

## SHORT COMMUNICATION

# TARAXASTEROL AND OTHER TRITERPENOIDS IN *CAPPARIS SEPIARIA* LEAVES

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*Plant.* *Capparis sepiaria*—Capparidaceae—collected from West Bengal.

*Uses.* Medicinal<sup>1</sup> and insecticidal.<sup>2</sup>

*Previous work.* None.

*Leaves.* Extracted with benzene, chromatographed over silica gel. Benzene eluted fractions yielded triterpene alcohol mixture (TLC) and a sterol. Triterpenoid fractions were acetylated. Acetylated product chromatographed on silica gel. Elution with petrol ether-benzene mixture afforded three crystalline compounds.  $\beta$ -Amyrin acetate:  $C_{32}H_{52}O_2$  (m.p., mixed m.p.  $[\alpha]_D$ , i.r.). Taraxasterol acetate:  $C_{32}H_{52}O_2$ , m.p. 238–240°  $[\alpha]_D + 96^\circ$  (C 1.2 in  $CHCl_3$ ). (lit.<sup>3</sup> m.p. 245–248°  $[\alpha]_D + 101^\circ$   $CHCl_3$ )  $M^+$  peak at  $m/e$  468. The other significant fragments were at  $m/e$  189, 218, 203, 204, 205. The mass spectrum showed remarkable similarity with that reported for  $\psi$ -taraxasterol.<sup>4</sup> NMR bands at 2.04  $\delta$  (3H, singlet), 1.05  $\delta$  (1H, doublet  $J = 6$  c/s sec.  $CH_3$ ), 0.9–1.18  $\delta$  (2H, broad, 6 tert.  $CH_3$ ), 4.65  $\delta$  (2H, broad, exocyclic vinylic protons); (mixed m.p. and co-TLC).  $\alpha$ -Amyrin acetate: (m.p., mixed m.p.  $[\alpha]_D$ , i.r.). Thus, taraxasterol and  $\alpha$ - and  $\beta$ -amyrin occur in original plant. The leaf sterol was identified as  $\beta$ -sitosterol:  $C_{29}H_{50}O$  (m.p. mixed m.p.,  $[\alpha]_D$  and i.r. of alcohol and acetate).

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<sup>1</sup> R. N. CHOPRA, S. L. NAYAR and I. C. CHOPRA, *Glossary of Indian Medicinal Plants*, p. 49, C.S.I.R. (India).

<sup>2</sup> D. E. H. FREAR, *A Catalogue of Insecticides and Fungicides*, Vol. II, p. 69, Chronica Botanica Co., Waltham, Mass., U.S.A. (1948).

<sup>3</sup> P. BOITEAU, B. PAISCH and A. RAKOTA RATSIMAMANGA, *Les Triterpenoides en physiologie vegetale et animale*, p. 192, Gauthier-Veillars, Paris (1964).

<sup>4</sup> H. BUDZIKIEWICZ, J. M. WILSON and C. DJERASSI, *J. Am. Chem. Soc.* **85**, 3688 (1963).