Phytochemistry, 1973, Vol. 12, p. 1824. Pergamon Press. Printed in England.

HYDROCARBONS AND TRITERPENES OF THE LEAVES OF EUONYMUS LATIFOLIUS

AYHAN ULUBELEN and T. BAYTOP

Faculty of Pharmacy, University of Istanbul, Turkey

(Received 5 December 1972. Accepted 21 February 1973)

Key Word Index—Euonymus latifolius: Celastraceae: hydrocarbons: triterpenes.

Plant. E. latifolius (L.) Mill. identified by Prof. Dr. A. Baytop, deposited in the herbarium of Faculty of Pharmacy, University of Istanbul, Turkey, Voucher No. ISTE 23311. Source. Northern and western parts of Turkey. Previous work. On sister species E. euporaeus, 1-4 E. verrucosus, 5 E. maachkii and E. lanceifolia, 6 E. bungeanus 7 and E. alutus. 8

Present work. The leaves of the plant was extracted first with light petrol., then with CHCl₃. The green residue was chromatographed on a silica gel column, the following compounds were isolated: n-Octacosane, $C_{28}H_{58}$, m.p. 60– 61° , $[\alpha]_D \pm 0^{\circ}$ (Found: C, 85·52; H, $14\cdot62\%$). TLC, IR, NMR. n-triacontane, $C_{30}H_{62}$, m.p. 65– $66\cdot5^{\circ}$, $[\alpha]_D \pm 0^{\circ}$ (Found: C, 85·26; H, $14\cdot70\%$). TLC, IR and NMR. Ginnon, $C_{29}H_{58}O$, m.p. 74– $74\cdot5^{\circ}$ (Found: C, 82·88; H, $13\cdot67\%$). M.m.p., TLC, IR and NMR. Two other ketones were isolated, they are found to be octadecan-2-one, $C_{18}H_{36}O$, m.p. $71\cdot5^{\circ}$ (Found: C, $80\cdot3$; H, $13\cdot43\%$). IR showed the presence of a long chain keton, NMR gave one methyl at $0\cdot4$ δ , another methyl at $0\cdot88$ δ , methylene chain at $1\cdot25$ δ , and a-CH₂– at $1\cdot67$ δ . Eicosan-2-one, $C_{20}H_{40}O$, m.p., 81° (Found: C, $81\cdot08$; H, $13\cdot5\%$). IR and NMR were essentially the same that of the above compound, except the integration of NMR and the analytical findings. Crataegolic acid, $C_{30}H_{48}O_4$, m.p. $265-267^{\circ}$ (Found: C, $76\cdot18$; H, $10\cdot2\%$), methyl ester m.p. $225-227^{\circ}$, IR and NMR comparison with the standard sample. Triterpene, $C_{34}H_{56}O_7$, m.p. 305° , m.m.p., IR and NMR comparison showed that this is the same compound that was obtained from Smyrnium rotundifolium.

KISLICHENKO, S. G., MAKAREVICH, I. F. and KOVALEV, I. P. (1969) Khim. Prir. Soedin 5, 386; idem. (1970) Chem. Abstr. 72, 79305 w.

² Otto, C., Horwath, K. B. and Hutas, I. (1969) Herba Hung. 8, 41; idem. (1970) Chem. Abstr. 72, 103666 n.

³ KISLICHENKO, S. G., MAKAREVICH, I. F. and KOLESNIKOV, D. G. (1969) Khim. Prir. Soedin 5, 193; idem. (1969) Chem. Abstr. 71, 105160 w.

⁴ Sergeeva, N. V. (1967) Uch. Zap. Pyatigorsk. Farm. Inst. 6, 131; idem. (1969) Chem. Abstr. 70, 112418 u.

⁵ SERGEEVA, N. V. and SHINKARENKO, A. L. (1967) Uch. Zap. Pyatigorsk. Farm. Inst. 6, 127; idem. (1969) Chem. Abstr. 71, 42211 r.

⁶ STEPIEN, O. (1970) Diss. Pharm. Pharmacol. 22, 223; idem. (1971) Chem. Abstr. 74, 20345 x.

⁷ WALERIA, O. S. (1969) Diss. Pharm. Pharmacol. 21, 173; idem. (1969) Chem. Abstr. 71, 78122 b.

⁸ Yoshikawa, K. (1968) Tohuku J. Exp. Med. 96, 127; idem. (1969) Chem. Abstr. 70, 18809 a.

⁹ Ulubelen, A. (1972) Phytochemistry 11, 2652.