

## **MEDICINAL PLANTS OF JAMAICA. PARTS 1 & 11.**

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# MEDICINAL PLANTS OF JAMAICA

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## PART I

The use of local plants for medicinal remedies is a very prevalent practice in Jamaica. Among the poorer families, the morning meal frequently consists of nothing more than a cup of bush-tea prepared by steeping the leaves in hot water, with perhaps a small piece of bread or a little corn meal porridge. It is perhaps significant that the term breakfast is not used but 'taking' or 'drinking' tea is substituted. Many of the plants used for treatment of colds and indigestion also provide the normal morning drinks. The large number of 'cold', 'fever' (which includes malaria) and 'indigestion' remedies is of some interest as providing a guide to the frequency of these complaints. The claims made for some of the plants may occasionally be justified by their chemical constituents. Some of them are, or have been, in the pharmacopoeias. On the other hand, in many cases the claims either have little justification or remain to be substantiated. Many of the doses used are of an unpleasant and even drastic nature. This may account for their popularity in view of the general impression that medicine must be unpleasant to be efficacious.

The plants used as home remedies are frequently known only by their common names which may vary from district to district. Furthermore, different plants often have the same common name. This difficulty has been met by collecting specimens and determining their correct Latin name. By this means a useful reference herbarium of bush-tea plants is gradually being assembled in the Department of Botany of the University College of the West Indies. In addition to local information on the plants so far identified, reference has been made to the publications cited in the bibliography. Some attempt has been made to record usages in other areas of the Caribbean and in Africa as perhaps showing relationship with Jamaican practices. Upwards of one hundred and sixty species of plants distributed through sixty-two plant families will be dealt with in detail. The families (Acanthaceae to Zygophyllaceae) with the Latin names of the relevant species are arranged alphabetically. Common names are included with that most frequently used, or that recommended for adoption by the authors, in bold type. Further work will, no doubt, add considerably to this list. In order to obviate constant repetition in the text of references to the literature, it has been decided to number the authors consecutively in the bibliography \*. When an author has dealt with a particular plant from the medicinal or biochemical point of view, the corresponding number appears in parenthesis after the description of the plant.

For purposes of easy reference, it is proposed to issue the following appendices:

I. A list of the botanical names of Jamaican medicinal plants. Their names will be numbered consecutively and arranged in alphabetical order, irrespective of the family to which a plant belongs. The family and the common name or names will, however, be given under separate headings.

II. A list of the common names of the Jamaican medicinal plants with cross reference to the botanical names.

III. A list of 'complaints' arranged alphabetically with the botanical name of the plants known to be used as remedies.

## REFERENCE LIST OF MEDICINAL PLANTS IN JAMAICA ARRANGED IN ALPHABETICAL ORDER OF FAMILIES

### ACANTHACEAE

A family of some two thousand herbaceous and woody species of warm regions but relatively few appear to have been analysed. Among them are many Javanese medicinal plants.

Small amounts of alkaloids, the nature of which is not precisely known, occur and also bitter principles. The latter include andrographid, kalmeghin and rhinacanthin.

\*The bibliography will appear at the end of Part II.

ANDROGRAPHIS PANICULATA Nees. Rice Bitters; Wild Rice.

Used in Jamaica to prepare a general beverage and in treatment of fever and colds. The tops are very bitter and have been said to contain a bitter principle andrographid ( $C_{15}H_{27}O_4$ ) which is not a glycoside. According to other analyses the bitter is andrographolid ( $C_{20}H_{30}O_5$ ) while still others indicate the presence of two bitter principles, one a yellow crystalline substance ( $C_{19}H_{28}O_5$ , m.-pt.  $206^\circ$ ) which is not an alkaloid or glycoside and the other called kalmeghin ( $C_{19}H_{31}O_5$  m.-pt.  $180^\circ$ ). The presence of traces of essential oils, tannin and an alkaloid has also been indicated. The tops are rich in potassium. (3, 14, 27).

BLECHUM BROWNEI Juss. Wild Hops; John Bush.

Steggerda reports the use of this species in baths and for sore feet. (25).

DIANTHERA PECTORALIS Murr. Fresh Cut; Garden Balsam.

Probably acquired its common name from the use made of it in the treatment of cuts. The leaves are bruised, alone or with rum, and applied as a plaster. Tea made with the leaves is taken for colds. Beckwith reports its use as a tea for colic in babies and for consumption. In the latter case it is boiled with love weed (*Cuscula*), an orange is added and the drink is sweetened. In Trinidad this plant is called garden balsam and is sold in the markets as a cold remedy. (2).

#### AMARANTACEAE

About five hundred species of wide distribution. Many are rich in potassium nitrate and betaine. Some are cultivated as vegetables and ornamental plants.

ACHYRANTHES INDICA Mill. Devil's Horsewhip; Ridingwhip or Backbone; Colic Weed; Hug-me-close.

A common Jamaican weed used to make tea for colic and colds. For the latter purpose it may be mixed with *Mimosa pudica*. In the Grenadines the leaves and roots are made into a tea for infants with colds and for under-nourished children. *Achyranthes* spp. are used in Africa for fever, coughs, nausea, pains in the chest and side, and as a diuretic. (2, 25, 13).

AMARANTUS SPINOSUS L. Prickly Calalu; Spinach.

A. TRISTIS L. Spanish Calalu.

A. VIRIDIS L. Green or Garden Calalu; Spinach; Caruru.

*A. viridis* and *A. spinosus* and perhaps the third species are among the most common green vegetables in Jamaica. Calalu is said to be 'good for the bowels'. *A. viridis* contains vitamin C, tannin, resin and reducing sugars. It is similarly used in parts of Africa where the leaves provide poultices for abscesses and boils. *A. spinosus* is also used as a potherb. All three species are used as spinach in Trinidad, *A. viridis* being cultivated for the purpose. (15, 17).

IREGINE PANICULATA Kuntze. Juba's Bush.

Said, by Beckwith, to be used for colds, pain in the bowels and colic and as a drink for a woman in childbirth. For the latter purpose it is made into tea with *Piper nigrinodum*, salt, and a few drops of whisky. In other cases either a tea or the juice is used. Steggerda says it is used also for dropsy. (25).

#### AMARYLLIDACEAE

A family of about nine hundred and fifty species many of which have poisonous alkaloids especially in the bulbs. Essential oils, fatty oils, saponins, inulin, sucrose and organic acids occur.

HIPPEASTRUM PUNICEUM (Lam.) Urban. Red Lily; Maroon Lily.

The bulb of this species is used to make a plaster with bread or, with *Eryngium foetidum*, for use on swellings and sores. (2).

## ANACARDIACEAE

About five hundred species of woody plants of tropical and temperate regions. Resin ducts are present and fats, tannins, resins and pigments are widely distributed in bark, wood, seeds and leaves. Alkaloids, glycosides, saponins and essential oils are, with few exceptions, absent.

### ANACARDIUM OCCIDENTALE L. Cashew.

Beckwith reports the use of cashew leaves in combination with *Dryopteris* sp., rat ears (*Peperomia pellucida*, Kth.) and maidenhair fern in the treatment of colds and 'any sickness at all'. A plant of each of the last three is wrapped in a wad with three cashew leaves and boiled in water. Cashew leaves are sometimes used in bush baths for fever, Barham recommended the use of a leaf decoction to bathe ulcers, and in some parts of Africa young leaves are used in the treatment of dysentery, diarrhoea and piles, while infusions of the leaves and bark are used for dysentery, toothache and sore gums. Such infusions are astringent. The bark contains tannin.

In the eighteenth and nineteenth centuries the astringent cashew apple or the expressed juice (fermented or in wine) were considered valuable in treatment of gastric or uterine disorders and dropsy. The ripe fruit is said to be diuretic and antiscorbutic, while some consider that punch prepared from it is an aphrodisiac. The shell of the nut contains gallic acid and an acrid red-brown oil containing cardole ( $C_{32}H_{52}O_8$ ) and anacardic acid, (C<sub>2</sub>~H:J~08)' This oil is a vesicant and has been used to remove warts, corns, freckles, 'worms in ulcers' (Barham), chigoes, and, in parts of Africa for carious teeth. The pericarp oil is said to contain 10 per cent cardole which is the caustic principle.

Anacardium gum is similar to gum acacia and has been used in a similar manner. The seeds (cashew nuts) contain 40 to 50 per cent fatty oil. (2, 5, 7, 8, 14, 15, 18, 24, 26, 27).

### MANGIFERA INDICA L. Manqo.

It seems doubtful if this species is much used medicinally in Jamaica but the fruit contains vitamins A, B and C and traces of D. Black mangoes particularly are said to be laxative. Leaves are used in baths. Tannins and resins are present in bark and leaves, and these parts of the plant are used for their astringent properties in Africa and the East. In Africa the juice of the trunk is used as an anti-syphilitic and the seeds are said to be anthelmintic. The bark contains up to 20 per cent tannins. (2, 15, 27).

### SPONDIAS MONBIN L. Hoq Plum.

Beckwith says that the buds are chewed and the juice swallowed or they are boiled for tea in the treatment of colds. while Barham mentioned an infusion of bark and leaves for oedema. In Africa the bark, leaves, and fruit are used medicinally in cases of coughs, fever, constipation, yaws, gonorrhoea, tapeworms, children's stomach troubles, and as tea and lotion in childbirth. The bark contains tannins and gum-resin. (2, 7).

## ANNONACEAE

A mainly tropical family of about eight hundred species. Essential and fatty oils are found in the flowers and seeds. The fruits contain sugar and organic acids. The essential oils contain phellandrine, limonene, pinene, geraniol, eugenol and cineole.

### ANNONA MURICATA L. Soursop.

The fruit pulp, which is used in the preparation of drinks and ice-cream, contains vitamin C. It has been used as a febrifuge and the dried unripe fruit in the form of a powder was at one time used for dysentery. The plant (probably a tea made from the leaves) is said to induce perspiration and to be used for colds and 'nerves'. In Africa the whole plant is used for colds, coughs and fever, and the bark and root, which contain tannin, for dysentery and worms. In the Grenadines the leaves are used to make tea for fever, coughs and colds, 'to cool the blood' and as a sedative for vomiting. The leaves contain volatile oil, an alkaloid-like substance, fatty acids, phytosterol, myricyl alcohol and anonol which is isomeric with grindelol ( $C_{23}H_{36}O_2(OH)_2$ ). (5, 10, 13, 25, 27).

#### ANNONA RETICULATA L. Custard Apple.

The stem bark is said to contain an alkaloid, anonain ( $C_{17}H_{16}O_3N$ ), which may be of some use medicinally. It is also said to be present in the fruit which formerly had some reputation in the treatment of dysentery and diarrhoea. In Jamaica the leaves are occasionally used beaten up and applied to sprains. (5, 10, 27).

#### ANNONA SQUAMOSA L. Sweetsop.

For coughs sweetsop is said to be used with calabash to make a syrup. The leaves contain resin acids, and probably alkaloids. The fruit contains vitamin C. Tannins are present in the root. In the Grenadines the leaves are used for amenorrhoea. (2, 5, 10, 27).

### APOCYNACEAE

A family of some thousand woody and herbaceous species including many poisonous and medicinal plants. Among these the best known are the *Strophanthus* spp. which provide arrow poisons. All species contain milky juices in which are present alkaloids, glycosides, resin, caouchouc and bitter principles. The glycosides and alkaloids are generally toxic. Essential oils are almost unknown and fats, saponins, tannin and organic acids occur in small quantities. The glycosides include strophanthin, apocynarin, urechitin, oleandrin, while among the alkaloids are echitenin, quebrachamin and ditamin.

#### ECHITES UMBELLATA Jacq. Maroon Weed: Savannah Flower.

Beckwith says this is used as a poultice for a sore leg and that it will 'cause vomiting if the leg is poisoned'. (2).

#### VINCA ROSEA L. Periwinkle: Ram Goat Rose: Brown Man's Fancy; Old Maid.

This plant enjoys a widespread reputation in the treatment of diabetes. It is so used in Jamaica, the Grenadines, and in Africa. Watt and Breyer-Brandwijk consider that most investigations of this claim have shown negative results and that any advantage obtained can be ascribed to a weak digitalis and purgative action. The plant is said to contain an alkaloid vincarosin which is a cardiac poison. In Jamaica it is also used as tea for colds. The white variety is used for high blood pressure. (2, 10, 13, 26, 27).

### ARALIACEAE

About six hundred and sixty species, mostly tropical woody plants. They contain oil ducts and many essential and fatty oils; tannins and saponins are present. Alkaloids are not found. The saponins include hederin and araliin. Ginseng root is derived from *Panax ginseng*, Meyer.

#### ARALIA GUILFOYLEI Cogn and March. Aralia.

The leaves are used in Jamaica to prepare tea for colds. It is common in garden as a hedge plant and is not indigenous. In the Grenadines a species of *Aralia* (*A. wilkensiana*) is used as a poultice and sometimes as tea for headaches.

### ASCLEPIADACEAE

This family is mainly tropical in distribution and many species are climbing shrubs. Latex canals are present and resins, bitter principles and toxic glycosides occur. Alkaloids, fats and essential oils are found occasionally. Among the glycosides are vincetoxin, amygdalin and periplocin.

#### ASCLEPIAS. CURASSA VICA L. Red Head: Blood Flower; Bastard Ipecacuanha.

In the eighteenth and nineteenth centuries this plant was used in the West Indies as an emetic and vermifuge and to stop bleeding. As a worm medicine for children the juice was made into a syrup with sugar, and a teaspoon to a tablespoonful was administered. The powdered dry root was in common use among poorer people as an emetic and has been found as an adulterant in ipecacuanha. Both Browne and Barham refer to its use to stop bleeding and the latter says that the name blood flower refers to this property.

More recently these practices appear to have been discontinued but Beckwith reported its use, alone or with laundry blue, as an application for boils. In Africa it is used for intestinal troubles in children, colic, dropsy and to promote sneezing. The tops are said to contain a glycoside asclepiadin and the roots vincetoxin. (2, 5, 8, 14, 15, 24, 27).

ASCLEPIAS NIVEA L. White Head.

Used similarly to the preceding species and Beckwith records that the juice of this species, squeezed through a clean cloth, provides a worm remedy. (2).

FUNASTRUM CLAUSUM (Jacq.) Schleder. Milk Wys (Withe).

Used in decoction as a general beverage for adults and children, and as a cold remedy.

## BIGNONIACEAE

A family of some five hundred mostly woody tropical plants of which the chemistry is little known.

CRESCENTIA CUJETE L. Calabash.

For coughs, colds and 'to clean out the womb' young fruits are roasted, the juice squeezed out and taken with castor oil. 'The fruit pulp is well known, if not too well known, to force the menses, birth and after-birth, (Barham). Beckwith gives a complex recipe for a cough syrup: 'Roast nine young calabashes, strain, add one pound sugar, five sweetsop leaves, five chigger nut leaves. Boil in thick, add a pint of wine and a "quattie" proof rum. Take a wine-glassful three times a day. The fruit pulp is also considered purgative (used with castor oil) and of use as a poultice. It is said to contain crescentic acid and chlorogenic acid. (2, 5, 14, 15, 24, 26, 27).

## BORAGINACEAE

A family of about one thousand five hundred and fifty species of herbaceous and woody plants of temperate to tropical regions in which occur alkaloids, glycosides, tannins and pigments. Among the glycosides is consolidin and the alkaloids include cynoglossin and allantoin. Hound's-tongue, alkanet, borage and lungwort are members of this family.

CORDIA GLOBOSA H.B.K. Black Sage; John Charles; Gout Tea.

This species is used in Jamaica to prepare a tea as a general beverage and for colds and tightness in the chest'. In the Grenadines, where it is called man black sage, the leaves are similarly used to make tea for colds. (13, 25).

HELIOTROPIUM PARVIFLORUM L. Wild Clary; Dog's Tail; Sage.

Used to make tea for colds, 'for the belly', and as a wash for sore eyes. It may also be used as a general beverage. In Lagos *H. indicum* L. has similar uses. (25).

TOURNEFORTIA HIRSUTISSIMA L. Chiqqer Nut; Crocus Bush; ?Hog Hook.

Used both internally and externally in the treatment of colds, coughs and fever. Both leaves and stems are used to make the decoction. A bath containing this plant is also used after childbirth as also is the tea 'to clear the system'. Beckwith says that for coughs it is used in conjunction with sweetsop and young calabashes, while for 'gentleman's complaint' it is used with wild sage (?) and a dose of salts. (2, 25).

## CACTACEAE

A family of about one thousand five hundred mostly succulent species mainly of tropical and sub-tropical America. They contain a series of characteristic alkaloids.

OPUNTIA TUNA Mill. Tuna: Indian Fig; Prickly Pear.

The 'leaves' (stems) of tuna are used to make a decoction used 'to keep away inflammation inside'. The baked sliced stem is applied to swellings and bound on the head and put in the bed for vomiting and fever. For headaches the sliced stem is bound on the head and for soreness, pains and constipation it is rubbed with salt and applied as a poultice. The stem is said to contain calcium oxalate and calcium malate. It also produces tuna gum which contains a substance called bassorin. The fruit is astringent. (8, 15, 26).

#### CAESALPINIOIDEAE\*

CAESALPINIA BONDOC Roxb. Yellow Nicker: Nicker; Bonduc.

C. BONDUCELLA Flem. Grey Nicker: Nicker; Bonduc.

Although grey nicker is considered superior, the seeds of both species are dried and ground and used like coffee to prepare a drink which is thought useful for kidney trouble, diabetes and high blood pressure. In India the seeds of *C. bonducella* are regarded as tonic and anti-periodic. They are also said to be emetic and anthelmintic and were at one time used in Dominica as a diuretic and cathartic. The seeds contain a bitter principle, bonducin, which is not a glucoside but is probably of a resinous nature. Recent data indicate that alkaloids and tannins are absent but that saponin (about which earlier data were contradictory) is present. Also present are sugars, starch, fatty oil and, it is said, a phytosterol glucoside which on cleavage gives phytosterol and a reducing sugar. (3, 8, 10, 15, 24, 26, 27).

C. CORIARIA Willd. Divi-divi: Libi-dibi.

The fruits contain 30 to 50 per cent tannin and tannic acids. They are astringent and are used to make a gargle for sore throat. A decoction of the leaves and stems is similarly used and also for stomach-ache. The pod, powdered, is also said to be tonic and antiperiodic. (8, 27).

CASSIA OBOVATA Collad. Jamaica Senna: Port Royal. Dog, Senegal. Tripoli, or Italian Senna: Senegal Cassia.

Stated to have been introduced into Jamaica in the seventeenth century by a slave, this senna is still said to be used here as a substitute for the official sennas. At one time it was official in the British Pharmacopoeias as an ingredient of Alexandrian senna. Both pods and leaves contain oxymethylantraquinone (1.1 to 1.15 per cent in the leaves and about 1.2 per cent in the pods) and also probably emodin. At one time it was cultivated on the Palisadoes with a view to exporting the senna. In Africa in addition to its use as a cathartic the leaves are used as a dressing for burns and ulcers. (3, 7, 10, 15, 19, 23, 26, 27).

C. OCCIDENTALIS L. Wild Senna: Dandelion; Stinking Weed or Wood; John Crow Pea: Wild Coffee.

The seeds of this species are dried, beaten up, and used as a coffee substitute. The drink prepared from them has a reputation for usefulness in kidney and bladder troubles and malaria. It is also said to be useful for palpitations and high blood pressure. The leaves are probably used for constipation, pain, fever and colds. The root is said to be diuretic and used for colds. The seeds contain tannic acid, mucilage, fatty oil, emodin and a toxalbumin. The roots, leaves and pods contain traces of oxymethylantraquinone. Similar uses of the plant are found in Africa. *C. ligustrina* L. and possibly other cassia species also go under the name of dandelion and are used in the same way. (2, 3, 7, 8, 10, 14, 15, 19, 24, 25, 26, 27).

HAEMATOTOXYLUM CAMPECHIANUM L. (Campeachy) Logwood.

Beckwith says that the chipped bark is used with sugar to make a drink. The wood and bark were formerly used by Jamaican medical men as an astringent for diarrhoea and dysentery.

\*See also LEGUMINOSAE.

The wood yields haematoxylin, haematin, tannin and traces of volatile oil. (2, 3 5, 8, 14, 15, 19, 23, 27).

#### TAMARINDUS INDICA L. Tamarind.

The pulp of the tamarind fruit is used in Jamaica in the making of sweetmeats, in chutneys and to prepare a cooling drink. It is known and used as a laxative and to prepare a gargle for sore throat. The pulp has a considerable organic acid content of which the principal constituents are tartaric acid-free and as potassium salts-and malic acid. The presence of citric acid seems doubtful. The tree also produces a gum containing galactan. The leaves are made into a tea for treatment of measles. In Africa the pulp or leaves are used to make poultices for sores. (3, 5, 7, 14, 15, 23, 25, 27).

#### CAPRIFOLIACEAE

A small family of temperate and sub-tropical woody plants. A few glucosides and alkaloids occur and also some essential oils, fats, tannins, resins, bitter principles and organic acids. Elder-flower oil is obtained from *Sambucus nigra*.

#### SAMBUCUS SIMPSONII Rehder. Elder.

Naturalized in Jamaica in the cooler parts, this plant is said to be used for coughs, colds, fevers and constipation. For constipation or a chronic cough Beckwith gives the following remedy:- 'Boil the flowers with chipped hog plum bark and trash from *Cecropia peltata* and drink the tea with sugar: The flowers probably contain volatile oil. Steggerda mentions the use of the leaves as a poultice for ringworm. (2, 25).

#### CARICACEAE

A very small family confined to tropical America, the members of which contain a milky latex. An alkaloid, carpain; a sinigrin-like glucoside; and the enzyme, papain, are common.

#### CARICA PAPAYA L. Papaw.

The juice of the plant contains papain, malic acid, calcium malate, fat, protein, wax, resin and sugar. That of the leaves (especially the young ones) and stems contain the alkaloid carpain. The root, stem and leaves contain a sinigrin-like glucoside, (?carposid). The juice is said to be used for boils and was also used for ringworm, warts, worms, and in the treatment of enlarged liver and spleen. (2).

#### CHENOPODIACEAE

A widely distributed family of some five hundred and fifty herbaceous species. The leaves particularly are rich in chlorides and oxalates; betaine, ascaridol and trimethylamine are also found.

#### CHENOPODIUM AMBROSIOIDES L. Semicontra (Semen Contra); Worm Weed; Worm Seed; Mexican Tea; Bitter Weed; Hedge Mustard.

This species is the source of oil of chenopodium, the well-known anthelmintic. It is fairly commonly employed in Jamaica as a vermifuge. It contains about 0.35 per cent volatile oil with an ascaridol content of about 45 to 70 per cent, and also p-cymene, a-terpinene and l-limonene. An infusion of the plant is also used in Trinidad as a vermifuge. (3, 13, 14, 18, 19, 23, 26, 27).

#### COMMELINACEAE

About three hundred of which the chemistry is little known.

#### COMMELINA ELEGANS H.B.K. Water Grass.

#### C. LONGICAULIS Jacq. Water Grass.

These species are mucilaginous and are used to boil tea for colds and malaria, and as a drink for babies. In Africa *C. longicaulis* is used to make an eye lotion. (2, 25).

ZEBRINA PENDULA Schnitzi. Red Water Gmss; Wandering Jew; Creeping Jennie; Rolling Calf Bed.  
Another mucilaginous species with considerable reputation as a cold cure. (25).

## COMPOSITAE

A very large family of mostly herbaceous plants with wide distribution. Latex and oil canals are often present. Numerous essential oils and bitter principles occur as well as alkaloids and glycosides. Among the oils are camomile, tansy and wormseed oils; the glycosides include absinthin, quercitrin, vernonin, pelargonin; some of the alkaloids are senecin, arginine, betaine and choline. Among the many drugs obtained from this family are camomile, santonica, coltsfoot and arnica.

### ARTEMISIA SP, Garden Bitters.

Under this name Beckwith mentions a remedy for stomach-ache and, with chicken weed (*Salvia serotina* L.) and salt, for constipation. No species of *Artemisia* is recorded in Jamaica by Fawcett and Rendle so that this, if correctly identified, must be a garden plant. Steggerda says that worm weed (*Artemisia absinthium* L.) is mixed with pimento and starch for worms and diarrhoea. It is possible that garden bitters and abainth are identical as Browne says that the latter was introduced into Jamaica and cultivated. He speaks of it as a 'wholesome bitter much used as a stomachic in vinous and other infusions'.

This herb is said to contain the bitter glycoside absinthin, and the bitter principle anabsinthin, up to 0.5 per cent essential oil, and some resin.

It is of interest to note that one of the names of the drug Santonica (*Artemisia cina* Bg.) is *semen contra* and that in Jamaica this name has been transferred to *Chenopodium ambrosioides* L. usually in the corrupt form *semicontra*.

The essential oil of *A. absinthium* was at one time used in the treatment of fevers, as a tonic and vermifuge but is no longer official. (2, 3, 14, 15, 18, 25, 27).

### BIDENS PILOSA L. Spanish Needle; Spanish Nettle.

Sometimes used in Jamaica, when young, as a green vegetable or potherb. It is boiled like calalu, occasionally with lard, and is said to be good for the bowels. Tea is prepared from it and used in the treatment of worms and as a general beverage. The juice of the fresh plant is also used, as in parts of Africa, as a styptic for cuts. It is also used in Africa as a potherb; infusions of the leaf and root for colic; the powdered leaf in water as an enema for abdominal complaints; and the juice as drops for earache and ophthalmia. Steggerda also mentions its use in Jamaica for colds. (2, 7, 10, 25, 26).

### BIDENS REPTANS (L.) G. Don. Marigold; Golden Rod; Honeysuckle; McKitty or McCathy Weed.

The shoots are used in decoction as a cold remedy and Beckwith said it was also used in cases of menstrual troubles. In this case it was boiled with cerasee (*Momordica charantia*) to make tea. 'If menstruation ceases drink as tea for nine mornings'. (See use of *M. charantia* as an abortifacient). (2).

### CALEA JAMAICENSIS L. Bee-Bee.

Beckwith reported the use of this species as a cold remedy. (2, 14).

### CHAPTALIA NUTANS (L.) Polak. Kema Weed; Dandelion; White Back; Heal-I-and-Draw; Lion's Tail.

Browne, 'It is reckoned an excellent diuretic and is used as such by many people'. Sloane believed the decoction to be of value for colic and wind, colds, convulsions; as a drink for women at childbirth and to provoke the menses. More recently Beckwith reports the use of the leaf, either boiled or fresh, ground up with oil or fat as a dressing for boils. (2, 5, 15, 25).

### CHRYSANTHELLUM AMERICANUM (L.) Vatke. Strong Back.

According to Beckwith, used to prepare tea with *Desmodium* sp. and *Mimosa pudica* to induce sleep in case of pain. (2),

CLIBADIUM SURINAMENSE L. Jackass Breadnut.

Said to be used as a cold remedy (Beckwith). The plant contains chlorogenic acid. (2, 27).

EMILIA SAGITTATA (Vahl) DC. Consumption Weed; Grease Bush,

Much used in the country parts as a general beverage and for coughs and colds. The whole plant is used to make a decoction. In Africa it is used as a salad and green vegetable and in some parts as a remedy for sore eyes. (2, 7).

ERIGERON BONARIENSIS L. Asthma Weed.

Said by Beckwith to be used with *Cuscuta* sp. to make tea for asthma.

ERIGERON CANADENSIS L. Canada Fleabane; Dead Weed.

Said by Beckwith to be used as tea for babies. In America it has been used as a haemostatic, for diarrhoea and for dropsy. In Africa the Sutos employ it for skin diseases, sore throats and as a wash for sick children. The leaves contain tannic and gallic acids and essential oil. The latter is said to contain limonene, d- $\alpha$ -terpineol, dipentene and, apparently, methylethylacetate. (3, 8, 26, 27).

EUPATORIUM MACROPHYLLUM L. Hemp Agrimony: ?Musk Melon; Herbe Chat (Trinidad).

Used medicinally in Trinidad to some extent, presumably in a similar manner to other *Eupatorium* spp. Probably also used in Jamaica. (25).

EUPATORIUM ODORATUM L. Jack-in-the-Bush; Bitter Bush; Archangel; Christmas Rose; Hemp Agrimony.

This is a popular plant for the preparation of a tea used as a general beverage and in the treatment of colds. The shoots are boiled to make the tea. In the Grenadines it is similarly used for coughs and colds and is considered very effective. For bronchitis in children it is given in milk. Sloane reports 'It is counted an admirable vulnerary, being only beaten and applied, having cured one who was lanced through the body at the taking of the Island.

The plant is also used as a cold remedy in Trinidad. (2, 13, 25).

EUPATORIUM TRISTE DC. Bitter Bush; Old Woman Bitter Bush; Hemp Agrimony.

E. VILLOSUM Sw. Bitter Bush; Old Woman Bitter Bush; Hemp Agrimony.

Beckwith reported the use of these species to make tea for constipation and fever and, boiled with *Vernonia arborescens* (L.) Sw., to bathe a woman after childbirth. At one time these species were regarded as efficacious in cholera, typhus and typhoid fevers and as good cholagogues. (2).

MIKANIA SPP. Guaco or Gwaco Bush.

Guaco bush is used as a cold remedy and a decoction of the leaves is also used to bathe the skin for itch or the fresh leaves are merely rubbed on. Several *Mikania* species have a reputation in Africa and South America as antidotes for snake bites, venereal disease, ophthalmia, rheumatism and gout and dysentery. Both Beckwith and Steggerda reported its use in Jamaica for diarrhoea, while the former mentioned the use of a heated wad of leaves to relieve local pain and of a decoction for chest and stomach pains. The leaves contain a resinous substance guacin and tannins. (2, 7, 27).

PARTHENIUM HYSTEROPHORUS L. Wild Wormwood: Dog-flea Weed; Whitehead; Mugwort; Bastard Feverfew.

Some of the old writers, including Browne, speak of the use of this herb in resolute baths and infusions and for treatment of wounds. Country people use it to prepare a decoction for colds and to make a bath for fleas on dogs. The plant is said to contain a bitter glucoside. (15, 27).

PECTIS SP. Stink Weed.

Beckwith states this is used as a tea for fever. (2).

PLUCHEA ODORATA (L.) Cass Riverside Tobacco: Wild Tobacco; Sweet-scented Fleabane.

Contains chlorogenic acid. Said by Steggerda to be applied to sores and used for women in labour. Fawcett and Rendle quote from Descourtils its use by negroes as an antidote and Etomachic. (25, 27).

VERNONIA DIVARICATA Sw. (Old) Man Bitter Bush; Fleabane.

Steggerda states this is used as a tea for colic.

WEDELIA TRILOBATA (L.) Hitchc. Wild or Running Marigold; Gold Cup; Creeping Ox-eye; Water Weed.

Used to make tea for fever and colds. (25).

## CONVOLVULACEAE

About one thousand mainly herbaceous species. Many contain latex. A number of purgative drugs are obtained from the family and include jalap and scammony. The medicinal value lies in the presence of resin and a number of glucosides including convolvulin and jalapin (scammonin). Alkaloids are absent and, with few exceptions, so are fats and essential oils.

CUSCUTA SPP. Love Weed or Bush; Dodder; Hell Weed; Devil's Guts.

This plant, well known as a love charm both here and in Africa. is also made into a tea used as a general beverage and for colic in children. See also *Erigeron bonariensis*. Browne stated that it enjoyed a reputation as a diuretic and laxative and had been used in 'some of the compositions of the shops'. (5, 15).

IPOMOEA DISSECTA (Jacq.) Pursh. Know You.

Said by Steggerda to be used as a cathartic. An undetermined species of *Ipomoea*, called by Steggerda hog meat, is said to be used as a poultice. Browne stated that a decoction of the leaves of *I. jamaicensis* Don (wild potato slip) forms a moderate purge and removes worms. 15, 7, 25, 27).

## CRASSULACEAE

About five hundred herbaceous species, many of which are succulents. Free malic acid and its salts are widely distributed. Tannin, mucilage and resin also occur.

BRYOPHYLLUM PINNATUM Kurz. Leaf of Life.

The leaves of this succulent are much used for colds. A decoction may be used, or the juice, alone or with goat's milk or salt, is taken. It may also be mixed with yam leaves to boil tea. The bruised leaves are said to make a soothing dressing for insect bites, bruises, boils and ulcers. Apart from the fact that the plant contains free malic acid and calcium malate little seems to be known of its constituents. In Africa it is used for more varied purposes including coughs (the root), headaches, ophthalmia, earache, abscesses and swellings, and as a diuretic. (2, 7, 25).

## CUCURBITACEAE

About seven hundred and sixty species, mostly annual climbing herbs of warmer regions. Seeds contain fatty oil; glucosidal bitters such as colocynthin, bryonin and myriocarpin; the alkaloids bryonicin, cholin and emetin; and simple bitters such as momordocin.

CUCURBITA PEPO L. Pumpkin.

The reputation of pumpkin seeds as a vermifuge is known in Jamaica but there is little evidence of their use. The seeds contain large amounts of protein and oil. Both these and the fruit pulp and rind are said to contain an anthelmintic substance.

Steggerda said that pumpkin was reputed, in Jamaica, to be a diuretic. (3, 10, 15, 25, 27).

FEVILLEA CORDIFOLIA L. Antidote Cocoon; Segra Seed; Nhandiroba.

The seeds are purgative and contain a bitter principle fevillin, tannin compounds and resins. From the early days it has had the reputation in Jamaica as an antidote for poison (probably due to its emetic and purgative properties), a wound dressing and a useful bitter. Beckwith found it still in use in the 1920's, the grated nut being used as a plaster for wounds and lameness and also as an emetic. (2, 5, 8, 14, 15, 24, 27).

MOMORDICA CHARANTIA L. Cerasee.

One of the most widely used medicinal herbs of Jamaica, the fruits of a large variety also being used especially by the Chinese in cooking. The aerial parts of the plant, either dry or fresh and free of large fruits are used to make a decoction which is very bitter, or in some cases to make an infusion. The tea is used for colds and fever (including malaria), for stomach-ache, constipation in children, and as a general tonic beverage. An infusion of cerasee alone or with *Bidens reptans* is used for menstrual troubles. This is of interest in view of Howard's (1952) statement that *M. charantia* is widely used in the West Indies as an abortifacient. He says that in a similar manner it is used monthly by the women of the Grenadines as a method of birth control. It is possible that similar use of the plant occurs in Jamaica. It was in use in Browne's days to promote discharge after childbirth. The plant is said to be laxative, the seeds anthelmintic, and the fruit is used in the East to cure wounds. The leaves contain fatty oil, a bitter principle momordocin and resin. (2, 5, 7, 8, 10, 13, 15, 25, 26, 27).

CYPERACEAE

About two thousand six hundred herbs of cold and temperate to tropical regions. Apart from much silica (20 to 40 per cent of the ash) little is known of specific chemical constituents.

CYPERUS ARTICULATUS L. Adrue (Hadrue).

Beckwith's hadrow is probably this species which has an aromatic smell and flavour and was at one time used in Jamaica to check vomiting in yellow fever and other diseases, for diarrhoea and as a stimulant. The 'root', probably more correctly the rhizome, was made into a strong decoction or infusion. Beckwith said that hadrow was used with proof rum for pains in the bowels. In Africa it is used for toothache, headache and as a cough medicine. (8, 10, 15, 19).

EUPHORBIACEAE

The family contains some four thousand five hundred woody and herbaceous species, with widespread acrid latex. Tannins, resin, alkaloids, simple bitters and poisonous albuminous compounds are present. The seeds are often oily. Ricin, crotin and curcin are among the toxic albuminous compounds, while the alkaloids include acalyphin, jatrophin and ricin in. Among the products of the family are castor oil and cascarilla bark.

CROTON WILSONII Gr. Pepper Rod; Doctor John; ?John Charles.

Beckwith states that this plant is taken as tea for colds. (2).

EUPHORBIA HIRTA L.

E. HYPERICIFOLIA L.

E. HYSSOPIFOLIA L.. Spurge; Milk Weed or Tea; Mapempe; Pempe.

E. LASIOCARPA Klotzsh.

E. PROSTRATA A.H.K.

It is possible that all these herbaceous Euphorbia species are used in a similar manner to make tea for colds and indigestion. The latex is made into a dressing for cuts.

Beckwith mentions the use of the first three species to make tea for pains in the back and for use as a tonic. The juice is also said to remove warts. For gonorrhoea the plants are boiled with *Phyllanthus niruri* to make tea. In some parts milk weed tea is said to be good for high blood pressure. In the Grenadines *E. hirta* is thought to be a reliable cure for diarrhoea, and *E. prostrata* is used for the same purpose.

Dalziel writes of *E. hirta* as known in medicine to be a remedy for asthma and inflammation of the respiratory tract, and called Australian or Queensland asthma weed.

The tops contain gallic acid, quercetin, a phenol-like substance ( $C_{28}H_{18}O_{15}$ ) sugar, triacontan, traces of ceryl alcohol, fatty acids, and traces of alkaloid. (2, 7, 13, 15, 27).

#### JATROPHA CURCAS L. Physic Nut.

According to Beckwith used in Jamaica as a purgative. In the Grenadines the leaves but rarely the seeds are so used. Curcas oil obtained from the seeds contains one or more toxic principles. At one time the toxic principle was said to be a toxalbumin named curcin similar to ricin and later work has assigned the toxicity to curcinoleic acid. (2, 5, 7, 10, 13, 14, 15, 23, 26, 27).

#### JATROPHA GOSSYPIFOLIA L. Wild Cassada; Cassada Marble; Belly-ache Bush.

Most of the old writers speak of the use of the leaves of this plant, either in decoction or boiled like spinach, as a purgative remedy for 'dry belly-ache'. Beckwith says it is used to prepare tea for constipation, the part used not being specified but it is probably the leaves, as given in the old remedies. The seeds are said to be purgative, the oil being similar to castor oil. Analyses of *J. gossypifolia* L. var. *elegans* Mull. indicate the presence in the bark of an alkaloid, jatrophin, ( $C_{14}H_{20}O_6N$ ), which is slightly toxic. Resins, tannins and phytosterin ( $C_{27}H_{46}O$ ) are also present. (2, 5, 7, 15, 27).

#### PHYLLANTHUS NIRURI L. Carry-me-seed; Quinine Weed.

This plant is commonly used throughout the West Indies and in India as a remedy for fevers. It is also sometimes used for genito-urinary infections and, in Jamaica, in combination with milk weed, it is said to be good for gonorrhoea. The root and leaves have also been made into infusions as a cure for dysentery, diabetes, jaundice, stomach-ache, as a diuretic, and in dropsical complaints. The bark contains a crystalline bitter principle, phyllanthin ( $C_{30}H_{37}O_8$ ) and the leaves are rich in potassium salts. (2, 7, 13, 14, 27).

#### RICINUS COMMUNIS L. Castor Oil Plant.

Castor oil is used in the usual manner, in Jamaica, as a purge. It is also used with *Capsicum* leaves as a dressing for boils, and the leaves of the plant are tied on as a cool dressing for a headache. Similar use is made of the oil and leaves in the Transvaal. Browne said that the root was regarded as a diuretic. In some parts of Africa leaf infusions are used for stomach-ache, as a lactagogue and emmenagogue, and as a purge. A root paste is made by the Zulus for treating toothache, and some tribes use the leaves to make eye lotion, a lotion for fevers and a poultice for swellings.

The principle constituents of the oil are the glycerides of ricinoleic (?isoricinoleic) stearic, dihydroxystearic, oleic and linoleic acids. The purgative action has been ascribed to free ricinoleic and its isomeric acid produced by hydrolysis in the duodenum. The seed also contains various albuminous compounds, an alkaloid, ricin in ( $C_8H_{15}O_2N_2$ ); and the toxic principle, ricin, which is a severe irritant and agglutinant and has been variously described as an alkaloid, toxalbumin and phytalbumose. The leaves are said to contain, in addition to the alkaloid ricinin, a crystalline bitter substance ( $C_{24}H_{32}N_7O$ ) which is not an alkaloid. (3, 5, 7, 10, 15, 18, 23, 24, 26, 27).

### FILICINEAE

#### DRYOPTERIS SP. White Stick.

Said, by Beckwith, to be used for colds and as a general panacea. (See *Anacardium occidentale*). (2).

POLYPODIUM EXIGUUM Hew. Hug-me-tight.

According to Beckwith, used in a bath for 'female weakness'. (2).

#### GESNERIACEAE

GESNERIA SP. Rock Bush.

Steggerda mentions this species as being in use to induce perspiration in fever. (25).

RYTIDOPHYLLUM TOMENTOSUM Mart. Search-my-heart.

Used as a general drink and for colds.

#### GRAMINEAE

About four thousand five hundred mostly herbaceous species of wide distribution, among which are many important economic plants such as cereals, sugar cane and pasture grasses. The plants have a high silica content in the vegetative parts and the seeds contain starch, protein and fats. The vegetative parts contain much sugar. Valuable essential oils are produced by some species. Specific carbohydrates and proteins occur, organic acids and alkaloids are rare, resin is absent. Waxes and vitamins are present.

CENCHRUS SPP. Burr Grass.

This species appears to be used to some extent to make tea for fever, colds and vomiting.

CYMBOPOGON CITRATUS (DC.) Stapf. Fever Grass; Lemon Grass.

This is one of the important oil grasses, producing lemon grass oil which is used medicinally and in perfumery. Lunan says it was introduced into Jamaica about 1800 and that it was used in his day to make a cooling drink for fevers and nervous headaches. A decoction of the leaves and roots is still a favourite treatment for colds and fevers. The leaves of lemon grass contain up to 0.37 per cent essential oil of which citral is the main constituent. Other aldehydes and terpenes are present in the oil. (7, 8, 27).

CYNODON DACTYLON Pers. Bahama or Bermuda Grass; Dog's Tooth Grass.

In some parts of the Island, at least, a tea made by boiling the roots is thought to be good for the kidneys. It is used in the Transvaal by Europeans for indigestion and wounds. The ash has a high potash content (40.4 per cent K<sub>2</sub>O) and 29.6 per cent calcium oxide. (10, 23, 26, 27).

SACCHARUM OFFICINARUM L. Sugar Cane.

The leaves are sometimes boiled to make a beverage.

#### LABIATAE

A family of about three thousand herbaceous and shrubby species in which essential oils are universally present. Many are drug plants. Resins are present. The seeds contain fat, scattered tannins and saponins are found, while alkaloids and glycosides are rare.

HYPTIS PECTINATA (L.) Poit. Piaba.

Used to prepare tea for stomach-ache, sometimes with *H. suaveolens*. The juice of the plant is used for sores and cuts. The tea is also said to be good for colds and headaches, as a drink for a woman in labour, and as an appetizer. In Africa the plant is used for fever, chest complaints, child birth and as a children's remedy for roundworms. The leaves contain 1.0 per cent of a crystalline bitter, hyptolid (C<sub>18</sub>H<sub>26</sub>O<sub>8</sub>) (7, 27).

HYPTIS SUAVEOLENS (L.) Poit. Spikenard; Pig Nut.

Browne speaks of this species as being of use in nervous and visceral disorders and it seems likely that it is still in use for stomach-ache (see *H. pectinata*) and indigestion (alone or with *Cissus sicyoides*) and for 'a fluttering heart'. It is used in Africa for stomach-ache and colic, headaches, fever and as a general beverage. The principle constituent of the essential oil is menthol. (5, 27).

**MENTHA VIRIDIS L.** Garden Mint: Black or Sweet mint.

The plant, introduced into the gardens of Jamaica, is much used as a medicinal herb. Tea is prepared by infusion or decoction and is used as a general beverage and for stomach trouble. It is sometimes used with gin or rum for stomach-ache and vomiting. These uses can be traced back to the early writers on Jamaican medicinal plants. The essential oil contains l-carvone (about 54-66 per cent). l-limonene and phellandrine and d-pinene. (2, 3, 14, IS, 23, 26, 27).

**MICROMERIA BROWNEI (Sw.) Benth.** Pennyroyal (Pennyrial).

The leaves are used to make tea for stomach pains. Beckwith does not mention this use but gives a number of other uses including a rather curious 'cure' for a catarrhal cold in which a poultice of beaten leaves moistened with rum is applied to a small bare patch on top of the head. 'The water will run out of your nose and cure the complaint'. It would also seem that pennyroyal has some reputation as an abortifacient either in conjunction with cerasee and marigold or 'boiled with a rusty nail'. (2, 15).

**MICROMERIA VIMINEA (L.) Urb.** Peppermint.

Beckwith, identifying this species as peppermint, says that it is used with ginger to make tea for colic. (2, 15).

**OCIMUM MICRANTHUM Willd.** Wild Barsley: Mosquito Bush, Wild Basil.

Used as a general beverage. For fever and pain the decoction is taken as a drink and also as a bath. Alternatively the body may be rubbed with the leaves. For colds the leaves may be ground up to provide a snuff, and a bath with ginger root added may be used. It is also probably used as a laxative for babies. In the Grenadines and in Jamaica it is considered valuable for difficult menstruation. In Antigua it was, and may still be, used for bronchitis, colic, and convulsions in children. (2, 13, 27).

**OCIMUM BASILICUM L.** Barsley.

This plant is grown in gardens and, in addition to its use in cooking, it is employed in a similar manner to the wild species. *Ocimum* spp. are used in Trinidad, where they are called mosquito bush, in the treatment of colds and are hung in the houses to keep away mosquitoes. *O. micranthum* is a native Trinidadian species. (13, 15).

**SALVIA SEROTINA L.** Chicken Weed or Bitters: Wild Sage.

Used to make tea as a general beverage for colic, biliousness, constipation, fever and for the blood'. It is also used, 'rubbed up', as an application to scratches, especially for a baby. It may also be used for skin complaints such as eczema. In Africa a number of *Salvia* species are used for these purposes. In Jamaica it is considered to be good for night sweats. (2).

## LAURACEAE

About a thousand woody and herbaceous species mainly of warmer regions. All possess oil cells in most parts, producing volatile oils of commercial importance, e.g. oils of camphor, cinnamon and sassafras. The volatile oils contain aldehydes, alcohols, hydrocarbons, esters, free acids and other constituents. Mucilage, fats (in the fruits and seeds), and alkaloids such as beoberine and laureline occur.

**CINNAMOMUM ZEYLANICUM Breyn.** Cinnamon.

Cinnamon twigs and leaves are sold in Jamaican markets. Boiling water poured on to them makes a drink which may also be taken on corn meal porridge. It is said to be good for the stomach. It is thought to have been introduced into Jamaica in 1782 by Admiral Rodney. The bark gives 0.8 to 2 per cent volatile oil which is a carminative, an antiseptic and a stimulant. The oil contains 50 to 65 per cent cinnamic aldehyde; 4 to 10 per cent phenols of which eugenol is the principle one; hydrocarbons including pinene, phellandrene, and caryophyllene; and small amounts of alcohols, ketones and esters. The leaf oil, of varying composition, contains a high percentage (70-95) of eugenol.

Also present in the bark are tannin, mucilage, starch and calcium oxalate. (3, 8, 10, 15, 27).

PERSEA AMERICANA Mill. Avocado or Alligator Pear.

The leaves are boiled to make tea which is thought to be 'good for the blood'. This may perhaps be interpreted to mean for anaemia, as one informant spoke of low blood pressure qualifying this with the phrase 'when you need more blood'. Other information gave its use as being for high blood pressure! The tea is also used as a drink for colds and as a lotion for pains. The leaves contain about 0.5 per cent volatile oil with methylchavicol as the chief constituent and also d-a-pinene, a paraffin and a substance called 'perseil'. The fruit is a source of vitamin B. (27).

## LEGUMINOSAE

About twelve thousand woody and herbaceous species of worldwide distribution now divided into the families Caesalpinioideae, Mimosoideae and Papilionateae which are arranged in alphabetical sequence in the text. Many are of economic importance. Tannins are widely distributed in the bark and fruit of the Mimosoideae and Caesalpinioideae but are unusual in the Papilionateae. The last family yields numerous alkaloids and glucosides, including cytisine, lupinine, sparteine, phytostigmine, phaseolunatin and rutin. The gums of the Mimosoideae (e.g. gum acacia, gum arabic) and the balsams of the Caesalpinioideae are not found in the third family. The numerous drugs of the family include senna, copal, copaiba balsam, tamarind, bonduc, logwood dye, and oil of acacia flowers.

## LILIACEAE

About two thousand usually herbaceous species of wide distribution, many of them contain poisonous compounds and are used medicinally. A series of alkaloids including colchicines is found, particularly in the underground parts and seeds of members of the family. Numerous oils (often sulphur oils), resins with characteristic constituents as in aloe, saponins and a variety of carbohydrates, including inulin and the usual sugars, are present. Products of the family include squill, colchicum and aloes.

ALLIUM SATIVUM L. Garlic.

Garlic trash is sometimes used to make a drink which is given to both adults and children. The plant has been used medicinally from early times and its action may be explained by the presence of a small amount of a volatile sulphur oil, said to contain a disulphide ( $C_6H_{12}S_2$ ) which is probably allyl-propyldisulphide, diallyl disulphide and a trisulphide ( $C_6H_{10}S_4$ ) and also another sulphide ( $C_6H_{10}S_4$ ) Many virtues have been ascribed to garlic in the past and Lunan lists its value as an expectorant, diuretic, sudorific and emmenagogue, and its use for dropsy, asthma, skin diseases and rheumatism. In Africa a decoction of the leaf and root is said to be useful as a sudorific. Garlic is said to have a depressant effect on the heart, slowing the rate and reducing contractility. (3, 26, 27).

ALOE VULGARIS Lam. Aloes; Semper Vivum (Simple or Sinkle Bible).

This species yields the Barbados or Cura~ao aloes of commerce. Despite, or perhaps on account of, its unpleasant smell and bitter taste the plant is much esteemed in Jamaican peasant medicine. A small piece of the leaf is boiled to make tea for biliousness and colds. For colds the peeled leaf is cut up and steeped in proof rum, half a wineglassful being taken in the morning for several days and followed the next day with a dose of salts and senna. The split leaf is applied to wounds and tied on for headaches. As a purgative dose the slime may be scraped out and beaten up with an egg. Similar uses are made of aloe species by various African tribes. Curacao aloes contains 10 to 20 per cent of aloin (barbaloin and isobarbaloin), 86 to 88 per cent resin, emodin and a little volatile oil. In the past aloes has also been used in Jamaica to improve the digestion and appetite, for worms, and to promote menstrual flow. (2, 3, 5, 15, 24, 27).

SMILAX BALBISIANA Kth. China Root.

S. ORNATA Hook. Jamaican Sarsaparilla.

The roots are the parts of the plants which are used. Sarsaparilla is official and occurs in the pharmacopoeias of Britain and India. It was formerly imported from Central America via Jamaica. Sarsaparilla is very commonly used with china root and other plants (see *Desmodium supinum* to make a tonic. It may also be used alone for the same purpose and for general pain. The principle constituents appear to be sarsaponin ( $C_{44}H_{76}O_{20}$ ), sterols, sarsapic acid ( $C_6H_4O_6$ ) and a glucoside. (3. 15, 23. 27).

#### LOGANIACEAE

A family of some five hundred and fifty species occurring mainly in warmer regions. Many species containing poisonous alkaloids which include strychnine, brucine, curarine and spigeline. Glycosides occur sporadically but there is little detailed information about them. The same is true of essential oils, fats, bitters, tannins and saponins. Products include *Nux vomica*, pink root and curare.

SPIGELIA ANTHELMIA L. Pink Root; Worm Grass; Indian Pink; Pink Weed.

This is used for worms, especially in small children. Beckwith says that a few drops of turpentine are added to the tea made from the plant. The mode of administration as given by Browne is as follows: 'two moderate handfuls' of the fresh or dry plant are boiled in two quarts of water until reduced to one quart. The strained decoction is sweetened and a little lime juice added. Adult dose:- half a pint at bed-time for two or three days or smaller doses every six hours for 36 to 48 hours. For children smaller doses. The medicine is to be followed by a laxative such as senna or rhubarb. Browne also claims that the plant induces sleep almost certainly in an equal degree with opium; but the eyes seem distended and appear bright and sparkling after the sleepy effects are over'. Similar use is made of the herb in Africa. It contains the alkaloid spigeline and has been used medicinally in Europe since the mid-eighteenth century. (2. 3. 5. 8. 10. 14, 15, 27).

#### LORANTHACEAE

A small group of semi-parasitic, mainly tropical, plants. Chemical data are obtainable for only a few species. Of characteristic compounds a rubbery latex, quercitrin, viscin, choline, resins and alcohols are known. So far as the group has been investigated no alkaloids, saponins, glucosides or essential oils have been identified. There are two species given which have been definitely identified as being used for 'bush' tea at the present time, although there are twenty-four species in Jamaica which would qualify as mistletoe.

ORYCTANTHUS OCCIDENTALIS Eichl. God Bush; Scorn-the-Earth; Mistletoe.

PHTHIRUSA PAUCIFLORA Eichl. Mistletoe; Scorn-the-Earth.

From the leaves of a number of mistletoes a drink is prepared which is said to be of use for fever and pains, and for high blood pressure. (18, 27),

#### LYTHRACEAE

A family of about four hundred and fifty herbaceous and woody species, mainly tropical in distribution. Numerous tannins, fatty and essential oils occur in the family.

CUPHEA PARSONIA R. BI. Milk Weed: Strong Back.

Said, by Beckwith, to be mixed with *Euphorbia* sp. to make tea and to be used with marigold for menstrual pain. Grisebach refers to *Cuphea* species as being 'acid medical plants',

#### MALVACEAE

A family with numerous representatives in Jamaica. The group is characterised by the presence or mucilage, the emollient properties of which have been employed in medicine. Fatty oils are common in the seeds, some glycosides occur and essential oils appear sporadically. Alkaloids, resins, tannins and saponins are rare. Mallow and cottonseed oil are products of the Malvaceae.

#### GOSSYPIUM SPP. Cotton; White Cotton Bush.

A number of *Gossypium* species occur in Jamaica and it is probable that all are similarly employed. The leaves are used to make a decoction for colds. In the days of Browne and Lunan, an emulsion of the seeds was similarly employed, while it was also thought to be of use for dysentery. An infusion of the leaves was used for diarrhoea and as an application for insect bites. The oil was stated to remove spots and freckles and the leaves steeped in vinegar were applied for headaches. Cotton root bark is said to be used in Africa as an emmenagogue and abortifacient. It has a weak ergot-like action. A leaf infusion is used for dysentery. The root bark is said to contain resin and a small amount of essential oil and vitamin E. Among other compounds the aerial parts contain the following compounds:- some essential oil containing furfural. quercetin. betaine, choline, phytosterine, various terpenes; formic, acetic. succinic. salicylic. palmitic. butyric, valerianic and capronic acids. The seeds contain a toxic substance gossypol (C<sub>20</sub>H<sub>28</sub>O<sub>8</sub>) (3, 5, 10, IS, 27).

#### HIBISCUS ELATUS Sw. Blue or Mountain Mahoe; Cuba Bark.

Early writers comment on the mucilaginous nature of the young parts and mention its use for dysentery. Beckwith identifies mahoe as *Hibiscus* L. and says that boiled with *Cissus sicyoides* it is used for colds. (2, 8).

#### HIBISCUS SABDARIFFA L. (Red, French or Indian) Sorrel: African Mallow.

Sorrel is used in Jamaica to make a drink which is reputed to be cooling and diuretic. It is a sweetened decoction of the fleshy calyces and the ovary without the seeds and may be flavoured with ginger and wine or rum added. The calyces are said to be antiscorbutic. They contain various pigments including gossypetin (C<sub>15</sub>H<sub>28</sub>O<sub>8</sub>) an anthocyanin (C<sub>20</sub>H<sub>19</sub>O<sub>10</sub>Cl) and a glycoside hibiscin. The roots are said to be laxative, contain tartaric acid and may also contain a saponin. In some parts of Africa a leaf infusion is used for coughs and colds. (7, 8, 26, 27).

#### MALVASTRUM COROMANDELIANUM Garcke. Mallow: ?Broomweed.

Beckwith reports its use for pains in the stomach.

#### MELASTOMACEAE

A large family of herbaceous and woody plants of warmer regions. well represented in Jamaica. Few have been analysed but benzaldehyde. a yellow glucosidal pigment, malic, tartaric and hydrocyanic acids have been found.

#### CLIDEMIA HIRTA D. Don. Indian Currant Bush: Soap Bush.

Said. by Beckwith. to be used to make tea. (2).

#### MICONIA LAEVIGATA DC. Chicken Net: Indian Currant Bush; Johnny Berry.

Steggerda mentions the use of this for sores and itch. and Beckwith says it is used in bush baths. (2, 25).

#### MELIACEAE

About six hundred mostly woody tropical species with fatty seeds. Bitter principles, gums and tannins widely distributed. Alkaloids and essential oils occasional.

#### SWIETENIA MAHOGONI Jacq. Mahogany.

The bark is said to be astringent and has been used in decoctions for diarrhoea. as a bitter and febrifuge. For colds and fevers Beckwith said a leaf decoction was used as tea and as a bath. The bark is said to yield a catechin-like extract while the wood contains catechin. (2, 15, 27).

## MENISPERMACEAE

A small tropical family distinguished by the presence of a number of characteristic alkaloids. including bebeerine. pelosine and cissampeline. Bitter principles are also present.

*CISSAMPELOS PAREIRA* L. Velvet Leaf or Bush; False Pareira-brava.

The shoots are used in Jamaica principally to make tea for colds. It was used in earlier times as a bitter tonic and for a diuretic effect, also for skin diseases. gonorrhoea. and as a plaster for sores. At one time this species was confused with the true Pareira brava derived from another member of the same family. It appears probable that it contains the same, or some of the same. alkaloids. An alkaloid (sepeerine) which, according to some authorities. is identical with the bebeerine of the true Pareira brava. is present and a second alkaloid (cissampeline) has also been recorded. The plant is used by some African tribes for purposes similar to those already mentioned. (2, 3, 5, 7, 8, 10, 14, 15, 27).

## MIMOSOIDEAE\*

*MIMOSA PUDICA* L. Shame Weed; Shut Weed; Shama; Shama Lady (many variations); Dead and Awake; Sensitive Plant.

The root. particularly in combination with plants such as *Desmodium* sp. and *Achyranthes indica* is used to make tea for colds. It contains 10 per cent tannin. The plant is also said to be used for gonorrhoea and as a sedative. In Africa a leaf decoction is used for dysentery, as a tonic, and as an application for guinea worm. (2, 7, 27).

## MORACEAE

A family of some nine hundred temperate and tropical species with latex widely distributed. Cystoliths of calcium carbonate also occur in the leaves and bark. Rubber wax and resinous compounds are common in the latex, especially in *Ficus* species, and tannins are found especially in the bark. Only scattered representatives of groups of compound such as alkaloids and essential oils are present.

*ARTOCARPUS INCISA* L. Breadfruit.

The belief in the efficacy of a tea made from breadfruit leaves in cases of high blood pressure is widespread in Jamaica. (27).

*CECROPIA PELTATA* L. Trumpet Tree: Snake Wood.

The latex of this tree is said to contain an alkaloid, cowleyin. A decoction of the leaves is used for colds and is said to be a sovereign remedy for a sore throat and hoarseness. It is also said to be good for 'nerves'. Beckwith mentions the use of trumpet (no identification) in baths. (15, 27).

## MYRISTICACEAE

A small tropical family of woody plants, many of which have oil cells in the leaves, stems and seeds. and in which tannin sacs are common. Essential oils and fats are found but alkaloids and glucosides are, apparently, absent.

*MYRISTICA FRAGRANS* Houtt. Nutmeg.

This plant produces the nutmeg and mace of commerce. It is official in the pharmacopoeias. The dried seed kernals of nutmeg contain 5 to 15 per cent of volatile oil and up to 40 per cent of fats. The volatile oil contains d-camphene, d-pinene, dipentene, d-borneol, I-terpineol, geraniol, safrole and a toxic substance myristicin. A saponin is also said to be present in nutmeg. Beckwith says that powdered nutmeg is given to women in labour. (3, 8, 10, 14, 27).

\*See also LEGUMINOSAE

## MYRTACEAE

About two thousand seven hundred woody tropical species distinguished by the presence of essential oils in the leaves and fruits and tannins in the bark. Alkaloids, fatty oils and saponins are uncommon. The large genus *Eucalyptus* has received considerable attention from the chemists. Oils of cloves, eucalyptus and pimento are among the products of the family.

*PIMENTA OFFICINALIS* Lindl. Pimento: Allspice.

This species produces the well-known spice, which is used in Jamaica in the preparation of the liqueur pimento dram. This has some reputation for the relief of stomach-ache and painful menstruation. The unripe berries contain 3 to 4.5 per cent oil, tannin, resin, sugar, fat and a conine-like alkaloid. The essential oil is said to contain l-a-phellandrene, cineole, caryophyllene, and more than 70 per cent eugenol, palmitic acid. The leaves are used to make tea which is 'good for the blood'. These contain much essential oil with a high percentage (96.6) of eugenol, caryophyllene and traces of aldehydes and ketones. (3, 10, 14, 23, 24, 27).

## OCHNACEAE

A family of about four hundred woody species of warmer regions of which the chemistry is little known.

*SAUVAGESIA BROWNEI* Planch. Strong Back: Iron Shrub.

According to MacFadyen this species, which is mucilaginous, was at one time used in the West Indies in cases of irritation of the bladder, in Peru for dysentery and in Brazil for eye complaints. Beckwith says it is used in Jamaica for a weak back, a little tea being taken daily. (2, 16).

# MEDICINAL PLANTS OF JAMAICA

G. F. ASPREY AND PHYLLIS THORNTON

## PART II

### PALMAE

A family, occurring mainly in the tropics, which includes many important economic plants such as the coconut, oilnut and date palms. Fats are common, especially in the endosperm of the seeds, together with mannan-like carbohydrates. Few glucosides, alkaloids, essential oils or resins are known.

#### COCOS NUCIFERA L. Coconut.

Coconut water, a favourite drink of Jamaicans, is said to be good for the bladder. It consists of a dilute solution of sugars and mineral salts with proteins and fats. In the fully grown but unripe nuts, called water coconuts, there is about 4.6 per cent. glucose. The coconut root is said to be astringent. In Lunan's time the outside shining part of the nut and 'branch' were scraped off as a fine powder which was used as a dressing for sores and ulcers. An emulsion of coconut oil was used for coughs. (15, 27).

### PAPAVERACEAE

A family of some three hundred herbaceous and shrubby species which is well known for the presence of a great number of alkaloids including the opium alkaloids. Many species possess a milky latex. Fats are found in the seeds together with glycosides and many organic acids in combination with the alkaloids or minerals.

#### ARGEMONE MEXICANA L. Mexican Poppy or Thistle: Prickly Poppy; Gamboge or Yellow Thistle.

Steggerda reported that this plant is used for colds, especially in children. Browne also reported that it is sudorific when used in infusions and that the juice could be used for eye diseases. The seeds, in a dose of one to five, were used by the country people for diarrhoea and dysentery. It is reputed, by Lindley, that in the island of Nevis 'the oil obtained from the seeds is used as a substitute for castor oil'. The foliage contains the alkaloids berberine and protopine. No morphine is present. (5, 7, 8, 14, 15, 18, 25, 26, 27).

### PAPILIONATEAE\*

#### ABRUS PRECATORIUS L. Red Bead Vine: John Crow Beads; Crab's Eyes; Wild Liquorice; Liquorice Vine; Lick Weed.

The root has long been used in India, Africa and the West Indies as a substitute for true liquorice. Seeds, leaves and roots contain a toxalbumin, abrin (C<sub>12</sub>H<sub>14</sub>O<sub>2</sub>N<sub>2</sub>) which is slowly absorbed from the gastro-intestinal tract. It is most concentrated in the seeds, which are fometic, purgative, anthelmintic and toxic. One to three grains of the powdered seeds boiled in milk are said to provide a tonic, though several writers report that one or two seeds are a fatal dose especially if chewed. The toxalbumin is said to be destroyed by cooking. The seeds, under the name of 'jequirity' have long been known for their effect in granular conjunctivitis. They are also said to contain a bitter amorphous substance, abralin (C<sub>13</sub>H<sub>14</sub>O<sub>7</sub>) Dalziel reports that the root has 1.5 per cent glycyrrhizine and the leaves 9 to 10 per cent.

\*See also LEGUMINOSAE

In Jamaica the plant is said to be used for constipation. The vegetative parts are beaten and boiled to make tea to which a little castor oil or grease is added. This is also thought to be a 'purge for the blood'. For colds the plant is said to be used alone or with rattle weed (? *Crotalaria*). Browne and other early writers speak of the use of the shoots to prepare a drink for fevers, coughs and colds. It is still used in this way in the Grenadines. In Africa the leaves and roots are used for coughs and colds; the leaves to make an infusion for colic; the powdered leaves with palm oil for convulsions in children; the powdered leaves alone for conjunctivitis and to make a paste for boils; the seeds for ophthalmia, snakebite, ulcers and worms. Similar use is made of the plant in India and Ceylon. (2, 3, 5, 7, 8, 10, 13, 14, 15, 18, 23, 24, 26, 27).

ANDIRA INERMIS H. B. K. Cabbage Bark Tree: Cabbage Tree; Bastard Cabbage; Angeleen Tree; Worm Wood.

For worms and phlegm Beckwith quotes a recipe which has more than a touch of magic in it, 'Take one chip where the sun rises, two where it goes down, boil as tea and sweeten. Eat a little piece of salt herring and drink the tea'. For wounds a plaster made of the grated 'nut' has been used but seems to be a somewhat painful remedy 'only some can stand it'. The bark is said to contain an alkaloid, berberine, and a methyltyrosin (andirin). It was at one time used in European medicine as a vermifuge but it is dangerous in large doses, producing vomiting with fever and delirium. (2, 7, 10, 14, 19, 27).

CAJANUS CAJAN Millsp. Gungo (Congo) Pea: Pigeon or No-eye Pea.

The seeds are a favourite food in Jamaica while the leaves are sometimes used to make tea for colds. Both the leaves and roots are said to contain tannins. In Africa the leaves have been used to prepare a gargle and mouthwash: for diarrhoea and for smallpox. (8, 10, 15).

DESMODIUM SPP: including *D. SUPINUM* DC. Wild Pinder: Strong Back; Man Back; Bee Bur or Bush.

*D. supinum* and probably other *Desmodium* species are used quite commonly to make tea for pains in the back. The whole plant is boiled either alone, or with other plants such as china root (*Smilax* sp.) sarsaparilla (*Smilax ornata*) *Mimosa pudica* and *Chrysanthellum arnerkanum*. The last two are said to be used to induce sleep in case of pain, while the first two together with unidentified species are used to make a tonic drink. Steggerda reports the use of *Desmodium* for colds and kidney troubles. In Lunan's day a decoction of *Desmodium* was considered to be a stomachic and vermifuge, and the smoke from the burning leaves was used for headaches. Analyses of *Desmodium* show the presence of resins. (10).

STYLOSANTHES HAMATA Taub. Donkey Weed: Pencil Flower: Lady's Fingers; Cheesy Toes.  
*S. VISCOSA* Sw. Poor Man's Friend.

It is possible that these species are not distinguished by those using them medicinally. Both species are used in decoction for the treatment of colds. In the Gambia *S. viscosa* is used for colds and as an ingredient of aphrodisiac preparations. Beckwith says it is used in Jamaica for kidney trouble. (2, 7).

## PASSIFLORACEAE

About three hundred and fifty species of warmer regions, including many tropical vines. The leaves and roots contain various compounds which yield hydrocyanic acid. These do not occur in the fruit pulp, however, which is often edible. They also contain salicylic acid.

PASSIFLORA FOETIDA L. Love-in-a-Mist: Granadilla.

The dry plant is used in some parts to make tea which is said to be 'good for the kidneys', as leaves contain 0.009 per cent hydrocyanic acid. (7, 10, 14, 27).

PASSIFLORA SEXFLORA Juss. Duppy Pumpkin: Bat Wing; Goat or Duck Foot; Passion Flower.

Beckwith states that this plant is used for colds, either alone or with *Cissampelos pareiras* and as a plaster for sores, a lame foot or a stiff neck. (2).

#### PHYTOLACCACEAE

A small family consisting for the most part of shrubby plants of the warmer regions of the world about which there are chemical data for only a few individual species. Mustard oil, saponins and 'phytolaccic acid' are among the compounds known for the group.

PETIVERIA ALLICAEA L. Guinea Hen Weed: Strong Man's Weed.

This plant has a strong smell of garlic and the meat and milk of cattle feeding on it acquire a very disagreeable smell and taste. The plant contains mustard oil. The leaves are rubbed up and sniffed or tied on the head for headaches while the roots, steeped in white rum, are similarly used. Beckwith records the use of a decoction with *Eryngium foetidum* for fever and headaches. Lunan mentions the use of the juice for hysterical fits. (2, 7, 14, 15, 19, 24, 25, 27).

#### PIPERACEAE

A large family widely distributed in the tropics of the old world. The leaves contain oil cells. The genus *Piper*, for which the majority of chemical data are available, contains characteristic pungent principles. Also found in members of the family are alkaloids, essential oils, resin and bitter principles.

PEPEROMIA PELLUCIDA Kunth. Pepper Elder (Pepper Helda); Rat Ears; Ratta Temper; Silver Bush; Shinv Bush.

According to Beckwith this plant is used as a tea for a loose cough. In the Grenadines, where it is called silver bush, it provides a tea for undernourished children. In Africa it is frequently employed in infusions for convulsions. In Trinidad, where it is called shiny bush, it is used for colds and as a cooling medicine for children. (2, 28, 13).

PIPER AMALGO L. Joint Wood: Pepper Elder.

The young stem and leaves of this species provide a decoction for flatulence and, according to Steggerda, serve as a tonic for the blood. Browne says the root is sudorific, diaphoretic and good for dropsy, and that the leaves and shoots were used in baths and fomentations. The fruits provide an alternative to commercial pepper. (5, 15, 26).

PIPER NIGRINODUM C.DC. Jointer Bush: Black Joint (Giant); Black Jointer.

For fever and colds the twigs are boiled, the resulting decoction being used as a tea and for a bath. The bath is also taken for pains and the tea, with ginger added, is used for stomach-ache and as a general beverage. (2).

PIPER UMBELLATUM L. Cow or Colt's Foot.

For colds this plant is made into a tea, either alone or with other cold bushes. The leaves are tied on the head for headache and Beckwith says the warmed leaf is applied for lameness, In Lunan's time the root was used for boils. In parts of Africa the leaves are boiled as a vegetable, and as a remedy for tapeworm while the roots are used for rheumatism. The leaves and berries contain a pungent volatile oil about which little is known. (2, 7, 10, 15, 27).

#### PLANTAGINACEAE

A small family of mainly herbaceous temperate region species. A glycoside aucubin, together with choline, adenine and succinic acid has been found in members of the family.

PLANTAGO MAJOR L. English Plantain.

The leaves of this species are rich in potassium salts and contain citric acid, and the alkaloid aucubin. The latter is also present in the roots and flower stalks. According to Beckwith, the juice of the baked leaf or a decoction is used as an eye lotion. In Browne's time the leaves were used by poor people to dress sores and wounds. Europeans in South Africa are said to use them as a dressing for ulcers. In Africa, also, the leaf juice is used for malaria and given to newborn infants. (2, 15, 26, 27).

#### RHAMNACEAE

A family of about five hundred species of warm and tropical regions. Glycosides, including quercitrin, occur together with fats, saponins, tannins, resins and organic acids. Cascara sagrada is a product of the family.

GOUANIA LUPULOIDES Urb. Chew or Chaw Stick.

Chew Stick is still in use as a toothbrush and as flavouring for ginger beer. It has been used as a dentifrice and mouthwash, as a stomachic, to stimulate the appetite and for dropsy. Its composition is unknown. (8, 15, 19).

#### RUBIACEAE

A family of some four thousand five hundred species of warmer regions. Numerous alkaloids occur, the best known being quinine, together with glucosides, saponins, bitters and anthra-quinone derivatives.

BORRERIA LAEVIS (Lam.) Griseb. Button Weed or Bush.

B. VERTICILLATA (L.) Meyer. Button Weed or Bush.

Said to be used to make tea for constipation. In Africa B. verticillata is used to make a lotion for children with fever. (2, 7).

MORINDA ROYOC L. Red Gal: Yaw Weed; Duppy Poison; Yellow Ginger; Strong Back.

In some districts the root is used with sarsaparilla and china root to make a tonic which is supposed to be good for the blood.

#### RUTACEAE

A family of some eight to nine hundred species with volatile oils and glucosides such as hesperidin, rutin and diosmin as the most characteristic constituents. Alkaloids, including berberine, are found in the leaves, the bark and seeds of some species while the fruits may be rich in citric and other acids. Bitters such as angosturine also occur.

CITRUS AURANTIFOLIA Swingle. Lime.

Considerable use is made of the lime in Jamaican household medicine. As a beverage, and for colds, tea is made by boiling a few lime leaves in a little water. The leaves are also used in 'bush baths'. Lime juice mixed with salt or with soda water is said to provide a remedy for stomach-ache; mixed with ink or with pounded berries of *Solanum aculeatissimum* it is applied to ringworm. The latter mixture seems to be effective. According to earlier writers lime was formerly used for a great variety of purposes, the pulp of the roasted fruit providing a dressing for ulcers, and root and bark decoctions being used for weakness and fevers. African native medicine makes much use of the lime. The juice of the fruit is used for skin diseases, sore throat, thrush, as a mouth wash, for dysentery and to apply to wounds: a leaf decoction provides a lotion for fevers and eye diseases. Lime leaves yield an essential oil which contains as much as 43 percent citral. The fruit juice contains about 9 per cent citric acid. Oil of limes contain citral, 1- $\alpha$ -terpineol and a bitter principle called limettin. (13, 15).

CITRUS AURANTIUM L. Sweet Orange.

C. VULGARIS Risso. Seville, Biller, Sour or Biquarade Orange.

A decoction of orange leaves or peel is used for stomach-ache and as a bitter tonic. The juice of sour oranges is used for colds and sore throat. Leaves, twigs and fruit peel contain essential oil with d.limonene, d-camphene, l-linalol, geraniol, methyl anthranilate and citral.

The glucoside hesperidin is found in leaves, peel and fruit juice; vitamins A, C and the B complex, together with, acids such as citric acid (and their salts) are present in the fruit juice. In Africa roasted orange is sometimes applied to ulcers and yaws. Bitter orange is thought to be a remedy for rheumatism. (3, IS, 26, 27).

#### SAPINDACEAE

About one thousand and fifty. mainly woody, species of warm regions. with widely distributed saponins and tannins. Of the alkaloids only caffeine is found.

BLIGHIA SAPIDA Koenig. Akee.

In some parts of Jamaica akee leaves are boiled to make a 'rub' for pains. In the Gold Coast of Africa the bark is ground up with Capsicum to rub on the body as a stimulant. It is also said that in Jamaica tea made with the leaves is used for colds. (7, 27).

#### SAPOTACEAE

Six hundred tropical woody species with latex canals in the leaves, bark and pith. Saponins, tannins, bitter principles and glucosides occur.

SAPOTA ACHRAS Mill. Naseberry: Sapodilla.

Browne reports that the bark of this and several other species was known as Cortex jamaicensis and was at one time used instead of cinchma. He was of the opinion, however, that while it is astringent it is of no use for malaria. The leaves are said to provide a nerve tonic. They contain a little alkaloid, one or more bitter principles, resins and tannic acid. The bark is reputed to contain an alkaloid 'sapotin' which, according to others, is a saponin, and various tannin compounds. (5, 14, 27).

#### SIMARUBACEAE

About one hundred and fifty species of woody plants with bitter bark and fatty seeds. Some glucosides, including cedrin, castelin, valdivin, are found; bitter principles such as quassin and simarubin occur.

PICRAENA EXCELSA Lindl. Jamaica Quassia: Bitter Wood; Bitter Ash.

The wood provides the Jamaican Quassia of commerce. The bitter principle, thought at one time to be a mixture of substances called 'picrasmin', was later shown to be the single bitter quassin ( $C_{20}H_{30}O_6$ ). It is both a tonic and an insecticide. Quassia is used as a home remedy for threadworms in children, as a tonic and appetite stimulant, and for malaria. Cups hollowed out from pieces of the wood were, at one time, used to prepare the medicine. Water left to stand in the cup for even a short time becomes bitter. (8, 14, 19, 27).

PICRAMNIA ANTIDESMA Sw. Maioe Bitters: Macary or Old Woman's Bitter; Tom Bontrin's Bush; Bitter Wood; Honduras Bark; Cascara Amarga.

This plant is still in use in Jamaica for the preparation of home remedies. It is said to make a good tea for a teething baby. Barham says that the name 'Majoe' is that of an old negro woman who used the plant with considerable success in the treatment of yaws and venereal diseases. It has also been used for colic, intermittent fevers and skin ulcers. A Picramnia species is stated to have been introduced into medicine as Honduras Bark or Cascara Amarga (19). Macfayden mentions that the bitter is less intense than quassia. (8, 15, 19, 27).

## SOLANCEAE

A family of about one thousand seven hundred shrubby and herbaceous species of temperate and warm regions, many of which contain poisonous alkaloids. Some of the alkaloids are widely distributed within the family while others are confined to certain genera. They include such well-known substances as atropine, solanine, nicotine, scopolamine and hyoscyamine. Scattered glycosides, such as petunine and scopoline, and many organic acids occur. There are few essential oils and little is known of saponins, tannins and resins. Drugs include belladonna, stramonium and capsicum.

**CAPSICUM SPP.** including *C. FRUTESCENS* L. Bird Pepper.

Capsicum fruits are much used as condiments in the tropics and contain a pungent principle capsaicin, which is said to be of a phenolic nature. The vitamins A, C and the B complex, essential oils and fats are also present. Medicinally they have value as a stimulant and carminative end for their ascorbic acid content. They have been used externally as a counter-irritant for rheumatism and lumbago. In Africa, infusions of the ripe fruit are used for dysentery, yaws, fevers, and as a lotion for ringworm of the scalp. The leaves are used for wounds and sores. In Jamaica the leaves are commonly used with vaseline or castor oil as a dressing for boils while one leaf boiled in a little water is thought to increase urine in babies. Lunan gives a prescription for influenza and sore throat: '2 tablespoons of small red peppers or three common Cayenne peppers, 2 tablespoons of fine salt; beaten together to a paste, infused in half a pint of boiling water, strained and half a pint of very sharp vinegar added when cold'. The dose is 1 tablespoon every half hour. He also recommends pepper vinegar with honey and barley water as a mouth wash and gargle. (3, 8, 15, 23, 27).

**DATURA STRAMONIUM** L. Thorn Apple; Trimona; Jimson or Jamestown Weed; Devils' Trumpets.

This well-known drug plant is used to some extent in Jamaica for asthma and sinus infections. 'It palliates the distressing paroxysms of pure spasmodic asthma when smoked'. (Lindley). The leaves are rubbed up and applied externally to swellings, burns and ulcers. Similar uses are made of the plant in South Africa. The leaves are also used for headaches, haemorrhoids and running sores. Browne reports that in his day the plant was seldom used internally as its use was accompanied by 'dreadful perturbations of the mind', though it was then used for scalds and sores. The leaves have a total alkaloid content of 0.2 to 0.6 per cent, the content increasing with the age and size of the leaves. The principle alkaloid is hyoscyamine with smaller quantities of atropine and hyoscyne. (2, 3, 5, 7, 10, 14, IS, IB, 19, 23, 26, 27).

**PHYSALIS ANGULATA** L. Poisonous Cape Gooseberry; Hog Weed; Winter Cherry.

Said by Beckwith to be ground up and mixed with water as a drink for gonorrhoea. In Northern Nigeria an infusion is given as a drink at child birth, the fruit crushed with milk is taken in cases of sterility (probably a magical use) and a lotion for ophthalmia in children is prepared from it. (2, 5, 7, 10).

**SOLANUM ACULEATISSIMUM** Jacq. Cockroach Poison.

In some parts of Jamaica the plant is pounded with lime juice and used for ringworm, the treatment appearing to be successful. In Africa the fruits of *S. nigrum* are used for this purpose. The fruits and roots are used in Africa in the treatment of coughs, dysmenorrhoea and constipation. Dalziel states that the plant contains solanine 'an alkaloidal glucoside with a physiological action like the saponins, but much less poisonous'. (7, 10, 26, 27).

**SOLANUM MAMMOSUM** L. Sou8umba; Mackaw Bush; Turkey Berry.

**S. TORVUM** Sw. Sousumba; Turkey Berry.

Under the name of sousumba tree berries of both species provide a vegetable eaten with salt fish. It seems probable that the leaves of both are collected indiscriminately and made into a tea which is used chiefly as a cold remedy. In Africa the berries of *S. torvum* are eaten raw or cooked and in Sierra Leone a decoction of them provides a children's cough remedy. Solanine is said to be present in the berries, together with malic and gallic acids and saponin. (2, 7, 15, 27).

SOLANUM NIGRUM L. Branched Calalu; Guma; Black Nightshade.

This plant has long been in use in Jamaica as a green vegetable and potherb. Both Browne and Lunan mention it under the common name of branched calalu. It is said to be good for the blood and as an aperient. Steggerda mentions its use for mouth sores. The leaves and berries, especially when unripe, contain the alkaloid solanine and the plant, although poisonous in Europe, appears to be harmless in Jamaica and South Africa. In Africa both this and a number of other species of Solanum are used like spinach. In addition to solanine the plant is said to contain an unidentified alkaloid, saponin and betaine. In Africa and Jamaica the leaves have, or have had, a reputation as a local anodyne for inflammation. The plant is also employed for treatment of fevers of various kinds. A paste of the green berries is used by the Zulus for ringworm. (See *S. aculeatissimum*). (2, 5, 15, 25, 26, 27).

#### STERCULIACEAE

About one thousand, mainly tropical, woody and herbaceous species are contained in this family. Only the genera *Cola* and *Theobroma*, which contain characteristic alkaloids, are chemically well known. The principle alkaloids are caffeine (theine) and theobromine. It has also been said by some workers that glucosides occur. Other substances which have been identified are kolatannin, tannins, asparagine, kola and cacao red, organic acids, gums and a variety of enzymes. Fats are in some cases of commercial importance, e.g. cocoa butter.

COLA ACUMINATA Schott and Endl. Cola (Kola); Bissy (Bichy, Busy) Nut.

Cola nuts are used in Jamaica for stomach pains and as a purge when poison is suspected. The nuts are grated and boiled like coffee or taken with strong rum. A little cola is sometimes added to country chocolate and it is considered to allay hunger. The plant is said by Lunan to have been brought to Jamaica from the Guinea Coast and planted out near Guanaboa by one Mr. Goffe. In Africa the nut is chewed to promote digestion, is considered to be a tonic, stimulating and antiperiodic, and is also used in dysentery. The chemical composition of cola nuts appears to be complex and a matter for some difference of opinion. It is stated that it contains 1 to 2.35 per cent of caffeine and a small amount of theobromine are present. Starch makes up about 46 per cent of the dry nut; glucose and sucrose are present; fats (up to 3 per cent) tannin and gum are found. Early work indicated the presence of a compound called kolatine said to be a tannin-glucoside or a catechin compound but this has not been found by subsequent investigators. Kolanine, described in earlier work as a glucoside splitting up into caffeine, glucose and kola red, and occurring principally in fresh nuts, was later said to be a mixture of caffeine-tannate and theobromine-tannate, the latter being a glucoside. Kola red may also be a glucoside, giving rise to phloroglucin. In 1929, Casparis found that the drug contained kolacatechin ( $C_{20}H_{20}H_8O_3$ ) and free caffeine the kolacatechin being mainly oxidised to kola red. Kolatine was not found in the fresh nuts but caffeine-kolacatechin ( $C_{28}H_{30}N_4O_{10}$ ) was said to be present. (2, 7, 8, 10, 15, 23, 24, 27).

HELICTERES JAMAICENSIS Jacq. Corkscrew; Screw Tree.

With the wood and leaves, which are bitter, a tea is made for biliousness. Beckwith mentions the use of corkscrew, an unidentified plant but probably this species, as an emetic. In MacFadyen's day an infusion was used for fever, coughs and tuberculosis. (2, 16, 8).

MELOCHIA TOMENTOSA L. Tea Bush; Raichie.

Used to make tea for colds.

WALTHERIA AMERICANA L. Raichie.

This plant provides a tea for colds. In the Grenadines it is said 'to increase the blood'. In Africa it has a varied reputation, being used as a remedy for sterility and internal haemorrhage and by others to cause abortion. It is a common children's remedy and is also used for coughs, as a restorative, and for the prevention of syphilis. It is said to contain tannin, mucilage and sugar. (7, 13).

## TILIACEAE

A small family of mainly woody plants principally found in warmer regions. Tannins are found, some glucosides, including corchorine, occur but alkaloids, saponins and resins are absent.

**CORCHORUS SILIQUOSUS L.** Broom Weed: Slippery Bur.

Beckwith says that for colds and asthma a tea made by boiling with *Piper umbellatum* is sweetened with sugar. (2).

**TRIUMFETTA SPP.** Bur Weed or Bush.

Beckwith described the use of the fresh scraped root with or without camphor to check bleeding and to heal cuts. Browne says the species is mucilaginous and hence emollient, and it may also contain tannins. In Africa species of *Triumfetta* are used as potherbs, for diarrhoea and dysentery and to facilitate childbirth. (2, 5).

## TURNERACEAE

A family containing about one hundred and five herbaceous and woody species, mostly tropical and subtropical. It has been little investigated chemically but is known to contain essential oils and a bitter principle.

**TURNERA ULMIFOLIA L.** Ram-goat Dash Along, Ram-goat National, Ram-goat Rational, National Ram-goat; Holly or Sage Rose.

The leaves of this species, boiled to make tea, are a favourite beverage and cold remedy in all parts of Jamaica where the plant can be found. Beckwith says it is also used for general weakness, constipation, fever and prickly heat and is reputed to cause abortion. *Turnera* species are known to contain essential oils and a bitter principle. *Damiana* which consists of the dried leaves of *T. diffusa* var. *aphrodisiaca* and probably other species contains essential oils, resins, gum and 'damianin'. (2, 25).

## UMBELLIFERAE

A large family of herbaceous plants of temperate regions, most of the members containing essential oils in the oil ducts of the fruit, leaves and roots. Fats are widely distributed in the seeds; numerous organic acids, usually as salts and esters, are found; resins and bitter principles occur. Alkaloids and glucosides are not widely distributed though they are present and include quercitrin, hesperidin and daucin. The family has many drug plants including coriander, dill, caraway, fennel and assafoetida.

**ERYNGIUM FOETIDUM L.** Fit Weed or Bush; Spirit Weed.

A decoction of the plant is used for colds and fits in children. The plant is also rubbed on the body for fainting fits and convulsions. Since it is said to have magical properties in connection with protection from duppies (ghosts) this may explain its use in convulsions, fainting and hysteria for which it has long been employed in Jamaica. It contains essential oil (0.02 to 0.04 per cent) and saponin has been found in the root. In Africa it is used for ulcers and headaches. (2, 5, 7, 8, 15, 19, 24, 25, 27).

## URTICACEAE

A family of some five hundred, mainly herbaceous, temperate and tropical plants of little chemical significance. Silicic acid, formic acid, methyl alcohol and d-sabinene occur in the family.

**PILEA MICROPHYLLA Liebm.** Wild Thyme (Tim); Baby Puzzle; Lace Plant; Artillery Plant.

In Jamaica this plant is said to provide relief in cases of asthma. Beckwith reports its use with 'egg trash' to make tea for a woman in labour and for both mother and child after the birth. In the Grenadines it is used for diarrhoea in children. (2, 13, 25).

## VERBENACEAE

A family in which, numerous essential oils are found together with little known glycosides, alkaloids, saponins, pigments and fats.

LANTANA CAMARA L. Wild Sage: White Sage.

L. CROCEA Jacq. Wild Sage: Black Sage.

L. INVOLUCRATA L. Wild Sage; Wild Mint.

L. TRIFOLIA L. Wild Sage: Goat Weed.

It is highly probable that leaves of the above species of Lantana, together with others, are used indiscriminately to make a tea as a cold and fever remedy. Several of them are said to contain an alkaloid lantanine which has an action similar to quinine and if this is so it would explain why they prove efficacious. The plants are astringent and aromatic, containing up to 0.22 per cent of essential oils. The leaves of Lantana camara provide the drug Herba Camara. This plant is commonly employed in African native medicine for coughs, colds and fevers. With leaves of banana and Morinda lucida it is also used in steam baths for the treatment of yellow fever. In the Grenadines Lantana camara is a common remedy for dysmenorrhoea and for morning sickness in pregnancy. Both in Jamaica and West Africa use is made of the astringent properties of Lantana spp. in the treatment of sores. (2, 7, 10, 13, 25, 27).

LIPPLA GEMINATA Kth. Colic Mint: Guinea Mint; ?Cat Mint; Cullen Mint.

The fresh leaves of this species contain about 0.12 per cent volatile oil and resin. They are commonly made into a tea to provide a drink which is also considered valuable for indigestion and flatulence. The leaves are used either dry or fresh. In African Lippia spp. are employed for a variety of complaints, including colds, fevers, colic, dysentery, as a laxative and tonic. (27).

PRIVA LAPPULACEA L. Clammy Bur; Rattle Weed; Styptic Bur; Velvet Bur.

Said, by Beckwith, to be used alone or with liquorice to make tea for colds. The tea is sweetened with sugar or honey. In the Grenadines it is used as a 'health tea' for under-nourished children. (2, 13).

STACHYTARPHETA JAMAICENSIS Vahl. Vervain (Vervine, Verryvine).

In Browne's day the plant was '... kept in most of the shops of America where it is much in use among the poorer people'. Its uses were similar to those for which it is employed to-day. A morning drink either alone or with castor oil provides a remedy for colds, 'cleaning the system', and for dysmenorrhoea. In Africa it has similar uses but is also employed for the treatment of gonorrhoea, eye disorders, sores in the ears of children and for heart trouble'. The plant is said to contain glycosidal compounds. A leaf infusion is used in Trinidad as a cooling medicine. (5, 13, 14, 15, 18, 24, 28).

## VITACEAE

A family of both warm and temperate regions containing upwards of four hundred and fifty climbing shrubs of which the best known is the grape vine *Vitis vinifera*. Chemical data are mostly for *Vitis* spp. So far as is known saponins, alkaloids and essential oils are absent.

CISSUS SICYOIDES L. Pudding Wys (Withe); Snake Withe (Wys) or Bush; Wild Yarn; Mary Bush; Yaws Bush; Bastard Bryony; Scratch Wys.

The leaves, chopped and mixed with fat or 'quailed' and rubbed with castor oil, provide a plaster for boils and bruises. For colds a decoction is taken and the leaves may be used as snuff to relieve a headache. As a tonic the stem is boiled with sarsaparilla, *Morinda royoc*, china root and *Desmodium supinum*. A root decoction, sometimes with *Desmodium* spp., is used for pains and particularly for back pains. Similar use is made of the plant in Africa where it is also recommended for the treatment of gonorrhoea and rheumatic swelling. (2, 8, 26)

## ZINGIBERACEAE

Essential oils often associated with pungent principles are a feature of this family which yields a number of condiments including ginger, grains of paradise and cardamon. Starchy rhizomes are common and often these are aromatic and pungent. Alkaloids and glucosides appear to be absent.

## ZINGIBER OFFICINALE Rosc. Ginger.

The rhizome ('root') of this species is the ginger of commerce now used mainly as a spice but formerly much used in medicine. The rhizome contains up to 64 per cent starch with essential oils and fats, a little sugar and a pungent tasting principle which has been variously identified as an oleo-resin gingerol (an oily aromatic mixture of homologous phenols) and as a ketone called zingeron ( $C_{12}H_{14}O_3$ ). Resins and mucilage are also found. Oil of ginger (1 to 3 per cent of the dry rhizome contains as its principal constituents a sesquiterpene zingiberine  $C_{15}H_{24}$ ) d-camphene, b-phellandrine, cineole, citral, borneol and, according to some analyses, a sesquiterpene alcohol zingiberol, which is responsible for the aroma.

Ginger is used in Jamaica, alone or with *Momordica charantia*, as a carminative and digestive stimulant. It was formerly recommended for gout and, mixed with coconut oil, applied to wounds. It has also been used in baths and fomentations for fevers and pleurisy. In West Africa in addition to its use as a stomachic it is also employed for rheumatic pains, toothache, neuralgia and catarrh. (3, 5, 7, 10, 15, 23, 27).

## ZYGOPHYLLACEAE

A small family, principally of woody species, found in warm and tropical regions of the northern hemisphere. The wood contains resins, alkaloids and saponins. A number of the species are used medicinally.

## GUAIACUM OFFICINALE L. Lignum Vitae: Pockwood Tree.

The wood and resin (gum guaiacum) were at one time officially included in the pharmacopoeias. The wood and bark are said to contain a saponin which yields a sapogenin identified with that of sugar beet ( $C_3H_4O_3$ ). Gum guaiacum is a hard resin which, in Jamaica, is soaked in rum and used as a gargle for sore throat, as a drink for 'bellyache' and as an application to cuts and bruises. For the latter purpose the bruised leaves are sometimes added to the plaster. The juice of the leaves is also taken for biliousness. In earlier times the resin, wood and bark were considered of value in treating venereal diseases, gout, rheumatism and sometimes in intermittent fevers. (2, 3, 5, 8, 14, 15, 23, 24, 27).

## TRIBULUS CISTOIDES L. Jamaica or Kingston Buttercup; Police Macca; Turkey Blossom; Kill Buckra.

In Jamaica this plant is used for colds and malaria, and also apparently for kidney and bladder infections. In some parts of Africa another species, *T. terrestris* L. is thought to be of value for cystitis and in the wilted state is said to cause a disease in sheep called geeldikkop. This species contains a glucoside, phlobaphene and an oil. (24, 25, 27).

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## APPENDIX I

### Index of Botanical Names of Plants cited in the Text

Botanical Name	Family	Common Name(s)
1. <i>Abrus precatorius</i>	L.Papilionateae	Red Bead Vine; Crabs' Eyes; Lick Weed; Liquorice Vine; John Crow Beads; Wild Liquorice.
2. <i>Achyranthes indica</i> Mill.	Amarantaceae	Devil's Horsewhip; Devil's Riding Whip; Devil's Backbone; Colic Weed; Hug-me-close.
3. <i>Allium sativum</i> L.	Liliaceae	Garlic.
4. <i>Aloe vulgaris</i> Lam.	Liliaceae	Aloes; Sinkle or Simple Bible ( <i>Semper Vivum</i> ).
5. <i>Amarantus spinosus</i> L.	Amarantaceae	Prickly Calalu; Spinach.
6. <i>A. tristis</i> L.	Amarantaceae	Spanish Calalu; Spinach.
7. <i>A. viridis</i> L.	Amarantaceae	Green or Garden Calalu; ('Caruru'); Spinach.
8. <i>Anacardium occidentale</i> L.	Anacardiaceae	Cashew.
9. <i>Andira inermis</i> H. B. K.	Papilionateae	Cabbage (Bark) Tree; Bastard Cabbage; Worm Wood; Angeleen Tree.
10. <i>Andrographis paniculata</i> Ns.	Acanthaceae	Rice Bitters; Wild Rice.
11. <i>Annona muricata</i> L.	Annonaceae	Soursop.
12. <i>A. reticulata</i> L.	Annonaceae	Custard Apple.
13. <i>A. squamosa</i> L.	Annonaceae	Sweetsop.
14. <i>Aralia guilfoylei</i> Cogn and March	Araliaceae	Aralia.
15. <i>Argemone mexicana</i> L.	Papaveraceae	Mexican Poppy; Mexican Thistle; Prickly Poppy; Yellow or Gamboge Thistle.
16. <i>Artemisia absinthium</i> L.	Compositae	Absinth; Worm Weed.
17. <i>Artemisia</i> sp.	Compositae	Garden Bitters.
18. <i>Artocarpus incisa</i> L.	Moraceae	Breadfruit.
19. <i>Asclepias curassavica</i> L.	Asclepiadaceae	Redhead; Bastard, Wild, Ipecacuanha; Blood Flower.
20. <i>A. nivea</i> L.	Asclepiadaceae	Whitehead.
21. <i>Bidens pilosa</i> L.	Compositae	Spanish Needle or Nettle.
22. <i>B. reptans</i> (L.) G. Don	Compositae	Marigold; Goldenrod; Honeysuckle; McKitty or McKathy Weed.
23. <i>Blechum brownei</i> Juss.	Acanthaceae	Wild Hops; John Bush.
24. <i>Blighia sapida</i> Koenig.	Sapindaceae	Akee.
25. <i>Borreria laevis</i> (Lam.) Gr.	Rubiaceae	Button Weed or Bush.
26. <i>B. verticillata</i> (L.) Meyer.	Rubiaceae	Button Weed or Bush.
27. <i>Bryophyllum pinnatum</i> Kurz.	Crassulaceae	Leaf of Life.
28. <i>Caesalpinia bonduc</i> Roxb.	Caesalpinoideae	Yellow Nicker; Bonduc.
29. <i>C. bonducella</i> Flem.	Caesalpinoideae	Grey Nicker; Bonduc.
30. <i>C. coriaria</i> Willd.	Caesalpinoideae	Divi-divi; Libi-dibi.
31. <i>Cajanus cajan</i> Mill sp.	Papilionateae	Gungo (Congo) Pea; Pigeon Pea; No-eye Pea.
32. <i>Calea jamaicensis</i> L.	Compositae	Bee-bee.
33. <i>Capsicum frutescens</i> L.	Solanaceae	Bird Pepper.
34. <i>Capsicum</i> spp.	Solanaceae	Pepper.
35. <i>Carica papaya</i> L.	Caricaceae	Papaw.
36. <i>Cassia ligustrina</i> L.	Caesalpinoideae	Dandelion.
37. <i>C. obovata</i> Collado	Caesalpinoideae	Jamaica Senna; Senegal Cassia; Port Royal, Senegal, Tripoli, Wild, Italian or Dog Senna.

Botanical Name	Family	Common Name(s)
38. <i>C. occidentalis</i> L.	Caesalpinoideae	Wild Senna; Dandelion; Stinking Weed; Wild Coffee, John Crow Pea; Stinking Wood.
39. <i>Cecropia peltata</i> L.	Moraceae	Trumpet Tree; Snake Wood.
40. <i>Cenchrus</i> spp.	Gramtneae	Bur Grass.
41. <i>Chaptalia nutans</i> (L.) Polak.	Compositae	Kema Weed: Whiteback; Heal-I and-Draw; Lion's Tail; Dandelion.
42. <i>Chenopodium ambrosioides</i> L.	Chenopodiaceae	Semi-contra (Semen Contra); Worm Weed or Seed; Mexican Tea; Bitter Weed; Hedge Mustard.
43. <i>Chrysanthellum americanum</i> (L.) Vatke	Compositae	Strong Back.
44. <i>Cinnamomum zeylanicum</i> Breyn.	Lauraceae	Cinnamon.
45. <i>Cissampelos pareira</i> L.	Menispermaceae	Velvet Bush or Leaf: False Pareira brava.
46. <i>Cissus sicyoides</i> L.	Vitaceae	Pudding Wys (Withe): Snake Wys (Withe) or Bush; Wild Yam; Mary Bush; Yaws Bush; Bastard Bryony; Scratch Wys (Withe).
47. <i>Citrus aurantifolia</i> Swingle	Rutaceae	Lime.
48. <i>C. vulgaris</i> Risso (= <i>C. aurantium</i> L. in part)	Rutaceae	Sour, Bitter or Seville Orange: Bigarade Orange
49. <i>C. aurantium</i> L. (= <i>C. sinensis</i> Osb.)	Rutaceae	Sweet Orange.
50. <i>Clibadium surinamense</i> L.	Compositae	Jackass Breadnut.
51. <i>Clidemia hirta</i> D. Don	Melastomaceae	Indian Currant Bush: Soap Bush.
52. <i>Cocos nucifera</i> L.	Palmae	Coconut Palm.
53. <i>Cola acuminata</i> Schott and Endl.	Sterculiaceae	Kola (Cola): Bissy (Bichy).
54. <i>Commelina elegans</i> H.B.K.	Commelinaceae	Water Gralls.
55. <i>C. longicaulis</i> Jacq.	Commelinaceae	Water Grass: French Weed.
56. <i>Corchorus siliquosus</i> L.	Tiliaceae	Broom Weed: Slippery Bur.
57. <i>Cordia globosa</i> H.B.K.	Boraginaceae	Black Sage: John Charles or Charlie; Gout Tea.
58. <i>Crescentia cujete</i> L.	Bignoniaceae	Calabash.
59. <i>Croton wilsonii</i> Gr.	Euphorbiaceae	Pepper Rod: Doctor John; ? John Charles or Charlie.
60. <i>Cucurbita pepo</i> L.	Cucurbitaceae	Pumpkin.
61. <i>Cuphea parsonia</i> R. Br.	Lythraceae	Milk Weed: Strong Back.
62. <i>Cuscuta</i> spp.	Convolvulaceae	Love Weed or Bush: Dodder; Hell Weed; Devil's Guts.
63. <i>Cymbopogon citratus</i> (DC.) Stapf.	Gramineae	Fever Grass: Lemon Grass.
64. <i>Cynodon dactylon</i> Pers.	Gramineae	Bahama Grass: Bermuda or Dog's tooth Grass.
65. <i>Cyperus articulatus</i> L.	Cyperaceae	Adrue (Madrow).
66. <i>Datura stramonium</i> L.	Solanaceae	Thorn Apple: Devil's Trumpet; Trimona; Jamestown (Jimson Weed).
67. <i>Desmodium</i> spp.	Papilionateae	Wild Pinder: Strong Back; Man Back; Bee Bust, or Bur.
68. <i>Dianthera pectoralis</i> Murr.	Acanthaceae	Fresh-cut: Garden Balsam.
69. <i>Dryopteris</i> sp.	Filicineae	? Whitestick.
70. <i>Echites umbellata</i> Jacq.	Apocynaceae	Maroon Weed: Savannah Flower.
71. <i>Emilia sagittata</i> (Vahl) DC.	Compositae	Consumption Weed: Grease Bush.
72. <i>Erigeron bonariensis</i> L.	Compositae	Asthma Weed.
73. <i>E. canadensis</i> L.	Compositae	Canada Fleabane: Dead Weed.
74. <i>Eryngium foetidum</i> L.	Umbelliferae	Fit Weed: Spirit Weed; Fit Bush.

Botanical Name	Family	Common Name(s)
75. <i>Eupatorium macrophyllum</i> L.	Compositae	Hemp Agrimony: ? Musk Melon; Herbe Chat (Trinidad).
76. <i>E. odoratum</i> L.	Compositae	Jack-in-the-Bush: Bitter Bush; Archangel; Hemp Agrimony; Christmas Rose.
77. <i>E. triste</i> DC.	Compositae	Bitter Bush: Old Woman. Bitter Bush; Hemp Agrimony.
78. <i>E. villosum</i> Sw.	Compositae	Bitter Bush: Hemp Agrimony, Old Woman Bitter Bush.
79. <i>Euphorbia hirta</i> L.	Euphorbiaceae	Spurge: Milk Weed or Tea; Pempe; Mapempe.
80. <i>E. hypericifolia</i> L.	“	
81. <i>E. hyssopifolia</i> L.	“	
82. <i>E. lasiocarpa</i> Klotzsh.	“	
83. <i>Fevillea cordifolia</i> L.	Cucurbitaceae	Antidote Cocoon:Segra Seed; Nhandiroba.
84. <i>Funastrum clausum</i> (Jacq).Schleder	Asclepiadaceae	Milk Wys (Withe).
85. <i>Gesneria</i> sp.	Gesneriaceae	Rock Bush.
86. <i>Gossypium</i> spp.	Malvaceae	Cotton: White Cotton Bush.
87. <i>Gouania lupuloides</i> Urb.	Rhamnaceae	Chew or Chaw Stick.
88. <i>Guaiacum officinale</i> L.	Zygophyllaceae	Lignum Vitae: Pockwood Tree.
89. <i>Haematoxylum campechianum</i> L.	Caesalpinoideae	Logwood: Campeachy Logwood; Campeachy Wood.
90. <i>Helicteres jamaicensis</i> Jacq.	Sterculiaceae	Corkscrew: Screw Tree.
91. <i>Heliotropium parviflorum</i> L.	Boraginaceae	Wild Clary: Dog's Tail; Sage.
92. <i>Hibiscus elatus</i> Sw.	Malvaceae	Blueor Mountain Mahoe: Cuba Bark.
93. <i>H. sabdarilfa</i> L.	Malvaceae	Red, French or Indian Sorrel: African Mallow.
94. <i>Hippeastrum puniceum</i> (Lam.)Urb.	Amarylloidaceae	Red or Maroon Lily.
95. <i>Hyptis pectinata</i> (L.) Poit.	Labiatae	Piaba.
96. <i>H. suaveolens</i> (L.) Poit.	Labiatae	Spikenard: Pig Nut.
97. <i>Ipomoea dissecta</i> (Jacq.) Pursh.	Convolvulaceae	Know-you.
98. <i>Iresinapaniculata</i> Kuntze.	Amaramtaceae	Juba's Bush
99. <i>Jatropha curcas</i> L.	Euphorbiaceae	Physic Nut
100. <i>J. gossypifolia</i> L.	Euphorbiaceae	WildCassada;BellyacheBush; Cassada Marble.
101. <i>Lantana camara</i> L.	Verbenaceae	Wild Sage: White Sage.
102. <i>L. croce a</i> Jacq.	Verbenaceae	Wild Sage: Black Sage.
103. <i>L. involucrata</i> L.	Verbenaceae	Wild Sage: Wild Mint.
104. <i>L. trifoliata</i> L.	Verbenaceae	Wild Sage: Goat Weed.
105. <i>Lippia geminata</i> Kunth.	Verbenaceae	Colic Mint:Guinea Mint; Cullen Mint; ? Cat Mint.
106. <i>Malvastrum coromandelianum</i> Garcke	Malvaceae	? Broomweed: Mallow.
107. <i>Mangifera indica</i> L.	Anacardiaceae	Mango.
108. <i>Melochia tomentosa</i> L.	Sterculiaceae	Tea Bush; Raichie.
109. <i>Mentha viridis</i> L.	Labiatae	Garden Mint: Black or Sweet Mint.
110. <i>Miconia laevigata</i> DC.	Melastomaceae	Chicken Net: Johnny Berry; Indian Currant Bush.
111. <i>Micromeria brownei</i> (Sw.) Benth.	Labiatae	Pennyroyal.
112. <i>M. viminea</i> (L.) Urb.	Labiatae	Peppermint.
113. <i>Mikania</i> spp.	Compositae	Guaco Bush (variable spelling).
114. <i>Mimosa pudica</i> L.	Mimosoideae	Shame Weed;Sensitive Plant. Shama; Shame-a-Lady; Shut Weed, Dead and Awake.
115. <i>Momordica charantia</i> L.	Cucurbitaceae	Cerasee.
116. <i>Morinda Royoc</i> L.	Rubiaceae	Red Gal: Strong Back; Yaw Weed Duppy Poison; Yellow Ginger.

117. <i>Myristica fragrans</i> Houltt	Myristicaceae	Nutmeg.
118. <i>Ocimum basilicum</i> L.	Labiatae	Barsley.
119. <i>O. micrantham</i> Willd.	Labiatae	WildBarsley(WildBasil);Mosquito Bush.
120. <i>Opuntia tuna</i> Miller	Cactaceae	Tuna: Prickly Pear; Indian Fig.
121. <i>Oryctanthus occidentalis</i> Eichl.	Loranthaceae	Godbush; Scorn-the-Earth; Mistletoe.
122. <i>Parthenium hysterophorus</i> L.	Compositae	Wild Wormwood: Bastard Feverfew; Mugwort; Whitehead; Dog Flea Weed.
123. <i>Passiflora foetida</i> L.	Passifloraceae	Love-in-a-mist; Granadilla.
124. <i>P. sexflora</i> Juss.	Passifloraceae	Duppy Pumpkin; Passion Flower, Bat Wing; Goat or Duck Foot.
125. <i>Pectis</i> spp.	Compositae	Stink Weed.
126. <i>Peperomia pellucida</i> Kunth.	Piperaceae	Pepper Elder (Helda); Rat Ears; Ratta Temper; Silver Bush; Shiny Bush.
127. <i>Persea americana</i> Mill.	Lauraceae	Avocado or Alligator Pear.
128. <i>Petiveria alliacea</i> L.	Phytolaccaceae	Guinea Hen Weed; Strong Man's Weed.
129. <i>Phthirusa pauciflora</i> Eichl.	Loranthaceae	Mistletoe; Scorn-the-Earth.
130. <i>Phyllanthus niruri</i> L.	Euphorbiaceae	Carry-me-seed; Seed-underleaf; Quinine Weed.
131. <i>Physalis angulata</i> L.	Solanaceae	Poisonous Cape Gooseberry; Winter Cherry; Hog Weed.
132. <i>Picraena excelsa</i> Lindl.	Simarubaceae	Jamaica Quassia; Bitter Wood; Bitter Ash.
133. <i>Picramnia antidesma</i> Sw.	Simarubaceae	Majoe or Macary Bitters; Old Woman's Bitter; Bitter Wood; Tom Bontrin's Bush.
134. <i>Pilea microphylla</i> Liebm.	Urticaceae	Wild Thyme (Tim); Lace or Artillery Plant; Baby puzzle.
135. <i>Pimenta officinalis</i> Lindl.	Myrtaceae	Pimento; Allspice.
136. <i>Piper Amalgo</i> L.	Piperaceae	Joint Wood; Pepper Elder (Helda).
137. <i>P. nigrinodum</i> C. DC.	Piperaceae	Jointer Bush; Black Jointer or Joint (Giant).
138. <i>P. umbellatum</i> L.	Piperaceae	Cow or Colt's Foot.
139. <i>Plantago major</i> L.	Plantaginaceae	English Plantain.
140. <i>Pluchea odorata</i> L. Casso	Compositae	Riverside Tobacco; Wild Tobacco; Sweet-scented Fleabane; Cure-for-all.
141. <i>Polypodium exiguum</i> Hew.	Filicineae	?Hug-me-tight.
142. <i>Priva lappulaceae</i> L.	Verbenaceae	Clammy Bur; Rattleweed; Styptic Bur; Velvet Bur.
143. <i>Ricinus communis</i> L.	Euphorbiaceae	Castor Oil Plant.
144. <i>Rytidophyllum tomentosum</i> Mart.	Gesneriaceae	Search.my-heart.
145. <i>Saccharum officinarum</i> L.	Gramineae	Sugar Cane.
146. <i>Salvia serotina</i> L.	Labiatae	Chicken Weed or Bitters; Wild Sage.
147. <i>Sambucus simpsonii</i> Rehder.	Caprifoliaceae	Elder.
148. <i>Sapota achras</i> Mill.	Sapotaceae	Naseberry: Sapodilla.
149. <i>Sauvagesia brownei</i> Planch.	Ochnaceae	Strong Back; Iron Shrub.
150. <i>Smilax balbisiana</i> Kth.	Lilaceae	China Root.
151. <i>S. ornata</i> Hook.	Liliaceae	Jamaican Sarsaparilla.
152. <i>Solanum aculeatissimum</i> Jacq.	Solanaceae	Cockroach poison.
153. <i>S. mammosum</i> L.	Solanaceae	Sousumba; Turkey Berry; Mackaw Bush.
154. <i>S. torvum</i> Sw.	Solanaceae	Sousumba; Turkey Berry.
155. <i>S. nigrum</i> L.	Solanaceae	Branched Calalu: Guma; Black Nightshade.
156. <i>Spigelia anthelmia</i> L.	Loganiaceae	Pink Root; Worm Grass; Pink Weed; Indian Pink.
157. <i>Spondias monbin</i> L.	Anacardiaceae	Hog Plum.
158. <i>Stachytarpheta jamaicensis</i> Varl.	Verbenaceae	Vervain (Vervine, Verryvine).

159. <i>Stylosanthes hamata</i> Taub.	Papilionateae	Donkey Weed; Lady's Fingers; Cheesy Toes; Pencil Flower.
160. <i>S. viscosa</i> Sw.	Papilionateae	Poor Man's Friend.
161. <i>Swietenia mahagoni</i> Jacq.	Meliaceae	Mahogany.
162. <i>Tamarindus indica</i> L.	Caesalpinotdeae	Tamarind.
163. <i>Tournefortia hirsutissima</i> L.	Boraginaceae	Chigger Nut; Crocus Bush; ?Hog Hook.
164. <i>Tribulus cistoides</i> L.	Zygophyllaceae	Jamaica or Kingston Buttercup; Police Macca; Kill Buckra; Turkey Blossom.
165. <i>Triumfetta</i> spp.	Tiliaceae	Bur Weed or Bush.
166. <i>Turnera ulmifolia</i> L.	Turneraceae	Ram-goat Dash Along (R-g Nationa) or Rational); Dash Along; Sage or Holly Rose.
167. <i>Vernonia divaricata</i> Sw.	Compositae	Old Man Bitter Bush: Fleabane.
168. <i>Vinca rosea</i> L. ( <i>Lochnera rosea</i> (L.) Reicheub.)	Apocynaceae	Periwinkle; Ram-goat Rose; Brown Man's Fancy; Old Maid
169. <i>Waltheria americana</i> L.	Sterculiaceae	Raichie.
170. <i>Wedelia trilobata</i> (L.) Hitchc	.Compositae	Wild or Running Marigold: Mary gold; Creeping Ox-eye; Water Weed.
171. <i>Zebrina pendula</i> Schnitzl	Commelinaceae	Red Water Grass: Creeping Jenny; Wandering Jew; Rolling Calf Bed.
172. <i>Zingiber officinale</i> Rose.	Zingiberaceae	Ginger.

## APPENDIX II

Index of Common Names of Jamaican Medicinal Plants, with cross reference by number to the botanical name in Appendix I

Absinth	16	Black Joint (Giant)	137
Adrue (Hadrow)	65	Black Jointer	137
Akee	24	Black Mint	109
Alligator Pear	127	Black Nightshade	155
Allspice	135	Black Sage	57, 102
Aloes	4	Blood Flower	19
Angeleen Tree	9	Blue Mahoe	92
Antidote Cocoon	83	Bonduc	28, 29
Aralia	14	Branched Calalu	155
Archange	176	Breadfruit	18
Artillery Plant	134	Broomweed	56, ?106
Asthma Weed	72	Brown Man's Fancy	168
Avocado Pear	127	Bur Bush	165
Baby Puzzle	134	Bur Grass	40
Bahama Grass	64	Bur Weed	165
Barsley	118	Button Bush	25, 26
Bastard Bryony	46	Button Weed	25, 26
Bastard Cabbage	9	Cabbage (Bark) Tree	9
Bastard Feverfew	122	Calabash	58
Bastard Ipecacuanha	19	Calalu	5,6,7, 155
Bat Wing	124	Campeachy Logwood	89
Bee-bee	32	Campeachy Wood	89
Bee Bur	67	Canada Fleabane	73
Bee Bush	67	Carry-me-seed	130
		Cashew	8

Belly-ache Bush	100	Cassada Marble	100
Bermuda Grass	64	Castor Oil Plant	143
Bichy	53	Cat Mint	?105
Bird Pepper	33	Cerasee	115
Bissy	53	Chaw Stick	87
Bitter Ash	132	Cheesy Toes	159
Bitter Bush	76, 77, 78	Chew Stick	87
Bitter Weed	42	Chicken Bitters	146
Bitter Wood	132, 133		
Chicken Net	110	Goat Foot	124
Chicken Weed	146	Goat Weed	104
Chigger Nut	163	God Bush	121
China Root	150	Goldenrod	22
Christmas Rose	76	Gout Tea	57
Cinnamon	44	Granadilla	123
Clammy Bur	142	Grease Bush	71
Cockroach Poison	152	Green Calalu	7
Coconut Palm	52	Grey Nicker	29
Cola	53	Guaco Bush	113
Colic Mint	105	Guinea Hen Weed	128
Colic Weed	2	Guinea Mint	105
Coin Foot	138	Guma	155
Congo Pea	131	Gungo Pea	31
Consumption Weed	71	Hadrow (Adrue)	65
Corkscrew	90	Heal-I-and-Draw	41
Cotton	86	Hedge Mustard	42
Cow Foot	138	Hell Weed	62
Crab's Eyes	1	Hemp Agrimony	75, 76, 77, 78
Creeping Jenny	171	Herbe Chat (Trinidad)	75
Creeping Ox-eye	170	Hog Hook	?163
Crocus Bush	163	Hog Plum	157
Cuba Bark	92	Hog Weed	131
Cullen Mint	105	Holly Rose	166
Cure-for-all	140	Honeysuckle	22
Custard Apple	12	Hug-me-close	2
Dandelion	36, 38, 41	Hug-me-tight	?141
Dash Along	166	Indian Currant	
Dead and Awake	114	Bush	51, 110
Dead Weed	73	Indian Fig	120
Devil's Backbone	2	Indian Pink	156
Devil's Guts	62	Indian Sorrel	93
Devil's Horsewhip	2	Iron Shub	149
Devil's Riding Whip	2	Italian Senna	37
Devil's Trumpet	66	Jackass Breadnut	50
Divi-divi	30	Jack-in-the-Bush	76
Doctor John	59	Jamaica Buttercup	164
Dodder	62	Jamaica Quassia	132
Dog-flea Weed	122	Jamaica	
Dog Senna	37	Sarsaparilla	151
Dog's Tail	91	Jamaica Senna	37
Dog's Tooth Grass	64	Jamestown Weed	66

Donkey Weed	159	Jimson Weed	66
Duck Foot	124	John Bush	23
Duppy Poison	116	John Charles (or	
Duppy Pumpkin	124	Charlie)	57, 759
Elder	147	John Crow Beads	1
English Plantain	139	John Crow Pea	38
False Pareira-brava	45	Johnny Berry	110
Fever Grass	63	Jointer Bush	137
Fit Bush	74	Joint Wood	136
Fit Weed	74	Juba's Bush	98
Fleabane	167	Kema Weed	41
French Sorrel	93	Kill Buckra	164
French Weed	55	Kingston Buttercup	164
Fresh Cut	68	Know-you	97
Gamboge Thistle	15	Kola	53
Garden Balsam	68	Lace Plant	134
Garden Bitters	17	Lady's Fingers	159
Garden Calalu	7	Leaf of Life	27
Garden Mint	109	Lemon Grass	63
Garlic	3	Libi-dibi	30
Ginger	172		
Lick Weed	1	Piaba	95
Lignum Vitae	88	Pigeon Pea	31
Lime	47	Pig Nut	96
Lion's Tail	41	Pimento	135
Liquorice Vine	1	Pink Root	156
Logwood	89	Pink Weed	156
Love Buah	62	Pockwood Tree	88
Love-in-a-Mist	123	Poisonous Cape	
Love Weed	62	Gooseberry	131
Macary Bitters	133	Police Macca	164
Mackaw Bush	153	Poor Man's Friend	160
Mahogany	161	Port Royal Senna	37
Majoe Bitters	133	Prickly Calalu	5
Mallow	106	Prickly Pear	120
Man Back	67	Prickly Poppy	15
Mango	107	Pumpkin	60
Mapempe	79, 80, 81, 82	Pudding Wys (Withe)	46
Marigold	22, 170	Quassia	132
Maroon Lily	94	Quinine Weed	130
Maroon Weed	70	Raichie	108, 169
Mary Bush	46	Ram-goat Dash Along	166
Marygold	170	Ram-goat National	166
McKathy Weed	22	Ram-goat Rational	166
McKitty Weed	22	Ram-goat Rose	168
Mexican Poppy	15	Ratta Temper	126
Mexican Tea	42	Rat Ears	126
Mexican Thistle	15	Rattle Weed	142
Milk Tea	79, 80, 81, 82	Red-Bead Vine	1
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Milk Witl:-e (Wys)	84	Redhead	19

Mint	103, 105, 109	Red Lily	94
Mistletoe	121, 129	Red Sorrel	93
Mosquito Bush	119	Red Water Grass	171
Mountain Mahoe	92	Rice Bitters	10
Mugwort	122	Riverside Tobacco	140
Musk Melon	175	Rock Bush	85
Naseberry	148	Rolling Calf Bed	171
Nhandiroba	83	Running Marigold	170
Nicker	28, 29	Sage	57, 91, 101, 102, 103.
No-eye Pea	31		104, 146
Nutmeg	117	Sage Rose	166
Old Maid	168	Sapodilla	148
Old Man Bitter Bush	167	Sarsaparilla	151
Old Woman Bitter		Savannah Flower	70
Bush	77, 78	Scorn-the-Earth	121, 129
Old Woman's Bitter	133	Scratch Withe (Wys)	46
Orange - Bitter, Biga-		Screw Tree	90
rade, Seville or			
Sour	48	Search-my-Heart	144
Orange - Sweet	49	Seed-under-leaf	130
Papaw	35	Segra Seed	83
		Semicontra (Semen	
Passion Flower	124	contra)	42
Pempe	79, 80, 81, 82	Semper vivum	4
Pencil Flower	159	Senegal Cassia	37
Pennyroyal	111	Senegal Senna	37
Pepper	34	Senna	37, 38
Pepper Elder (Helda)	126, 136	Sensitive Plant	114
Peppermint	112	Shama	114
Pepper Rod	59	Shame-a-Lady	114
Periwinkle	168	Shame Weed	114
Physic Nut	99	Shiny Bush	126
Shut Weed	114	Velvet Bur	142
Silver Bush	126	Velvet Bush	45
Simple Bible	4	Velvet Leaf	45
Sinkle Bible	4	Vervain (Vervine or	
Slippery Bur	56	Verryvine)	158
Snake Bush	46	Wandering Jew	171
Snake Withe (Wys)	46	Water Grass	54, 55, 171
Snake Wood	39	Water Weed	170
Soap Bush	51	Whiteback	41
Sorrel	93	White Cotton Bush	86
Soursop	11	Whitehead	20, 122
Sousumber	153, 154	White Sage	101
Spanish Calalu	6	Whitestick	769
Spanish Nettle	21	Wild Barsley (Basil)	119
Spanish Needle	21	Wild Cassada	100
Spikenard	96	Wild Clary	91
Spinach	5,6,7	Wild Coffee	38
Spirit Weed	74	Wild Hops	23
Spurge	79, 80, 81. 82	Wild Ipecacuanha	19

Stinking Weed	38	Wild Liquorice	1
Stinking Wood	38	Wild Marigold	170
Stink Weed	125	Wild Mint	103
Strong Back	43, 61, 67, 116, 149	Wild Pinder	67
Strong Man's Weed	128	Wild Rice	10
Styptic Bur	142	Wild Sage	101, 102, 103, 104, 146
Sugar Cane	145	Wild Senna	37, 38
Sweet Mint	109	Wild Thyme (Tim)	134
Sweet-scented		Wild Tobacco	140
Fleabane	140	Wild Wormwood	122
Sweetsop	13	Wild Yam	46
Tamarind	162	Winter Cherry	131
Tea Bush	108	Worm Grass	156
Thorn Apple	66	Worm Seed	42
Tom Bontrin's Bush	133	Worm Weed	16, 42
Trimona	66	Worm Wood	9
Tripoli Senna	37	Yaws Bush	46
Trumpet Tree	39	Yaw Weed	116
Tuna	120	Yellow Ginger	116
Turkey Berry	153, 154	Yellow Nicker	28
Turkey Blossom	164	Yellow Thistle	15

### APPENDIX III

Index of Disorders with the Plants stated to be used as remedies.

#### ABSCESSSES AND ULCERS

<i>Abrus precatorius</i> L.	<i>Cocos nucifera</i> L.
<i>Amarantus viridis</i> L.	<i>Crescentia cujete</i> L.
<i>Anacardium occidentale</i> L.	<i>Datura stramonium</i> L.
<i>Asclepias curassavica</i> L.	<i>Eryngium foetidum</i> L.
<i>Bryophyllum pinnatum</i> Kurz.	† <i>Hippeastrum puniceum</i> (Lam.) Urb.
† <i>Capsicum</i> spp.	<i>Ipomoea</i> sp.
<i>Carica papaya</i> spp.	<i>Miconia laeyigata</i> DC.
<i>Cassia abovata</i> L.	† <i>Opuntia tuna</i> Miller
<i>Chaptalia nutans</i> (L.)	<i>Polak Passiflora sexflora</i> Juss.
<i>Chenopodium ambrosioides</i> L.	<i>Picramnia antidesma</i> Sw.
<i>Cissampelos pareira</i> L.	<i>Piper umbellatum</i> L.
† <i>Cissus sicyoides</i> L.	<i>Plantago major</i> L.
<i>Citrus aurantifolia</i> Swingle.	<i>Pluchea odorata</i> (Desv.) Casso
<i>C. aurantium</i> L.	† <i>Ricinus communis</i> L.
<i>C. vulgaris</i> Risso.	<i>Tamarindus indica</i> L.

#### ASTHMA AND BRONCHITIS

<i>Allium sativum</i> L.	<i>Eupatorium odoratum</i> L.
<i>Corchorus siliquosus</i> L.	<i>Euphorbia hirta</i> L.
† <i>Datura stramonium</i> L.	<i>Ocimum micracanthum</i> Willd.
<i>Erigeron bonariensis</i> L.	† <i>Pilea microphylla</i> Liebm.

†Known to be used in Jamaica at the present time.

## BLOOD PRESSURE

†*Atocarpus incisa* L.  
†*Caesalpinia bonduc* Roxb.  
†*C. bonducella* Flem.  
†*Cassia occidentalis* L.  
†*Euphorbia hirta* L.  
†*E. hypericifolia* L.

†*E. hyssopifolia* L.  
†*E. lasiocarpa* Klotzsh.  
†*Oryctanthus occidentalis* Eiche.  
†*Persea americana* Mill.  
†*Pthirusa parvillora* Eichl.  
†*Vinca rosea* L.

## BURNS

*Cassia obovata* L. *Datura stramonium* L.

## COLIC

*Abrus precatorius* L.  
†*Achyranthes indica* Mill.  
*Asclepias curassavica* L.  
*Bidens pilosa* L.  
*Capsicum* spp.  
*Chaptalia nutans* (L.) Polak.  
*Cinnamomum zeylandicum* Breyn.  
†*Cuscuta* spp.  
*Dianthera pectoralis* Murr.

*Hyptis suaveolens* (L.) Poit.  
*Iresine paniculata* Kuntze.  
†*Lippia geminata* Ktr..  
†*Mentha viridis* L.  
*Picramnia antidesma* Sw.  
*Piper amalago* L.  
†*Salvia serotina* L.  
*Vernonia divaricata* Sw.  
†*Zingiber officinale* Rose.

## COUGHS AND COLDS

†*Abrus precattorius* L.  
†*Achyranthes indica* Mill.  
†*Aloe vulgaris* Lam.  
*Anacardium occidentale* L.  
†*Andrographis paniculata* Ns.  
*Annona muricata* L.  
*A. squamosa* L.  
†*Aralia guilfoylei* Cogn and March  
*Bidens pilosa* L.  
†*B. reptans* (L.) G. Don  
†*Blighia sapida*  
†*Bryophyllum pinnatum* Kurz.  
†*Cajanus cajan* Millsp.  
*Calea jamaicensis* L.  
*Cassia occidentalis* L.  
†*Cecropia peltata* L.  
†*Cenchrus* spp. *Lippia* sp.  
*Chaptalia nutans* (L.) Polakt  
†*Cissampelos pareira* L.  
†*Cissus sicyoides* L.  
†*Citrus aurantifolia* Swingle  
†*C. vulgaris* Risso.  
*Clibadium surinamense* L.  
†*Commelina elegans* H.B.K.  
†*C. longicaulis* Jacq.  
*Corchorus siliquosus* L.

†*Dianthera pectoralis* Murr.  
*Dryopteris* sp.  
†*Emilia sagittata* (Vahl.) DC.  
†*Eryngium foetidum* L.  
†*Eupatorium odoratum* L.  
†*Euphorbia* spp.  
†*Funastrum clausum* (Jacq.) ScheIder  
*Gossypium* spp.  
†*Heliotropium parviflorum* L.  
*Hibiscus elatus* Sw.  
HoenigH. *sabdariffa* L.  
*Hyptis pectinata* (L.) Poit.  
*Iresine paniculata* Kuntze.  
†*Lantana camara* L.  
*L. involucrata* L.  
*L. trifoliata* L.  
  
*Melochia tomentosa* L.  
*Micromeria brownei* (Sw.) Benth.  
†*Mikania* spp.  
†*Mimosa pudica* L.  
*Momordica charantia* L.  
†*Ocimum micranthum* Willd.  
†*Parthenium hysterophorus* L.  
†*Persea americana* Mill.  
†*Piper nigrinodum* C.D.C.

†Known to be used in Jamaica at the present time.

## COUGHS AND COLDS (Contd.)

†*Cordia globosa* H.B.K.  
†*Crescentia cujete* L.  
*Cratogeomys wilsonii* Gr.  
†*Cymbopogon citratus* (DC.)  
*Cyperus articulatus* L.

*Spondias mombin* L.  
†*Stachytarpheta jamaicensis* Vahl.  
†*Stylosanthes hamata* Taub.  
*S. viscosa* Sw.  
†*Tournefortia hirsutissima* L.  
†*Tribulus cistoides* L.

†*P. umbellatum* L.  
*Priva lappulacea* L.  
*Rytidophyllum tomentosum* Mart.  
Stapf. *Sambucus simpsonii* Rehder  
†*Solanum torvum* Sw.

†*Turnera ulmifolia* L.  
*Vinca rosea* L.  
†*Waltheria americana* L.  
*Wedelia trilobata* (L.) Hitchc.  
†*Zebrina pendula* Schnitzl.

## DERMATITIS

*Aloe vulgaris* Lam.  
*Allium sativum* L.  
*Capsicum* spp.  
*Carica papaya* L.  
*Cassia occidentalis* L.  
*Cissampelos pareira* L.  
†*Citrus curantifolia* Swingle

*Erigeron canadensis* L.  
*Jatropha curcas* L.  
†*Mikania* spp.  
†*Salvia serdina* L.  
†*Solanum aculeatissimum* Jacq.  
*S. nigrum* L.

## DIABETES

†*Caesalpinia bonducella* Roxb.  
†*C. bonduc* Flem.

†*Vinca rosea* L.

## DIARRHOEA AND DYSENTERY

*Anacardium occidentale* L.  
*A. muricata* L.  
*Annona reticulata* L.  
*Argemone mexicana* L.  
*Artemisia absinthium* L.  
*Cajanus cajan* Millsp.  
*Cinnamomum zeylandicum* Breyn.  
*Cyperus articulatus* L.  
*Erigeron canadensis* L.  
*Eupatorium* sp.  
*Euphorbia hirta* L.  
*E. prostrata* Alt.

*Gossypium* spp.  
*Haematoxylum campechianum* L.  
*Hibiscus elatus* Sw.  
*Lippia* spp.  
*Mikania* spp.  
*Mimosa pudica* L.  
*Phyllanthus niruri* L.  
*Pilea microphylla* Liebm.  
*Sauvagesia brownei* Planch.  
*Sweitenia mahagoni* Jacq.  
*Triumfetta* spp.

## DROPSY AND OEDEMA

*Allium sativum* L.  
*Anacardium occidentale* L.  
*Asclepias curassavica* L.  
*Erigeron canadensis* L.  
*Gouania lupuloides* Urb.

*Iresine paniculata* Kuntze.  
*Phyllanthus niruri* L.  
*Piper analgo* L.  
*Spondias mombin* L.

†Known to be used in Jamaica at the present time.

## EAR-ACHE

*Bidens pilosa* L.

*Bryophyllum pinnatum* Kurz.

## FEVERS

*Abrus precatorius* L.

*Achyranthes indica* Mill.

†*Anacardium occidentale* L.

†*Andrographis paniculata* N s.

*Annona muricata* L.

*Borreria verticillata* (L.) Meyer

*Caesalpinia bonduc* Roxz.

*C. bonducella* Flem.

*C. coriaria* Willd.

*Capsicum* spp.

†*Cassia occidentalis* L.

†*Cenchrus* spp.

†*Momordica charantia* L.

†*Ocimum micranthum* Willd.

†*Optunia tuna* Miller

*Peclis* spp.

*Petiveria alliacea* L.

*Phyllanthus niruri* L.

†*Picraena excelsa* Lindl.

*Picramnia antidesma* Sw.

†*Piper nigrinodum* C.D.C.

*P. umbellatum* L.

*Plantago major* L.

†*Citrus aurantifolia* Swingle

*Commelina elegans* H.B.K.

*C. longicaulis* Jacq.

†*Cymbopogon citratus* (DC.) Stapf.

*Eupatorium odoratum* L.

*E. triste* DC.

*E. villosum* Sw.

*Gesneria* sp.

*Hyptis pectinata* (L.) Poit.

*H. suaveolens* (L.) Poit.

*Lantana camara* L.

*Lippia* sp.

*Ricinus communis* L.

*Salvia serotina* L.

*Sambucus simpsonii* Rebd.

*Sapota achras* Mill.

*Spondias mombin* L.

*Swietenia mahagoni* Jacq.

†*Tamarindus indica* L.

†*Tournefortia hirsutissima* L.

†*Tribulus cistoides* L.

†*Turnera ulmifolia* L.

†*Wedelia trilobata* (L.) Hitchc.

## FITS AND CONVULSIONS

*Abrus precatorius* L.

*Chaptalia nutans* (L.) Polak

†*Eryngium foetidum* L.

*Ocimum micranthum* Willd.

*Peperomia pellucida* Kth.

*Petiveria alliacea* L.

## GOUT, RHEUMATISM AND GENERAL PAINS

*Allium sativum* L.

*Achyranthes indica* Mill.

†*Blighia sapida* Koenig.

*Capsicum* spp.

*Cassia occidentalis* L.

*Chrysanthellum americanum* (L.) Vatke.

†*Cissus sicyoides* L.

†*Desmodium* spp.

*Euphorbia hirta* L.

*E. hypericifolia* L.

*E. hyssopifolia* L.

*Guaiacum officinale* L.

*Mikania* spp.

†*Ocimum micranthum* Willd.

*Opuntia tuna* Miller

†*Persea americana* Mill.

†*Smilax ornata* Hook.

*Zingiber officinale* Rosc.

## HEADACHES

†*Aloe vulgaris* Lam.

†*Aralia guilfoylei* Cogn and March

†*Bryophyllum pinnatum* Kurz.

*Eryngium foetidum* L.

*Gossypium* spp.

*Hyptis pectinata* (L.) Poil.

†Known to be used in Jamaica at the present time.

*Cissus sicyoides* L.

*Cymbopogon cilratus* (DC.) Stapf.

*Cyperus ariculatus* L.

*Datura stramonium* L.

*Desmodium* spp.

*H. suaveolens* (L.) Poil.

†*Opuntia tuna* Miller

†*Petiveria alliacea* L.

*Piper umbellatum* L.

†*Ricinus communis* L.

#### INDIGESTION AND CONSTIPATION

*Abrus precatorius* L.

†*Aloe vulgaris* Lam.

†*Amarantus* sp.

*Artemisia* sp.

*Asclepsia curassavica* L.

†*Bidens pilosa* L.

*Borreria laevis* (Lam.) Gr.

*B. verticillata* (L.) Meyer

*Capsicum* spp.

†*Caesalpinia coriaria* Willd.

†*Cassia obovata* Collard.

*C. occidentalis* L.

†*Citrus aurantifolia* Swingle

*C. aurantium* L.

*C. vulgaris* Risso.

*Cola acuminata* Scr.ott and Endl.

†*Crescenlia cujete* L.

*Cuscuta* spp.

*Cyperus articulatus* L.

*Eupatorium triste* DC.

*E. villosum* Sw.

*Fevillea cordifolia* L.

†*Guaiacum officinale* L.

†*Helicteres jamaicensis* Jacq.

†*Heliotropium parviflorum* L.

†*Hyplis peclinata* (L.) Poil.

*H. suaveolens* (L.) Poil.

*Ipomea dissecta* (Jacq.) Pursh.

*Idtropa curcas* L.

*J. gossypifolia* L.

†*Lippia geminata* Kth.

*Mangifera indica* L.

†*Mentha viridis* L.

†*Micromeria Brownei* (Sw.) Benth.

†*Momordica charantia* L.

*Ocimum micranthum* Willd.

†*Opuntia tuna* Miller

†*Pimenta officinalis* Lindl.

*Pluchea odorata* (Desv.) Casso

†*Ricinus communis* L.

*Salvisserotina* L.

†*Solanum nigrum* L.

*Spondias mombin* L.

†*Stachytarpheta jamaicensis* Vahl.

†*Tamarindus indic* L.

*Tumera ulmifolia* L.

†*Zingiber officinal.* Roxb.

#### JAUNDICE

*Phyllanthis niruri* L.

#### KIDNEY DISORDERS

*Anacardium occidentale* L.

†*Capsicum frutescens* L.

†*Cassia occidentalis* L.

*Cissampelos pareira* L.

†*Cocos nucifera* L.

*Cucurbita pepo* L.

†*Cyndon dactylon* Pers.

*Desmodium* spp.

*Hibiscus sabdariffa* L.

†*Passiflora foetida* L.

*Stylosanthes viscosa* Sw.

*Tribulus cistoides* L.

#### MEASLES

†*Tamarindus indica* L.

#### PILES

*Anacardium occidentale* L.

*Aselepias curassavica* L.

†Known to be used in Jamaica at the present time.

#### 'SORE-EYES'

*Abrus precatorius* L.  
*Argemone mexicana* L.  
*Bidens pilosa* L.  
*Bryophyllum pinnatum* Kurz.  
*Commelina longicaulis* Jacq.  
*Emilia sagittata* (Vahl.) DC.

†*Heliotropium parviflorum* L.  
*Mikania* spp.  
*Physalis angulata* L.  
*Plantago major* L.  
*Ricinus communis* L.  
*Sauvagesia brownei* Planch.

#### SORE-GUMS

*Anacardium occidentale* L.

†*Gouania lupuloideles* Urb.

#### SORE-THROAT

†*Caesalpinia coraria* Willd.  
*Capsicum* spp.  
†*Cecropia peltata* L.  
†*Citrus aurantifolia* Swingle

†*C. vulgaris* Risso.  
*Guaiacum officinale* L.  
*Tamarindus indica* L.

#### SNAKE-BITE

*Abrus precatorius* L.

*Mikania* Spp.

#### THRUSH

*Citrus aurantifolia* Swingle

#### TOOTH-ACHE

*Anacardium occidentale* L.  
*Cyperus articulatus* L.

*Ricinus communis* L.  
*Zingiber officinale* Rosc.

#### TONICS

†*Aloe vulgaris* Lam.  
†*Andrographis paniculata* Nees  
*Caesalpinia bonduca* Roxb.  
*C. bonducella* Flem.  
*C. coriaria* Willd.  
*Chrysanthellum americanum* (L.) Vatke.  
*Cissampelos pareira* L.

†*Cissus sicyoides* L.  
*Desmodium* spp.  
*Euphorbia* spp.  
*Gouania lupuloides* Urb.  
*Hyptis pectinata* (L.) Poit.  
†*Lippia geminata* Kunth.  
*Mimosa pudica* L.

†*Momordica charantia* L.  
†*Morinda royoc* L.  
†*Picraena excelsa* Lindl.  
*Piper amalago* L.

†*Sapota achras* Mill.  
†*Smilax balbisiana* Kth.  
†*Smilax ornata* Hook

#### TUBERCULOSIS

*Crescentia cujete* L.

*Dianthera pectoralis* Murr.

#### UTERINE DISORDERS

*Anacardium occidentale* Jacq.  
*Annona squamosa* L.  
*Aloe vulgaris* Lam.  
*Bidens reptans* (L.) G. Don  
*Chaptalia nutans* (L.) Polak

†\**Momordica charantia* L.  
\**Ocimum micranthum* Willd.  
†*Pimenta officinalis* Lindl.  
*Polypodium exiguum* Hew  
*Ricinus communis* L.

tCrescentia cujete L.  
Cuphea parsonia R. Br.  
\*Gossypium spp.  
Lantana camara L.

Solanum aculeatissimum Jacq.  
†Stachytarpheta jamaicensis Vahl.  
\*Turnera ulmifolia L.  
†Waltheria americana L.

\* ? Abortifacient

Cissampelos pariera L.  
Cissus sicyoides L.  
Commelina sp.  
Euphorbia hirta L.  
E. hypericifolia L.  
E. hyssopifolia L.  
E. lasiocarpa Klotzsh.  
Guaiacum officinale L.  
Mangifera indica L.

Anacardium occidentale L.  
Carica papaya L.  
†Euphorbia hirta L.

Aloe vulgaris Lam.  
†Andira inermis H.B.K.  
†Annona muricata L.  
A. reticulata L.  
Artemisia absinthium L.  
Asclepias curassavica L.  
A. nivea L.  
†Bidens pilosa L.  
Carica papaya L.

†Aloe vulgaris Lam.  
Andira inermis H.B.K.  
Asclepias curassavica L.  
Bidens pilosa L.  
Capsicum spp.  
Citrus aurantifolia Swingle  
Cynodon dactylon Pers.  
†Dianthera pectoralis Murr.

Momordica charantia L.  
Parthenium hysterophorus L.  
Plantago major L.

#### YAWS

Capsicum spp. Picramnia antidesma Sw.  
Citrus vulgaris Risso Spondias mombin L.

†Known to be used in Jamaica at the present time.

#### VENEREAL DISEASES

Mikania spp.  
Mimosa pudica L.  
Phyllanthus niruri L.  
Physalis angulata L.  
Picramnia antidesma L.  
Spondias mombin L.  
Stachytarpheta jamaicensis Vahl.  
Tournefortia hirsutissima L.  
Waltheria americana L.

#### WARTS

†Euphorbia hypericifolia L.  
†E. hyssopifolia L.

#### WORMS

†Chenopodium ambrosioides L.  
Cucurbita pepo L.  
Hyptis pectinata (L.) Poit.  
Ipomoea sp.  
†Picraena excelsa Lindl.  
Piper umbellatum L.  
†Spigelia anthelmia L.  
Spondias Mombin L.

#### WOUNDS AND CUTS

Eupatorium odoratum L.  
Euphorbia hirta L.  
E. hypericifolia L.  
E. hyssopifolia L.  
E. lasiocarpa Klotzsh.  
Fevillea cordifolia L.  
†Guaiacum officinale L.  
†Hyptis pectinata (L.) Poit.

Triumfella spp.  
Zingiber officinal. Rose.

**MEDICINAL PLANTS OF JAMAICA. PARTS III & IV.**

By

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# MEDICINAL PLANTS OF JAMAICA

G. F. ASPREY and PHYLLIS THORNTON

## PART III

The authors have continued their investigations, already reported in this Journal (31, 32), into the use of local plants for medicinal remedies in Jamaica. More information has been accumulated on some of the plants already mentioned in Parts I and II as well as on additional species. This has necessitated the present work which will appear as Parts III and IV and which will include only plants known to be still in use. General description of the family to which a plant belongs will be given only if the family is introduced here for the first time, otherwise it will be found in Parts I and II.

Plants which have already appeared in the previous papers will be marked ¶ and only those common names which are new, together with the previously recommended common name, will be given.

At the end of Part IV there will be issued similar appendices to those appearing at the end of Part II. It will thus be possible to obtain information on a plant from a knowledge of either its botanical or common name. In dealing with references, the same procedure has been adopted as in Parts I and II. New references are numbered in continuity with those already published but for convenience the latter have been reprinted.

### ACANTHACEAE

UANDROGRAPHIS PANICULATA Nees. Rice Bitters.

The drug Andrographis or Kalmegh was in the Indian Pharmacopoeia 1946 and was used to improve the appetite in dyspepsia cases. It has been esteemed as a bitter stomachic for more than a hundred years and is still used in Jamaica as such in the form of tea and gin or sherry bitters. The latter is also used as a malaria specific. The tea made from the plant is considered by some Jamaicans to be a remedy for diabetes. The plant has also been considered alexipharmac, anthelmintic and of use in cases of cholera and dysentery. (3, 4, 27, 34, 39, 45, 53, 59, 61).

IBLECHUM BROWNEI Juss. Wild Hops; Mother Look-up.

Under the name of Mother Look-up this plant is reported to be used to make tea for colds: the seeds are to be excluded in preparing the tea. In Wright's time the leaf juice was mixed with gum guaiacum in the treatment of erosion of the palate resulting from venereal disease. (25, 36, 62).

### AMARANTACEAE

CHAMISSOA ALTISSIMA H.B.K. Cooper's Hoop; Basket Withe.

The young parts of this plant are sometimes used for the same purpose as calalu. (62).

¶JIRESINE PANICULATA Kuntze. Juba's Bush; Red Dandelion; Bitter Weed.

Boiled with Desmodium and Borreria laevis this plant is said to provide an excellent tea described by one informant as diuretic-"flushes out all poison from the kidneys" (hence the name "red dandelion"?)-and by another as purgative. Wright states that it was used in the treatment of gonorrhoea. (25).

### ANACARDIACEAE

¶SPONDIAS MONBIN L. Hog Plum.

According to one informant the leaves of this species and the red-coat plum (*S. purpurea*) are boiled together to make a cold remedy. (1, 2, 7, 10, 15, 16, 27, 62).

\*Supported by a Grant made to the University of Pennsylvania by the Nutrition Foundation of New York.

SPONDIAS PURPUREA L. Red.coat Plum: Brazilian or Spanish Plum.

The leaves are sometimes boiled with those of hog plum (*S. monbin*) to make a cold remedy. In Maya medicine they have been used in baths for skin diseases. The Mayas also utilised the tender shoots to treat gum infections and the bark as a remedy for dysentery. The latter contains tannin and gum.resin. (27, 56).

#### ANNONACEAE

ANNONONA MURICATA L. Soursop.

In addition to the uses already recorded, the heart of a ripe soursop is sometimes given to children as a remedy for worms. As an alternative treatment tea made with the leaves may be given for nine mornings followed by a dose of castor oil on the eleventh morning. The leaves of *Stachytarpheta jamaicensis* and *Chenopodium ambrosioides* are sometimes used in conjunction with those of soursop for the preparation of a tea for the treatment of worms. Soursop leaves are used in baths for the treatment of fever and pains. In Cuba the fruit pulp has been used in poultices for chigoes. An infusion of the flowers is said to be pectoral and the leaves antispasmodic and stomachic. Lunan says that the fruit taken on an empty stomach is a cure for intermittent fevers: it has also been considered diuretic. Infused or burnt, and mixed with oil. the leaves were applied to boils and a root decoction was thought efficacious in treating fish poisoning. More recent information indicates the use of soursop leaves in Jamaica for the preparation of a general beverage. as a lactagogue and, rubbed up in the hands, as an application to the head and nostrils for fainting. (5, 7, 8, 9, 10, 13, 15, 25, 27, 37, 38, 47, 54, 62).

ANNONONA SQUAMOSA L. Sweetsop: Sugar Apple.

In Jamaica the bruised leaves. like those of soursop, are considered of use in cases of fainting. Lunan and other early writers considered the ripe fruit cooling, laxative and anthelmintic. The leaves. crushed and often mixed with salt, have been used in Jamaica. Cuba and the East as a maturing plaster for tumors. Descourtilz described the buds, roots and fruit rind as astringent. The bark provides a tonic in Malaya and China. In Cuba the shoots are employed in infusions for diarrhoea and indigestion. (2, 5, 7, 10, 13, 15, 27, 38, 39, 47, 51, 61, 62).

#### ARACEAE

About one thousand eight hundred chiefly herbaceous tropical species which have been little investigated chemically. The occurrence of saponin. a conicine-like alkaloid and isolated instances of hydrocyanic acid, fat. volatile oil, hesperidine. phytosterine and choline are reported.

COLOCASIA ESCULENTA Schott. Coco (Yam); Eddo; Tanya; Dasheen; Taro.

We are informed that the milk from grated white cocoes is sometimes mixed with coconut milk and taken for biliousness. Lunan speaks of the use of the "roots" (tubers) in the treatment of asthma and consumption. Fawcett records that the juice of the tubers is laxative. In the main, however. writers record the value of the tubers and leaf juice as a dressing for ulcers. swellings. burns and as an excellent styptic. The tubers are said to contain some 20 per cent starch together with mucilage which is probably a polyanhydrite of d-glucose. They are much used in tropical countries as food. (8, 15, 27, 37, 38, 60, 61).

#### ARALIACEAE

ARALIA GUILFOYLE I Cogn and March. Aralia.

The leaves of this species are used in Jamaica as a poultice for headaches.

#### ASCLEPIADACEAE

ASCLEPIAS CURASSA VICA L. Red Head.

In Jamaica this species is still in use as an application for boils and warts. The juice may be employed alone or the leaf may be used with vaseline or castor oil as a dressing. A worm remedy prepared from this plant is still known but our informant considered it dangerous. In Honduras it is still so used.

In Maya medicine it found use in poultices for abscesses, ulcers, sore throat and swelling of the breast. The plant is also known in the West Indies as a treatment for piles and gonorrhoea. (1, 2, 5, 8, 14, 15, 17, 18, 24, 26, 27, 37, 48, 50, 56, 58, 62).

#### BORAGINACEAE

*CORDIA CYLINDRISTACHY* A.R.S. Sage: Black Sage.

In some parts of Jamaica this species appears to replace *C. globosa* as black sage and is used in the treatment of colds and indigestion. It has also been mentioned as good for high blood pressure.

¶*CORDIA GLOBOSA* H.B.K. Black Sage.

We find that in addition to the use of this sage to prepare tea for colds it is "used by females for griping in the stomach" (painful menstruation?). With fever grass and bamboo it is included in baths for fever and is often regarded as a panacea. (2, 11, 13, 25).

*HELIOTROPIUM INDICUM* L. Clary: Wild Clary; Turnsoles, Scorpion Weed; Erysipelas Plant.

This species is occasionally used in Jamaica in the same way as *H. parviflorum*. Lunan claimed that a decoction is diuretic; that the plant makes a cleansing and healing dressing for wounds and ulcers; and that it may be boiled with coconut oil to make a plaster for scorpion stings and dog bites. In Africa and India it has been employed in the treatment of fevers, skin complaints, boils, sores, ophthalmia, head lice and insect bites. (1, 7, 10, 15, 37, 35, 57, 61).

¶*TOURNEFORTIA HIRSUTISSIMA* L. Chigger Nut: Cold Withe; Horse (Harsh?) Bark (Bath?).

In addition to uses already recorded chigger nut has been given as an ingredient of a remedy for "nervous trouble" (see *Mimosa pudica*) and as a plaster for a lame foot. It is further employed as a tea for the treatment of pains in the chest and stomach-ache. (2, 25, 36).

#### BROMELIACEAE

A tropical family of some one thousand species. Apart from the fruit of the pineapple little is known of the family chemically.

*BROMELIA PINGUIN* L. Pinguin.

The fruit provides a remedy for worms in children. It may be roasted, sliced, and given with salt. In Browne's day the fruit pulp was sliced and soaked in syrup or sugar over night before being administered. The juice of the fruit is used by dye workers to remove logwood stains from the skin. Lunan says that a small amount of the fruit juice in water makes a cooling drink for fever patients: the juice is also said to be diuretic, useful for thrush and other ulcerations of the mouth and throat and in large doses abortifacient. (5, 15, 16, 37, 50, 60, 62).

#### BURSERACEAE

A tropical family of about four hundred resinous woody plants. Many species are sources of valuable aromatic resins and balsams some of which have been known and used for centuries. No alkaloids or glycosides are known to occur.

*BURSERIA SIMARUBA* Sarg. Red or West Indian Birch; Turpentine Tree; Mastic Tree; Incense Tree.

This tree yields dark green, transparent gum-resin called budge gum. According to early work this contains 5 per cent camphene. Lunan stated that the gum is vulnerary and healing and the root decoction binding and astringent. Macfadyen considered that the gum would provide a substitute for copaiba in the treatment of "diseased discharges from the mucous membranes".

In Cuba the root, bark and leaves are said to be efficacious in the treatment of colds and diarrhoea; for bruises, wounds and catarrh; and as a diuretic, sudorific and purge. Similar remedies appear in Maya medicine.

Red birch appears to find little application in Jamaican domestic medicine though it may, on occasions, be used, perhaps with *Argemone mexicana*, as a treatment for high blood pressure. (1, 15, 16, 24, 27, 28, 37, 38, 47, 56).

#### CAESALPINOIDEAE

☞ *CAESALPINEA BONDUC* Roxb. i (Nicker); Nichol (Yellow and Grey).

☞ *C. BONDUCELLA* Flem.('

Since our previous account of these species it has become apparent that the generally accepted common name in Jamaica is nichol (nickel) rather than nicker. A recent communication indicates that the use of the seeds by diabetics is fraught with danger owing to the fact that they contain a principle which suppresses urinary sugar while leaving the blood sugar unaffected. We have so far been unable to locate an account of the investigations on which this statement is based.

We further find that the seeds have been used in the treatment of venereal diseases, being regarded as astringent. Both leaves and seeds have been used as an external application for hydrocoele while the leaves, which are said to be rubefacient, have been applied to aching teeth and used in cases of rheumatism and palsy and to prepare a gargle. The seeds have also been thought of value in the treatment of convulsions. The root, and especially its bark, was also considered of value in the treatment of intermittent fever. (3, 5, 7, 8, 9, 10, 11, 15, 16, 17, 19, 24, 26, 27, 29, 37, 38, 39, 47, 50, 53, 61, 62).

*CASSIA FISTULA* L. Indian Laburnum; Cassia Stick Tree; Purging Cassia.

Small doses of the fruit pulp, which is rich in sugar, tannin and citric acid, is a well-known gentle laxative. The pulp is also said to contain about one per cent of an anthraquinone derivative, gum and traces of volatile oil. It was an ingredient of confection of senna. Dancer gave the dose as a portion the size of a small nutmeg. In larger doses it is purgative. In Jamaica the pulp is still sometimes used with a senna as a purge. The seeds also are said to be purgative. In Rhodesia the plant is used by the natives in the treatment of malaria, black-water fever, blood poisoning, dysentery and anthrax. Cassia pulp has found some use in India as an external application in cases of gout and rheumatism. It was, in the past, included in the pharmacopoeias. The bitter root is said to be febrifuge and diuretic and in Ceylon the bark is used as a treatment for rheumatism. A confection of the flowers is also considered febrifuge. The bark and leaves have been used in the East as an external application for skin diseases. (3, 5, 8, 9, 10, 11, 14, 15, 16, 17, 22, 23, 26, 27, 37, 39, 47, 61, 62).

☞ *CASSIA LIGUSTRINA* L. Dandelion: Piss-a-bed.

☞ *C. OCCIDENTALIS* L. Dandelion: Piss-a-bed.

*CASSIA SP.* Dandelion.

Considerable confusion appears to exist among Jamaicans who use "tea bushes" as to the identity and respective merits of the plants called dandelion and piss-a-bed. It is certain that some informants who claim that the plants are different distinguish them on characteristics of so slight a botanical nature that they have presented to us specimens of *C. occidentalis* under both names: we have, moreover, been assured that, while piss-a-bed is given to children (and adults) with weak bladders, dandelion is "good for the kidneys" which seems to imply a diuretic character. Both Dancer and Wright give the name piss-a-bed to *C. occidentalis* which they describe as diuretic and aperient. Other writers describe the root only, as diuretic. We have had similar confused accounts of *C. ligustrina*. At Bath an informant identified *C. occidentalis* as piss-a-bed and attributed to it antidiuretic properties: the plant presented as dandelion was a further unidentified *Cassia sp.* which was described as "good for" the kidneys, back pains, the stomach and shortness of breath.

*C. ligustrina*-The leaves of this species are employed in Cuba as a purge.

*C. occidentalis*-In addition to uses already recorded the leaves of this species are described in the literature as providing a drink and wash for skin diseases; the seeds as an application for ringworm; and the leaves and roots as a medicine for jaundice, dropsy, dysentery, diarrhoea, liver troubles and gonorrhoea. We have also been told that the plant (with soil still adhering to the roots) soaked in proof rum makes an excellent medicine for the prevention of an attack of malaria. (2, 3, 5, 8, 9, 10, 14, 15, 16, 19, 24, 25, 26, 27, 37, 39, 47, 48, 51, 58, 60, 61, 62).

## ¶TAMARINDUS INDICA L. Tamarind.

The leaves of tamarind are used in Jamaica as an ingredient of baths for fever and pains. In Cuba a root decoction is employed in the treatment of haemorrhages and "enfermedades del hidago" (liver disorders). (3, 5, 7, 8, 9, 10, 11, 14, IS, 16, 17, 22, 23, 25, 27, 37, 39, 47, 50, 62).

## CAMPANULACEAE

A family of about fifteen hundred widely distributed. mostly herbaceous, plants with lactiferous elements. On the whole the family is of little chemical importance though alkaloids such as lobelin and isotomin occur in some species.

## ISOTOMA LONGIFLORA (L) Presl. Madam Fate: Star Flower; Horse Poison.

In Jamaica this plant appears to have a reputation not unconnected with magic. "When looking for it do not call its name or you will not find it" and again "It will keep away harm-anything that threatens you". Soaked in white rum it is commonly used as a lotion for pains and a little may be drunk. Despite its poisonous nature-it is said to contain an amorphous tonic alkaloid called isotomin-it is also sometimes used to make tea for colds. Beckwith said it was boiled with "tall Bahama grass" and "Apimpe" for a bath. (2, 9, 14, 27, 28).

## CANNABINACEAE

A family containing only two genera-Humulus and Cannabis. The plants are aromatic and bear glandular hairs.

## CANNABIS SATIVA L. Gania: Indian hemp.

Cannabis sativa, which is a source of hemp and bird seed, produces also the ganja, hashish or bhang, and the charas or churrus of commerce. The latter is the crude resin, ganja consists of the short-stemmed female tope, while bhang is made up of the larger leaves and stems of both male and female plants. The use of hemp for its intoxicating and medical properties is widespread in the Orient. Africa and Middle East and dates back to very early times. Its antispasmodic and anodyne properties have been employed in Western medicine in the treatment of neuralgia. asthma. tetanus and mania cases but it is now chiefly notorious for the deleterious effects produced on those who become addicted to the drug. Its use in the treatment of asthma is known and practised in Jamaica where the dried herb is infused in hot water to make tea. This may also be used in cases of fever and colds. In Southern Rhodesia the plant is used by the native population in cases of malaria, anthrax, blackwater fever, blood poisoning and child-birth. The resin is said to contain several active constituents including cannabinol. cannabidiol. cannin. cannabol. Also present are a volatile oil containing terpenes and a sesquiterpene, cholin, and trigonelline. According to some authorities the male and female plants differ in composition and it has also been claimed that hemp grown in temperate climates differs in composition from that grown in the tropics. Ganja has been included in the pharmacopoeias of Britain, United States of America and India. (3, 10, 17, 18, 23, 26, 27, 39, 61).

## CANELLACEAE

The family comprises a few woody tropical species with aromatic bark. Essential oils, mannitol. galactan, xylan and araban occur.

## CANELLA WINTERANA Gaertn. (= G. alba Sw.) Wild Cinnamon: White Cinnamon; White-wood Bark; Canella; False Winter's Bark.

The bark of Canella winterana is commonly sold in the markets of Jamaica and, soaked in rum, it provides a favourite embrocation for pains. A little of the liquid may be drunk in cases of stomach pains. It has been known in Europe as a spice since the seventeenth century and was used as aromatic bitter and stimulant. It is an ingredient of Riera Picra. The drug Canella was at one time included in the pharmacopoeias. It has been used in the treatment of dyspepsia. dysentery. rheumatism. gout and syphilis and in the West Indies had some reputation as a cephalic( in the form of snuff) and antiscorbutic. Canella contains 0.75 to 1.25% volatile oil with loa-pinene, eugenol, cineole. caryophyllene; about 8 % resin and 8 % mannitol.

The oil has been used as an adulterant in oil of cloves. (3. 5. 9. 14. 15. 16. 17. 19. 23, 27. 50. 59. 60. 62).

#### CARICACEAE

¶*CARICA PAPAYA* L. Papaw.

The use of the juice of this plant as an application for boils, warts and ringworm still continues. It is also used for toothache. In Maya medicine it appears in several prescriptions for sores and eruptions. The milky juice of the fruit is used in Trinidad for dyspepsia. Locally the fruit is said to be "good for the blood". Among more recent uses of papain are the following:- to dissolve the membranes commonly formed in diphtheria, as a nasal spray (patented) for the treatment of some allergies to treat peritoneal adhesions resulting from abdominal surgery and in the treatment of carbuncles and burn scars. (2. 5. 7. 9, 10. 19. 27. 2B. 37, 38, 39, 49, 56, 61).

#### COMMELINACEAE

¶*COMMELINA LONGICAULIS* Jacq. Water Grass.

Beckwith has recorded the use of this species in the treatment of gonorrhoea: we are now able to confirm its continued use for this purpose. When crushed, it is applied as a dressing for "fresh cuts" and is used in baths for ulcers. In Africa the juice has been used as an eye lotion and the pounded leaves mixed with *Piper nigrum* and other plants is applied as a poultice to swelling in the groin. (2, 7, 10, 25).

¶*ZEBRINA PENDULA* Schnitzl. Red Water Grass.

This favourite Jamaican cold cure also has some reputation in the treatment of high blood pressure. "A patient with hypertension, which is quite labile, claims good results from red water grass infusion made as follows:- 50gm. (stem, root and leaves) in 1 pt. water boiled down to 1/2 pt. and drunk once or twice a week." With *Cuscuta* and *Barreria laevis* it is sometimes boiled to make tea for amenorrhoea. The plant is also said to be used for consumption. (25, 35).

#### COMPOSITAE

¶*BIDENS REPTANS* (L.) G. Don. Marlqold.

The continued use of this species in cases of menstrual difficulties is confirmed. It may be used with *Desmodium* sp., *Eupatorium odoratum* and coconut milk to prepare tea for colds. (2).

¶*CALEA JAMAICENSIS* L. Camphor Bush or Weed: (Bee-Bee); Halbert Weed.

For fever and colds the patient is steamed over a bath prepared by boiling this plant. The species does not appear to be in common use. Dancer refers to it, under the common name of Halbert Weed, as a good bitter. (2, 5, 14, 36, 37).

¶*CHAPTALIA NUTANS* (L.) Polak. Kema Weed.

This plant (usually called "whiteback") is still used to make tea. Application of the juice to wounds is an old remedy. (2, 5, 9, 15. 24, 25, 58).

*ELEPHANTOPUS MOLLIS* H.B.K. Elephant's Foot; Iron Weed.

This plant appears to be fairly commonly termed "iron weed" in the Irish Town area. It is said to be used to make tea for colds and back pains: in the latter case the tea is drunk with rum or the plant is combined with *Desmodium* spp. and water grass (*Commelina* sp.) to prepare the drink. Old writers say that it is a good vulnerary and that the leaves were commonly used in the French islands as a tonic and diaphoretic. (5, 9, 15, 24).

*ERIGERON KARVINSKYANUS* DC. Daisy.

This species is used to some extent to make tea for colds. (36).

**EUPATORIUM ODORATUM L.** Jack-in-the-Bush.

Like other "cold bushes" this species is often combined with other ingredients to make tea. One such recipe includes *Desmodium* sp., *Bidens reptans* and coconut milk, while another comprises Jack-in-the-Bush, pimento and rosemary. Leaves of *Eupatorium* sp. are used in Maya medicine as a wound dressing in the same way as the leaves of this species were at one time used in Jamaica. The plant has also been used, in Jamaica, as an emmenagogue. (2, 9, 11, 13, 24, 25, 28, 56, 58).

**EUPATORIUM VILLOSUM Sw.** Bitter Bush.

The use of this plant as a tea and in baths for the treatment of colds and fever is confirmed. Alone or with *Salvia serotina* it is made into a tea for stomach pains and fever. Country midwives sometimes use it with *Hyptis pectinata* and *Leonotis nepetaefolia* to make a bath for a woman after childbirth. In Maya medicine various *Eupatorium* spp. are used for digestive troubles and asthma. (2, 3, 9, 11, 56).

**NEUROLAENA LOBATA (Sw.) R.** Br. Cow Gall Bitter; Halbert Weed; Bitter Wood; Bitter Bush; Goldenrod.

In Jamaica *Neurolaena lobata* is thought to be useful for treating stomach disorders. Early writers speak of its use as a bitter and also as a dressing for sores, wounds and ulcers. Barham thought it to be diuretic. In Honduras it has a reputation as a malaria remedy. (1, 5, 9, 11, 15).

**PECTIS CILIARIS L.** Consumption Weed.

Under the above vernacular name this species was described by one informant as a remedy for colds and consumption. In Mexico and Central America other species are employed as remedies for fever and catarrh. (41, 51).

**PLUCHEA ODORATA L.** Casso Riverside Tobacco; Bitter Tobacco; Fox-leaf.

The use of this plant to make a general beverage is confirmed. In Maya medicine the plant is a frequent ingredient in baths and lotions for pains, pulmonary tuberculosis, chills and fever, convulsions and fainting. The decoction is also drunk to hasten the afterbirth. The plant is also used in Maya remedies for jaundice and biliousness. (9, 25, 27, 38, 56, 62).

**PLUCHEA PURPURASCENS (Sw.) DC.** Bitter Tobacco; Wild Tobacco.

This *Pluchea* sp. is used to some extent to make a beverage which is thought useful in treating colds and fevers.

**PSEUDELEPHANTOPUS SPICATUS (B. Juss).** Rohr. Iron Weed; Packy Weed; Dog's Tongue.

"For a tonic boil together a bundle of each of the following in 2 qts. water with 1/4 lb. sugar until reduced to 1 qt: Iron weed (*P. spicatus*); Chainy root (*Smilax balbisiana*); Sarsaparilla (*Smilax regelii*); Bryal wys (*Smilax* sp.); Strong back root (*Morinda royoc*); Wild pinder (*Desmodium* sp.); Coconut root or tiny coconuts (*Cocos nudiera*); Irish moss (*Chondrus crispus* - imported or *Gracilaria* sp.-local). Cool and strain. Add 1 bottle of port or sherry, 1 small bottle of "Phospherine" and 1/4 pt. of proof rum. Take 1 tablespoonful 3 times a day. The tonic may be sweetened with honey instead of sugar."

This is the most complex recipe for a tonic which has come to our notice and there are numerous variations. Needless to say the expensive ingredients are often omitted but it may be of interest to note that the recipe was given to us by a domestic servant. In Panama *P. spicatus* is used to make a syrup for coughs. (58).

**SENECIO DISCOLOR (Sw.) DC.** White.back.

Although we have been unable to trace analyses of this *Senecio* sp. several of them are said to be toxic. Despite the possibility of its toxic nature, the plant is used in Jamaica fairly commonly not only in the preparation of baths for colds and fever but also to make tea for colds, fever and biliousness. Quantities used in the preparation of the beverage are very variable. One informant gave the recipe as about 50 gm. of stem and leaf and boiled in about 1/2 pt. water but the more general practice seems to be the use of 4 or 5 leaves in 1/2 pt. water.

One prescription for a disordered stomach combined this species with *Vernonia divaricata* to make tea. The bruised leaves are said to make a useful dressing for a lame foot. (10, 26, 36).

¶*VERNONIA DIVARICATA* Sw. (Old) Man Bitter Bush; Wild Gungo.

The use of this plant to make tea for stomach upsets is confirmed (see also *Senecio discolor*) and a new common name is recorded. (2. 9. 24).

*WEDELIA GRACILIS* L. Marigold; Consumption Weed.

A species of *Wedelia* less common than *W. trilobata* which is used in the same way.

#### CONVOLVULACEAE

¶*CUSCUTA* Sp. Love Bush.

With button weed (*Borreria laevis*) and *Zebrina pendula* this species is sometimes boiled to make tea for amenorrhoea. Some people consider it useful to make tea for children's colds and to be of value in marasmus ("mirasmy") cases. In Indiex. *Cuscuta* spp. are used by the natives to "purify the blood" and especially for bilious conditions. Maya medicine made use of *C. americana* in the preparation of baths for tuberculosis and high fever. (1, 2, 5, 7, 15, 39, 56).

*EVOLVULUS ARBUSCULA* Poir. Sea (side) Thyme.

This plant, a tea bush in its own right, is sometimes sold in the markets to the unwary as Poor Man's Friend (*Stylosanthes viscosa*). It is said to make a very pleasant beverage which is "good for the heart, wind and belly-ache". (36).

#### CRASSULACEAE

¶*BRYOPHYLLUM PINNATUM* Kurz. Leaf of Life.

The use of this plant in Jamaica as an application for headaches and pains, including sprains, is confirmed. Similar uses to those already recorded are made of the species in Cuba and in Maya medicine. The Maya also considered it of value in the treatment of dysentery and failure of menstruation. (2. 7, 8. 10. 25. 27. 47. 56. 61).

#### CRUCIFERAE

An important family, economically, consisting of about two thousand species which are mostly herbaceous plants of temperate and cold regions. They are characterised by the occurrence of myrosin and of glycosides rich in sulphur. The family provided a number of our vegetables including the cabbage tribe.

*NASTURTIUM FONTANUM* Aschers. Water Cress (Water Cushie or Crishes).

This well-known salad plant is rich in vitamins A and C and also contains some vitamin D. The dried plant contains 0.448 mgm. iodine per kgm. The tops are also said to contain the glycoside glyconasturtiin and volatile oil. The plant is antiscorbutic, slightly stimulant, diuretic and expectorant. In Jamaica it is used as a salad, in soup and as tea: it is thought to be good for the heart. The Flora of Cuba records that it is of value for constipation, chronic catarrh and pyorrhoea. (15, 16, 27, 47, 48).

#### CUCURBITACEAE

*CITRULLUS VULGARIS* Schrad. Water Melon.

The fruit of the water melon is regarded as cooling. "It is good for anyone whose skin comes up in weals when the time is hot". The fruit contains 92 to 96 per cent water, sugar and traces of citric acid. It is easily digested and early writers considered it useful for fever patients. Browne reported the use of the seeds in cooling and nutritive preparations: they contain about 27 per cent fat. In native African medicine, the fruit and seed are credited with diuretic properties and the juice of the roasted fruit is thought to be vermifuge. The seeds are used as a masticatory. (5, 7, 9, 15, 16, 26, 27, 61).

CUCUMIS SATIVUS L. Cucumber.

The fruit of the cucumber is also regarded as cooling. Its composition is similar to that of the preceding species. The seeds which contain about 25 per cent oil are used by the Europeans of the Transvaal as an anthelmintic. The oil contains vitamin A. Watt considered the seeds cooling and diuretic. (10, 16, 26, 27, 61).

☞FEVILLEA CORDIFOLIA L. Antidote (Cocoon).

We find that the use of the seeds (pounded with sugar and soap) as a dressing for wounds such as those made by rusty nails persists in Jamaica. The seed is also a common antidote for poisoning. (2, 5, 8, 11, 14, 15, 16, 24, 27, 37, 50, 60, 61).

SECHIUM EDULE Sw. Chocho.

Though there appears to be considerable difference of opinion as to the variety of chocho (white or green-skinned) to be used there is a general opinion in Jamaica that it has some effect upon high blood pressure. The juice of the grated fruit is taken and doses have been variously stated as 1 teaspoon three times a week or (no quantity defined) every eight days. (35).

## EUPHORBIACEAE

ACALYPHA WILKESIANA (Muell.) Arg. Copper Leaf; Red Hedge; Headache Bush; Croton.

Both in Jamaica and in other West Indian islands the leaf of this ornamental is used as a headache poultice. Sometimes the leaves are moistened with bay rum but they may be used alone. Tea made with the leaves is sometimes used in the Grenadines as an internal treatment. *A. indica* L. is said to contain an alkaloid "acalyphin". (13, 37).

ALCHORNEA LATIFOLIA Sw. Loblob; Dove Wood; Jimmy Wood.

The leaves of the loblob are utilised by some as a tooth-ache cure: the leaf is chewed and the extracted juice held for a while in the mouth to "soak the tooth". A pipe is then smoked and the pain is said to be relieved. The leaves are also applied to other local pains. Githens and Dalziel report a number of other uses for related species in Africa where they are employed as vermifuges, wound dressings, cathartics, expectorants, and in the treatment of gonorrhoea, urinary infections, diarrhoea, dysentery and ophthalmia. The plants are said to contain tannins and simple amaroid bitters. (7, 10).

CROTON HUMILIS L. Pepper Rod; Small Seaside Balsam.

Early Jamaican medical authors say that this pungent plant was much used in baths and fomentations for nervous weakness. Maya medicine men used it to treat venereal sores. The only use we are able to record in Jamaica today is as an insecticide which is said to kill bed-bugs. (5, 15, 56).

CROTON LINEARIS Jacq. (Wild or Spanish) Rosemary.

This plant, which has a pleasant aromatic odour, is much used by Jamaican peasants as a hair wash. As in Browne's day it is still used in baths for fever and colds, for the treatment of which a tea made with the plant may also be taken. Barham considered the plant to have all the virtues of rosemary and used the powdered leaf as a specific for colic. (1, 5, 15, 36, 37, 50).

EUPHORBIA BRASILIENSIS Lam. Spurge; Wart Weed.

This plant should be included in the list of small herbaceous spurges the juice of which is used in the removal of warts and to make tea for colds. (37).

☞EUPHORBIA HIRTA L. Spurge; Checkweed (Grenadines) Wart Weed; Creeping Hairy Spurge; Australian or Queensland Asthma Weed.

In Fiji this species boiled in seawater is reputed to be a cure for dysentery and, as in Jamaica, is also used as a poultice for boils.

Similar uses of the plant are described in Maya medicine and in addition the latex was used for sore eyes. In parts of Mexico other small *Euphorbia* spp. are used for this purpose. The B.P.C. 1934 described this species which has been used with lobelia or senega to treat chronic bronchitis, asthma, hay fever and other respiratory troubles, as having a depressant action on the heart and on respiration. The plant has been considered laxative. (1, 2, 5, 7, 13, 15, 17, 19, 27, 37, 55, 56, 59).

¶*EUPHORBIA HYPERICIFOLIA* L. Spurge; Wart Weed.

In Jamaica tea made by boiling this plant is regarded as useful in the treatment of marasmus in infants. Githens states that the latex contains resins and euphorbon. The latter is said to be toxic. According to Wehmer a phenol-like substance, volatile oil, and a little alkaloid and glycoside are found in the shoots. (2, 7, 9, 10, 13, 15, 24, 27, 37, 61, 62).

*EUPHORBIA THYMIFOLIA* L. Spurge; Wart Weed; Eyebright.

Another small herbaceous spurge which is used in a similar way to those already mentioned. The plant has also been used as a vermifuge, as an astringent, to remove films from the eyes and as a laxative. (1, 9, 14, 15, 24, 37, 39, 61).

¶*JATROPHIA GOSSYPIFOLIA* L. Wild Cassada.

A tea made with the leaves of the wild cassada is still used as a laxative. In Trinidad oil from the seeds provides a purge and the plant is also used by the Brazilian Indians to treat stomach upsets. (1, 2, 5, 7, 9, 15, 24, 27, 28, 37, 48, 50, 62).

*MANIHOT UTILISSIMA* Pohl. Cassava (Cassada); Manioc; Tapioca.

In addition to the use of the bitter cassava for the preparation of starch, the grated tuber is said to make an excellent poultice for sores. This use, which persists, is recorded by the early writers such as Browne who says that in the case of very foul sores the cassava flour, still containing some of the juice, should be mixed up with pounded tobacco leaves. Barham recommends a poultice made with cassava bread, milk and sweet oil to ripen boils. The tubers are used in a similar manner in Africa. They contain phaseolunatin accompanied by an emulsin-like enzyme. The young leaves are sometimes boiled as greens. (1, 3, 5, 7, 15, 27, 37, 39, 50, 60, 61).

¶*PHYLLANTHUS NIRURI* L. Carry-me-seed; Chamber Bitters; Chickweed; (Grenadines).

In Jamaica the use of this species for the treatment of stomach disorders, is confirmed. In some parts of the West Indies it has a reputation as a malaria remedy. (2, 7, 9, 14, 27, 39, 61).

¶*RICINUS COMMUNIS* L. Castor Oil Plant; Oil Nut.

The leaves of the white-stemmed variety of *Ricinus communis* are reported to make a bath which is efficacious in reducing pain and swelling in the joints. Hot ashes wrapped in a leaf of the castor oil plant were used by the Maya in the treatment of syphilitic sores and the crushed seeds provided a dressing for scabs on the arm or head. In India castor oil has been used as a dressing for skin diseases; it has also been recommended in cases of lumbago, rheumatism, piles and worms. (3, 5, 7, 8, 10, 15, 18, 22, 23, 24, 26, 27, 37, 38, 39, 50, 56, 61, 62).

## FILICINEAE

*ADIANTUM TENERUM* Sw. Maidenhair Fern; Black-stick Maidenhair.

This species of maidenhair fern (and, perhaps, others) is used to make tea for colds. Beckwith recorded its use with a number of other plants for this purpose (see *Anacardium occidentale*). *A. villosum* L. and *A. trapeziforme* L. were thought demulcent and pectoral by old writers. Browne considered all *Adiantum* spp. to be "good for the heart". It may be of interest to note that *A. capillus-veneris* L. had a reputation in Europe as a remedy for the treatment of pulmonary catarrh. Some African tribes smoke the leaf for head and chest colds. The plant has also been used as an emmenagogue.

The rhizome is slightly astringent and aromatic and a strong decoction is said to be emetic. Lunan reports that Piso recommends the use of *A. villosum* L. to get rid of tough phlegm and that a syrup of *A. trapeziforme* L. can be used like European Maidenhair. (2, 5, 14, 15, 26, 37, 61).

POL YPODIUM PHYLLITIDIS L. Cow Tongue.

Tea made from the fronds of this fern is used as a cold cure and to some extent as a general beverage. In India and parts of South America. other species are thought sudorific, febrifuge and astringent. (14, 36, 48, 61).

#### GESNERIACEAE

¶RYTIDOPHYLLUM TOMENTOSUM Mart. Search-my-Heart.

Tea prepared from the plant is considered a general stomachic: coc;onut milk is often added to it. (30).

#### GRAMINEAE

BAMBUSA VULGARIS Schrad. Bamboo.

Bamboo leaves are used to prepare tea and baths for fever patients. Boiled with Guinea grass and white rum added to the brew. it is said to be an excellent medicine for malaria and other fevers. A siliceous concretion called tabasheer found in the stems of *B. arundinacea* has been used in the East for treating paralytic complaints and poisoning. The native population also considers it stimulant and aphrodisiac. (27, 39, 54, 61).

¶CYNODON DACTYLON Pers. Bahama Grass.

This species has, in the past, been substituted for couch grass (*Agropyron repens* Beauvois) which was at one time official in the pharmacopoeias: it was used as a demulcent diuretic. The Cuban Flora states that bahama grass is diuretic and in both India and Jamaica the plant is considered to be a cold and fever remedy. We have also been told that the whole plant including the soil clinging to the roots makes an "acclimatisation tea" which should be drunk on moving to a new part of the island. This seems to be an extension of the fairly common practice on removal to a strange place of taking a small quantity of soil from below the surface, mixing it with water, leaving to settle and drinking the water. (10, 23, 26, 27. 39, 46, 59, 61).

PANICUM MAXIMUM Jacq. Guinea Grass.

Alone, or with other species including Bambusa, Guinea grass is used to make tea for fevers. (7, 26).

#### LABIATAE

COLEUS AROMATICUS Benth. French or Spa..ish Thyme. Country Borage.

This species, a native of Java, is cultivated to some extent in the West Indies where it is used for seasoning. In Jamaica it is sometimes used in decoctions employed as cold remedies. The fresh leaves contain a high proportion of water and about 0.55 per cent volatile oil which has a considerable carvacrol content. In the East it is used in native medicine in the treatment of asthma, chronic coughs, colic, dyspepsia, epilepsy and other convulsive affections. It is said to have an intoxicating effect. (17, 27, 28, 39, 61).

HYPTIS CAPITATA Jacq. (Wild) Batchelor's Button; Caesar Obeah; Iron Wort; Wild Hops.

Boiled to make tea, this species is said to be "good medicine" and is used in the treatment of colds, "hot belly" and perhaps constipation. It is regarded as valuable medicine for "heavy chest" and asthmatical breathing in babies. According to early writers this plant heals wounds and ulcers and in decoction with honey and a little alum makes an excellent gargle and mouth wash. The juice was used on sore eyes. (1, 11, 37, 62).

¶HYPTIS PECTIN AT A (L.) Poit. Piaba.

Instead of tea made with the whole plant, the extracted juice, with salt, may be drunk for stomach pains. The leaves are boiled with those of *Eupatorium odoratum* and *Leonotis nepetaefolia* to make a bath for a woman after childbirth. The juice, extracted by rubbing up the leaves, is sometimes snuffed up the nose to relieve catarrhal conditions, (2, 7, 10, 11, 27).

¶HYPTIS SUAVEOLENS (L.) Poit. Spikenard; Noisy Bur.

This plant is still in use, to some extent, for the preparation of "bush tea". Barham and other early writers speak of it as diuretic (used in cases of dropsy, etc.), alexipharmic and useful in baths to relieve pain and heal ulcers. The seeds are used by some Mexican Indians both medicinally and as food. (1, 2, 5, 7, 11, 15, 27, 37, 41, 50).

HYPTIS VERTICILLATA Jacq. John Charles.

This is the plant usually meant by the designation "John Charles". It is a favourite cold bush used alone or with others which include *Solanum torvum* and *Gossypium* spp. The tea is said to be more pleasant and effective if the leaves are dried. It has been stated that the tea will prevent marasmus in infants. The leaves are also utilised in bush baths. (11, 51).

LEONOTIS NEPETAEFOLIA R.Br. Pick Nut; Christmas Candlesticks; Ball Head; Bald Head or Bush. (Male) Bas'cedar.

It is doubtful if this species is much used in Jamaica but one country "midwife" mentioned it under the name of "pick nut" as an ingredient of a bath for use, after labour and also in baths for fever patients. In Trinidad the leaves are used to make tea for stomach ache and as a salve for eczema. Related species are used in South Africa in a similar way while some *Leonotis* spp. are said to be narcotic. In the Congo, Madagascar and Nigeria *L. nepetaefolia* is used as a purge, tonic, emmenagogue, febrifuge. as an application for syphilitic ulcers and as a dressing for headaches. The active principle appears to be a resin. (7, 10, 14, 26, 27).

¶MICROMERIA BROWNEI (Sw.) Benth. Pennyroyal.

The occasional use of this plant as an abortifacient. together with other species not known to the informant, is confirmed. Tea prepared from it is also used to treat diarrhoea. (2, 15).

¶MICROMERIA VIMINEA (L.) Urb. Peppermint; Wild Mint; All-Heal.

Despite the fact that country people with whom we have talked say that *M. viminea* as found wild is not the same as the peppermint which they cultivate we have not, so far, been able to separate them botanically. It is certain, however, that the plants smell quite differently, only the cultivated plant having the characteristic peppermint odour. Only one informant has said that the "wild mint" is used to make a cold remedy, the others saying that it is not used (2, 15).

¶JOCIMUM MICRANTHUM Willd. Wild Barsley; Nunn Balsam (Antigua).

In addition to uses already recorded the juice of wild barsley provides a wash for blood-shot eyes when the condition has been caused by a blow. In Maya medicine it forms part of a dysentery remedy and in conjunction with tobacco leaves and "Spanish oil" is used as a dressing for syphilitic sores. (2, 11, 13, 19, 27, 51, 56).

SALVIA OCCIDENTALIS Sw. Wild Mint; American Field Basil.

Wright records the use of this plant in fomentations and its juice as a treatment for ophthalmia. It is fairly certain that this is the species which was reported to us as a sovereign cure for amenorrhoea. (10, 26, 62).

¶SALVIA SEROTINA L. Chicken Weed; Little Woman.

In the treatment of stomach disorders and fever this plant is sometimes used in conjunction with *Eupatorium villosum*. In former times it has been considered abortifacient and has also been used for a variety of female disorders. (2, 11, 26).

## LAURACEAE

CINNAMOMUM CAMPHORA Nees. Camphor Tree.

This tree, a native of Eastern Asia, is found occasionally in Jamaica in cultivation. The crushed leaves with proof rum are reported to make an excellent cooling application for headache. All parts of the tree yield an essential oil and some varieties also give solid camphor.

The essential oil is of complex composition and contains alcohols, aldehydes, ketones, terpenes and sesquiterpenes. Camphor has been widely used both internally and externally. It is primarily stimulant and diaphoretic and secondarily sedative and anodyne. (3, 17, 27, 61).

¶PERSEA AMERICANA Mill. Avocado Pear.

In amplification of uses previously recorded it may be added that the leaves of the tree are used in baths for fever and pain. Early writers such as Lunan say that they are "balsamic, pectoral and vulnerary" and that the buds have been used in the treatment of venereal diseases. A recent informant assured us that the leaves of only the "green skinned" pear should be used for high blood pressure.

Hodgson records that the protein content of the fruit is two to three times that of the apple and citrus and little less than that of the olive; the mineral content is similarly high; there is 5.25 per cent of readily digestible fat. While the vitamin B complex content is high and that of A and E good, the content of vitamin D is fair and of C low. Long writes that the fruits were considered "great provocatives; and, for this reason it is said, the Spaniards do not like to see their wives indulge too much in them". (14, 15, 27, 44, 50, 56, 62).

#### LILIACEAE

¶ALOE VULGARIS Lam. Aloes.

Uses of aloes already recorded for Jamaica are found in Cuba, Dominican Republic and among the Mayas. It has also been found of value in the treatment of X-ray burns. (1, 2, 3, 5, 10, 11, 12, 15, 22, 23, 24, 26, 27, 37, 39, 43, 47, 50, 56, 60, 61, 62).

SMILAX SP. (?balbisiana Kth.) Hog Head.

¶Like other Smilax spp. this is said to be used in tonics. The root is described as shorter and latter than that of china root, though our specimen appears to be the same species.

SMILAX SP. Bryal Wys (Withe).

Like china root and sarsaparilla this Smilax sp. is used in tonics (see Pseudelephantopus and Passillora maliformis). (36).

#### LYTHRACEAE

¶CUPHEA PARSONIA R. Br. Strong Back; Milk Weed.

This tiny herb, called "strong back" by our informant, is sometimes included in the ubiquitous sarsaparilla tonic. (see Pseudelephantopus). (2, 11).

PUNICA GRANATUM L. Pomegranate.

The fruit rind and root bark of pomegranate are well-known tapeworm remedies and are so used in Jamaica. In this connection the following remedy for vomiting sickness is of some interest: "Dry, parch and grind the fruit skin: mix it with ground dry fowl gizzard and white flour." The mixture is made into a porridge which is eaten. The fruit skin is also boiled to make tea which is taken for stomach-ache. This may be correlated with its use in Africa for dysentery, diarrhoea, colitis and stomach-ache. The rind is very astringent, containing some 28 per cent tannin as glycosidal tannic acid, mucilage and perhaps some resin. It has in the past been used to treat leucorrhoea. Sloane gives the leaves beaten with oil of roses as a headache application.

The root bark contains about 0.3 to 0.9 per cent of alkaloids which are pelletierine, isopelletierine, methylpelletierine, pseudopelletierine and isomethylpelletierine; several glycosidal tannic acids; resin; starch. The stem bark contains similar alkaloids and tannins.

The flowers, which are used by the Hausas as a vermifuge and have been used as a tonic, astringent and gargle, contain an anthocyanin, "punicin" which is very similar to pelargonine.

The fruit contains reducing sugars, citric and malic acids and is rich in vitamin C. (3, 5, 7, 10, 12, 14, 15, 16, 23, 24, 26, 27, 30, 36, 37, 38, 39, 51, 56, 60, 61).

# MEDICINAL PLANTS OF JAMAICA

G. F. ASPREY and PHYLLIS THORNTON

## PART IV

### MALVACEAE

*KOSTELETZKYA PENTASPERMA* Griseb.

According to one informant the leaves of this plant, rubbed up, are used as a dressing for cuts.

*MALACHRA ALCEAEFOLIA* Jacq. Wild Broom; Wild Ochra.

Lunan remarks of this species that the tender buds and leaves are very mucilaginous but reports no medicinal use. It seems probable, however, that some slight use is made of the plant today in the treatment of fever and colds. (15).

*SIDA ACUTA* Burm. Broom Weed.

It is doubtful if *Sida* spp. are much used medicinally in Jamaica but one informant told us that this species can be used to make tea for colic. Lindley said the root is bitter and considered a valuable stomachic. In Maya medicine it is included in remedies for pain in the bowels and heart, and for fainting: with *Sesuvium portulacastrum* and perhaps *Asclepias* sp. it is used as a poultice for ulcers. Similar uses are made of the species in India where the root infused with ginger is also considered efficacious in intermittent fevers, and the leaf juice is used in worm cases and for dysentery and chest pains. In Africa use is made of the mucilaginous nature of the leaves in midwifery and the treatment of gonorrhoea. (7, 14, 39, 56, 57, 61).

*SIDA URENS* L. Wind Bush.

Wind Bush is used to make tea for a baby with "gripe". (36).

*URENA LOBATA* L. Ballard Bush.; Bur or Indian Mallow.

This plant is used to make tea for colds and is also employed by the poorer people for washing greasy dishes. Among the older writers we find Lindley speaking of the use of the flowers as an expectorant for "dry and inveterate coughs". Like other members of the Malvaceae it is mucilaginous and the seeds contain urease and fat. In tropical South America it provides a sedative and in Brazil a root and stem decoction is a treatment for colic. (7, 14, 27, 48).

### MELASTOMACEAE

*UMICONIA LAEVIGATA* DC. Chicken Net; Fowl Bone; Sage; White Wattle; Long-leaf-Jointer

It seems unlikely that this plant finds very wide-spread use in Jamaica: most of our informants have been somewhat hesitant in naming it. However, they have all been consistent in describing it as used in bush baths for colds and fever. Some have said that it may be drunk as tea for the same complaints. (2, 25).

### MELIACEAE

*CEDRELA ODORATA* L. (Jamaican, West Indian, Spanish or Honduras) Cedar.

The leaves and twigs of this well-known timber tree are sometimes used in baths for fever and pains. Macfadyen states that a gum resembling gum arabic in its properties may be obtained from incisions in the bark. Cedar wood yields about 0.3 percent aromatic oil. In India *C. toona* bark has been used in the treatment of fevers, diarrhoea, dysentery and ulcers. (16, 27, 39, 61).

\*Supported by a Grant made to the University of Pennsylvania by the Nutrition Foundation of New York.

## MIMOSOIDEAE

### ¶MIMOSA PUDICA L. Shame Weed.

The following "prescription" has recently come to the notice of the authors. "For nervous trouble-Take 11/2d. or 1d. worth of each of the following:- Shame-a (*M. pudica*), Jig-a-nit (*Tournefortia hirsutissima?*), Poor Man's Friend (*Stylosanthes viscosa*), Mistletoe (*Loranthaceae* sp.) and boil in a quart of water until reduced to 1 pt. Drink instead of water". It is perhaps of interest to note that Maya medicine included this plant as a remedy for lassitude and depression: its gum was used in treating white films on the eye. Shame weed is also used in Jamaica as a tea for the treatment of pains, especially those in the chest. Dancer considered it to be an antidote for poison and in India the leaves have been prescribed for cases of piles. (2, 7, 10, 27, 36, 56, 61).

## MORACEAE

### ¶ARTOCARPUS INCISA L. Breadfruit.

We are reliably informed that the gum of this tree makes an effective dressing for the contagious skin disease *Tinea versicolor* or liver spot. (30).

### ¶CECROPIA PELTATA L. Trumpet Tree.

An infusion of the dried leaves is used for colds. In Cuba the leaf decoction is also said to be of value in the treatment of coughs and the latex is used to destroy warts, callosities and herpes. In the early period of Jamaican medicine trumpet was credited with more numerous virtues. The leaves and pith were used as applications for wounds and old ulcers; the juice of the tops was thought astringent and of value in treating gonorrhoea and excessive menstrual flow; and the ashes of the plant were used in dropsical cases. (I, 2, 11, 15, 24, 27, 37, 38, 47, 50).

## MORINGACEAE

A small family of woody tropical plants containing only the genus *Moringa*. The family resembles the *Cruciferae* in the presence of myrosin cells.

### MORINGA OLEIFERA Lam. Horseradish Tree; Ben Nut Tree; *Moringa* (*Maranga*).

This species and the related *M. aptera* yield oil of ben which is used by watchmakers. The seed contains traces of an alkaloid. The stem yields a gum which contains dextrin, bassorin, and the enzymes emulsin and myrosin: it is also said to contain an alkaloid-moringenine. In Jamaica the bark steeped in alcohol is used as a counter-irritant in cases of pains and headache and a tea made with the leaves is used as a beverage. The Yorubas of Africa use the leaf as an application for headache. The root has been employed for its rubefacient properties in a number of countries including Ceylon, Trinidad and Africa. In Ceylon the bark is said to promote digestion and appetite and in Mauritius the plant is thought to have diuretic, purgative, vermifuge and anti-spasmodic properties. Among some African tribes the gum is used for diarrhoea. In Cuba the leaves are sometimes employed as a dressing for pimples.

Descourtilz reported that the Caribs considered the juice cleansing and antiscorbutic; that the seeds were purgative; a tincture of the root or stem bark "as antiscorbutic" and that warmed leaves were efficacious as a dressing for syphilitic ulcers. Numerous other virtues are ascribed to the plant in India. The tree is not native to Jamaica but is grown to some extent as an ornamental. (7, 10, 16, 17, 19, 22, 27, 28, 30, 38, 39, 47, 52, 61).

## MUSACEAE

About seventy herbaceous tropical species make up the family. Apart from *Musa* spp. the plants have been little studied chemically. Organic acids such as gallic and malic acids occur.

### MUSA PARADISIACA L. Plantain.

### M. SAPIENTUM L. Banana.

The "bark" and "trash" of these two common species find some use in Jamaica domestic medicine. Tea made in the usual way is thought to be of some use for "stoppage of urine" and "sourness of the stomach".

Browne reported that the juice is a rough but cooling astringent and according to Boussingault's analysis it contains tannin, gallic acid and perhaps salts of acetic acid. The Jamaican uses find parallels in Maya medical practice; for "stoppage of urine" the juice of young shoots is recommended and this is also considered of use in constipation: for sudden diarrhoea the plant is boiled with calabash. In the Gold Coast the astringent sap is also used for diarrhoea and the sap and leaves are used in various ways as dressings for ulcers, cuts and burns. In Jamaica the juice of the plant is often drunk for "internal strains". Among uses mentioned by Barham are that of leaf juice for burns and of jam made with the fruit for coughs, hoarseness and to "allay the heat of urine". Thomson recommends roast plantain sucker as a poultice to be applied over a burn dressing of spirits, olive oil, lime water and turpentine. (1, 5, 7, 15, 17, 27, 37, 39, 50, 56, 60, 61, 62).

#### MYRTACEAE

AMOMIS CARYOPHYLLATA Kr. and Urb. var. citrifolia. Lemon-scented Pimento.  
= Pimento acris var. citrifolia. Lemon-scented Allspice.

This is a variety of the bay rum or bay berry tree the essential oil of which is used in the manufacture of bay rum. The lemon-scented variety, the leaves of which are termed citronella leaves, yields lemon-scented bay oil with a high citral content. Ordinary oil of bay contains eugenol as its principal constituent. In Jamaica the leaves of lemon-scented pimento are used to make a tea which is regarded as a cold and fever cure. The leaves of the bay rum tree have been used, in the Grenadines, to treat diarrhoea. Oil of bay has been used as a refreshing perfume for headaches, faintness and similar complaints. (3, 9, 13, 14, 17, 27).

EUCALYPTUS SPP. Eucalyptus; Gum Tree.

The following species have been introduced into Jamaica during the last ten years by the Forestry Department:- *E. globulus* Labil. (Blue Gum, Fever Tree); *E. deglupta* Blume; *E. robusta* Sm.; *E. microcorys* F. Muell.; *E. saligna* Sm.; *E. kirtoniana* F. Muell.; *E. alba* Reinw.; *E. citriodora* Hook.

Tea and baths made with eucalyptus leaves are taken by some Jamaicans in cases of colds and fever. The leaves may also be put into the patient's bed. Similar uses of the leaves are found in countries where Eucalyptus is indigenous or where it has been introduced. In Africa a leaf decoction or infusion is used as a remedy for influenza, while steam from the leaves boiling in water is used as a respiratory antiseptic. Australia the home of many Eucalyptus spp. finds similar uses for the leaves, those of *E. globulus* providing a favourite fever remedy. This species has been used in Europe to treat malaria: the presence of eucalyptus trees in marshy areas has been said to reduce the incidence of malaria. The leaves have been further used in various parts of the world as an antiseptic wound and ulcer dressing, to make an enema for the elimination of worms; and, in infusion as an insecticide and as a medicine for diabetes (negative results).

The chief requirement of medicinal oil of eucalyptus is a high cineole content. The oil from *E. globulus* is now of minor importance and that of *E. citriodora* is excluded on account of its high cineole content. The fresh leaf of *E. globulus* is said to contain about 2.75 per cent oil which has a high cineole (eucalyptol) content and also contains pinene, globulol, eudesmol and various aldehydes. Within the genus the principal constituents of eucalyptus oil, alcohols, hydrocarbons, aldehydes and so on are very irregularly distributed. Leaves of *E. globulus*, *E. microcorys* and *E. saligna*, for example, contain no phellandrene, though it occurs in some species; *E. saligna* and *E. robusta* contain cineole and pinene. (3, 10, 23, 26, 27, 28, 39, 40, 61).

PIPIMENTA OFFICINALIS Lind. Pimento; Jamaica Pepper.

In addition to uses already recorded it should be noted that the aromatic leaves are among the ingredients of baths and fomentations for fever and pain, and that pimento is included in some cold remedies. Lindley recorded that the oil relieves toothache. In mulled port wine it was, at one time, used in the treatment of dysentery. (2, 3, 5, 9, 10, 11, 14, 16, 23, 24, 27, 50, 60).

PSIDIUM GUAJAVA L. Guava.

The leaves of this species are sometimes included in bush baths. The leaves, bark, buds, roots and young fruits have been used in decoction for diarrhoea and dysentery: the leaves are still so used in the Grenadines and among the Mayas. Baths containing the leaves are a treatment for skin diseases.

The Mayas found the plant useful in treating asthma and sore tongue. The clarified fruit juice has been used for jaundice, gonorrhoea and diarrhoea.

The leaves contain about 6% fat. 0.365% volatile oil containing eugenol. 8 to 15% tannin, 3.15% resin and some malic acid. The bark has 12 to 30% tannin and the root is also rich in this substance. (9, 13, 15, 16, 27, 37, 38, 39, 56, 60, 61).

#### NYCTAGINACEAE

A small family of herbaceous and woody plants found mainly in America. Chemically they are little known.

**BOERHAVIA SCANDENS L.** Rat Ears; Easy-to-Bruck.

This plant is used to make tea for colds and is also considered to be an excellent treatment for marasmus ("mirasmy") in children. In Africa and India various species of Boerhavia are considered useful as emetics, cathartics, diuretics, febrifuges, vermifuges, expectorants; astringents used in the treatment of dysentery, gonorrhoea and wounds; and as valuable in the treatment of asthma and dropsy. Boerhavia spp. are said to contain the alkaloid punarnavine. (7, 10, 14, 27, 39, 57, 61).

**MIRABILIS JALAPA L.** Four o'clock; Marvel of Peru; False Jalap.

This species probably finds little use in Jamaican home remedies but is used in baths for fever and colds. The root is said to have purgative properties: it contains carbohydrate and trigonellin. It was employed in earlier times in Jamaica as a laxative and is said to be so used in Cuba. In Antigua and India the leaves are said to be used as an application to ulcers and sores. The juice of the flowers is used in Cuba to treat freckles and herpes while the root is thought anthelmintic and useful in cases of dysentery and melancholia. (1, 5, 7, 15, 19, 26, 27, 37, 47, 61).

#### OXALIDACEAE

A mostly herbaceous family of about three hundred and forty species, found mainly in the warmer regions of the world. Oxalic acid is commonly found in the plants both as calcium oxalate crystals and also in the form of dissolved potassium oxalate.

**OXALIS CORNICULATA L.** Sour Grass; (N) Edge-Teeth; (Yellow or Wood) Sorrel.

Oxalis spp. contain oxalic acid: they are commonly regarded as cooling, febrifuge, antiscorbutic and stomachic. *O. corniculata* is used in Jamaica to make tea which is regarded as antidiuretic (though Lunan reported it diuretic) and of value for the treatment of a "bad back". The species also finds use in Africa, Cuba, India. It has been much used in dysentery cases. to remove films from the cornea and. it is said. as an antidote to Datura poisoning. (5, 10, 14, 15, 26, 28, 39, 47, 48, 57, 61).

#### PALMAE

**COCOS NUCIFERA L.** Coconut Palm.

Coconut milk is often used in tea prepared from various "bush tea" plants. We find it so used with *Rytidophyllum* (Search-my-Heart). *Bidens reptans* (Marigold). *Eupatorium odoratum* {Jack-in-the-Bush}. The very small nuts which often fall from the tree are occasionally included in the popular Sarsaparilla tonics or the root may be used instead. Coconut leaf is sometimes used with bryal wys (*Smilax* sp.) and sweet cup (*Passinora -malitormis*) to prepare a tonic. The root is also included in a treatment for toothache (see *Zanthoxyllum*) and in India and Ceylon it is considered to strengthen the gums. In India the pulp of young fruits is given in cases of sunstroke: in Jamaica split young nuts boiled and with the addition of white rum are said to cure dysentery while the water of very small immature nuts is used to treat gonorrhoea. In Fiji the coconut oil is used as an application for rheumatism, stiffness of the joints, and strained muscles. To the husk and powdered woody shell of the nut Descourtiz ascribed tonic and astringent properties and he considered the oil to be purgative and vermifuge. Coconut water he described as antiscorbutic. (5, 7, 12, 14, 17, 36, 37, 38, 39, 50, 55, 56, 60, 61).

## PAPAVERACEAE

### ¶JARGEMONE MEXICANA L. Mexican Poppy or Thistle.

The use of this species to make tea for colds and fever and perhaps as a general beverage is confirmed. It is also said to be boiled with chips from *Bursera simaruba* ("taken from the side of the tree where the sun rises") to make a drink for high blood pressure. The use of the latex in the treatment of eye complaints appears to be wide-spread being reported for Mexico, among the Mayas, in French Guiana and in India. It has also been used in various parts of the world to heal ulcers, to remove warts, as a cure for ringworm and in dropsy and jaundice cases. The root and shoot decoctions have also been considered diuretic and of use in bladder complaints. Thomson reported that 1 drachm of the seeds was a dose for worms in adults: the dose was followed by one composed of 1 tablespoon of spirits of turpentine, 2 tablespoons sweet oil (or aloes) with molasses. (5, 7, 8, 10, 14, 15, 16, 18, 25, 26, 27, 37, 39, 41, 47, 50, 51, 56, 60, 61, 62).

## PAPILIONATEAE

### ¶JABRUS PRECA TORIUS L. Red Bead Vine.

Commonly called liquorice or wild liquorice the shoots of this species are still used to prepare tea for colds in Jamaica. The root was at one time included in the Indian Pharmacopoeia. (1, 2, 3, 5, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 23, 24, 26, 27, 37, 39, 47, 50, 61, 62).

### ¶JANDIRA INERMIS H.B.X. Cabbage Bark Tree.

The use of the bark and fruit of this species as a vermifuge is confirmed for Jamaica. In Panama it is used in the same way and also in Cuba where it is also considered a febrifuge and where a leaf decoction has been used in the treatment of quick-lime burns. (2, 5, 7, 9, 10, 11, 14, 15, 16, 19, 27, 30, 37, 38, 47, 50, 58, 60, 62).

### ¶JCAJANUS CAJAN Millsp. Gungo Pea; Christmas Pea; Angola Pea; 7 year Pea.

The leaves of this plant boiled with ashes, salt, and the roots of coconut and *Zanthoxylum* (prickly yellows) provide a decoction which is held in the mouth to cure toothache. In Cuba, in addition to the use of shoots and flowers to prepare pectoral decoctions, poultices are made with the seeds. Lunan reports that Barham recommends the leaf juice as an eye lotion. Wright considered the leaf decoction useful in uterine haemorrhage and weakness. (1, 7, 8, 10, 15, 27, 47, 61, 62).

### ¶JDESMODIUM SPP. Wild Pinder; Puss Gut.

D. AXILLARE DC. Wild Pinder.

¶D. PROCUMBENS Hitch. Wild Pinder.

D. SUPINUM DC. Wild Pinder; Fever Weed; French Honeysuckle.

D. axillare and D. procumbens are to be included among the *Desmodium* spp. known as wild pinder and strong back. The former, used in the usual way for the treatment of back pains, is sometimes used with *Iresine paniculata* and *Borreria laevis* to make a drink which is said to "flush out all poison from the kidneys". In Cuba a root decoction is thought to be of value in the treatment of ulcers and buboes: in Brazil it has been used as a remedy for acne. D. procumbens like other species makes a tea for back pains and weakness. "

D. supinum is said to be an excellent haemostatic and was used in Cuban hospitals during the wars of independence: its root decoction is considered to be of some value in the treatment of dysentery. Wright recorded its use among poor people as a diaphoretic in cases of colds and slight fever: he considered it of no value.

*Desmodium* spp. are still used in Jamaica in the treatment of colds: one recipe recommends that it be boiled with *Bidens reptans*, *Eupatorium odoratum* and coconut milk. In Maya medicine the warm crushed plants were used as a headache poultice. (1, 2, 10, 15, 25, 47, 56, 62).

### FLEMINGIA STROBILIFERA R.Br. Wild Hops.

This plant is used in baths for fever patients. Other *Flemingia* spp. are described as containing resins. (27).

GLIRICIDIA SEPIUM Steud. Quick Stick; Grow Stick; Growing Stake; Maranga.

Under the name of Maranga, this species was pointed out to the authors as an ingredient of baths for fever and pain and of tea for colds. It seems possible that the common name used on this occasion was a corruption of Moringa transferred from *M. oleifera*. It was also said that the species is an excellent treatment for gonorrhoea. The same common name has been given on other occasions when it was said that the scraped root or the leaf is used in the treatment of kidney trouble, dropsy and jaundice. In this case it seems likely that not only the name but the uses had been transferred from Moringa. Under its usual vernacular name of quick stick it has been described to us as useful" as a cold cure. In Panama the leaves are applied as poultices to bruises, sores and erysipelas. (58).

PISCIDIA PISCIPULA L. Jamaica Dogwood.

The common name of the species probably derives from the fact that it is said to cure mange. A decoction of the bark is used in Jamaica for the relief of backache and other pains and to bathe sores. The plant, and especially the bark of the roots, is sedative and has been much used, especially in the United States of America, in the treatment of neuralgia, toothache, headache, mental worry, mania, uterine disorders and ulcers. In 1948 it was reported that *Piscidia* preparations were potent uterine depressants in various laboratory animals. The nature of the narcotic principles present in the bark seems to be in some doubt. They were said, at one time, to include "piscidin" but some of the later work indicated that this was a mixture of two substances which were not the active principles. According to some workers a curare-like alkaloid is present. It also seems likely that saponin is present. Analyses carried out in 1944 showed that the root bark contains rotenone and a new substance which was called ichthynone. (1, 8, 9, 14, 15, 16, 19, 27, 30, 33, 37, 47, 50, 59).

¶STYLOSANTHES VISCO SA Ws. Poor Man's Friend.

It is now known that this species is distinguished from *S. hamata* Taub., by those who use medicinal herbs, on account of its strong smell. Moreover, it dries a much darker colour. It has some reputation in the treatment of pains such as stomach-ache: tea may be made or the plant may be soaked in proof rum and a few drops of the liquid be taken in water. One informant quoted its use for "nervous trouble". (See *Mimosa pudica*). (2, 7, 36).

#### PASSIFLORACEAE

PASSIFLORA MALIFORMIS L. Sweetcup.

This may be boiled with the root of bryal wys and coconut leaf to make a tonic which is said to be "good for dark eyes-it nourishes the blood". The leaves of some species of *Passiflora* contain hydrocyanic acid. (27, 36).

PASSIFLORA RUBRA L. Goat Hoof; Goat Foot; Bull Hoof; Dutchman's Laudanum.

Tea made from the stem and leaves of this plant is used in the treatment of colds. In Browne's time a decoction or syrup was used as a substitute for syrup of poppies or laudanum and the flowers were infused or pounded in wine or spirits. (5, 10, 62).

¶PASSIFLORA SEXFLORA Juss. Duppy Pumpkin.

The use of a plaster made with the leaves of this plant for sores and a lame foot is confirmed. (2).

#### PHYTOLACCACEAE

RIVINA HUMILIS L. Dog Blood; Bloodberry.

For the treatment of colds a decoction of this species is sometimes used. The tea is also thought to be of use in cases of marasmus in babies. In combination with spirit weed (probably *Eryngium*) it is said to have produced a remarkable cure in the case of a child with a diseased eye. In Cuba the pounded leaves are used as a wound dressing and to treat catarrh. The berries are included in Maya prescriptions for dysentery and amenorrhoea. (47, 56).

## PIPERACEAE

¶PEPEROMIA PELLUCIDA Kunth. Pepper Elder.

In Jamaica this plant is still included among the ubiquitous "cold bushes": it is considered especially valuable as a children's remedy. One informant who had resided in Cuba said that it is an excellent "blood cooler" and helps one to sleep. (2, 7, 13, 28).

¶PIPER AMALGO L. Joint Wood; Jamaica Black Pepper.

The leaves and twigs of this and other Piper species are still used in baths for fever and pain and the tea may also be drunk for the same complaints and for dysmenorrhoea. Among the Brazilian Indians Piper spp. are used to treat wounds and toothache. (5, 10, 15, 25, 26, 28, 37, 48, 62).

PIPER JAMAICENSE C.DC. Jointer.

This Piper sp. is also used in the same way as other species. (10, 28, 48).

## PLANTAGINACEAE

¶PLANTAGO MAJOR L. English Plantain; Wild Plantain.

This species is sometimes included in the Sarsaparilla tonics. Its use in the treatment of sore eyes is confirmed. According to recent information the decoction prepared for use as an eye lotion must be left out in the "dew water" all night before it is used. This decoction is also said to be used for "pain a' waist". In Lunan's time the root was considered to be effective in the treatment of intermittent fevers. Plantain seeds are used as demulcents and in chronic constipation. They are mucilaginous and contain fixed oil. Maya medicine makes use of them for dysentery and the leaf in vinegar is used as a burn dressing. (2, 5, 15, 23, 26, 27, 36, 52, 56, 61).

## PORTULACACEAE

A small family of some two hundred herbs and shrubs often with succulent leaves and found chiefly in the New World.

PORTULACA OLERACEAE L. Pussly (Purslane).

This is a well-known pot-herb used fairly commonly in Jamaica and in other parts of the world. It has been considered cooling, anti-scorbutic and diuretic. In Jamaica and also in the Gold Coast and among the Mayas it is considered to be a useful "heart tonic". It has also been used as a stomachic, vermifuge, medicine for skin diseases, as an application for swellings and bruises and as an ingredient of a syphilis remedy, as a lotion for inflammation of the eyes and with oil as a dressing for burns. The foliage is said to contain 92 to 95% water, 0.3 to 0.4% fat, and 1.0 to 1.6% ash. (1, 7, 8, 9, 11, 15, 16, 26, 27, 30, 39, 47, 56, 61).

## RUBIACEAE

¶BORRERIA LAEVIS (Lam.) Griseb. Button Weed.

¶B. VERTICILLATA (L.) Meyer Button Weed: Wild Scabious.

Button weed is used to make tea for colds and with Cuscula and Zebrina it provides a remedy for amenorrhoea: "however long the menses have been stopped this will start them again". Boiled with Iresine and Desmodium it is used as a diuretic. Wright records the use of B. verticillata, which he calls wild scabious, in the preparation of a lotion for itch. (26, 51, 62).

## RUTACEAE

ZANTHOXYLLUM MARTINICENSE L. Prickly Yellows: Yellow Hercules.

The B.P.C. 1934 describes this species as being one of those which provides the drug prickly ash bark or toothache bark. It is described as carminative and astringent to the digestive tract. diuretic and diaphoretic. It has been used with belladonna and Hyoscyamus in the treatment of alcoholism. In Jamaica it has been employed in the treatment of rheumatism, paralysis of the tongue and as a febrifuge. The root bark was much used in the past as an ulcer dressing and is still in use for the treatment of toothache (See Cajanus). The infusion was thought anti-spasmodic and useful as an eye lotion.

A bark infusion was also used at one time as a syphilis treatment. The juice of the young roots was thought useful in cases of colic. Thomson considered it narcotic.

According to Githens *Zanthoxylum* spp. contain tannins in the bark but other constituents including resin, bitters, alkaloids and glycosides vary considerably with the species. (8, 9, 10, 14, 15, 16, 22, 37, 50, 59, 60, 62).

#### SAPINDACEAE

¶*BLIGHIA SAPIDA* Koenig. Akee.

The use of the leaves of akee to prepare a cold remedy is confirmed. The tea with salt added is used as a mouthwash for incipient pyorrhoea. (7, 27).

#### SCITAMINEAE

Nearly three hundred perennial herbs of tropical America and Africa. Little chemical investigation has been carried out; many species contain abundant starch.

*MARANTA ARUNDINACEAE* L. Arrowroot.

Arrowroot is included here by virtue of its continued use in Jamaica, as an invalid food. Beckwith says that for diarrhoea a thick pap is prepared with the grated fresh "root". In earlier times it was considered to be a powerful antidote to a variety of poisons including spider bites and arrow poisons and was commonly used in the later stages of dysentery. In the Grenadines it is still employed as an antidote for manchineel poisoning.

West Indian arrowroot contains about 68.5% water. 20.78% starch, 9.48% cellulose and 1.22% ash which is rich in potassium carbonate.

Barham considered that in powder form it caused sweating and was useful in cases of fever, measles, smallpox, and for a woman at childbirth. Maya medicine also includes the latter use. (1, 2, 3, 5, 13, 27, 37, 50, 56, 60, 62).

#### SOLANACEAE

¶*CAPSICUM* SPP. including *C. FRUTESCENS* L. Bird Pepper.

Sweet peppers are reported to contain 150 to 180 mgm. of vitamin C per 100 gm. green weight. Hot peppers continue to be used in Jamaica to prepare a gargle for a sore throat. In Maya medicine peppers crushed with salt and the root of *Mimosa* sp. were used as a throat swab in cases of whooping cough and for the same purpose they were smoked with black tobacco: use was also made of the fruits in the treatment of earache. (2, 3, 5, 7, 8, 10, 12, 15, 22, 23, 27, 37, 39, 42, 50, 51, 56, 60, 61, 62).

*NICOTIANA TABACUM* L. Tobacco,

Only one minor medical use of tobacco has been reported to us for Jamaica-see *Alchornea latifolia*. Tobacco smoking for the relief of toothache is also practised elsewhere and in Africa the pulverized leaf has been used as a dressing for decaying teeth. The dried leaves of Virginia tobacco were at one time official in the pharmacopoeias: they are sedative and antispasmodic. Though little used as an internal remedy they were sometimes prescribed in cases of dropsy, dysuria, tetanus, colic and asthma. The leaves which contain nicotine have been smoked for "dry belly-ache", asthma, spasmodic coughs and nervous irritability.

As an external application tobacco was, at one time, much used on ulcers, sores, ringworm, skin parasites. Similar uses have been recorded more recently in Africa. It is said that toxic effects may result from the use of tobacco as a styptic dressing. (3, 5, 7, 12, 15, 26, 27, 37, 39, 50, 56, 60, 61).

¶*PHYSALIS ANGULATA* L. Poisonous Cape Gooseberry: Wild Tomato.

A peasant woman has recently told us that this species can be used to prepare tea to prevent an abortion after a fall during pregnancy. In Maya medicine the plant is found as an ingredient of a bath for fainting and used as a poultice for swellings. In Africa it finds some use in the treatment of scabies and smallpox though Githens considers it of doubtful value. (2, 5, 7, 10, 56).

### ☞ SOLANUM NIGRUM L. Guma.

The leaves are used in Jamaica, apparently with some success, in the treatment of chronic eczema. In India the berries were considered tonic and diuretic: they were prescribed in cases of dropsy, heart diseases and enlargement of the liver. The plant was also thought expectorant and diaphoretic. (1, 2, 5, 7, 10, 11, 15, 18, 25, 26, 27, 41, 54, 56, 58, 61, 62).

### ☞ SOLANUM TORVUM Sw. Sousumba.

The leaves are used by some Jamaicans to make tea to improve the appetite. In making tea for colds the leaves are often mixed with those of other "cold bushes" such as Gossypium and Hyptis (John Charles). (2, 7, 11, 15, 27).

## STERCULIACEAE

### GUAZUMA ULMIFOLIA Lam. Bastard Cedar: West Indian Elm.

The leaves pounded with rum or the scraped young bark is in common use as a plaster for scratches, cuts and sores. The bark is similarly used in Trinidad. The young shoots are mucilaginous and when boiled are used as a remedy for coughs, colds and sore throat.

In earlier days a bark infusion or decoction found a variety of uses including the treatment of skin diseases, elephantiasis, bronchitis, "dirt eating", urinary complaints and leprosy. The seeds and fruits are edible and may be used with Irish moss to make porridge. They are mucilaginous and astringent according to Descourtiz who records the use of a decoction for the treatment of skin diseases. He also states that according to Chevalier an agreeable purgative drink can be made with buds and fruits. (4, 16, 28, 37, 38, 39, 41, 56).

## TILIACEAE

### ☞ TRIUMFETTA SPP. Bur Weed.

The scraped root is still employed in Jamaica as a dressing for cuts. The mucilaginous nature of the plant has, at various times and places, led to its employment as a cold, fever and gonorrhoea remedy. (2, 5, 7, 10, 14, 26, 27, 37, 51, 56, 58).

## TURNERACEAE

### ☞ TURNERA ULMIFOLIA L. Ram. goat Dash Along.

Tea made with the leaves of this plant, given as a general beverage to small children, is thought to prevent the onset of fever. The tea is also considered to correct "acid stomach". It is reported that at one time the sale of the plant in Kingston markets was banned. (2, 23, 25, 27, 51).

## UMBELLIFERAE

### ☞ FERYNGIUM FOETIDUM L. Fit Weed.

In Jamaica it has been used with Rivina humilis in treating eye diseases. Among the Brazilian Indians it is used as a febrifuge. In Jamaica it used to be considered emmenagogue and aphrodisiac. In Africa the leaves are used as an application for headaches and for boils. (2, 5, 7, 8, 10, 15, 16, 19, 24, 25, 27, 37, 48, 50, 51).

### FOENICULUM VULGARE Mill. Fennel: Aniseed.

This plant with its yellow flowers, fine foliage and strong smell of aniseed is common in parts of Manchester as a roadside weed. It is an escape from cultivation and seems to be generally called aniseed. The seeds are used as a flavouring in sugar buns and a tea made with the leaves is given to babies, used as a cold cure and by some people as a beverage. Beckwith identifies fennel as Anethum graveolens L. which is dill weed. It seems likely, however, that the plant with which she was concerned was F. vulgare and that this is the species used to prepare a tea given to a mother after childbirth. The fruits are aromatic and carminative and form an ingredient of compound powder of liquorice. They contain variable amounts of volatile oil with anethole, fenchone—a ketone-C<sub>10</sub>H<sub>16</sub>O: fixed oil and calcium oxalate. The amount of volatile oil present and its composition vary considerably with the origin of the fruits. Oils containing little fenchone usually have large amounts of anethole.

Wild varieties from Spain and Algiers contain about 4 percent essential oil with d-a-phellandrine as its principal constituent. (2, 3, 5, 15, 23, 27, 51, 61).

#### VERBENACEAE

¶PRIVA LAPPULACEA L. Clammy Bur: Bur Bush; Fasten.'pon-Coat; Rabbit Meat.

This species continues in use as a cold bush. It is said to be used among the Mayas as a remedy for gonorrhoea. Browne considered it "a fine vulnerary and sub-astringent" and said that it was used as a dressing for wounds and sores. (2, 5, 13, 15, 26, 50).

¶STACHYTARPHETA JAMAICENSIS Vahl. Vervain: Porterweed.

The use of vervain in the treatment of worms in children dates back to the early periods of Jamaican medicine and continues today. In the time of Barham, Lunan and other early writers it was considered useful as a purgative drink after the administration of worm remedies such as *Asclepias* or *Mucuna* or in some cases was itself referred to as vermifuge. Some use is still made of the sweetened juice alone or in combination with other worm remedies such as *Annona muricata* and *Chenopodium*. Its use as an emmenagogue is mentioned by Dancer and other authors. The old use of vervain in the treatment of diarrhoea is paralleled by its use in dysentery and diarrhoea cases among the Brazilian Indians. Sloane recommended its use with "spikenard" in the treatment of dropsies.

West Indians of the Panama Canal Zone call the plant "porterweed" and employ it in domestic medicine. Tea made from it is said to foam like porter. In Brazil it appears to have been used to adulterate tea and to have been exported to Europe as "Brazilian tea". (1, 2, 5, 7, 11, 13, 14, 15, 18, 19, 24, 27, 28, 37, 48, 50, 58, 60, 62).

#### VITACEAE

¶CISSUS SICYOIDES L. Pudding Wys (Withe).

Commonly used as a general beverage with coconut milk or condensed milk. (2, 7, 8, 9, 11, 15, 16, 26, 61).

CISSUS TRIFOLIATA L. Sorrel Vine: Rat Ears; Pudding Wys?; Wild Yam?

Only one informant has indicated uses for this vine: it was said to make tea for treating colds and the beaten leaves may be applied to sores and boils. Lunan claimed that all *Cissus* spp. made good poultices for ulcers and some species find a similar use in India and Africa. In Maya medicine this plant is crushed and used as a soothing poultice for headaches. (7, 11, 14, 15, 26, 56, 61).

#### ALGAE

GRACILARIA SP. Irish Moss.

Irish Moss, sometimes the imported variety (*Chondrus crispus*) and sometimes a local alga sold by fishermen (*Gracilaria* sp.) is used in the preparation of tonics-see *Pseudelephantopus spicatus*. Ceylon Moss which is also a species of *Gracilaria* has been official in the pharmacopoeias. Like *Chondrus* it has been used in pulmonary complaints, affections of the bladder and kidneys, dysentery and diarrhoea: it is considered nutritive, demulcent and emollient but it is not easily digested by invalids. *Chondrus* contains about 7% protein and 8-15% ash containing some iodine: it is also said to contain a gum-like substance called carrageenin which, on hydrolysis, yields fructose, galactose and sulphates. (3, 14, 23, 57).

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## APPENDIX I

### Index of Botanical Names of Plants cited in Text\*

Botanical Name	Family	Common Name(a)
1. <i>Abrus precatorius</i>	L.Papilionateae	Red Bead Vine.
173. <i>Acalypha wilkesiana</i> (Muell.)	Arg. Euphorbiaceae	Copper Leaf; Red Hedge; Croton; Headache Bush
174. <i>Adiantum tenerum</i> Sw.	Filicineae	(Blacks lick) Maidenhair.
175. <i>Alchornea latifolia</i> Sw.	Euphorbiaceae	Loblob; Dove Wood; Jimmy Wood
4. <i>Aloe vulgaris</i>	Lam. Liliaceae	Aloes.
176. <i>Amomis caryophyllata</i> Kr. and Urb. (= <i>Pimenta acris</i> Kostel.)	Myrtaceae	Bay Rum Tree; Bay Berry Tree; Lemon-scented Pimento (var. <i>cilrifolia</i> ) Lemon-scented All-spice.
9. <i>Andira inermis</i> H. B. K.	Papilionateae	Cabbage Bark Tree.
10. <i>Andrographis paniculata</i> Ns.	Acanthaceae	Rice Bitters.
11. <i>Annona muricata</i> L.	Annonaceae	Soursop.
13. <i>A. squamosa</i> L.	Annonaceae	Sweetsop; Sugar Apple.
14. <i>Araila guilfoylei</i>	Cogn and March	AraliaceaeAralia.
15. <i>Argemone mexicana</i> L.	Papaveraceae	Mexican Poppy.
18. <i>Artocarpus incisa</i> L.	Moraceae	Breadfruit.
19. <i>Asclepias curassavica</i> L.	Asclepiadaceae	Redhead.
177. <i>Bambusa vulgaris</i>	Schrad.Gramineae	Bamboo.
22. <i>Bidens reptans</i> (L.) G. Don.	Compositae	Marigold.
23. <i>Blechum brownei</i> Juss.	Acanthaceae	Wild Hops: Mother Look-Up.
24. <i>Blighia sapida</i> Koenig.	Sapindaceae	Akee.
178. <i>Boerhavia scandens</i> L.	Nyctaginaceae	Rat Ears; Easy-to-Bruck (Break).
25. <i>Borreria laevis</i> (Lam.) Gr.	Rubiaceae	Button Weed.
26. <i>B. verticillata</i> (L.) Meyer	Rubiaceae	Button Weed; Wild Scabious.
179. <i>Bromelia pinguin</i> L.	Bromeliaceae	Pinguin.
27. <i>Bryophyllum pinnatum</i> Kurz.	Crassulaceae	Leaf of Life.
180. <i>Bursera simaruba</i> Sarg.	Burseraceae	Red Birch; West Indian Birch; Turpentine Tree; Mastic Tree; Incense Tree.
28. <i>Caesalpinia bonduc</i> Roxb.	Caesalpinoideae	Yellow (Nicker) Nichol.
29. <i>C. bonducella</i> Flem	.Caesalpinoideae	Grey (Nicker) Nichol.
31. <i>Cajanus cajan</i> Millsp.	Papilionateafe	Gungo Pea; Christmas Pea; Angola Pea; Seven-year Pea.
32. <i>Calea jamaicensis</i> L.	Compositae	Camphor Bush or Weed; Halbert Weed.
181. <i>Canella winterana</i> Gaertn. (= <i>C. alba</i> Sw.)	Canellaceae	Wild Cinnamon; White Cinnamon; Whitewood Bark; Canella; False Winter's Bark.
182. <i>Cannabis saliva</i> L.	Cannabinaceae	Gania: (Indian) Hemp.
34. <i>Capsicum</i> spp.	Solanaceae	Pepper (Bird Pepper).
35. <i>Carica papaya</i> L.	Caricaceae	Papaw.
183. <i>Cassia fistula</i> L.	Caesalpinoideae	Indian Laburnum: Cassia Stick Tree; Purging Cassia.
36. <i>C. ligustrina</i> L.	Caesalpinoideae	Dandelion: Piss-a-bed.
38. <i>C. accidentalis</i> L.	Caesalpinoideae	Dandelion: Piss.a-bed.
184. <i>Cassia</i> sp.	Caesalpinoideae	Dandelion.
39. <i>Cecropia peltata</i> L.	Moraceae	Trumpet Tree.

\* See note at end of Appendix.

185. <i>Cedrela odorata</i> L.	Meliaceae	Jamaica, West Indian, Spanish or Honduras Cedar.
186. <i>Chamissoa altissima</i> H. B. X.	Amarantaceae	Cooper's Hoop; Basket Withe.
41. <i>Chaptalia nutans</i> (L.) Polak.	Compositae	Kema Weed
187. <i>Chondrus crispus</i>	Algae	Irish Moss; Carrageen.
188. <i>Cinnamomum camphora</i> Ns.	Lauraceae	Camphor Tree.
46. <i>Cissus sicyoides</i> L.	Vitaceae	Pudding Wys (Withe).
189. <i>C. trifolata</i> L.	Vitaceae	Sorrel Vine; Rat Ears; Pudding Wys (Withe)?; Wild Yam.
190. <i>Citrullus vulgaris</i> Schrad.	Cucurbitaceae	Water Melon.
52. <i>Cocos nucifera</i> L.	Palmae	Coconut Palm.
191. <i>Coleus aromaticus</i> Benth.	Labiatae	French or Spanish Thyme; Country Borage.
192. <i>Colocasia esculenta</i> Schott	Araceae	Coco (Yam); Eddo; Tanya; Taro; Dasheen.
55. <i>Commelina longicaulis</i> Jacq.	Commelinaceae	Water Grass.
193. <i>Cordia cylindristachya</i> R. S.	Boraginaceae	(Black) Sage.
57. <i>C. globosa</i> H. B. K	Boraginaceae	Black Sage.
194. <i>Croton humills</i> L.	Buphorbiaceae	Pepper Rod; Small Seaside Balsam
195. <i>C. Unearis</i> Jacq.	Euphorbiaceae	(Wild or Spanish) Rosemary.
196. <i>Cucumis sativus</i> L.	Cucurbitaceae	Cucumber.
61. <i>Cuphea parsonia</i> R. Br.	Lythraceae	Strong Back.
62. <i>Cuscuta</i> spp.	Convolvulaceae	Love Bush.
64. <i>Cynodon dactylon</i> Pers.	Gramineae	Bahama Grass.
197. <i>Desmodium axillare</i> DC.	Papilionateae	Wild Pinder.
198. <i>D. procumbens</i> Hitch.	Papilionateae	Wild Pinder.
199. <i>D. supinum</i> DC.	Papilionateae	Wild Pinder:Fever Weed; French Honeysuckle.
67. <i>Desmodlum</i> spp.	Papilionateae	Wild Pinder: Puss Gut.
200. <i>Elephantopus mollis</i> H. B. K..	Compositae	Elephant's Foot: Iron Weed.
201. <i>Erigeron karvinskyanus</i> DC.	Compositae	Daisy.
74. <i>Eryngium foetidum</i> L.	Umbelliferae	Fit Weed.
202. <i>Eucalyptus</i> spp.	Myrtaceae	Eucalyptus; Gum Tree
76. <i>Eupatorium odoratum</i> L.	Compositae	Jack-in-the-Bush.
78. <i>E. villosum</i> Sw.	Compositae	Biller Bush.
203. <i>Euphorbia brasiliensis</i> Lam.	Euphorbiaceae	Spurge;Wart Weed
79. <i>E. hirta</i> L	.Euphorbiaceae	Spurge; Australian or Queensland Asthma Weed; Checkweed (Grenadines); Wart Weed; Creeping Hairy Spurge.
80. <i>E. hypericifolia</i> L.	Euphorbiaceae	Spurge; Wart Weed.
204. <i>E. thymifolia</i> L.	Euphorbiaceae	Spurge; Wart Weed; Eyebright.
205. <i>Evolvulus arbuscula</i> Poit.	Convolvuleae	Sea (side) Thyme.
83. <i>Fevillea cordifolia</i> L.	Cucurbitaceae	Antidote (Cocoon).
206. <i>Flemingia strobilifera</i> R. Br.	Papilionateae	Wild Hops.
207. <i>Foeniculum vulgare</i> Mill.	Umbelliferae	Fennel;Aniseed.
208. <i>Gliricidia sepium</i> Steud.	Papilionateae	Quick Stick; Grow Stick; Growing Stake; Maranga.
209. <i>Gracilaria</i> sp	Algae	Irish Moss
210. <i>Guazuma ulmifolia</i> Lam.	Sterculiaceae	Bastard Cedar: West Indian Elm.
211. <i>Heliotropium indicum</i> L.	Boraginaceae	(Wild) Clary: Turnsoles; Scorpion Weed; Erysipelas Plant.

212. Hyptis capitata Jacq.	Labiatae	(Wild) Batchelor's Button; Ceasar Obeah; Wild Hops; Iron Wort.
95. H. pectinata (L.) Poil.	Labiatae	Piaba.
96. H. suaveolens (L.) Poil.	Labiatae	Spikenard: Noisy Bur.
213. H. verticillata Jacq.	Labiatae	John Charles
98. Iresine paniculata Kuntze.	Amarantaceae	Juba's Bush: Red Dandelion; Bitter Weed.
213. Isotoma longiflora (L.) Presl.	Campanulacoae	Madam Fate: Horse Poison; Star Flower.
100. Jatropha gossypifolia L.	Euphorbiaceae	Wild Cassada.
214. Kostelezkya pentasperma Gr.	Malvaceae	
215. Leonotis nepetaefolia R. Br.	Labiatae	Pick Nut; Christmas Candlesticks; Ball Head; Bald Head or Bush; (Male) Bas' Cedar.
216. Malachra alceaefolia Jacq.	Malvaceae	Wild Broom; Wild Ochra.
217. Manihot utilissima Pohl	Euphorbiallyeae	Cassava (Cassada): Manioc; Tapioca.
218. Maranta arundinacea L.	Scitamineae	Arrowroot.
110. Miconia laevigata DC.	Melastomaceae	Chicken Net: Fowl Bone; Sage; White Wattle; Long-Leaf Jinter.
111. Micromeria brownei (Sw.) Benth.	Labiatae	Pennyroyal.
112. M. viminea (L.) Urb.	Labiatae	Peppermint: Wild Mint; All-Heal.
114. Mimosa judica L.	Mimosoideae	Shame Weed.
219. Mirabilis jalapa L.	Nyctaginaceae	Four O'clock: Marvel of Peru; False Jalap.
220. Moringa oleifera Lam.	Moringaceae	Horseradish Tree; Ben Nut Tree; Maranga (Moringa).
221. Musa paradisiaca L.	Musaceae	Plantain.
222. M. sapientum L.	Musaceae	Banana
223. Nasturtium fontanum Aschers.	Cruciferae	Water Cres.; (Water Cushie or Crishes).
224. Neurolaena lobata (Sw.) R. Br.	Compositae	Cow Gall Bitter: Halbert Weed; Bitter Bush or Wood; Goldenrod.
225. Nicotiana tabacum L.	Solanaceae	Tobacco.
119. Ocimum micranthum Willd.	Labiatae	Wild Barsley: Nunn Balsam.
226. Oxalis Corniculata L.	Oxalidaceae	Sour Grass: (N)edge Teeth; (Yellow or Wood) Sorrel.
227. Panicum maximum Jacq.	Gramineae	Guinea Grass.
228. Passiflora mallformis L.	Passifloraceae	Sweetcup.
229. P. rubra L.	Passifloraceae	Goat Hoof: Goat Foot; Bull Hoof; Dutchman's Laudanum
124. P. sexflora Juss.	Passifloraceae	Duppy Pumpkin.
230. Peclis ciliaris L.	Compositae	Consumption Weed.
126. Peperomia pellucida Kth.	Piperaceae	Pepper Elder.
127. Persea americana Mill.	Lauraceae	Avocado Pear.
130. Phyllanthus niruri L.	Euphorbiaceae	Carry.me.seed; Chamber Bitter; Chickweed (Grenadines).
131. Physalis angulata L.	Solanaceae	Poisonous Cape Gooseberry: Wild Tomato.
135. Pimenta officinalis Lindl.	Myrtaceae	Plmenlo; Jamaica Pepper.
136. Piper amalga L.	Piperaceae	Joint Wood: Jamaica Black Pepper.

231. <i>P. jamaicense</i> C. DC.	Piperaceae	Jointer.
232. <i>Piscidia piscipula</i> L.	Papilionateae	Jamaica Dogwood.
139. <i>Plantago major</i> L.	Plantaginaceae	English Plantain: Wild Plantain.
140. <i>Pluchea odorata</i> (L.) Casso	Compositae	Riverside Tobacco: Bitter Tobacco; Fox-leaf.
233. <i>P. purpurascens</i> (Sw.) DC.	Compositae	Bitter or Wild Tobacco.
234. <i>Polypodium phyllitidis</i> L.	Filicineae	Cow Tongue.
235. <i>Portulaca oleracea</i> L.	Portulacaceae	Pussly (Purslane).
142. <i>Priva lappulacea</i> L.	Verbenaceae	Clammy Bur: Bur Bush; Fastenpon-Coat; Rabbit Meat (Grenadines)
236. <i>Pseudelephantopus spicatus</i> (B. Juss.) Rohr.	Compositae	Iron Weed: Packy Weed; Dog's Tongue.
237. <i>Psidium guajava</i> L.	Myrtaceae	Guava.
238. <i>Punica granatum</i> L.	Lythraceae	Pomegranate.
143. <i>Ricinus communis</i> L.	Euphorbiaceae	Castor Oil Plant: Oil Nut.
239. <i>Rivina humilis</i> L.	Phytolaccaceae	Dog Blood: Bloodberry.
144. <i>Rytidophyllum tomentosum</i> Mart.	Gesneriaceae	Search-my.Heart.
240. <i>Salvia occidentalis</i> Sw.	Labiatae	Wild Mint: American Field Basil.
146. <i>S. serotina</i> L.	Labiatae	Chicken Weed: Little Woman.
241. <i>Sechium edule</i> Sw.	Cucurbitaceae	Chocho.
242. <i>Senecio discolor</i> (Sw.) DC.	Compositae	Whiteback.
243. <i>Sida acuta</i> Burm.	Malvaceae	Broomweed.
244. <i>S. urens</i> L.	Malvaceae	Wind Bush.
245. <i>Smilax</i> (?balbisiana Kth.)	Liliaceae	Hog Head.
246. <i>Smilax</i> sp	Liliaceae	Bryal Wys (Withe).
155. <i>Solanum nigrum</i> L.	Solanaceae	Guma.
154. <i>S. torvum</i> Sw.	Solanaceae	Sousumba.
157. <i>Spondias monbin</i> L.	Anacardiaceae	Hog Plum.
247. <i>S. purpurea</i> L.	Anacardiaceae	Red-coat Plum: Spanish or Brazilian Plum
158. <i>Stachytarpheta jamaicensis</i> Vahl.	Verbenaceae	Vervain: Porterweed.
160. <i>Stylosanthes viscosa</i> Sw.	Papilionateae	Poor Man's Friend.
162. <i>Tamarindus indica</i> L.	Caesalpinoideae	Tamarind.
163. <i>Tournefortia hirsutissima</i> L.	Boraginaceae	Chigger Nut: Horse (Harsh?) Bark (Bath?); Cold Withe.
165. <i>Triumfelta</i> spp.	Tiliaceae	Bur Weed.
166. <i>Turnera ulmifolia</i> L.	Turneraceae	Ram-goat Dash Along
248. <i>Urena lobata</i> L.	Malvaceae	Ballard Bush: Indian or Bur Mallow.
167. <i>Vernonia divaricata</i> Sw.	Compositae	(Old) Man Bitter Bush: Wild Gungo.
249. <i>Wedelia gracilis</i> L.	Compositae	Marigold: Consumption Weed.
250. <i>Zanthoxylum martinicense</i> L.	Rutaceae	Prickly Yellows: Yellow Hercules.
171. <i>Zebrina pendula</i> Schnitzl.	Commelinaceae	Red Wetter Grass.

\*Plants previously listed in Parts I and II have been included in this index under the same number as that in Appendix I. Part II: unless new vernacular names have come to light only one common name is given. others will be found in Appendix I Part II. Species first described in Parts III and IV have been given numbers following on from those of Appendix I Part II, and all known common names are recorded.

## APPENDIX II

Index of new Common Names of Jamaican Medicinal Plants cited in Parts III and IV, with cross references by number to the botanical name in Appendix I.

All-Heal	112	Croton	173
American Field Basil	240	Cucumber	196
Angola Pea	31	Daisy	201
Aniseed	207	Dandelion	184
Arrowroot	218	Dasheen	192
Australian Asthma Weed	79	Dog Blood	239
Bald Bush	215	Dog's Tongue	236
Bald Head	215	Dogwood	232
Ballard Bush	248	Dove Wood	175
Ball Head	215	Dutchman's Laudanum	229
Bamboo	177	Easy-to-Bruck (Break)	178
Banana	222	Eddo	192
Basket Wys (Withe)	186	Edge Teeth	226
Bastard Cedar	210	Elephant's Foot	200
Batchelor's Button	212	Erysipelas Plant	211
Bay Berry Tree	176	Eucalyptus	202
Bay Rum Tree	176	Eyebright	204
Ben Nut Tree	220	False Jalap	219
Birch	180	False Winter's Bark	181
Bitter Bush	224	Fasten-'pon-Coat	142
Bitter Tobacco	140, 233	Fennel	207
Bitter Weed	98	Fever Weed	199
Bitter Wood	224	Four O'clock	219
Black Sage	193	Fowl Bone	110
Black-stick Maidenhair	174	Fox-leaf	140
Blood Berry	239	French Honeysuckle	199
Brazilian Plum	247	French Thyme	191
Broomweed	243	Ganja	182
Bryal Withe (Wys)	246	Goat Foot	229
Bull Hoof	229	Goat Hoof	229
Bur Bush	142	Goldenrod	224
Bur Mallow	248	Grey Nichol (Nickel)	29
Caesar Obeah	212	Grow Stick	208
Camphor Bush	32	Growing Stake	208
Camphor Tree	188	Guava	237
Camphor Weed	32	Guinea Grass	227
Canella	181	Gum Tree	202
Carrageen	187	Halbert Weed	32, 224
Cassada	217	Headache Bush	173
Cassava	217	Hemp	182
Cassia Stick Tree	183	Hog Head	245
Cedar	185	Honduras Cedar	185
Chammbor Bitter	130	Horse (Harsh?) Bark (Bath?)	163
Checkweed	79	Horse Poison	213
Chickweed	130	Horseradish Tree	220
Chocho	241	Incense Tree	180

¶Common names not recorded in this Appendix will be found in Appendix II, Part 11.

Christmas Candlesticks	215	Indian Hemp	182
Christmas Pea	31	Indian Laburnum	183
Clary	211	Indian Mallow	248
Coco (Yam)	192	Irish Moss	187, 209
Cold Wys (Withe)	163	Iron Weed	200, 236
Consumption Weed	230, 249	Iron Wort	212
Cooper's Hoop	186	Jamaica Black Pepper	136
Copper Leaf	173	Jamaica Cedar	185
Country Borage	191	Jamaica Dogwood	232
Cow Gall Bitter	224	Jamaica Pepper	135
Cow Tongue	234	Jimmy Wood	175
Creeping Hairy Spurge	79	John Charles	213
Jointer	231	Sea (side) Thyme	205
Lemon-scented Allspice	176	Seven-year Pea	31
Lemon-scented Pimento	176	Small Seaside Balsam	194
Little Woman	146	Sorrel	226
Loblob	175	Sorrel Vine	189
Long-leaf Jointer	110	Sour Grass	226
Madam Fate	213	Spanish Cedar	185
Maidenhair	174	Spanish Plum	247
Male Bas' Cedar	215	Spanish Rosemary	195
Manioc	217	Spanish Thyme	191
Mapempe	203. 204	Spurge	203, 204
Maranga	208. 220	Star Flower	213
Marvel of Peru	219	Sugar Apple	13
Marigold	249	Sweetcup	228
Mastic Tree	180	Tanya	192
Milk Tree	203. 204		
Milk Weed	203. 204	Tapioca	217
Moringa	220	Taro	192
Mother-Look-Up	23	Tobacco	225
(N)edge Teeth	226	Turnsoles	211
Nichol	28. 29	Turpentine Tree	180
Nickel	28. 29	Wart Weed	79. 80. 203. 204
Noisy Bur	96	Water Cress (Crishes or Cushie)	223
Nunn Balsam	119	Water Melon	190
Oil Nut	143	West Indian Birch	180
Packy Weed	236	West Indian Cedar	185
Pempe	203. 204	West Indian Elm	210
Pepper Rod	194	Whiteback	242
Pick Nut	215	White Cinnamon	181
Pinguin	179	White Wattle	110
Piss-a-bed	36. 38	Whitewood Bark	181
Plantain	221	(Wild) Batchelor's Button	212
Pomegranate	238	Wild Broom	216
Porterweed	158	Wild Cinnamon	181
Prickly Yellows	250	Wild Clary	211
Pudding Wys (Withe)	189?	Wild Gungo	167
Purging Cassia	183	Wild Hops	206, 212
Purslane	235	Wild Mini	112, 240
Puss Gut	67	Wild Ochra	216

Pussly	235	Wild Pinder	197, 198, 199
Queensland Asthma Weed	79	Wild Plantain	139
Quick Stick	208	Wild Rosemary	195
Rabbit Meat	142	Wild Scabious	26
Rat Ears	178, 189	Wild Tobacco	233
Red Birch	180	Wild Tomato	131
Red-coat Plum	257	Wild Yam	189?
Red Dandelion	98	Wind Bush	244
Red Hedge	173	Wood Sorrel	226
Rosemary	195	Yellow Hercules	250
Sage	110, 193	Yellow Nichol (Nickei)	28
Scorpion Weed	211	Yellow Sorrel	226

¶Common names not recorded in this Appendix will be found in Appendix II, Part II.

## APPENDIX III

Index of Disorders with the Plants stated to be used as remedies.

(Names previously recorded in Appendix III Part II are included here only when their present day use has been confirmed.)

### ABSCESSSES AND ULCERS

Annona muricata L.  
A. squamosa L.  
Argemone mexicana L.  
†Asclepias curassavica L.  
Bursera simaruba Sarg.  
†Carica papaya L.  
Cecropia peltata L.  
Cedrela odorata L.  
Cissus trifoliata L.  
†Colocasia esculenta Schott  
Commelina longicaulis Jacq.  
Desmodium axillare DC.  
Eucalyptus spp.  
†Euphorbia hirta L.  
Gliricidia sepium Steud.  
Heliotropium indicum L.  
Hyptis capitata Jacq.  
H. suaveolens (L.) Poit.  
Leonotis nepetaefolia R. Br.  
†Manihot utilissima Pohl.  
Mirabilis jalapa L.  
Musa paradisiaca L.  
M. sapientum L.  
Neurolaena lobata (Sw.) R. Br.  
Nicotiana tabacum L.  
†Passiflora sexflora Juss.  
Physalis angulata L.  
Piscidia piscipula L.  
Portulaca oleracea L.  
Sida acuta Burm.  
Zanthoxylum martinicense L.

### ASTHMA AND BRONCHITIS

†Cannabis sativa L.  
Coleus aromaticus Benth  
Colocasia esculenta Schott.  
†Hyptis capitata Jacq.  
.Nicotiana tabacum L.  
Psidium guajava L.

### BLOOD PRESSURE

Argemone mexicana L.  
tBursera simaruba Sarg.  
Cordia cylindristachya R. S.  
†Sechium edule Sw.  
†Zebrina pendula Schnitz!.

### BURNS

Aloe vulgaris Lam.  
Carica papaya L.  
Colocasia esculenta Schott.  
Portulaca oleracea L.  
Musa paradisiaca L.  
M. sapientum L.  
Plantago major L.

### COLIC

Coleus aromaticus Benth.  
Croton linearis Jacq.  
†Micromeria viminea (L.) Urb.  
Nicotiana tabacum L.  
†Sida acuta Burm.  
Urena lobata L.  
Zanthoxylum martinicense L.

### COUGHS AND COLDS

†Adiantum tenerum Sw.  
†Amonis caryophyllata Kr. and Urb.  
( = Pimenta acris Kostel)  
†Heliotropium indicum L.  
†Hyptis capitata Jacq.  
†Ho verticillata Jacq.

†Known to be used in Jamaica at the present time.

†*Argemone maxicana* L.  
 †*Blechnum brownei* Juss.  
 †*Borreria laevis* (Lam.) Gr.  
 †*B. verticillata* (L.) Meyer  
*Bursera simaruba* Sarg.  
 †*Calea jamaicensis* L.  
 †*Chaptalia nutans* (L.) Polak  
*Cissus trifoliata* L.  
 †*Coleus aromaticus* Benth.  
 †*Cordia cylindristachya* R. S.  
 †*Croton linearis* Jacq.  
 †*Cuscuta* spp.  
 †*Cynodon daetylon* Pers.  
 †*Desmodium* spp.  
 †*Elephantopus mollis* H. B. X.  
 †*Erigeron karvinskyanus* DC.  
 †*Eucalyptus* spp.  
 †*Eupatorium villosum* Sw.  
 †*Euphorbia brasiliensis* Lam.  
 †*E. thymifolia* L.  
 †*Foeniculum vulgare* Mill.  
 †*Gliricidia sepium* Steud.  
 †*Guazuma ulmifolia* Lam.  
*Musa paradisiaca* L.

†*Isotoma longiflora* (L.) Presl.  
*Malachra aceaeifolia* Jacq.  
 †*Miconia laevigata* DC.  
*Micromeria viminea* (L.) Urb  
 †*Mirabilis jalapa* L.  
 †*Cannabis sativa* L.  
*M. sapientum* L.  
 †*Passiflora rubra* L.  
*Pectis eiliaris* L.  
 †*Perperomia pellucida* Kth.  
 †*Pimenta officinalis* Lindl.  
 †*Piper jamaicense* C. DC.  
 †*Plusehea purpurascens* (Sw.) DC.  
 †*Polypodium phyllitidis* L.  
 †*Priva lappulaea* L.  
*Pseudoelephantopus spicatus*  
 (B. Juss.) Rohr.  
 †*Rivina humilis* L.  
 †*Senecio discolor* (Sw) DC  
 †*Spondias monbin* L.  
 †*S. purpurea* L.  
*Triumfetta* spp.  
 †*Urena lobata* L.  
 †*Wedelia gracilis* L.

†*Artocarpus incisa* L.  
*Borreria verticillata* (t.) Meyer  
*Cassia fistula* L.  
 †*Cassia occidentalis* L.  
*Cecropia peltata* L.  
*Desmodium axillare* DC.  
*Guazuma ulmifolia* Lam.

#### DERMATITIS

*Heliotropium indicum* L.  
*Mirabilis jalapa* L.  
*Moringa oleifera* Lam.  
*Portulaca oleracea* L.  
*Psidium guajava* L.  
*Ricinus communis* L.  
 †*Solanum nigrum* L.  
*Spondias purpurea* L.

†*Andrographis paniculata* Ns.

#### DIABETES

*Eucalyptus* spp.

#### DIARRHOEA AND DYSENTERY

†*Amomis earyophyllata* Kr. and Urb.  
 (= *Pimenta acris* Kostel.)  
*Andrographis paniculata* Ns.  
*Annona squamosa* L.  
*Bryophyllum pinnatum* Kurz.  
*Bursera simaruba* Sarg.  
*Canella winterana* Gaertn.  
 (= *C. alba* Sw.)  
*Cassia fistula* L.  
*C. occidentalis* L.

†*Micromeria brownei* (Sw.) Benth.  
*Mirabilis jalapa* L.  
*Moringa oleifera* Lam.  
*Musa paradisiaca* L.  
*M. sapientum* L.  
*Ocimum mieranthum* Willd.  
*Oxalis corniculata* L.  
*Pimenta officinalis* Lindl.  
*Plantago major* L.  
*Psidium guajava* L.

† Known to be used in Jamaica at the present time.

Cedrela odorata L.  
†Cocos nucifera L.  
Desmodium supinum DC.  
Gracilaria sp.  
Maranta arundinacea L.

Punica granatum L.  
Rivina humilis L.  
Sida acuta Burm.  
Spondias purpurea L.  
Stachytarpheta jamaicensis Vahl.

#### DROPSY AND OEDEMA

Argemone mexicana L.  
Cassia occidentalis L.  
Cecropia peltata L.  
Gliricidia sepium Steud.

Hyptis suaveolens (L.) Poit.  
Nicotiana glauca L.  
Solanum nigrum L.  
Stachytarpheta jamaicensis Vahl.

#### EARACHE

Capsicum spp.

#### FEVERS

†Amomum caryophyllatum Kr. and Urb.  
(= Pimenta acris Kostel.)  
Andira inermis H. B. K.  
†Argemone mexicana L.  
†Bambusa vulgaris Schrad.  
Bromelia pinguin L.  
Bursera simaruba Sarg.  
†Calea jamaicensis L.  
†Cannabis sativa L.  
Cassia fistula L.  
Cedrela odorata L.  
†Croton linearis Jacq.  
Cuscuta spp.  
Cynodon dactylon Pers.  
Desmodium supinum DC.  
Elephantopus mollis H. B. K.  
Eryngium foetidum L.  
†Eucalyptus spp.  
†Eupatorium villosum Sw.  
†Flemingia strobilifera B. Br.  
†Gliricidia sepium Steud.  
Heliotropium indicum L.  
†Leonotis nepetaefolia B. Br.

Malachra alceaefolia Jacq.  
Maranta arundinacea L.  
†Miconia laevigata DC.  
†Mirabilis jalapa L.  
Nerolaena lobata (Sw.) B. Br.  
Oxalis corniculata L.  
†Panicum maximum Jacq.  
†Persea americana Mill.  
†Pimenta officinalis Lindl.  
†Piper amalago L.  
†P. jamaicense C.D.C.  
Pluchea odorata (L.) Can.  
†P. purpurascens (Sw.) DC.  
Polypodium polypodioides L.  
Psidium guajava L.  
†Salvia serotina L.  
†Senecio discolor (Sw.) DC.  
Sida acuta Burm.  
Solanum nigrum L.  
Triumfetta app.  
†Wedelia gracilis L.  
Zanthoxylum martinicense L.

#### FITS AND CONVULSIONS

Caesalpinia bonduca Rosb.  
C. bonducella Flem.  
Coleus aromaticus Benth.

Moringa oleifera Lam.  
Pluchea odorata (L.) Cass.  
Zanthoxylum martinicense L.

#### GOUT, RHEUMATISM AND GENERAL PAINS

†Bryophyllum pinnatum Kurz.  
Caesalpinia bonduca Roxb.  
C. bonducella Flem.  
†Canella winterana Gaertn.  
(= C. alba Sw.)

Hyptis suaveolens (L.) Polt.  
†Isotoma longiflora (L.) Presl.  
†Mimosa pudica L.  
†Moringa oleifera Lam.  
†Pimenta officinalis Lindl.

Cassia fistula L.  
†Cassia sp.  
†Cedrela odorata L.  
Cocos nucifera L.  
†Desmodium axillare DC.  
†D. procumbens Hitch.  
Elephantopus mollis H. B. K.  
†Gliricidia sepium Steud.

†Piper amalco L.  
†P. jamaicense C. DC.  
†Piscidia piscipula L.  
Pluchea odorata (L.) Can.  
†Psidium guajava L.  
†Ricinus communis L.  
Zanthoxylum martinicense L.

#### HEADACHES

†Acalypha wilkesiana (Muell.)  
Amomis caryophyllata Kr. & Urb.  
†Canella winterana Gaerin.  
(= C. alba Sw.)  
Cinnamomum camphora Ns.

Cissus trifoliata L.  
Leonotis nepetaefolia B. Ir.  
†Moringa oleifera Lam.  
Piscidia piscipula L.  
Punica granatum L.

#### INDIGESTION AND CONSTIPATION

Andrographis paniculata  
Annona muricata L.  
A. squamosa L.  
Bursera simaruba Sarg.  
Canella winterana Gaertn.  
(= C. alba Sw.)

Leonotis nepetaefolia & Br.  
†Micromeria viminea (L.) Urb.  
Mirabus jalapa L.  
Moringa oleifera Lam.  
†Musa paradisiaca L.

#### INDIGESTION AND CONSTIPATION (Contd.)

Carica papaya L.  
†Cassia fistula L.  
C. ligustrina L.  
†Cassia sp.  
Cocos nucifera L.  
Coleus aromaticus Benth.  
†Colocasia esculenta Schott.  
†Cordia cylindristachya R. S.  
Eupatorium villosum Sw.  
Euphorbia hirta L.  
†E. thymifolia L.  
†Evolvulus arbuscula Poit.  
Foeniculum vulgare Mill.  
Guazuma ulmifolia Lam.  
†Heliotropium indicum L.  
†Hyptis capitata Jacq.  
†Iresine paniculata Kuntze.  
Jatropha gossypifolia L.

†M. sapientum L.  
Nasturtium fontanum Aschers.  
†Neurolaena lobata (Sw.) R. Br.  
Oxalis corniculata L.  
†Phyllanthus niruri L.  
Plantago major L.  
†Portulaca oleracea L.  
†Punica granatum L.  
†Rytidophyllum tomentosum Mart.  
†Salvia serotina L.  
†Senecio discolor (Sw.) DC.  
Sida acuta Burm.  
†S. urens L.  
†Stylosanthes viscosa Sw.  
†Tournefortia hirsutissima L.  
†Turnera ulmifolia L.  
†Vernonia divaricata Sw.

#### JAUNDICE

Argemone mexicana L.  
Cassia occidentalis L.  
Gliricidia sepium Steud.

Pluchea odorata (L.) Cas.,  
Psidium guajava L.

#### KIDNEY DISORDERS

Annona muricata L.

Guazuma ulmifolia Lam

Argemone mexicana L.  
†Borreria levis (Lam.) Gr.  
†B. verticillata (L.) Meyer  
Bromelia pinguin L.  
Bursera simaruba Sarg.  
Cassia fistula L.  
†C. ligustrina L.  
†Cassia sp.  
Citrullus vulgaris Schrad.  
Cucumis sativus L.  
Desmodium axillare DC.  
Gliricidia sepium Steud.  
Gracillaria sp.

Heliotropium indicum L.  
Hyptis suaveolens (L) Poit.  
tresine paniculata Kuntze.  
Moringa oleifera Lam.  
†Musa paradisiaca L.  
†M. sapientum L.  
Nasturium fontanum Aschers.  
Neurolaena lobata (Sw.) R. Br.  
†Oxalis Corniculata  
Portulaca oleracea L.  
Solanum nigrum L.  
Zanthoxylum martincense L.

Mimosa pudica L.

#### PILES

Ricinus communis L.

Andrographis paniculata Ns.  
Annona muricata L.  
†Fevillea cordifolia L.

#### POISONING

Hyptis suaveleons (L.) Poit.  
Maranta arundinacea L.  
Mimosa pudica L.  
Oxalis corniculata L.

Argemone mexicana L.  
†Carica papaya L.

#### RINGWORM

Cassia occidentalis L.  
Nicotiana tabacum L.

Cajanus cajan Millsp.  
†Eryngium foetidum L.  
Euphorbia hirta L.  
†Heliotropium indicum L.  
Hyptis capitata Jacq.

#### "SORE-EYES"

†Plantago major L.  
Potulaca oleracea L.  
†Rivinia humilis L.  
Salvia occidentalis Sw.  
Zanthoxylum martinicense L.

†Blighia sapida Koenig.  
Bromelia pinguin L.

#### SORE GUMS

Hyptis capitata Jacq.  
Spondias purpurea L.

Asclepias curassavica L.  
Bromelia pinguin L.  
Caesalpinia bonduc Roxb.  
C. bonducella Flem.

#### SORE THROAT

†Capsicum lip.  
†Guazuma ulmifolia Lam.  
Hyptis capitata Jacq.  
Punica granatum L.

Annona squamosa L.  
†Cocos nucifera L.  
†Cuphea pasonia R. Br.  
Elephantopus mollis H. B. K.  
†Gracilaria sp.  
Leonotis nepetaefolia R. Br.

#### TONICS

Plantago major L.  
†Portulaca oleracea L.  
†Pseudelephantopus spicatus  
(B. Juss.) Rohr.  
Punica granatum L.  
†Smilax sp.

Passiflora maliformis L.

Solanum nigrum L.

†Alchornea latifolia Sw.  
Caesalpinia bonduc Roxb.  
C. bonducella Flem.  
Cajanus cajan Millsp.  
†Carica papaya L.

#### TOOTHACHE

†Cocos nucifera L.  
Nicotiana. tabacum L.  
Pimenta officinalis Lindl.  
Piscidia piscipula L.  
†Zanthoxylum martinicense L.

Colocasia esculenta  
Cascuta spp.  
Pectis ciliaris L.

#### TUBERCULOSIS

Schott. Pluchea odorata (L.) Casso  
Zebrina pendula Schnitzl.

†Bidens reptans (L.) G. Don  
Borreria laevis (Lam.) Gr.  
B. verticillata (L.) Meyer  
\*Bromelia pinguin L.  
Bryophyllum pinnatum Kurz.  
Cajanus cajan Millsp.  
Cecropia pellata L.  
†Cordia gobosa H. B. K.  
†Cuscuta spp.  
Eryngium foetidum L.  
Eupatorium odoratum L.  
\* ? Abortifacient

#### UTERINE DISORDERS

Leonotis nepetaefolia R. Br.  
\*†Micromeria brownei (Sw.) Bent  
†Physalis angulata L.  
†Piper amalago L.  
†P. jamaicense C.DC.  
Piscidia piscipula L.  
Punica granatum L.  
Rivina humilis L.  
†Salvia occidentalis Sw.  
S. serotina L.  
†Zebrina pendula Schnitzl.

Asclepias curassavica L.  
Blechum brownie Juss.  
Caesalpinia bonduc Roxb.  
C. bonducella Flem.  
Canella winterana Gaertn.  
Cassia occidentalis L.  
Cecropia peltata L.  
†Cocos nucifera L.  
†Commelina longicaulis Jacq.  
Croton humilis L.  
Gliricidia sepium Steud.  
Iresine paniculata Kuntze.

#### VENEREAL DISEASES

Leonotis nepetaefolia R. Br.  
Moringa oleifera Lam.  
Ocimum micranthum Willd.  
Persea americana Mill.  
Portulaca oleracea L.  
Priva lapullacea L.  
Psidium guajava L.  
Ricinus communis L.  
Sida acuta Burm.  
Triumfetta spp.  
Zanthoxylum martinicense L.

Argemone mexicana L.  
†Asclepias curassavica L.  
†Carica papaya L.

#### WARTS

†Cecropia peltata L.  
†Euphorbia brasiliensis Lam.

Andrographis paniculata Ns.  
Annona squamosa L.  
†Asclepias curassavica L.

#### WORMS

†Ruphorbia thymifolia L.  
Mirabilis jalapa L.  
Moringa oleifera Lam.

†*Bromelia pinguin* L.  
*Citrullus vulgaris* Schrad.  
*Cocos nucifera* L.  
*Cucumis sativus* L.  
*Eucalyptus* spp.

*Portulaca oleracea* L.  
†*Punica granatum* L.  
*Ricinus communis* L.  
*Sida acuta* Burm.  
†*Stachytarpheta jamaicensis* Vahl.

#### WOUNDS AND CUTS

*Bursera simaruba* Sarg.  
*Cecropia peltata* L.  
†*Chaptalia nutans* (L.) Polak.  
*Colocasia esculenta* Schott.  
†*Commelina longicaulis* Jacq.  
*Desmodium supinum* DC.  
*Elephantopus mollis* H. B. K.  
*Eucalyptus* spp.  
*Euphorbia braxiliensis* Lam.  
*E. thymifolia* L.  
†*Fevillea cordifolia* L.

†*Guazuma ulmifolia* Lam.  
*Heliotropium indicum* L.  
*Hyptis capitata* Jacq.  
†*Kosteletzkya pentasperma* Gr.  
*Musa paradisiaca* L.  
*M. sapientum* L.  
*Neurolaena lobata* (Sw.) R. Br.  
*Persea americana* Mill.  
*Priva lappulacea* L.  
*Rivina humilis* L.  
†*Triumfetta* spp.

†Known to be used in Jamaica at the present time.