From the *Euclea* species, naphthoquinones were found in roots and fruit but none was detected in stem-extracts (Table 1), whilst the roots and stems of the *Diospyros* species yielded naphthoquinones (fruit unavailable). Naphthoquinones were absent from leaf extracts of all the species investigated. As some naphthoquinones are known to be light-sensitive,[7,8] experiments were performed in semi-darkness.

EXPERIMENTAL

Fresh plants were separated into roots, stems, leaves and fruit. $CHCl_3$ extraction of constituents was started as soon as possible after collection of the plant material. $CHCl_3$ extracts were concentrated under reduced pressure and subjected to selective extraction and crystallization of naphthoquinone derivatives from dil. EtOH. The experimental procedures and purity of the isolated substances were controlled with the aid of TLC (silica gel, three solvents).

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EUPHORBIACEAE

CYCLOARTENOL AND LUPEOL FROM *EUPHORBIA ESULA*

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Key Word Index—*Euphorbia esula*; Euphorbiaceae; cycloartenol; lupeol.

Plant. Euphorbia esula L. *Source.* Collected during October 1968 at Picton, Ontario. *Previous work.* On aerial parts.[1–4] 24-Methylenecycloartanol is the only triterpene to have been identified.[1]

Present work. Leaves and stems. Triterpene alcohols were isolated and acetylated.[4] The acetates were chromatographed over alumina and then separated further on kieselgel and $AgNO_3$-impregnated kieselgel plates. The acetates of 24-methylenecycloartanol (major component), cycloartenol and lupeol were obtained and identified (m.p., m.m.p., TLC, IR, NMR and GLC) by comparison with authentic samples.

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