resistant to the attack of termites.[1] *Previous work.* Extractives from hardwood: coumarins xanthyletin, xanthoxyletin and 7-demethylsuberosin[2] and alkaloid skimmianine.[3]

Present work. Extraction of powdered hardwood with CH_2Cl_2 in a Soxhlet followed by repeated column chromatography on silica gel afforded five coumarins and two furoquinolines identified by IR, UV, MS and, especially, NMR spectra. The assignment of the proton signals given below is supported by observed long-range couplings and nuclear Overhauser effects. The previously isolated xanthyletin was not found.

Xanthoxyletin. M.p. 130–132°, *m/e* 258, NMR*: 1·46 s, 6H, Me_2C; 3·86 s, 3H, C_5–OMe; 5·71 and 6·51 AB, H-7, H-6, $J_{6,7} = 10·2$ Hz, $J_{6,10} = 0·6$ Hz; 6·56 mt, H-10; 6·19 and 7·86 AB, H-3, H-4, $J_{3,4} = 9·5$ Hz, $J_{4,10} = 0·75$ Hz. *Luvangetin.* M.p. 109°, *m/e* 258, NMR: 1·51 s, 6H, Me_2C; 3·96 s, 3H, C_{10}–OMe; 5·70 and 6·33 AB, H-7, H-6, $J_{6,7} = 10·0$ Hz; 6·21 and 7·57 AB, H-3, H-4, $J_{3,4} = 9·5$ Hz; 6·83 s, H-5. *7-Demethylsuberosin.* M.p. 133–135° *m/e* 230, NMR: 1·74 s, 1·78 s, 2x Me–C=; 3·37 d, 2H, $J = 7·5$ Hz, CH_2; 5·32 mt, $J = 7·5$ Hz, olefinic H; 6·24 and 7·66 AB, H-3, H-4, $J_{3,4} = 9·5$ Hz; 7·05 s, H-8; 7·21 s, H-5, 7·47 s, exchangeable, OH. *Aesculetin dimethylether.* M.p. 144–145°, *m/e* 206, NMR: 3·82 s, 3·85 s, 2x–OMe; 6·28 and 7·61 AB, H-3, H-4, $J_{3,4} = 9·3$ Hz; 6·86 s, 2H, H-5, H-8. *Skimmianine.* M.p. 176°, *m/e* 259, NMR: 4·01 s, 3H, C_7–OMe; 4·12 s, 3H, C_8–OMe; 4·38 s, 3H, C_4–OMe; 6·99 and 7·54 AB, H-2, H-3, $J_{2,3} = 2·8$ Hz; 7·20 and 7·98 AB, H-6, H-5, $J_{5,6} = 9·3$ Hz. *Nodakenetin.* M.p. 181–192°, *m/e* 246, NMR: 1·23 s, 1·36 s, 2x Me–C; 3·21 d, 2H, $J = 9$ Hz, CH_2; 4·73 t, 1H, $J = 9$ Hz, CH; 6·20 and 7·57 AB, H-3, H-4, $J_{3,4} = 9·3$ Hz; 6·73 s, H-10; 7·21 s, H-5. *γ-Fagarine.* M.p. 140–142°, *m/e* 229, NMR: 4·06 s, 4·41 s, 2x–OMe; 7·05 and 7·63 AB, H–2, H-3, $J_{2,3} = 2·8$ Hz; 7·05 dd, $J = 7·8$ and 1·4 Hz, H-7; 7·35 dd, $J = 7·8$ and 8·2 Hz, H-6; 7·82 dd, $J = 8·2$ and 1·4 Hz, H-5.

* NMR 100 MHz, $CDCl_3$, TMS δ-scale.

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Phytochemistry, 1972, Vol. 11, pp. 2648 to 2649. Pergamon Press. Printed in England.

EXTRACTIVES FROM *SARGENTIA GREGGII*

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(*Received* 1 *April* 1972)

Key Word Index—*Sargentia greggii*; Rutaceae; triacontane; sitosterol; cerrosillin; 5,6-dimethoxyflavone.

Plant. Sargentia greggii S. Watts, (chapote amarillo) (voucher No. 7086). *Previous work.* None. *Occurrence.* Northeastern, Mexico.

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Present work. Investigation of fruits and stem with leaves. Each dried and powdered material was extracted separately with light petroleum and then with EtOH. Each extract was chromatographed over silica gel. The light petroleum extract of the stem and leaves afforded. *triacontane*, $C_{30}H_{62}$ m.p. and m.m.p.; *sitosterol* $C_{29}H_{48}O$. [α] IR, m.p. and m.m.p. co-TLC, acetate [α], IR, m.p. and m.m.p.

The ethanolic extract yielded: cerrosillin (5,6,3′,5′-tetramethoxyflavone)[1] $C_{19}H_{18}O_6$ (M^+ 342) m.p. 136–137°, $\bar{\nu}$ 3000, 2950, 2850, 1640 cm^{-1}, NMR m.m.p. and co-TLC with synthetic sample: and 5,6-dimethoxyflavone[2] $C_{17}H_{14}O_4$ m.p. 196°, IR, NMR m.m.p. and co-TLC with a synthetic specimen.

Fruits. From the light petroleum extract only triacontane was obtained. The ethanolic extract furnished cerrosillin and 5,6-dimethoxyflavone.

Acknowledgements—To Forge foundation for financial help; to Professor P. Crabbe, Syntex, for MS; to Dr. H. Yoshioka, University of Texas for NMR. Pure compounds for comparison were kindly supplied by Professor O'Dreyer, San Francisco University.

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Phytochemistry, 1972, Vol. 11, pp. 2649 to 2651. Pergamon Press. Printed in England.

SCROPHULARIACEAE

NICOTIN UND 3-FORMYL-4-HYDROXY-2H-PYRAN AUS *HERPESTIS MONNIERA**

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(*Eingegangen* 28 *Marz* 1972)

Key Word Index—*Herpestis monniera*; Scrophulariaceae; nicotine; 3-formyl-4-hydroxy-2H-pyran; luteolin; luteolin-7-glucoside.

Herpestis monniera (Scrophulariaceae) wird in der ayurvedischen Medizin Indiens unter dem Namen 'Brahmi'‡ zur Behandlung von Nerven- und Herz-Krankheiten verwendet.[1] Die von Basu *et al.*[2] beschriebenen, als Oxalate kristallisierenden basischen Substanzen bzw. das Alkaloid 'Herpestin'[3] sowie das von Bose und Bose isolierte Alkaloid 'Brahmin'[4]

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† Aus der Dissertation Universität Münster (1971).

‡ In einigen Gebieten Indiens wird die Bezeichnung 'Brahmi' auch für die Umbellifere *Hydrocotyle asiatica* L. verwendet.

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