Medicinal Trees of the US Virgin Islands and Neighboring Islands

By Robert W. Nicholls, PhD

INTRODUCTION

Trees of the US Virgin Islands (USVI) and neighboring islands have traditionally been used for their timber and fruit, as well as for their medicinal properties. Research shows that medicinal treatments in the form of gargles, poultices, compresses, teas, inhalants, and lotions have long been prepared from the roots, leaves, flowers, seeds, fruit, resin, and bark of native USVI trees and introduced species.

Local healers—variously described as medicine men and women, bush doctors, or weed people—have been an important fixture in the lives of common folk of the USVI, as in other agrarian societies. As is common with traditional folk healing elsewhere in the world, “cures” have often blended the sacred and the secular, wherein the “patient” has been required to seek spiritual well-being as a prelude to restoring physical health. Trees often have been viewed as mediators between human society and spiritual realms.

I acquired information about the medicinal functions of some of these trees during my research on the big trees* of the USVI from 2001 to 2006. Information about the medicinal uses of these trees was so extensive that I deliberately excluded much of it from the book I published in 2006, titled Remarkable Big Trees in the US Virgin Islands—feeling that a description of such myriad medicinal uses would have overwhelmed the publication.1

This pictorial essay introduces the reader to 10 trees of the USVI and neighboring islands by reporting on some of the traditional and current folk-medicinal uses that have been attributed to them, though I am not vouching for their efficacy from a scientific or clinical perspective.

* A “big tree” is typically defined as one that has at least a 3-feet diameter trunk and is over 60 feet tall. For the author’s research, the definition of a “big tree” was more flexible. Some trees of the Virgin Islands were considered to be deserving of inclusion in the author’s research due to their cultural significance but did not have sufficient size to technically meet the requirements of the “big tree” definition. Some medium-sized trees were therefore included, such as large specimens of the bay rum tree and lignum vitae.
Silk Cotton at St. George Village Botanical Garden, St. Croix Island.
The silk cotton tree is indigenous to tropical America and the West Indies and can grow extremely large—to over a hundred feet high with spreading buttress roots. It has many names in the Caribbean, including “jumbie tree.” (A jumbie is a ghost in local parlance.) Some Crucians (i.e., people from the island of St. Croix) remember a silk cotton tree shrine at Estate Mount Victory that was tended by local medicine man John Dubois from the 1940s and 1950s. Dubois would dispense herbs and enact cures there. The shrine later fell into disrepair but was rehabilitated in the 1990s. Nowadays, it contains Christian and other elements, including a figurine of the Biblical character Lazarus (S. Rodrigues, personal communication, September 3, 2003).

The silk cotton tree has a multitude of medicinal uses. People in St. Croix and Trinidad have used silk cotton leaves in baths to relieve fatigue and as a poultice for sore or sprained feet. In Trinidad, the leaves are also used as a poultice for erysipelas (a streptococcus infection of the skin). In Haiti, a leaf decoction administered through a bath or as a poultice is used to treat various skin maladies, including insect bites and boils. For dizziness, Haitians apply a fresh leaf compress or lotion, and for edema-like swellings they apply a boiled root decoction. For diabetes, Haitians use a root infusion, taken orally. For cough or hoarse throat a leaf infusion is taken orally, while the fruit rind is used for placenta expulsion. Haitians also eat gum from the silk cotton tree for upset stomach and ingest a root infusion to relieve constipation.
Lignum vitae is a slow-growing tree native to the USVI. Its name means “Wood of Life,” and it is renowned for its medicinal qualities. The wood of this tree is among the densest in the world.

A lignum vitae leaf decoction has reportedly been used in the USVI and Curacao to treat diabetes and asthma. The leaf juice has also been used to treat biliousness (digestive complaints) in the USVI. A poultice made from the leaves has sometimes been used to treat rheumatism in the USVI and Barbados. Leaves are boiled and ingested as a diuretic tea on Middle Caicos in the West Indies, and a mash of the leaves is also used there for treating swollen areas or small wounds on the body.

Decoctions of the tree’s resin or bark, meanwhile, have been used to treat venereal diseases. The tree achieved great recognition for this use in Puerto Rico. Lignum vitae resin has also been used to alleviate skin disorders and gout and to treat cuts and bruises in the USVI. Haitians have sometimes applied the resin to toothaches. A bark decoction has been taken orally for fish poisonings in the USVI and Puerto Rico.
WEST INDIAN MAHOGANY
Swietenia mahagoni, Meliaceae

The West Indian Mahogany is native to the Bahamas, southern Florida, Cuba, Jamaica, and Hispaniola. It was introduced into the USVI before or during the 17th century and became well established after that time. It is now considered borderline naturalized in the USVI.

In Haiti, West Indian Mahogany bark, either macerated or in a decoction, is taken orally with salt to relieve fever. The bark is similarly used to alleviate diarrhea and dysentery in Haiti, and steeped mahogany bark is drunk to combat loss of appetite. In cases of toothache, Haitians will sometimes apply the tree’s resin, or a resin or bark decoction, as a treatment. Haitians have further ingested teas of steeped West Indian Mahogany bark and roots to improve vitality (due to the tree’s vitamin and iron content).

Jamaicans, meanwhile, use a leaf decoction of West Indian Mahogany as a tea or bath to combat colds and fever. Jamaicans have also used a mahogany bark decoction to halt diarrhea. In Cuba, a bark decoction is used to relieve catarrh.
West Indian Mahoganies at Western Cemetery, St. Thomas Island.

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The white cedar is native to the USVI, and despite heavy logging, it is widely spread throughout the islands. It is a hardy and profusely blooming tree with masses of trumpet-shaped flowers. It has been used for multiple purposes throughout the Caribbean, including as a medicinal agent.

Tea made from the leaves has been used in the USVI and Bahamas to relieve gonorrhea.² It has been written that a decoction of the leaves can act as a diuretic and alleviate pain in urination.³ Leaf decoctions of white cedar have also been used to treat fish poisoning in St. Croix and Curacao and to treat toothache in St. Croix and the Bahamas.²⁵

The tamarind is an African tree that was introduced into the Caribbean in the 17th century. Although it is an introduced species in the USVI, it has been part of the islands’ ecosystems for 3 ½ centuries and is today considered to be borderline naturalized.

The tamarind is used medicinally for multiple conditions throughout the Caribbean. In Haiti, a compress of young tamarind leaves is used for sprains, as well as for eye infections.³ A decoction made from tamarind fruit has been used to treat malarial fever in Haiti, and macerated tamarind fruit mixed with water is sometimes drunk as a laxative in Haiti. Haitians also take a tamarind leaf, bark, or root decoction with salt for asthma and a tamarind leaf decoction with salt for throat infections.

Tamarind fruit and/or leaf decoctions are used to relieve colds and coughing in Curacao and Aruba.⁵ Tamarind is also used to relieve fever and pain via a leaf decoction administered through baths in Jamaica, a leaf decoction that is drunk in the Bahamas, and by ingesting the ripe fruit in Curacao. In Jamaica, a tamarind leaf decoction is given as a remedy for measles. Tamarind leaf extracts have also exhibited antioxidant activity in the liver, and a tamarind root decoction is used as a remedy for jaundice in Cuba.
The West Indian Locust, a native of the USVI, is sometimes referred to as “Stinking Toe Tree.” It produces shiny, brown, thick-walled seed pods that contain a pale-yellow powdery pulp with a sweet taste but an unpleasant odor. The tree’s bark and leaves are rich in tannin, which exhibits antibacterial properties. Because of their tannin content, locust leaves have shown activity against Lewis lung carcinoma in an experimental trial with mice.5

West Indian Locust bark has sometimes been ingested to treat constipation and intestinal gas, while an inner bark decoction has sometimes been used to combat intestinal worms.5 In Haiti, the scalded resin of West Indian Locust has been used as an inhalant for emphysema, asthma, and coughs. Haitians have also applied powdered locust resin to wounds, sores, and ulcers, and they have used resin liniment to treat muscle cramps, rheumatism, arthritis, and bruises. Crucians have reportedly used West Indian Locust bark in home remedies to purify the blood.2

WEST INDIAN LOCUST

*Hymenaea courbaril*, Fabaceae
Sandbox tree by Battery Gut on Centerline Rd, St. John Island.
**SANDBOX** *Hura crepitans*, Euphorbiaceae

The sandbox tree, native to the USVI, is popularly known as "monkey-no-climb" due to the large protruding thorns that cover its trunk. Like the silk cotton, the sandbox is sometimes considered a jumbie tree. According to Crucian weed woman Veronica Gordon, “It provides housing for spirits, but they don’t want people. That’s why the tree has prickles; you can’t touch it” (personal communication, August 6, 2001). Gordon has claimed that sandbox seeds can be used sparingly for constipation and that they taste like almonds. It has been written, however, that ingestion of raw sandbox seeds may cause violent vomiting and diarrhea.

In some areas of the Caribbean, the leaves of sandbox are pressed and mixed with salt, then used as a poultice on boils and swellings. In Cuba, a leaf decoction of sandbox has reportedly been used in baths, and fresh leaves have been placed on the temples to allay headaches or to other parts of the body to relieve pains. A bark decoction, meanwhile, has been used to treat leprosy. In Haiti, boiled leaves are applied externally to treat abscesses.

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**BAY RUM** *Pimenta racemosa*, Myrtaceae

The bay rum tree, which is indigenous to the USVI, has an attractive pale, mottled bark with a cinnamon taste. The tree is especially prevalent on St. John, where the manufacture of bay rum represented a major historical industry. Bay rum trees have been traditionally used for aromatic, cosmetic, medicinal, and culinary purposes.

The tree has been used in many areas of the Caribbean to address digestive complaints. Virgin Islanders take bay rum leaves orally as a treatment for upset stomach and as an appetite stimulant. People in Curacao take a decoction made from bay rum leaves to dispel flatulence, whereas in the Grenadines (and Haiti) a bay rum leaf decoction is drunk to remedy diarrhea. Haitians also take bay rum oil with sugar to relieve nausea. There has been some concern expressed, however, that internal use of bay rum might cause or irritate ulcers.

Bay rum leaves placed over the body or under the bed covers are used as a treatment for colds and fever in the USVI, and a tea made from bay rum leaves has reportedly been used to overcome chills on St. Croix. In Trinidad, a bay leaf decoction is taken as a remedy for chest colds, pneumonia, and influenza. People in Curacao also use it to relieve colds.

The tree is popularly used to treat skin conditions and for pain relief. Virgin Islanders sometimes use bay rum leaves as a rubbing compound for the skin. In the Bahamas parched bay leaves are rubbed on skin irritations, while Puerto Ricans use the leaves as an analgesic rub on the body to alleviate discomforts of gripe, rheumatism or muscular pains. In Haiti, a leaf and seed decoction can be applied to insect bites, bruises, varicose veins, and edema swellings. A leaf bath is recommended for elephantiasis.
WEST INDIAN CEDAR
*Cedrela odorata, Meliaceae*

West Indian cedar at Trunk Bay, St. John Island.
The West Indian Cedar, a native tree of the USVI, is sometimes also called “Cigar Box Cedar Tree.” It can grow to 100 feet tall; however, it is rare to find large West Indian Cedars in the USVI since their durable wood is considered one of the most valuable timbers in tropical America.

The leaves and twigs of the West Indian Cedar have been used by Crucians and Jamaicans in baths for aches and fever. The tree's root, bark, and a leaf or twig decoction, taken orally, have been used as a remedy for malarial fever in Haiti. Haitians also use a bark decoction of West Indian Cedar as a gargle for toothache. In some areas, an infusion of the bark can be taken to improve the appetite and dispel chronic headaches associated with menstrual periods.

**GENIP OR KENIP**  
*Melicoccus bijugatus*, Sapindaceae

The genip or kenip tree is native to Guyana, Venezuela, and Margarita Island. It was introduced to the USVI many years ago, later escaped, and is now naturalized and ubiquitous throughout the USVI. Its fruit, which contains a high level of carbohydrates, is borne in clusters that are easily accessible and popular to eat.

Virgin Islanders sometimes eat genip or kenip fruit to alleviate diarrhea, and Haitians sometimes consume powdered roasted genip seed syrup or tea for the same purpose. Virgin Islanders have also been known to take a decoction of genip leaves and stems orally for coughs and fever. In Haiti, the macerated juice of genip leaves is gargled to relieve sore throat, thrush, and tonsillitis. A decoction of genip leaves is also drunk in the Bahamas to lower blood pressure.

Genip at Hull Bay, St. Thomas Island.

**CONCLUSION**

The 10 trees pictured and described above are just a few of the many important trees endemic to or widespread throughout the USVI. Several other USVI trees are also known to have medicinal uses. Unfortunately, the lore and respect formerly attributed to many USVI trees has begun to fade, and the islands’ trees are also increasingly threatened by environmental degradation. Better integration of both native and introduced ornamental trees is needed in the USVI’s current urban environment.

To enhance attitudes toward conservation of these natural landmarks, the US Virgin Islands Remarkable Big Trees Project was recently initiated, sponsored jointly by the University of the Virgin Islands and the VI Department of Agriculture’s Urban and Community Forestry Assistance Program, with assistance from the Virgin Islands Experimental Program to Stimulate Competitive Research. The project stresses the need for protective measures and strategic planning to preserve trees as a cultural resource and supports initiatives that encourage education and conservation of USVI trees. Because of their intrinsic historic value—and, in some cases, their economic, medicinal, and aesthetic values—remarkable trees of the USVI should be extolled, and it is of utmost importance that conservation and educational activities be implemented to rekindle an appreciation of trees within the USVI and surrounding islands. HG

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**REFERENCES**


