C-5), 81.0 (d, C-6<sup>a</sup>), 47.8 (d, C-7), 68.2 (d, C-8), 38.6 (t, C-9), 141.6 (s, C-10<sup>b</sup>), 134.2 (s, C-11<sup>b</sup>), 169.7 (s, C-12), 122.3 (t, C-13<sup>c</sup>), 119.3 (t, C-14<sup>c</sup>), 17.2 (q, C-15), 166.8 (s, C-1'), 127.5 (s, C-2'), 141.6 (d, C-3'), 59.3 (t, C-4'), 12.5 (q, C-5') ppm.

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