ALKALOIDS FROM *FAGAROPSIS GLABRA*

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From the trunk bark of *Fagaropsis glabra* Capuron (Rutaceae, tribe Toddaliaeae, subtribe Phellodendronnae) (1,2), a very rare tree unknown in traditional medicine in Madagascar, we have identified four alkaloids of the benzophenanthridine group: acetonyl 8-dihydrochelerythrine, norchelerythrine, chelerythrine, and dihydrochelerythrine, as well as candicine, a phenolic alkaloid.

The isolation of benzophenanthridine alkaloids from *F. glabra* is in support of the previous reports of abundant occurrence of these alkaloids in the Madagascar (3,4) and South African (5,6) rutaceous plants.

Although *F. glabra* has an appearance similar to *Fagaropsis angolensis* Engler (1), the differences noticed in their alkaloidal profiles, especially the lack of chelerythrine in *F. angolensis* (5), seems to confirm that we have two distinct species.

EXPERIMENTAL

PLANT MATERIAL.—*F. glabra* was collected from the coastal forest in Sambava country (N.E. coast of Madagascar) and authenticated by R. Capuron (CTFT) and M. Debray (ORSTOM). A voucher specimen (MMD 426) is deposited in the National Center of Researchs and Technics, Antananarivo (BP 4096).

EXTRACTION, ISOLATION AND IDENTIFICATION OF COMPOUNDS.—Air-dried, powdered, trunk bark (2 kg) was defatted (light petroleum ether, bp 40°-60°). The concentrate was divided in two parts. From A, (9.7 g), acetonyl 8-dihydrochelerythrine (64 mg) (3,5,7) was isolated by silica gel column chromatography. Part B (8.7 g), was extracted (0.1 N HCl), and norchelerythrine (7) precipitated at the interface (117 mg). On standing, orange needles formed in the aqueous acid layer; recrystallization gave chelerythrine chloride (7) (56 mg) and dihydrochelerythrine (7). The marc was subsequently extracted (EtOH), the resulting heavy syrupy residue (98.2 g) was exhausted (1N HCl), and the aqueous acid phase was treated with Mayer's reagent. Decomposition of the precipitated mercuroiodide with H_2S gave candicine iodide (372 mg).

All these alkaloids were identified on the basis of color reactions and physical and spectral (uv, ir, ms, and ^1H nmr) data.

Full details of the isolation and identification of the compounds are available upon request to the corresponding author.

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