60. *BRUNFELSIA UNIFLORUS* (Pohl) D. Don (SOLANACEAE) — Manaca, Manacán

Quite ornamental, the common name manacán is attributed to the most beautiful girl of the Tupi Indian tribe of Brazil and transferred to the most beautiful flower of the forest. *Brunfelsia uniflora* is the most important medicinal species, as this is the species of choice in the drug trade as manaca root. Root extracts were once used in arrow poisons. Readers are referred to Tim Plowman's interesting and detailed account.[109] It was employed by the Tupi both for magical and medicinal purposes. A perfume is extracted from the fragrant flowers with ether. R. P. Iyers' research reported in the Chemical Marketing Reporter[110] identified "hopeanine" as an active antiinflammatory agent (yield rate of only 4 mg hopeanine from one kilogram of powdered root).

Scraped bark is a strong purgative. The large root is said to stimulate the lymphatic system. Useful in syphilis, it has been called vegetable mercury. Regarded abortifacient, alterative, anesthetic, diaphoretic, diuretic, emmenagogue, hypertensive, hypothermal, laxative, narcotic, and poison; manaca is used in folk remedies for arthritis, rheumatism, scrofula, and syphilis.[32,33] Leaves are poulticed onto eczema, skin disorders, and syphilitic ulcers.

Contains the alkaloid manacine $C_{22}H_{32}N_2O_{10}$ (0.08% in the bark) and manaceine $C_{15}H_{26}N_2O_9$ aesculetin, possibly gelsemic acid, and 1.3% starch. Manacine seems to act opposite to atropine which inhibits rather than stimulates glandular secretions. Mandragorine has also been reported. The items previously mentioned, gelseminic acid and aesuletin, were probably scopoletin (6-methoxy-7-hydroxycoumarin) which occurs in all parts of the plant. Extracts show marked antiinflammatory activity, probably paralleling Dr. Iyer's hopeanine.[110]

Toxicity — Excessive doses are poisonous, causing excessive salivation, vertigo, general anesthesia, partial paralysis of the face, swollen tongue, and turbid vision. Even in small doses manacine induces strong muscular tremors and epileptiform cramps, lowered temperature, and death due to respiratory paralysis in experimental animals.