Sotetsuflavone (IIc) has been reported as the sole bisflavone of *Cycas revoluta* Thunb. However, reinvestigation of this plant revealed that the reported sotetsuflavone is a mixture, major part of which is amentoflavone and minor components are methyl ethers of amentoflavone. Details will be reported later.

Bilobetin (IIa), ginkgetin (IIla), isoginkgetin (IIlb) and sciadopitysin (IV) have previously been isolated from the leaves of *Ginkgo biloba* L. Thus, this cycad and the ginkgo resemble one another not only in many details of their reproductive structures but also in their ability to synthesize bilobetin, ginkgetin and sciadopitysin.

Acknowledgement—Two of us (RKH and KKC) thank the Department of Atomic Energy (Govt. of India) for the financial assistance.

and *A. macrophylla*. Alstonerine (I) represents the 'macroline' element of the dimeric alkaloid villalstonine (II), common to both species. The methoxyalstonerine alkaloid alstophylline (III) is found in *A. macrophylla*.

**RESULTS**

We now report the isolation of the dimeric alkaloid macralstonine (IV) from *A. muelleriana*. This compound occurs in *A. macrophylla* also, and is clearly related to alstonerine (I). Further work on *A. muelleriana* alkaloids is in progress in our laboratory.

**EXPERIMENTAL**

*Isolation of Macralstonine*

Alkaloidal fractions containing alstonisidine and alstonisine were subjected to fractional crystallization from methanol. A fraction less soluble in methanol was shown by TLC (Eastman Chromagram fluores-
cent silica gel sheets; acetone as developing solvent) to contain a further alkaloid having $R_f \approx 0.57$ (for alstonisidine 0.49; $R_f$ alstonisine 0.66). The new component was purified by preparative TLC (E. Merck silica gel plates) and crystallization from methanol to give macralstonine (IV), m.p. 276-278°, of identical u.v., i.r., NMR, and mass spectra, and optical rotation to those of authentic material.

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**ALKALOIDS OF HAZUNTA MODESTA**

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(Received 20 April 1970)

*Plant. Hazunta modesta* (Bak.). Pichon (Syn. *Tabernaemontana modesta* Bak.).

*Source.* Madagascar.

*Previous work.* From branches and stem bark of sister species *H. velutina* were isolated vobasine, tabernaemontanine, dregamine, voacarpine, hazuntine and hazuntinine.

*Examined part.* Roots, extracted with EtOH until exhaustion. The alkaloids were dissolved from dry extract in 5% citric acid, the bases set free with aqueous ammonia, extr. with CHCl₃ and chromatographed on a neutral Al₂O₃ column. Ibogamine, tabernaemontanine (eluted with C₆H₆) and dregamine (eluted with C₆H₆-ether (7:3)) were identified. Total alkaloids constituted 2.5 per cent of weight of the dry roots.

*Ibogamine.* C₁₉H₂₄N₂—Found: m.p. 155-7° (MeOH); $[\alpha]_D - 36^\circ$ (C = 1, CHCl₃). Required; m.p. 162-3°; $[\alpha]_D - 36.4^\circ$ (CHCl₃); i.r., u.v. and m.s. were in full accordance with those reported for authentic ibogamine. NMR spectrum (in CDCl₃) provided further confirmation of proposed identification. It showed peaks between +2.5 and 3 (5 indole

* M.ps are uncorrected.