Extracted from:

# FLORA OF ST. JOHN, U.S. VIRGIN ISLANDS by

# PEDRO ACEVEDO-RODRÍGUEZ

# AND COLLABORATORS

**PTERIDOPHYTES** 

(Fern and Fern ally Families)

(MEMOIRS OF THE NEW YORK BOTANICAL GARDEN: 78: 1-581. 1996.)

By George R. Proctor
Key to the Families
<ol> <li>Leaves minute, scale-like and veinless or narrowly linear, with a single vein.</li> <li>Plant dichotomously branched, appearing leafless (the leaves minute scales); sporangia (synangia) trilobed, trilocular, scattered on branches</li></ol>
Lycopodiaceae
1. Leaves foliaceous, with branched veins.
3. Sporangia produced on elongated spike-like structures
3. Sporangia produced on lower side or margins of the leaf blade.
4. Large palm-like ferns; caudex (stem) 3-10 m tall, 10-15 cm diam., with numerous large, leaf scars; fronds (leaves) 2-3.5 m long
4. Small to medium-sized, < 2 m long or tall, herb-like or vine-like ferns; stems usually inconspicuous (covered by leaf bases), shortened, or sometimes elongated, creeping
or climbing <b>Polypodiaceae</b>
1. CYATHEACEAE
(Tree-Fern Family)

1. CYATHEA Sm.

Distribution: In moist open areas. Bordeaux Mountain (P40438). Also on St. Thomas

1. Cyathea arborea (L.) Sm., Mém. Acad. Roy. Sci. Turin 5: 417. 1793.

and Tortola; Greater and Lesser Antilles and northernmost Colombia.

# 2. LYCOPODIACEAE

(Clubmoss Family)

#### 1. LYCOPODIUM L.

**1. Lycopodium cernuum** L., Sp. Pl. 1103. 1753.

**Distribution:** Moist, exposed, sunny banks in humid areas. Bordeaux Mountain (A2603). Also on Tortola and St. Thomas; pantropical.

# 3. OPHIOGLOSSACEAE

(Ophioglossum Family)

#### 1. OPHIOGLOSSUM L.

1. Ophioglossum reticulatum L., Sp. Pl. 1063. 1753.

**Distribution:** Occasional on shaded banks in moist forests, appearing after seasonal rains. Shaded slopes of Bordeaux Mountain (B536). Also on St. Thomas; pantropical.

# 4. POLYPODIACEAE

Key to the genera

- 1. Fronds not divided (simple). **Polypodium** (part)
- 1. Fronds divided.
  - 2. Sporangia in marginal sori (short or long), terminal on veins.
    - 3. Blades pedate-pentagonal. **Doryopteris**
    - 3. Blades pinnate or diffusely divided.
      - 4. Fronds with spiny axes, apical growth indeterminate (plants vine-like). **Odontosoria**
      - 4. Fronds lacking spines; growth determinate (plants herb- or shrub-like).
        - 5. Fronds 1-pinnate, or 1-pinnate-pinnatifid with forked basal pinnae **Pteris**
        - 5. Fronds 3-5-pinnate. Adiantum
  - 2. Sporangia dorsal (rarely submarginal).
    - 6. Sporangia completely covering abaxial side of fertile pinnae. Acrostichum
    - 6. Sporangia confined to veins.
      - 7. Sporangia scattered along veins abaxially, not clumped in discrete sori.
        - 8. Blades essentially glabrous, but usually bearing a white or yellow wax-like powder abaxially; veins all free **Pityrogramma**
      - 8. Blades pubescent and without a wax-like powder; veins reticulate **Hemionitis**
      - 7. Sporangia densely clumped in discrete sori, with or without an indusium.
        - 9. Sori elongate.

- 10. Blades pinnate with several to many (to 20) pairs of pinnae; sori forming a continuous line on either side of and parallel to the costae**Blechnum**
- 10. Blades tripartite to pentagonal; sori variable, in short lines oblique to the costae. **Asplenium**
- 9. Sori round or kidney-shaped.
  - 11. Pinnae articulate to the rachis; rhizome producing long slender scaly stolons; veins always free **Nephrolepis**
  - 11. Pinnae continuous with the rachis, not articulate; rhizome without stolons; veins free or reticulate.
    - 12. Fronds more or less pubescent (hairs may be minute); plants terrestrial or occasionally epilithic **Thelypteris**
    - 12. Fronds glabrous; plants epiphytic or epilithic. Polypodium (part)

#### 1. ACROSTICHUM L.

1. Acrostichum danaeifolium Langsd. & Fisch., Pl. Voy. Russes Monde 1: 5, t.l. 1810.

**Distribution:** Occasional in intermittent ravines. Battery Gut (A4163). Also on St. Croix, St. Thomas and Tortola; widespread in tropical and subtropical America.

#### 2. ADIANTUM L.

# Key to the species

- 1. Rhizome scales uniformly bright yellowish brown, margins denticulate-ciliolate; leaf blades lanceolate-ovate; ultimate pinnules quickly deciduous. **A. fragile**
- 1. Rhizome scales bicolorous, dark brown with pale margins, these fimbriate-ciliate; leaf blades triangular-ovate, subpentagonal, long-stalked; ultimate pinnules subpersistent **A. tenerum**
- 1. Adiantum fragile Sw., Prodr. 135. 1788.

#### Key to the varieties of A. fragile

- 1. Ultimate pinnules mostly 10-20 mm long; tissue light green, thin-membranous, glabrous, and non-glandular on both sides. **A. fragile** var. **fragile**
- 1. Ultimate pinnules mostly 4-10 mm long; tissue green or slightly glaucous, firm-membranous, usually very minutely puberulous on abaxial side and with numerous minute resinous glands embedded in the abaxial epidermis. **A. fragile** var. **rigidulum**

# 1a. Adiantum fragile var. fragile

**Distribution:** Common on shaded banks, ledges, and cliffs. Along road to Susannaberg (A696). Also on St. Croix, St. Thomas, and Tortola; Greater Antilles and Lesser Antilles.

**1b. Adiantum fragile** var. **rigidulum** (Mett. *ex* Kuhn) Proctor, Mem. New York Bot. Gard. 53: 143. 1989.

**Distribution:** Occasional in habitat similar to that of *A. fragile* var. *fragile*. Surroundings of Bethany (B263). Also on St. Croix and St. Thomas; Puerto Rico (including Vieques), Jamaica and expected in Hispaniola.

# 2. Adiantum tenerum Sw., Prodr. 135. 1788.

**Distribution:** A common fern of shaded rocky hillsides, banks, and cliffs. Fish Bay Gut (A2494). Also on St. Croix and St. Thomas; southern United States, Bahamas, Greater Antilles, Cayman Islands, Lesser Antilles, Central America, and northern South America.

# 3. ASPLENIUM L.

# Key to the species

# 1. Asplenium pumilum Sw., Prodr. 129. 1788.

**Distribution:** Common on shaded earthy or rocky banks. Maho Bay (A2526). Also on St. Thomas; Florida, Greater Antilles, Lesser Antilles, Tobago, and continental tropical America from Mexico to Peru and Brazil, reported in Africa.

#### 4. BLECHNUM L.

#### 1. Blechnum occidentale L., Sp. Pl. 1077. 1753.

**Distribution:** Common on shaded banks or roadsides. Bordeaux Mountain (A2596). Also on St. Croix, St. Thomas and Tortola; widespread from Florida to Argentina.

#### 5. DORYOPTERIS J. Sm.

# 1. Doryopteris pedata (L.) Fée, Mém. Foug. 5: 133. 1852.

**Distribution:** Shaded rocky or earthy banks in humid areas. Coral Bay Quarter along Center Line Road (A2416); Susannaberg (A714). Also on St. Croix and St. Thomas; Greater and Lesser Antilles, Central and South America, and the Galapagos Islands.

#### **6. HEMIONITIS** L.

# **1. Hemionitis palmata** L., Sp. Pl. 1077. 1753.

**Distribution:** Common on shaded earth banks or humus in secondary humid forests. Bordeaux Mountain (A2595); Cinnamon Bay along North Shore road (A3518). Also on St. Croix, St. Thomas and Tortola; Greater and Lesser Antilles, Trinidad, and continental tropical America from Mexico to Bolivia.

#### 7. NEPHROLEPIS Schott

**Reference:** Morton, C. V. 1958. Observation on cultivated ferns, V. The species and forms of *Nephrolepis*. Amer. Fern J. 48: 18-27.

# Key to the species

1. Costae glabrous on adaxial side or essentially so (rarely bearing a few deciduous, scattered fibrillose scales); rhizome and stipe clothed with spreading, narrow, yellowish brown, fiber-like scales; indusium round-cordate to kidney-shaped with open, U-shaped sinus **N. exaltata** 

- 1. Costae clothed on adaxial side with few to numerous very short (0.2-0.3 mm) brownish-septate hairs (longer hairs present or absent); rhizome and base of stipe bearing scattered blackish, closely appressed scales with whitish minutely fimbriate margins; indusium round with narrow sinus. **N. multiflora**
- 1. Nephrolepis exaltata (L.) Schott, Gen. Fil., t.3. 1834.

**Distribution:** Uncommon on shaded banks, borders of thickets or in secondary forests. Upper slopes and summit of Bordeaux Mountain (P40433). Also on St. Croix, St. Thomas and Tortola; cosmopolitan but perhaps naturally distributed in Florida, the Bahamas, Greater Antilles, and Mexico.

**2. Nephrolepis multiflora** (Roxb.) F.M. Jarrett *ex* C.V. Morton, Contr. U.S. Natl. Herb. 38: 309. 1974.

**Distribution:** A pioneer plant, occasional in open disturbed areas such as clearings, open banks and roadsides. Susannaberg (A2085). Also on Anegada, Guana Island, St. Croix, St. Thomas, Tortola and Virgin Gorda; native to India and tropical Asia but widely naturalized in the Neotropics.

# 8. ODONTOSORIA (C. Presl) Fée

1. Odontosoria aculeata (L.) J. Sm., Cult. Ferns 67. 1857.

**Distribution:** Occasional in shaded, moist, disturbed areas. Along road to Bordeaux (A2095). Also on St. Thomas and Tortola; Puerto Rico, Cuba and Hispaniola.

#### 9. PITYROGRAMMA Link

Key to the species

- 1. Blades lanceolate to oblong-triangular (the lowest pinnae usually not the longest); rhizomescales long-filamentous at apex **P. calomelanos**
- 1. Blades triangular (the lowest pinnae the longest); rhizome-scales short-acuminate **P. chrysophylla** var. **gabrielae**
- **1. Pityrogramma calomelanos** (L.) Link, Handbuch 3: 20. 1833.

**Distribution:** Occasional in rocky banks and in crevices of old buildings and ruins. Along road to Bordeaux (A3132); Upper slopes and summit of Bordeaux Mountain (P40437); SE of Peter Peak (P40430). Also on St. Croix, St. Thomas and Tortola; tropical and subtropical America and Africa, naturalized elsewhere in warm regions.

**2. Pityrogramma chrysophylla** (Sw.) Link var. **gabrielae** Domin, Rozpr. Král. Ceské Spolecn. Nauk. Tr. Mat.-Prír. 2: 151. 1929.

**Distribution:** Occasional on rocky slopes and crevices of old masonry walls at low elevations near the sea. Annaberg Ruins (P40452). Also on St. Croix, St. Thomas and Tortola; Puerto Rico and the Lesser Antilles.

#### 10. POLYPODIUM L.

Key to the species

- 1. Fronds pinnatisect P. aureum
- 1. Fronds simple.

- 2. Sori uniseriate on either side of the midrib (rachis); rhizomes slender and elongate; fronds scattered, not fasciculate.
  - 3. Sori round, bearing inconspicuous hair-like paraphyses, these simple or branched; fronds often somewhat dimorphic.
    - 4. Rhizome filiform, 0.5-1 mm thick; frond tissue of thin texture. **P. heterophyllum**
    - 4. Rhizome cord-like, 2-2.5 mm thick; frond tissue of firm or leathery texture **P. lycopodioides**
  - 3. Sori oblong to linear, bearing scale-like peltate paraphyses (these soon deciduous); fronds not dimorphic **P. astrolepis**
- 2. Sori multiseriate on either side of the midrib (rachis); rhizomes short and subwoody; fronds fasciculate.
  - 5. Stipe virtually absent or usually less than 5 cm long, less than 1/10 the length of the blade; blades gradually attenuate at base, the margins plane, the tissue light green; primary veinareoles usually divided into 2 secondary areoles by a single excurrent veinlet **P. phyllitidis**
  - 5. Stipe usually 5-18 cm long, to 1/3 the length of the blade; blades cuneate or acuminate at base, the margins wavy, the tissue dark green; primary vein-areoles more or less irregularly divided into 3 unequal secondary areoles by 2 excurrent veinlets. **P. latum**
- **1. Polypodium astrolepis** Liebm., Kongel. Danske Vidensk. Selsk. Naturvidensk. Math. Afh. II, 1: 185. 1849.

**Distribution:** Occasional in moist forest. Based on a visual record by G.R. Proctor. Also in the Greater and Lesser Antilles, Tobago, Trinidad, and continental tropical America from Mexico to Bolivia and Brazil.

# **2. Polypodium aureum** L., Sp. Pl. 1087. 1753.

**Distribution:** Common in moist forests. Bordeaux Mountain (A5110); Trail to Sieben (A2070). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Florida, Bahamas, Greater and Lesser Antilles, Trinidad, and continental tropical America.

#### **3. Polypodium heterophyllum** L., Sp. Pl. 1083. 1753.

**Distribution:** Occasional, creeping on rocks or epiphytic in moist forests or in moist pockets in dry forests. Bordeaux Mountain (A1907); White Cliffs (A2037). Also on St. Croix and Virgin Gorda; Florida, Bahamas, Greater Antilles, Cayman Islands, and the northern Lesser Antilles.

**4. Polypodium latum** (T. Moore) T. Moore ex Sodiro, Crypt. Vasc. Quit. 371. 1894.

**Distribution:** Occasional on rocks and shaded tree trunks in most forests. Bordeaux Mountain (A2612). Also on St. Croix and St. Thomas; Florida, Greater and Lesser Antilles, Trinidad, and continental tropical America from Mexico to Colombia and Venezuela.

# 5. Polypodium lycopodioides L., Sp. Pl. 1082. 1753.

**Distribution:** Epiphytic on trees in moist forests. Upper slopes and summit of Bordeaux Mountain (P40434). Also on Tortola; pantropical.

# **6. Polypodium phyllitidis** L., Sp. Pl. 1083. 1753.

**Distribution:** Occasional epiphyte in moist forests. Coral Bay (A2113); Susannaberg (A694). Also on St. Croix, St. Thomas and Tortola; Florida, Bahamas, Greater Antilles, Cayman

Islands, Lesser Antilles, Tobago, Trinidad and continental tropical America from Mexico to Uruguay.

#### 11. PTERIS L.

#### Key to the species

- 1. Plant 15-30 cm tall; blades 1-pinnate, none of the pinnae lobed or forked; veins all free **P.** vittata
- 1. Plant 1-1.5 m tall; blades 1-pinnate-pinnatisect, the basal pinnae forked; basal veins joined in a narrow costal arc, the other veins free. **P. biaurita**

# **1. Pteris biaurita** L., Sp. Pl. 1076. 1753.

**Distribution:** Occasional on ground of moist forest. Cinnamon Bay Trail (A4230). Also on St. Croix and St. Thomas; pantropical.

**2. Pteris vittata** L., Sp. Pl. 1074. 1753.

**Distribution:** Occasional in crevices of old walls. Annaberg Ruins (A2924). Also on Guana Island, St. Croix, St. Thomas and Tortola; native to the Old World tropics, but naturalized in many parts of the Caribbean.

#### 12. THELYPTERIS Schmidel

#### Key to the species

- 1. Sori indusiate (at least when young); all hairs simple.
  - 2. Basal veins of some or all adjacent segments united below the sinus, producing an excurrent veinlet leading toward the sinus.
    - 3. Rhizome creeping; underside of costae bearing hairs of uniform length, to 0.2 mm long. **T. dentata**
    - 3. Rhizome erect or ascending; underside of costae bearing hairs of variable length, from 0.3 to 5 mm long

# T. hispidula var. inconstans

- 2. Basal veins of adjacent segments all free or connivent at the sinus; rhizome creeping, clothed at apex with narrow ciliate scales **T. kunthii**
- 1. Sori lacking indusia; hairs very minute, forked or stellate, present at least on rhizome scales and toward base of stipe.
  - 4. Pinnae 6-18 pairs, 1-3 cm wide, the margins deeply lobed or pinnatifid; only lowermost pairs of adjacent veins joined . **T. tetragona**
  - 4. Pinnae 2-5(-6) pairs, 3-6 cm wide, the margins subentire to coarsely crenate; lower 3-5 pairs of adjacent veins joined, each pair giving rise to a free excurrent veinlet **T. poiteana**

# 1. Thelypteris dentata (Forssk.) E.P. St.John, Amer. Fern J. 26: 44. 1936.

**Distribution:** Occasional in moist, disturbed habitats. Visually recorded by G.R. Proctor. Also on St. Croix, St. Thomas and Tortola; apparently indigenous to the Old World but now pantropical.

**2. Thelypteris hispidula** (Decne.) C.F. Reed var. **inconstans** (C. Chr.) Proctor, Amer. Fern J. 70: 89. 1980.

**Distribution:** Occasional on shaded banks. Rosenberg (B299, B536). Also on St. Thomas and Tortola; Greater and Lesser Antilles.

3. Thelypteris kunthii (Desv.) Morton, Contr. U.S. Natl. Herb. 38: 53. 1967.

**Distribution:** Locally common on roadside banks and ditches, pastures, forest clearings and among stones beside streams and rivers. Battery Gut (A5280). Also on St. Thomas and Tortola; Puerto Rico, Bahamas, Greater and Lesser Antilles (rare), Cayman Islands, southeastern United States, and southeastern Mexico to Central America.

**4. Thelypteris poiteana** (Bory) Proctor, Bull. Inst. Jamaica, Sci. Ser. 5: 63. 1953.

**Distribution:** Occasional in moist forest understory. Visually recorded by G.R. Proctor. Also on St. Croix, St. Thomas and Tortola; Greater and Lesser Antilles, Tobago, Trinidad, and continental tropical America from Guatemala to Peru and Brazil.

5. Thelypteris tetragona (Sw.) Small, Ferns S.E. States 256. 1938.

**Distribution:** Occasional in moist forests. Bordeaux Mountain (A3191); Maho Bay Gut (A2104). Also on St. Croix, St. Thomas and Tortola; Florida, Greater and Lesser Antilles, Trinidad, and continental tropical America from Mexico to Ecuador and Brazil.

# 5. PSILOTACEAE

#### 1. PSILOTUM Sw.

1. Psilotum nudum (L.) P. Beauv., Prodr. Aethéogam. 112. 1805.

**Distribution:** In understory of moist forests. Bordeaux Mountain (A1908). Also on St. Thomas, Tortola and Virgin Gorda; pantropical.

#### **DICOTYLEDONS**

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#### Key to the Families

- 1. Leaves reduced to scales (<2 mm long), or wanting. Key 1
- 1. Leaves with well-developed blades.
  - 2. Leaves compound Key 2
  - 2. Leaves simple. Key 3

# KEY 1

- 1. Leaves wanting; plants green, not-parasitic, succulent, globose, tubular, or flattened with joints, with numerous groups of spines **Cactaceae**
- 1. Leaves reduced to scales (< 2 mm long).

- 2. Pine-like tree; twigs pine-needle-like, green, cylindrical, ca. 2 mm wide, drooping; leaves whorled, forming a sheath at the node. **Casuarinaceae** 
  - 2. Slender, vine-like parasites, anchoring to host plant by means of haustoria; stems yellowish, 3 mm in diam.; leaves alternate.
    - 3. Inflorescence a spike; anthers opening by 2 flaps; perianth of 3 tepals; style 1 **Lauraceae** (*Cassytha*)
    - 3. Inflorescence a cyme; anthers opening by longitudinal slits; perianth of a tubular corolla; styles 2 **Cuscutaceae**

#### KEY 2

- 1. Leaves opposite.
  - 2. Inflorescence of long peduncled head; flowers minute **Asteraceae** (*Bidens*)
  - 2. Inflorescence of panicles or cymes; flowers small to large.
    - 3. Petals 5, free; stamens 10.
      - 4. Leaves trifoliolate; leaflets aromatic, with numerous translucent oil glands; stipules wanting **Rutaceae** (*Amyris*)
      - 4. Leaves pinnately compound; leaflets not aromatic, nor with translucent oil glands; stipules present **Zygophyllaceae**
    - 3. Petals 4-9, connate into a tubular corolla; stamens 2-5.
      - 5. Tendrilled or twining liana.
        - 6. Corolla 4-9-lobed; ovary of 4 carpels; stamens 2; fruit a berry
          - . **Oleaceae** (Jasminum multiflorum)
        - 6. Corolla 5-lobed; ovary of 2 carpels; stamens typically 4; fruit a 2-valvate capsule **Bignoniaceae**
      - 5. Shrubs or small trees.
        - 7. Corolla 8-10 mm long, violet; ovary 4-locular; fruit a fleshy ellipsoid drupe 8-10 mm long, 1-4-seeded. **Verbenaceae** (*Vitex*)
        - 7. Corolla at least 1.5 cm long, variously colored; ovary 2-locular; fruit a 2-valvate capsule; many-seeded **Bignoniaceae** (*Tabebuia*, *Tecoma*)
- 1. Leaves alternate.
  - 8. Flowers zygomorphic.
    - 9. Tendrilled vines; petals with a petaloid appendage at base within **Sapindaceae** (in part)
    - 9. Trees, shrubs, herbs or non-tendrilled vines; petals without appendages.
      - 10. Leaves palmately compound; petals 4; ovary borne on a gynophore. Capparaceae (Cleome)
      - 10. Leaves pinnately or ternately compound; petals 5; ovary not borne on a gynophore.
        - 11. Carpels 3; fruit a 3-valved capsule. **Moringaceae**
        - 11. Carpels 1; fruit a legume opening by two valves. Fabaceae
  - 8. Flowers actinomorphic.
    - 12. Vines.
      - 13. Tendrilled vines; leaves trifoliolate Vitaceae
      - 13. Twining vines; leaves palmately compound **Convolvulaceae** (*Merremia* in part)
    - 12. Trees, shrubs or herbs.
      - 14. Herbs.
        - 15. Plant prostrate; leaves trifoliolate; corolla yellow; capsule cylindrical, loculicidal, 5-locular. **Oxalidaceae**

- 15. Plant erect; leaves pinnately dissected; corolla white; capsule circular to ovoid, schizocarpic (separating into 2 mericarps), 2-locular. **Apiaceae**
- 14. Trees or shrubs.
  - 16. Leaves palmately compound.
    - 17. Plant unarmed; stamens nearly sessile; flowers 4-5 mm long; ovary locules uniovular; styles 5, distinct **Araliaceae**
    - 17. Plant armed; stamens with long filaments; flowers 2.5-3 cm long; ovary locules multiovular; style 1. **Bombacaceae** (*Ceiba*)
  - 16. Leaves pinnately compound or trifoliolate.
    - 18. Stamens connate into a column. Meliaceae
    - 18. Stamens free.
      - 19. Leaflets aromatic, with translucent oil glands. Rutaceae
      - 19. Leaflets not aromatic, without translucent oil glands.
        - 2 0. Flowers congested in globose, conical or cylindrical inflorescences; stamens numerous; fruit a flattened legume **Fabaceae** (Mimosoideae)
        - 20. Flowers in panicles or racemes; stamens 3-10; fruit otherwise.
          - 21. Tree with aromatic resin; bark smooth, reddish, peeling off in paper-like sheets **Burseraceae**
          - 21. Trees or shrubs, without aromatic resin; bark rough, brownish or grayish, not peeling off like above.
            - 22. Fruit a dehiscent capsule; seeds without a fleshy coat, or with fleshy coat only at base.
              - 23. Seeds not winged, arillate at base **Sapindaceae** (*Cupania*)
              - 23. Seeds with a terminal wing, not arillate. **Meliaceae** (*Cedrela*)
            - 22. Fruit an indehiscent drupe or 1-seeded berry; seeds or stone completely surrounded by a fleshy coat.
              - 24. Fruits of 2-5 apically free, leathery, monocarps of equal size, or with only one well-developed cocci and an abortive, smaller one.
                - 25. Monocarps 2-5, well developed, subtended by an enlarged receptacle; leaves pinnately compound **Simaroubaceae**
                - 25. Monocarps 2, usually one of them abortive; leaves trifoliolate

# Sapindaceae (Allophylus)

- 24. Fruits ellipsoid to subglobose, leathery or fleshy, not separable into monocarps.
  - 26. Floral disk extrastaminal; fruit a leathery berry, green at maturity

# Sapindaceae (Exothea, Melicoccus)

26. Floral disk intrastaminal; fruit a fleshy or woody drupe, yellow, red, or purple at maturity **Anacardiaceae** 

# KEY 3

- 1. Leaves opposite or whorled.
  - 2. Plants producing a milky or yellowish latex.
    - 3. Leaves whorled.

- 4. Leaves 6-11 per node, ovate, deltoid or rounded, long-petiolate; bark blackish brown, papery; **Euphorbiaceae** (*Euphorbia petiolaris*)
- 4. Leaves 4 per node, oblong or elliptic, short-petiolate; bark grayish to light brown, thickened

# Apocynaceae (Rauvolfia)

- 3. Leaves opposite.
  - 5. Flowers unisexual, naked, minute, enclosed in a cup-like involucre (cyathium) **Euphorbiaceae** (*Chamaesyce*)
  - 5. Flowers bisexual or unisexual, with calyx and a showy corolla, small to large, produced on cymose inflorescences, not subtended by an involucre.
    - 6. Flowers bisexual or unisexual; latex yellowish; corolla of free petals; stamens numerous; fruit a multilocular capsule; seeds covered by a fleshy coat **Clusiaceae**
    - 6. Flowers bisexual; latex milky; corolla of connate petals, short to long tubular; stamens
      - 5; fruit of 2 follicles; seeds usually with a tuft of long hairs at apex.
      - 7. Corona present; stamens fused to form a sheath around the ovary, and united to the stigma head to form a gynostegium **Asclepiadaceae**
      - 7. Corona wanting; the anthers distinct or more or less connivent around the style, not forming a gynostegium **Apocynaceae**
- 2. Plants not producing latex.
  - 8. Plants parasitic on shrub or tree branches Loranthaceae
  - 8. Plants autotrophic (not parasitic).
    - 9. Flowers naked or perianth present, with calyx and corolla similar in size, texture and color, sometimes petaloid, or the petals wanting.
- 10. Flowers unisexual.
  - 11. Perianth of sepals connate into a funnel-shaped petaloid calyx; stems internally with islands of included phloem **Nyctaginaceae**
  - 11. Perianth of free or basally connate tepals; stems internally without islands of included phloem.
    - 12. Woody shrubs, with coriaceous, ovate leaves; tepals 4-8, connate at base into a short cup-shaped perianth. **Oleaceae** (*Forestiera*)
    - 12. Herbs or weak-stemmed shrubs, with fleshy leaves; tepals 4, free to base.
      - 13. Weak-stemmed shrubs; leaves linear, cylindrical in cross section, 1-2 cm long; plants of salt flats and other coastal saline areas **Bataceae**
    - 13. Fleshy herbs; leaves ovate, round or obovate, fleshy or chartaceous; of diverse habitats but not as above **Urticaceae** (*Pilea*)
- 10. Flowers bisexual.
  - 14. Flowers without perianth. **Piperaceae** (*Peperomia* in part)
  - 14. Flowers with perianth.
    - 15. Tepals free to base; stamens with filaments basally connate into a short to elongate tube. **Amaranthaceae**
    - 15. Sepals basally or wholly connate; stamens with filaments free or adnate to the calyx.
      - 16. Plants fleshy, prostrate; sepals basally connate; fruits many-seeded; stems internally without islands of included phloem. **Aizoaceae**
      - 16. Plants herbaceous to woody (not fleshy), erect or scandent; sepals connate into a funnel-shaped structure; fruit a one-seeded anthocarp; stems (internally) usually with islands of included phloem **Nyctaginaceae**
- 9. Flowers with distinct calyx and corolla.
  - 17. Stamens 2.

- 18. Fruit fleshy, indehiscent. Oleaceae
- 18. Fruit capsular, opening along longitudinal valves **Acanthaceae** (in part)
- 17. Stamens 4 to numerous.
  - 19. Petals distinct.
    - 20. Ovary inferior.
      - 21. Leaf blades with scattered translucent dots; plants usually aromatic; stamens numerous **Myrtaceae**
      - 21. Leaf blades without translucent dots; plants not aromatic; stamens 8-10.
        - 22. Petals white, elongated, much longer than the calyx lobes; leaf blades with 3-7 main arcuate veins; anthers lanceolate, opening by a terminal pore or longitudinal slits

# Melastomataceae

- 22. Petals greenish or pink (turning bright red with age), minute, as long as or shorter than the calyx; leaf blades pinnately veined; anthers ovoid or ellipsoid opening by longitudinal slits **Combretaceae**
- 20. Ovary superior.
  - 23. Plants herbaceous, with succulent leaves and stems. Portulacaceae
  - 23. Plants herbaceous or woody, not fleshy.
    - 24. Stamens twice as many (sometimes as many) as the petals or more numerous.
      - 25. Stipules foliaceous, covering the terminal buds, early deciduous, leaving a scar; trees of mangrove swamps. **Rhizophoraceae**
      - 25. Stipules wanting; herbs, shrubs or trees of terrestrial habitats.
        - 26. Calyx with 4-5 pairs of glands at the outer base of the sepals; plants usually with "t"-shaped hairs or bristles; petals long clawed **Malpighiaceae**
        - 26. Calyx not glandular, forming a hypanthium; plant glabrous or with simple hairs; petals not-clawed, adnate to the hypanthium **Lythraceae**
- 24. Stamens as many as the petals; nectary disk annular, basal to the ovary
  - 27. Stamens opposite to petals; petals concave, surrounding the stamens; leaves with entire margins

#### **Rhamnaceae** (Krugiodendron, Reynosia)

- 27. Stamens alternate to petals; petals plane, spreading; leaves with crenate margins
  - Celastraceae (Cassine, Crossopetalum)
- 19. Petals connate into a tubular or funnel-shaped corolla.
  - 28. Stipules present (may be early deciduous, check for stipule scars when in doubt).
    - 29. Ovary superior. Loganiaceae
    - 29. Ovary inferior Rubiaceae
  - 28. Stipules wanting.
    - 30. Leaves with linear cystoliths (prominent whitish, short lines, mostly on upper surface).

#### Acanthaceae

- 30. Leaves without cystoliths.
  - 31. Leaves fleshy, usually producing plantlets (asexual reproduction) along the margins **Crassulaceae**
  - 31. Leaves chartaceous to coriaceous, not fleshy, not producing plantlets at margins.
    - 32. Ovary inferior; flowers produced in dense heads **Asteraceae**
    - 32. Ovary superior; flowers in racemes, spikes, cymes or rarely in heads.
      - 33. Ovary 2-locular.
        - 34. Stamens 5; fruit an elongated follicle, or a drupe.

- 35. Erect herbs or subshrubs; leaves subopposite or whorled; fruit a globose or 4-lobed drupe; inflorescence long, scorpioid **Boraginaceae** (*Heliotropium*)
- 35. Twining vines; leaves opposite; fruit of a pair of elongated follicles; inflorescence a thyrse-like cyme. **Apocynaceae** (*Prestonia*)
- 34. Stamens 4; fruit capsular.
  - 36. Capsule without hood-like placental tissue Scrophulariaceae
  - 36. Capsule with persistent hood-like placental tissue. **Acanthaceae** (*Stenandrium*, *Thunbergia*)
- 33. Ovary 4-locular; corolla irregular, bilabiate; stamens 4.
  - 37. Style borne from the base of carpels or between locules Lamiaceae
  - 37. Style terminal on ovary. Verbenaceae
- 1. Leaves alternate.
  - 38. Plants producing milky or yellowish latex or exudate.
    - 39. Stipules present, persistent or deciduous leaving a conspicuous scar; flowers unisexual, usually minute or small.
      - 40. Stipules large, deciduous, contorted into a cone-shaped hood that protects the apical meristem **Moraceae**
      - 40. Stipules minute to large, persistent or deciduous, paired, not forming a hood that protects the apical meristem **Euphorbiaceae**
    - 39. Stipules wanting.
      - 41. Plant producing yellowish latex; corolla of free petals; stamens numerous **Papaveraceae**
      - 41. Plant producing milky latex; corolla tubular; stamens as many as the corolla lobes.
        - 42. Ovary superior.
          - 43. Flowers unisexual (plants usually dioecious); plants usually palm-like, with a weak trunk (usually unbranched & with numerous leaf scars) and a crown of large, long-petioled leaves. **Caricaceae**
          - 43. Flowers bisexual; plant not as above.
          - 44. Shrubs or trees; corolla cup-shaped or tubular < 1.5 cm long; fruit fleshy, indehiscent; seeds with a large ventral scar **Sapotaceae**
          - 44. Herbs, twining vines or shrubs; corolla funnel-shaped, trumped-shaped or saucer-shaped, > 3 cm long (except for the saucer-shaped ones which could be as small as 1 cm long); fruit dry, dehiscent; seeds without a scar.
            - 45. Fruit a pair of spreading follicles, 10-14 cm long; seeds numerous, with a tuft of long hairs at apex **Apocynaceae** (*Plumeria*)
            - 45. Fruit capsular, 2-locular, < 1.5 cm long; seeds 2-4, usually without hairs **Convolvulaceae**
        - 42. Ovary inferior.
          - 46. Flowers solitary in leaf axils; corolla white, 8-18 cm long; leaves attenuate at base, the petiole not winged; fruit a capsule. **Campanulaceae**
          - 46. Flowers congested in dense heads; corolla yellow, 8-11 mm long; leaves clasping at base, or sometimes attenuate with a winged petiole; fruit an achene.

            \*\*Asteraceae\* (Launaea, Sonchus)\*
    - 38. Plants not producing a colored latex or exudate.
      - 47. Vines or climbing shrubs.
        - 48. Plants climbing by tendrils.
          - 49. Tendrils opposite to leaves.

- 50. Flowers unisexual; corolla tubular; ovary inferior, with parietal placentation; inflorescences of axillary, simple or compound racemes. **Cucurbitaceae**
- 50. Flowers bisexual; corolla of free petals; ovary superior, with basal placentation; inflorescences of cymes or panicles opposite the leaves **Vitaceae**
- 49. Tendrils axillary, basal or distal on inflorescence.
  - 51. Tendrils distal on inflorescence; perianth of 5 similar tepals. **Polygonaceae** (*Antigonon*)
  - 51. Tendrils axillary or basal on inflorescence; perianth of distinct calyx and corolla or distinct calyx, corolla (sometimes wanting) and corona.
    - 52. Corona wanting; ovary sessile; stamens borne on receptacle, opposite to petals; petals concave, surrounding the stamens; fruit dry, schizocarpic
      - . Rhamnaceae (Gouania)
    - 52. Corona present; ovary and stamens subtended by a stipe (androgynophore); stamens not opposite to the petals; petals not as above, or wanting; fruit fleshy, indehiscent or tardily dehiscent **Passifloraceae**
- 48. Twining vines or scrambling shrubs, without tendrils.
  - 53. Plants bearing spines or thorns on stems and branches.
    - 54. Flowers unisexual, small, (< 0.5 cm), lacking corolla; fruit a 1-seeded drupe **Ulmaceae** (*Celtis iguanea*)
    - 54. Flowers bisexual, large (> 1.5 cm); fruits with numerous seeds.
      - 55. Perianth whitish, not differentiated into calyx and corolla, 2.5-5 cm wide; ovary inferior; berry yellow **Cactaceae** (*Pereskia*)
    - 55. Calyx green; corolla white, ca. 1 cm long; ovary superior; berry red-orange. **Solanaceae**
  - 53. Plants not armed.
    - 56. Twining vines.
      - 57. Flowers > 4 cm long, very irregular, solitary at leaf axils; calyx corolla-like, inflated, constricted below the tube; corolla wanting. **Aristolochiaceae**
      - 57. Flowers < 1 cm long, regular, in simple or branched inflorescences; calyx reduced; corolla present.
        - 59. Flowers unisexual, < 3 mm long.
          - 60. Herbaceous vine; inflorescence racemose; leaves fleshy Basellaceae
          - 60. Woody vine; inflorescence of cymes or of simple or branched spikes; leaves coriaceous to chartaceous **Menispermaceae**
        - 59 Flowers bisexual, > 5 mm long.
          - 61. Leaves rounded, cuneate or obtuse at base; flowers in scorpioid cymes **Boraginaceae** (*Tournefortia* in part)
          - 61. Leaves cordate at base; flowers in short, axillary cymes **Convolvulaceae** (*Convolvulus*, *Jacquemontia*)
    - 56. Scrambling to climbing shrubs or herbs, not twining.
      - 62. Perianth of 4 tepals; cross section of stem showing xylem with discrete strands of phloem **Phytolaccaceae** (*Trichostigma*)
      - 62. Perianth of calyx and corolla; cross section of stems showing xylem without included phloem.
        - 63. Inflorescence a scorpioid cyme; fruit fleshy, indehiscent, white **Boraginaceae** (*Tournefortia hirsutissima*)
        - 63. Inflorescences not scorpioid; fruit leathery or dry, dehiscent, green, yellowish, or brown.

- 64. Calyx without stipitate glands; corolla of free petals; ovary subtended by a stipe (gynophore); fruit elongate, many-seeded, opening along one suture . **Capparaceae** (*Capparis flexuosa*)
- 64. Calyx with stipitate glands externally; corolla trumpet-shaped; ovary sessile; fruit a 1-seeded, valvate capsule. **Plumbaginaceae**
- 47. Herbs, shrubs or trees, not climbing.
  - 65. Ovary inferior.
    - 66. Corolla tubular.
      - 67. Flowers in heads; fruit dry, 1-seeded (achene), usually crowned by bristles, scales or awns **Asteraceae**
      - 67. Flowers in axillary cymes, racemes or solitary; fruit a drupe.
        - 68. Shrubs of sandy sea coasts; leaves rigid-coriaceous, entire; corolla strongly asymmetrical, the tube 1.5-2 cm long; drupe nearly globose, black **Goodeniaceae**
        - 68. Trees of forested areas; leaves coriaceous, serrate; corolla symmetrical, the tube 5-7 mm long; drupe ellipsoid, dark blue **Symplocaceae**
    - 66. Corolla of free petals or wanting.
      - 69. Trees or shrubs; flowers < 5 mm long, corolla wanting **Combretaceae**
      - 69. Herbs; flowers ca. 2 cm long; corolla of free yellow petals Onagraceae
  - 65. Ovary superior or partly inferior.
    - 70. Flowers unisexual.
      - 71. Ovary unilocular.
        - 72. Herb or subshrubs.
          - 73. Subshrub, usually with stinging hairs; fruit an oblique achene Urticaceae (*Laportea*)
          - 73. Herbs, without stinging hairs; fruit an utricle.
            - 74. Plants canescent; flowers solitary or in glomerules; utricles indehiscent Chenopodiaceae
              - 74. Plants not canescent; flowers in spicate inflorescences; utricles dehiscent. **Amaranthaceae** (*Amaranthus*)
        - 72. Trees, small trees or shrubs.
          - 75. Fruit a crescent-shaped nut, subtended by a fleshy hypocarp (receptacle) **Anacardiaceae** (*Anacardium*)
          - 75. Fruit a drupe, a berry, or of multiple achenes.
            - 76. Stipules wanting.
              - 77. Trunk with branched spines; leaves serrate; fruit a red berry

Flacourtiaceae (Xylosma)

- 77. Trunk smooth, without spines; leaves entire; fruit a green or white drupe.
  - 78. Drupe subtended by a cupule; tepals 6, spreading; stamens 9, the anthers opening by 4 minute flaps. **Lauraceae** (*Ocotea* in part)
  - 78. Drupe not subtended by a cupule; calyx conical, of 4 connate sepals; stamens 8, the anthers opening by longitudinal slits**Thymelaeaceae** 76. Stipules present.
    - 79. Rapid growing, palm-like trees, with 1-3 crowns of long-petioled leaves; stipules large, deciduous, contorted into a coneshaped hood that protects the apical meristem; flowers naked, in aments; fruits multiple (of fused achenes). **Cecropiaceae**

- 79. Shrubs or small, branched trees, with short-petioled leaves scattered along stems; stipules minute; flowers apetalous, in cymes or fascicles; fruit a drupe.
  - 80. Perianth of 5 sepals; stamens 5; styles 2; flowers in axillary cymes. **Ulmaceae**
  - 80. Perianth of 4 sepals; stamens 3-6; style 1; flowers in axillary fascicles (*Drypetes*)

# 71. Ovary (2-)3(-5)-locular.

- 81. Fruit dry, capsular. Euphorbiaceae
- 81. Fruit fleshy, a drupe or a berry.
  - 82. Branches with axillary spines; leaves congested on short axillary branches; flowers paired or solitary; petals connate into a funnel-shaped corolla **Boraginaceae** (*Rochefortia*)
  - 82. Branches without spines; leaves not congested; flowers in cymes, fascicles or racemes; petals free or wanting.
    - 83. Corolla wanting; inflorescence racemose, cauliflorous; drupe 6-8-lobed, yellow **Euphorbiaceae** (*Phyllanthus acidus*)
    - 83. Corolla of free petals; inflorescence of axillary fascicles or cymes; drupe globose, ellipsoid or ovoid; red or yellow to orange.
      - 84. Ovary 4-5-locular; sepals imbricate; stigma sessile; drupe globose, red, 4-8-seeded **Aquifoliaceae**
      - 84. Ovary 2-locular; stigma with 2 spreading lobes; drupe ellipsoid to ovoid, yellow to red, 2-seeded **Celastraceae** (*Schaefferia*)

#### 70 Flower bisexual.

- 85. Perianth reduced, the flower either naked or represented by a whorl of tepals or sepals (the flower then apetalous).
  - 86. Flowers naked Piperaceae
  - 86. Flowers with either tepals or sepals.
    - 87. Herbs.
      - 88. Perianth of 2 series of tepals. Amaranthaceae (Amaranthus)
      - 88. Perianth of one series of 4-5 sepals.
        - 89. Leaves in a rosette at base; inflorescences scapose; fruit a dehiscent capsule **Molluginaceae**
        - 89. Leaves cauline, alternate along stems; inflorescences axillary; fruit a drupe, achene or an utricle.
          - 90. Filaments united at base into a short cup; fruit a circumscissile utricle . **Amaranthaceae** (*Celosia*)
          - 90. Filaments free to base; fruits indehiscent.
            - 91. Stamens as many as the sepals and opposite them; styles 3, free to base; fruit an utricle **Chenopodiaceae**
            - 91. Stamens 4 and alternate the sepals, or up to 8 and then in two series; style simple or wanting; fruit a drupe or a hooked achene **Phytolaccaceae**
          - 87. Shrubs or small trees.
            - 92. Leaves whorled; calyx funnel-shaped; cross section of stem with included islands of phloem. **Nyctaginaceae**
            - 92. Leaves alternate; perianth cup-shaped; cross section of stem without included islands of phloem.

- 93. Stipules wanting; anthers opening by 4 minute flaps; fruit usually subtended by a cupular structure. **Lauraceae**
- 93. Stipules present; anthers opening by longitudinal slits; fruit not subtended by a cupular structure.
  - 94. Stipules minute; leaves serrate, with translucent lineations; fruit dehiscent or indehiscent; seeds few to many. **Flacourtiaceae**
  - 94. Stipules connate around the stem into an ocrea; leaves entire without lineations; fruit indehiscent; seed one per fruit **Polygonaceae** (*Coccoloba*)
- 85. Perianth of calyx and corolla.
  - 95. Corolla gamopetalous.
    - 96. Corolla zygomorphic.
      - 97. Corolla trumpet-shaped **Solanaceae** (*Brunfelsia*)
      - 97. Corolla funnel- or bell-shaped.
        - 98. Corolla 3.5-6 cm long; fruit > 6 cm long. **Bignoniaceae** (*Amphitecna*, *Crescentia*)
        - 98. Corolla to 2 cm long; fruit to 1.5 cm long
          - 99. Corolla ca. 2 cm long, yellow with purple blotches; fruit a yellowish, leathery drupe. **Myoporaceae**
    - 99. Corolla < 1 cm long, white; fruit a septicidal capsule. **Scrophulariaceae** 96. Corolla actinomorphic.
      - 100. Leaves in a rosette at base; plant stemless; inflorescence a scapose spike.

        Plantaginaceae
      - 100. Leaves cauline, alternate or whorled.
        - 101. Leaves in whorls of 4 Loganiaceae
        - 101. Leaves alternate.
          - 102. Flowers and or leaves with dark punctations or lineations.
            - 103. Flowers punctate or lineate, in axillary racemes; petaloid staminodes present; filaments basally connate; leaves not punctate or lineate.

# Theophrastaceae

103. Flowers with orange punctations, in terminal panicles; staminodes wanting; filaments adnate to corolla tube; leaves dark punctate.

# Myrsinaceae

- 102. Flowers and leaves not punctate or lineate.
  - 104. Ovary 4-locular; flowers in scorpioid cymes. Boraginaceae
  - 104. Ovary 2- or 3-locular; flowers in cymes, racemes or solitary.
    - 105. Bracteoles connate into an epicalyx; ovary 3-locular, partly inferior; stamens opposite the corolla lobes **Olacaceae** (*Schoepfia*)
    - 105. Bracteoles not forming an epicalyx; ovary 2-locular, superior; stamens alternate to corolla lobes.
      - 106. Fruit a berry Solanaceae
      - 106. Fruit a capsule.
        - 107. Capsule many-seeded **Scrophulariaceae** (*Capraria*)
        - 107. Capsule 4-seeded **Convolvulaceae** (*Evolvulus*)
- 95. Corolla of distinct petals.
  - 108. Stipules present.
    - 109. Fleshy herbs. Portulacaceae
    - 109. Subshrubs, shrubs or trees.

- 110. Style gynobasic.
  - 111. Corolla white to cream; carpels connate into a fleshy drupe Chrysobalanaceae
  - 111. Corolla yellow; carpels separating at maturity.
    - 112. Fruits of distinct monocarps subtended by a fleshy receptacle.

      Ochnaceae
    - 112. Fruits of distinct nutlets, not subtended by a fleshy receptacle **Surianaceae**
- 110. Style distal on ovary.
  - 113. Ovary subtended by a gynophore; fruits narrow, elongated and opening along one suture or irregularly splitting, or indehiscent and globose with numerous seeds inside. **Capparaceae**
  - 113. Ovary sessile; fruit otherwise.
    - 114. Petals with a petaloid appendage at base within . **Erythroxylaceae** 114. Petals without appendages.
      - 115. Filaments connate into a tube around the ovary.
        - 116. Fruit indehiscent, slightly fleshy, fibrous, nearly globose to ellipsoid; tree with many whorled horizontal branches at different heights **Bombacaceae** (*Quararibea*)
        - 116. Fruit dehiscent, dry, a capsule or a legume, or if indehiscent then not fleshy or fibrous; herbs, shrubs or trees, not branched as above.
          - 117. Flower zygomorphic, with keel, wing, and standard petals **Fabaceae**
          - 117. Flower actinomorphic, petals all alike.
            - 118. Anthers with 4 pollen sacs (locules) Sterculiaceae
            - 118. Anthers with 2 pollen sacs (locules) Malvaceae

- 115. Filaments free.
  - 119. Stamens numerous.
    - 120. Shrubs, usually with star-shaped trichomes; leaf blades not glandular; fruit dry, capsular **Tiliaceae**
    - 120. Trees; glabrous or nearly so; leaf blades with a pair of glands near the base; fruits fleshy.
      - 121. Leaf blades with impressed glands near the base; margins entire; buds with overlapping scales **Rosaceae**
      - 121. Leaf blades with prominent glands at the junction with the petiole; margins serrate; buds naked **Flacourtiaceae** (*Prockia*)
  - 119. Stamens 4 or 5.
    - 122. Petals concave, surrounding the stamens Rhamnaceae
    - 122. Petals flat, alternating with the stamens. Celastraceae
- 108. Stipules wanting.
  - 123. Stems with thorns or spines.
    - 124. Blades aromatic, due to the presence of translucent oil glands; fruit a globose berry or a capsule. **Rutaceae** (*Citrus, Zanthoxylum* in part)
    - 124. Blades not aromatic, without translucent oil glands; fruit a globose, leathery drupe **Olacaceae** (*Ximenia*)
  - 123. Plants not spiny.
    - 125. Flowers fleshy, 3-merous. Annonaceae

- 125. Flowers not fleshy, 4-5-merous.
  - 126. Ovary partly inferior, embedded in an elongated hypanthium. **Onagraceae**
  - 126. Ovary superior, not embedded in a hypanthium.
    - 127. Corolla of 4 petals. Brassicaceae
    - 127. Corolla of 5 petals.
- 128. Plant spicy-aromatic, especially when bruised; calyx of 3 sepals; corolla red; stamens 10 with filaments connate into a column; fruit a small (<1 in diam.), red berry. Canellaceae
- 128. Plant not spicy nor aromatic; calyx of 2 or 5 sepals; corolla yellow, yellow-green, reddish-green or pink; stamens 5 or numerous; fruit a capsule, a nut or a nut.
  - 129. Fruit a crescent-shaped nut, subtended by a fleshy hypocarp (receptacle) **Anacardiaceae** (*Anacardium*, *Mangifera*)
  - 129. Fruit a capsule, not subtended by a fleshy hypocarp.
    - 130. Trees; corolla pink; stamens numerous, in 2-4 series; style simple; seeds surrounded by a fleshy red coat. **Theaceae**
    - 130. Shrubs or subshrubs; corolla yellow, pink or magenta; stamens as many as or twice as many as the petals; styles 3-5, distinct or united at base; seeds without a fleshy red coat.
      - 131. Leaves nearly fleshy; seeds tuberculate, without an arillode. **Portulacaceae** (*Talinum*)
      - 131. Leaves chartaceous; seeds reticulate, pitted, with a unilateral dry aril nilateral dry aril (**Turneraceae**)

# 1. ACANTHACEAE

(Acanthus Family) Reviewed by D. Wasshausen

Key to the genera

- 1. Plants 2-5 m long, with climbing or trailing stems.
  - 2. Plants woody, with axillary spines; corolla 1-2 cm long **Oplonia**
  - 2. Plants herbaceous without spines; corolla 2-5 cm long.
    - 3. Corolla funnel-shaped, lilac or light yellow; capsules ellipsoid . Asystasia
    - 3. Corolla salverform, white or orange; capsules subglobose, abruptly beaked at apex . **Thunbergia**
- 1. Plants usually less than 1 m tall, erect or decumbent.
  - 4. Plants woody, with paired axillary spines.
    - 5. Plant erect; corolla yellow . Barleria
    - 5. Plant erect with arching branches; corolla lavender Oplonia
  - 4. Plants herbaceous, without spines.
    - 6. Plants rosette-like, with short internodes; petioles longer than the blades **Stenandrium**
    - 6. Plants not rosette-like, with long internodes; petioles shorter than the blades.
      - 7. Flowers with 2 stamens.
        - 8. Flower solitary or few at leaf axil; corolla salverform; capsule club-shaped **Siphonoglossa**

- 8. Flowers in short or elongate, terminal or axillary inflorescences; corolla funnel-shaped; capsules ellipsoid or flattened ellipsoid.
  - 9. Stems 6-angular; calyx subtended by 2 spatulate bracteoles united at base **Dicliptera**
- 9. Stems cylindrical or 4-angular; calyx subtended by 2 distinct bracteoles **Justicia** 7. Flowers with 4 stamens.
  - 10. Flowers borne on dense, terminal, quadrangular spikes, with large foliaceous overlapping bracts; corolla (0.7-)1-1.5 cm long **Blechum**
  - 10. Flowers solitary or in loose terminal or axillary cymes, bracts small, not overlapping; corolla 2.2-4.5 cm long . **Ruellia**

#### 1. ASYSTASIA Blume

**1.** Asystasia gangetica (L.) T. Anderson *in* Thwaites, Enum.Pl. Zeyl. 235. 1860.

**Distribution**: Introduced as an ornamental, found in gardens or escaped in disturbed areas. Cruz Bay (A3083). Also on St. Thomas and Tortola; cultivated throughout the tropics, often escaped.

#### 2. BARLERIA L.

1. Barleria lupulina Lindl., Edward's Bot. Reg. 18: pl. 1483. 1832.

**Distribution**: Introduced from the Old World tropics as an ornamental, now escaped in open areas. Trail to Brown Bay (A1869, A4128). Also on St. Thomas; Bahamas, Jamaica, Hispaniola, Puerto Rico, and Lesser Antilles.

#### 3. BLECHUM P. Browne

**1. Blechum pyramidatum** (Lam.) Urb., Repert. Spec. Nov. Regni Veg. 15: 323. 1918.

**Distribution**: Common throughout the island, in open areas. Ajax Peak (A2656); Francis Bay (W172-a); Johnson Bay (A2912). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; from Mexico to South America, including the West Indies, introduced to the Old World tropics.

Common name: penguin balsam.

# 4. DICLIPTERA Juss., nom. cons.

**1. Dicliptera sexangularis** (L.) Juss., Ann. Mus. Natl. Hist. Nat. 9: 267. 1807.

**Distribution**: A roadside weed found in open or disturbed areas. Cruz Bay (A3203); Lameshur (A3150). Also on St. Croix, St. Thomas and Tortola; Bahamas, Greater Antilles, and from Mexico to northern South America to Brazil.

# **5. JUSTICIA** L.

# Key to the species

- 1. Leaves narrowly lanceolate; bracts awl-shaped.
  - 2. Flowers spaced along elongate panicles; bracts 1 to 2 mm long; corolla 8-9 mm long . **J.** pectoralis

- 2. Flowers clustered in short spikes; bracts 8 to 10 mm long; corolla 1.6-2.5 mm long . **J.** periplocifolia
- 1. Leaves ovate or elliptic; bracts spatulate, ovate or deltoid.
  - 3. Leaves ovate, pubescent; stems with lines of hairs along two sides; bracts foliaceous, ovate to deltate **J. mirabiloides**
  - 3. Leaves elliptic, glabrescent; stems pubescent only at nodes; bracts spatulate . J. carthaginensis
- 1. Justicia carthaginensis Jacq., Enum. Syst. Pl. 11. 1760.

**Distribution**: Uncommon, found in open disturbed areas. Enighed (A3927). Also on St. Croix, St. Thomas and Tortola. Widespread throughout the West Indies, Central America, Colombia and Venezuela.

2. Justicia mirabiloides Lam., Tabl. Encycl. 1: 39. 1791.

**Distribution**: In moist forest understory. Bordeaux area (A2597, A3171, A3175). Also on St. Croix and St. Thomas; and the Greater Antilles.

**3. Justicia pectoralis** Jacq., Enum. Syst. Pl. 11. 1760.

**Distribution**: Not common, mostly cultivated in moist grounds. Cinnamon Bay (A4097). Also on St. Croix and St. Thomas. Widespread in tropical America.

**Common names:** garden balsam, sweet mint.

Uses: Locally used in tea for relief of cough.

**4. Justicia periplocifolia** Jacq., Collectanea 5: 7. 1796 [1797].

**Distribution**: A common weed from waste grounds and thickets. Bethany (B339); Bordeaux Mountain (A1894); Lameshur (A2747). Also on St. Croix, St. Thomas and Tortola; Puerto Rico and Hispaniola.

#### 6. OPLONIA Raf.

Key to the species

- 1. Axillary spines straight and ascending . O. microphylla
- 1. Axillary spines, at least some, curved, reflexed or perpendicular to stem **O. spinosa**
- 1. Oplonia microphylla (Lam.) Stearn, Bull. Brit. Mus. (Nat. Hist.) Bot. 4(7): 307. 1971.

**Distribution**: Frequent in coastal thickets. Salt Pond (A760); Southside Pond (A1813, W600). Widely distributed in the West Indies, occurring on St. Croix and St. Thomas; Jamaica, Hispaniola, Puerto Rico, and Lesser Antilles south to the Grenadines.

2. Oplonia spinosa (Jacq.) Raf., Fl. Tellur. 4: 65. 1838.

**Distribution**: Common on open hillsides or in forests along ravines. Dittlif Point (A3975); Maria Bluff (A594). Also on St. Croix, Tortola and Virgin Gorda; Bahamas, Cuba, Hispaniola, Puerto Rico and the Lesser Antilles.

#### 7. RUELLIA L.

Key to the species

- 1. Flowers lilac, light blue, pink, or white; anthers not projecting beyond the tube; leaves with entire or crenate margins; petioles short (less than 1/4 of blade length).
  - 2. Roots tuberous; leaves elliptic, oblong, ovate or obovate; . R. tuberosa
  - 2. Roots fibrous, not tuberous; leaves linear or narrowly elliptic . R. brittoniana
- 1. Flowers red; anthers projecting beyond the tube; leaves crenate-dentate; petioles long (to 1/3 of blade length) **R. coccinea**
- 1. Ruellia brittoniana Leonard, J. Wash. Acad. Sci. 31: 96. 1941.

**Distribution**: Uncommon, growing as an escape around settlements. Bordeaux Mountain (A3244); Lameshur (W774). Native to Mexico, cultivated throughout the West Indies, and often escaped.

2. Ruellia coccinea (L.) Vahl, Symb. Bot. 3: 83. 1794.

**Distribution**: Uncommon in moist forest understory. Bordeaux area (A3174, W728). Also on St. Croix, St. Thomas and Tortola; Hispaniola and Puerto Rico.

**3. Ruellia tuberosa** L., Sp. Pl. 635. 1753.

**Distribution**: In open disturbed areas such as roadsides. Annaberg (A2923); Denis Bay (M16590); Lameshur (A2756). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; widely distributed throughout tropical and subtropical America.

**Common names:** Christmas pride, many roots, minie root.

#### **8. SIPHONOGLOSSA** Oerst.

**1. Siphonoglossa sessilis** (Jacq.) D.N. Gibson, Fieldiana, Bot. 34: 82. 1972.

**Distribution**: In open disturbed areas. Adrian Ruins (A2648); Lameshur (A2746, B641). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Puerto Rico, St. Martin to Guadeloupe, Trinidad, Margarita Island, and Colombia.

**Common name:** blossom.

**Uses:** The plant is locally used for making a tea for cold relief.

#### 9. STENANDRIUM Nees, nom. cons.

1. Stenandrium tuberosum (L.) Urb., Symb. Antill. 4: 576. 1911.

**Distribution**: Rare, gregarious in forest understory. Bethany (B352); Fish Bay (W761). Also on St. Thomas; Puerto Rico, Hispaniola, St. Martin and Guadeloupe.

# 10. THUNBERGIA Retz., nom. cons.

**1. Thunbergia fragrans** Roxb., Pl. Coromandel. 1: 47. 1796.

**Distribution**: Naturalized, found along roadsides. Annaberg (A1928); Bethany (B253); Susannaberg (A4665). Also on St. Croix and St. Thomas and Tortola; native to India and Sri Lanka, but naturalized throughout the tropics.

Common name: white Susan vine.

# 2. AIZOACEAE

# (Fig-marigold Family)

# Key to the genera

- 1. Primary branches short (usually less than 10 cm long); leaves minute (1-6 mm long); stamens 1-5; sepals without a dorsal keel **Cypselea**
- 1. Primary branches long (more than 15 cm long); leaves 1-3 cm long; stamens 5 or more; sepals with a dorsal keel.
  - 2. Leaves oblanceolate, thickened (3-4 mm thick when fresh), acute at apex; stamens numerous **Sesuvium**
  - 2. Leaves obovate or rounded, oblique at base, thin (less than 2 mm thick when fresh), obtuse, rounded and apiculate at apex; stamens 5-10 . **Trianthema**

# 1. CYPSELEA Turpin

A monospecific genus, the following species characterizes the genus.

1. Cypselea humifusa Turpin, Ann. Mus. Natl. Hist. Nat. 7:219. 1806.

**Distribution**: Uncommon, in marshy areas. Chocolate Hole (W709); Hurricane Hole (A2832). Also on Anegada and St. Thomas; southern United States, Greater Antilles and Guadeloupe.

#### 2. SESUVIUM L.

**1. Sesuvium portulacastrum** (L.) L., Syst. Nat. ed. 10, 2: 1058. 1759.

**Distribution**: Common along saline beach dunes. Fish Bay (A2815); Ram Head Pt. (A2915). Expected to be on all islands of the Virgin Islands. A polymorphic species with pantropical distribution.

**Common names**: sea purslane, bay flower, sea pusley.

#### 3. TRIANTHEMA L.

1. Trianthema portulacastrum L., Sp. Pl. 223. 1753.

**Distribution:** Along waste ground or open areas. Annaberg (W512); Cruz Bay (A2875); Johnson Bay (A3160). Also on St. Croix, St. Thomas and Tortola; common throughout tropical and subtropical America.

# 3. AMARANTHACEAE (Amaranth Family)

Key to the genera

- 1. Leaves alternate.
  - 2. Flowers solitary on inflorescence axis; ovary with many ovules Celosia
  - 2. Flowers congested along inflorescence axis; ovary with one ovule Amaranthus
- 1. Leaves opposite.
  - 3. Plants prostrate or decumbent, usually mat-forming.
    - 4. Stigma capitate Alternanthera

- 4. Stigma bifid.
  - 5. Plants fleshy; leaves oblong, linear or lanceolate; inflorescence cylindrical, more than 1 cm long **Blutaparon**
  - 5. Plants not fleshy; leaves elliptic; inflorescence globose, usually less 1 cm long **Gomphrena**
- 3. Plants erect, one main stem or many-branched from base.
  - 6. Inflorescence terminal, paniculate, showing transition between leaves and bracts **Iresine**
  - 6. Inflorescence terminal or lateral, of spikes or nearly globose heads.
    - 7. Inflorescence a spike; flowers early reflexed; bracteoles with spine-like apex . **Achyranthes**
    - 7. Inflorescence a nearly globose head; flowers ascending, bracteoles laterally compressed with a dorsal serrate crest **Gomphrena**
- 1. Achyranthes aspera L., Sp. Pl. 204. 1753.

**Distribution**: Common in open or disturbed areas, especially along the coast. Cruz Bay (A3086). Also on Tortola and Virgin Gorda; probably native to tropical Asia, but now cosmopolitan.

Common name: better man better.

# 2. ALTERNANTHERA Forssk.

# Key to the species

- 1. Most of inflorescences on long peduncles; largest leaf blades over 5 cm long; petioles 0.5-5 cm long . **A. brasiliana**
- 1. All inflorescences congested in leaf axils; leaves < 5 cm long; petioles < 2 cm long.
  - 2. Tepals lanceolate, with three main veins, entire margins and with simple or dendroid hairs.
    - 3. Spreading or ascending, robust herbs, branches usually reaching 1 m long; leaves elliptic to obovate; tepals with simple hairs **A. tenella**
    - 3. Trailing, slender herbs rooting at nodes, branches usually to 70 cm long; leaves oboyate or circular; tepals with dendroid hairs **A. crucis**
  - 2. Tepals ovate-lanceolate, mostly with one (3) main vein, fimbriate margins and apex covered with hairs bearing retrorse barbs **A. caracasana**
- **1. Alternanthera brasiliana** (L.) Kuntze, Revis. Gen. Pl. 2: 537. 1891.

**Distribution**: An escape, only found around settlements. Lameshur at VIERS (A3201). Also from Mexico to northern South America, Hispaniola, Puerto Rico, Lesser Antilles, Peru, Ecuador and Brazil.

**2. Alternanthera caracasana** Kunth *in* Humb., Bonpl. & Kunth, Nov. Gen. Sp. 2: 205, 1818.

**Distribution**: In waste or open ground, especially along the coast. Calabash Boom (A2873, A3109). Also on St. Croix and St. Thomas; and from eastern United States to Argentina, including the West Indies.

**3.** Alternanthera crucis (Moq.) Bold., Fl. Dutch W. Ind. Is. 1: 58. 1909.

**Distribution**: On open ground and rocky hillsides; Little St. James Island (B1409). Also on Anegada, St. Croix, St. Thomas and Tortola; Puerto Rico and in the Lesser Antilles.

**4. Alternanthera tenella** Colla, Mem. Reale Accad. Sci. Torino 33: 131. 1829.

**Distribution**: On open ground at low elevations, mostly along the coast. Coral Bay (A2830); Reef Bay (A2728); Waterlemon Bay (A1938). Also on St. Thomas; a polymorphic species distributed from Mexico to Argentina including the West Indies.

#### 3. AMARANTHUS L.

#### Key to the species

- 1. Plant prostrate; inflorescences nearly globose, aggregated in leaf axis A. crassipes
- 1. Plant erect; inflorescence spike-like, elongate, axillary or terminal.
  - 2. Plant to 0.5 m tall; bracts acute or shortly acuminate at apex; stamens (2-)3; tepals of pistillate flowers 3, shorter than fruit; stigma as long as the verrucose fruit **A. viridis**
  - 2. Plant to 1 m tall; bracts long acuminate at apex; stamens 5; tepals of pistillate flowers 5, longer than fruit; stigma much shorter than fruit **A. dubius**
- **1. Amaranthus crassipes** Schltdl., Linnaea 6: 757. 1831.

**Distribution:** In open moist to dry areas. Coral Bay (A3108); Lameshur (A2573). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; and from southern United States to Peru, including the West Indies.

**2.** Amaranthus dubius Mart. ex Thell., Fl. Advent. Montpellier 203. 1912.

**Distribution:** A common weed of open, disturbed areas. Cruz Bay (A3077); Great Cruz Bay (A2366). Also on Tortola and Virgin Gorda; in continental tropical America, West Indies and introduced to tropical Africa.

**3.** Amaranthus viridis L., Sp. Pl. ed. 2, 2: 1405. 1763.

**Distribution**: A weed, mostly found in open disturbed areas. Cruz Bay (A2905); Johnson Bay (A3154); East End (B1206). Also on St. Croix, St. Thomas and Virgin Gorda; widely distributed throughout the tropics.

**Common names**: lumboo, whitey mary.

# 4. BLUTAPARON Raf.

**1. Blutaparon vermiculare** (L.) Mears, Taxon 31: 113. 1982.

**Distribution**: Along sandy shores. Annaberg (A2921); Fish Bay (A3903). Also on Anegada, St. Croix and St. Thomas, Tortola and Virgin Gorda; widespread throughout coastal areas of tropical America.

Common name: bay flower.

# **5. CELOSIA** L.

1. Celosia nitida Vahl, Symb. Bot. 2: 44. 1791.

**Distribution**: In understory of coastal scrubs or thickets, on sandy grounds. Hansen Bay (A1807); Lameshur (B610). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; and in southern United States, Mexico, West Indies and northern South America.

#### 6. GOMPHRENA L.

# **1. Gomphrena serrata** L., Sp. Pl. 224. 1753.

Erect or procumbent perennial herb, to 30 cm tall, many-branched from a woody

**Distribution**: In open or disturbed areas. Lind Point (A2935). Native to tropical America, perhaps introduced as ornamental on St. John. Becoming a weed throughout

# 7. IRESINE P. Browne, nom. cons.

**1. Iresine angustifolia** Euphrasén, Beskr. Ste. Barthél. 165.1795.

**Distribution**: In open or disturbed areas from sea level to 250 m. Chocolate Hole (A779); Fish Bay (A2469); Reef Bay (A2726). Also on St. Croix, St. Thomas and Tortola; and from Mexico to Ecuador and Brazil, including the West Indies.

# 4. ANACARDIACEAE (Mango Family)

# Key to the genera

- 1. Leaves compound.
  - 2. Margins of leaflets spiny; flowers 3-merous. Comocladia
  - 2. Margins of leaflets without spines; flowers 5-merous.
    - 3. Shrub or small tree; fruits ellipsoid, red, 4-7 mm long **Schinus**
    - 3. Large or small trees; fruits nearly globose or ellipsoid, yellow, light orange or purple, > 2 cm long . **Spondias**
- 1. Leaves simple.
  - 4. Leaves oblong, long pointed at apex; petals with glandular ridges; fruits ovate, fleshy > 8 cm long, without fleshy receptacle (peduncle). **Mangifera**
  - 4. Leaves obovate, rounded at apex; petals without glandular ridges; fruits ("seed") kidney-shaped, woody, < 3 cm long, with a fleshy pedicel at base **Anacardium**

#### 1. ANACARDIUM L.

# 1. Anacardium occidentale L., Sp. Pl. 383. 1753.

**Distribution**: This plant, presumably native to northern South America, was introduced into the West Indies many centuries ago for its edible fruits. A few individuals were found along the roadside near Maria Bluff (A605).

Common names: akaju, cashew, cashubaby, kushu.

**Note**: The latex produced by the plant and its fruit is caustic, causing severe dermatitis on contact. Cashew nuts must be roasted in order to make them edible. The fleshy pedicel ("cashew apple") is generally not toxic and can be eaten raw or preserved in syrup.

#### 2. COMOCLADIA P. Browne

1. Comocladia dodonaea (L.) Urb., Symb. Antill. 4: 360.1910.

**Distribution**: Very common in dry coastal scrubs. Lameshur (A745). Widespread on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; Hispaniola, Puerto Rico and in the Lesser Antilles.

**Common names**: Christmas bush, Christmas tree, five finger, poison ash, pra pra. **Note:** A poisonous shrub causing severe dermatitis on contact, or inhalation of fumes from burning stems and leaves, similar to that produced by poison ivy.

#### 3. MANGIFERA L.

**1. Mangifera indica** L., Sp. Pl. 200. 1753.

**Distribution**: Commonly planted throughout the island, persistent in secondary forests in humid areas. Bordeaux (A934). Cultivated throughout the tropics for its edible fruits.

Common names: mango tree, mango.

**Note:** The resin of the plant, including the fruit may cause contact dermatitis in some people.

#### 4. SCHINUS L.

**1. Schinus terebinthifolius** Raddi, Mem. Mat. Fis. Soc. Ital. Sci. Modena, Pt. Mem. Fis. 18: 399, 1820.

**Distribution**: Planted as an ornamental, a few individuals naturalized in Hawksnest area. Cruz Bay (A5055). Native of southern Brazil, Paraguay and northern Argentina, becoming a weed in many tropical and subtropical areas.

Common names: Brazilian pepper, Christmas berry, wild pepper

**Note:** Fruits are known to cause allergic reaction in some people.

#### 5. SPONDIAS L.

Key to the species

- 1. Leaf rachis winged; inflorescence < 10 cm long; flowers red or purple; fruits purple S. purpurea (cultivated)
- 1. Leaf rachis not winged; inflorescence > 25 cm long; flowers white; fruits yellow to light orange.
  - 2. Fruits ellipsoid to nearly globose, 4-8 cm long; bark smooth
    - . S. dulcis (cultivated)
  - 2. Fruits ellipsoid to obovoid, 2.5-4 cm long; bark warty S. mombin
- **1. Spondias mombin** L., Sp. Pl. 371. 1753.

**Distribution**: Perhaps a native species, common along roadsides or in secondary moist forests. Cruz Bay (A1963). Native to tropical America, but widely cultivated in the tropics for its edible, tasty fruits.

Common name: hog plum.

**Cultivated species:** Spondias dulcis Sol. ex Parkinson, known, known as the pommecythere and S. purpurea L., the purple plum, are both cultivated on St. John for their edible fruits; however, neither of them is common on the island.

# 5. ANNONACEAE (Soursop Family)

# 1. ANNONA L.

# Key to the species

- 1. Fruit smooth, ripening yellow.
  - 2. Leaves pubescent; mature flower buds liner-lanceolate, pubescent, greenish A. reticulata
  - 2. Leaves glabrous; mature flower buds ovoid, glabrous, yellowish A. glabra
- 1. Fruit with projections, ripening green or light brown.
  - 3. Mature flower buds 2.5 cm or longer, yellowish, and obtusely 3-angular-ovoid; fruit to 25 cm long, elongate-cordate, with spine-like projections. A. muricata
  - 3. Mature flower buds 1-1.5 cm long, green, obtusely 3-angular, linear-lanceolate; fruits to 12 cm long, heart- shaped, with rounded projections . **A. squamosa**

# 1. Annona glabra L., Sp. Pl. 537. 1753.

**Distribution**: Near coastal mangrove swamps and inland along water courses. Coral Bay (A2796). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; and from Florida to Brazil, the West Indies and Africa.

**Common names**: bonya, cork wood, dog apple, monkey apple, pond apple, wild soursop. **Note**: Fruits usually not eaten by humans.

# **2. Annona muricata** L., Sp. Pl. 536. 1753.

**Distribution**: Mostly found along roadsides and near settlements. Susannaberg (A2086). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; native to tropical America, but perhaps introduced in the West Indies in pre-Columbian times.

Common names: soursop, susaka, sweetsop.

# **3. Annona reticulata** L., Sp. Pl. 537. 1753.

**Distribution**: Introduced, mostly found along roadsides and near settlements. Susannaberg (A838). Also on St. Croix, St. Thomas and Tortola; and in tropical America, including the West Indies.

Common name: custard apple.

# **4. Annona squamosa** L., Sp. Pl. 537. 1753.

**Distribution**: Mostly found along roadsides and in secondary forests in semi-dry areas. Cruz Bay (A1962); Lameshur (A2692). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; and in tropical America, including the West Indies.

Common name: sugar apple.

# 6. APIACEAE (Carrot Family)

# 1. CYCLOSPERMUM Lag.

**1. Cyclospermum leptophyllum** (Pers.) Britton & P. Wilson, Bot. Porto Rico 6: 52. 1925.

**Distribution**: Uncommon in moist, shaded areas. Bordeaux Mountain (W478). A pantropical weed, probably native to Brazil.

**Note:** See Kartesz & Gandhi (Phytologia 69: 129-130. 1990) for a discussion of authorship for the combination in *Cyclospermum*.

# 7. APOCYNACEAE (Dogbane Family)

Key to the genera

- 1. Twining, climbing plants.
  - 2. Plants woody, producing abundant milky latex; stems copper-colored; corolla bright yellow, 3-6 cm long **Pentalinon**
  - 2. Plants herbaceous to subwoody, producing watery latex; stems green; corolla cream-colored, 4-6 mm long . **Prestonia**
- 1. Herbs, shrubs, or trees.
  - 3. Corolla pink or lilac.
    - 4. Plants herbaceous, to 1 m tall; leaves chartaceous or membranous, elliptic or oblanceolate, to 7 cm long . **Catharanthus**
    - 4. Plants woody, to 3 m tall; leaves coriaceous, oblong, elliptic or oblanceolate, 10-30 cm long **Nerium**
  - 3. Corolla white, cream or yellow.
    - 5. Corolla white or cream.
      - 6. Plants herbaceous Catharanthus
      - 6. Plants woody (shrubs or trees).
        - 7. Leaves whorled (3 or 4 per node); corolla 0.9-0.9 cm long; fruit a fleshy berry . **Rauvolfia**
        - 7. Leaves alternate; corolla 3.3-6 cm long; fruit a woody follicle **Plumeria**
    - 5. Corolla yellow (cultivated) Thevetia

# 1. CATHARANTHUS G. Don

**1. Catharanthus roseus** (L.) G. Don, Gen. Hist. 4: 95. 1837.

**Distribution**: Introduced as an ornamental, now escaped; widespread along the sandy coasts. East End (A4224). Also on St. Croix, St. Thomas and Tortola; native to Madagascar, cultivated in tropical and subtemperate zones, becoming naturalized throughout the tropics.

Common names: church flower, periwinkle.

#### 2. NERIUM L.

1. Nerium oleander L., Sp. Pl. 209. 1753.

**Distribution**: Although not naturalized on St. John, it is included in this treatment because of its wide cultivation throughout the island. Coral Bay Quarter along Center Line Road (A4682). Also on Anegada, St. Croix, St. Thomas and Tortola; native to the Mediterranean area, now widely cultivated throughout the tropics.

Common names: leandra, oleander.

# 3. PENTALINON Müll. Arg.

1. Pentalinon luteum (L.) Hansen & Wunderlin, Taxon 35: 167. 1986.

**Distribution**: Common in coastal thickets, with sandy or rocky soil. Princess Bay (A2833). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda; in Florida and throughout the West Indies.

Common name: wild allamanda.

# 4. PLUMERIA L.

1. Plumeria alba L., Sp. Pl. 210. 1753.

**Distribution**: Common in coastal thickets, sometimes cultivated for its fragrant flowers. Lind Pt. (A4240). Also on Anegada, Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; Puerto Rico, and in the Lesser Antilles (Anguilla to Grenada).

**Common names**: frangipani, klang hout, milky bush, milk tree, paucipan, snake root, wild frangipani, wormy tree.

#### **5. PRESTONIA** R. Br.

**1. Prestonia agglutinata** (Jacq.) Woodson, Ann. Missouri Bot. Gard. 18: 552. 1931. **Distribution**: In open or disturbed areas along coastal thickets, and secondary forests. Bordeaux Mountain (A3142); Lameshur (A2045); Reef Bay (A2665). Also on St. Croix, St. Thomas and Tortola; Hispaniola and Puerto Rico.

#### 6. RAUVOLFIA L.

Key to the species

- 1. Trees; leaves with 14-20, nearly perpendicular, secondary veins, upper surface shiny; fruits 8-12 mm broad .**R. nitida**
- 1. Shrubs; leaves with 10-12, ascending, secondary veins, upper surface dull; fruits 5-7 mm broad **R. viridis**
- **1. Rauvolfia nitida** Jacq., Enum. Syst. Pl. 14. 1760.

**Distribution**: Common in dry coastal thickets to moist forests. Bordeaux Mountain (A2878); Cinnamon Bay (A2092). Also on St. Croix, St. Thomas and Tortola; Greater Antilles, St. Kitts, Guadeloupe. Martinique and Trinidad.

Common names: milk bush, milk tree, bitter ash.

**2. Rauvolfia viridis** Willd. *ex* Roem. & Schult., Syst. Veg. 4: 805. 1819.

**Distribution**: Common in dry coastal thickets or hillsides. Bethany (B193); Hurricane Hole (A2771). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Puerto Rico, Lesser Antilles, and northern South America.

Common names: bitter bush, man better man.

# 8. AQUIFOLIACEAE (Holly Family)

#### 1. ILEX L.

#### Key to the species

- 1. Leaves obovate to oblong, 6-12 cm long, chartaceous-coriaceous, the apex acute usually slightly notched, the margins often crenate-serrulate; inflorescence axes glabrous or puberulent; flowers 4(-5)-merous **I. nitida**
- 1. Leaves elliptic, rarely obovate, 2.5-8 cm long, coriaceous, the apex rounded or deeply notched, the margins usually entire; inflorescence axes pubescent; flowers 4-5-merous . **I. urbaniana**
- 1. Ilex nitida (Vahl) Maxim., Mém. Acad. Imp. Sci. SaintPétersbourg, VII, 29(3): 27. 1881. Distribution: Occasional in moist forest. Bordeaux Mountain (A4701, A5081). Also on Cuba, Jamaica, Hispaniola, Puerto Rico, Lesser Antilles and Mexico.
- 2. Ilex urbaniana Loes., Bot. Jahrb. Syst. 15: 316. 1893.
  petals white, 2-2.5 mm long, free to base, oblong; stamens 1.2-1.5 mm long, shorter and Distribution: An uncommon tree found in moist forests. Bordeaux Mountain (A4692, M17078). Also on St. Thomas and Tortola; Puerto Rico and Hispaniola.

# 9. ARALIACEAE

(Ginseng Family)

#### 1. SCHEFFLERA J.R. Forst. & G. Forst.

**1. Schefflera morototoni** (Aubl.) Maguire, Steyerm. & Frodin, Mem. New York Bot. Gard. 38: 51. 1984.

**Distribution**: In moist secondary forests and disturbed areas such as roadsides. Bordeaux Mountain (A2887). Also on St. Thomas and Tortola; Cuba, Hispaniola, Puerto Rico, Mexico, to South America.

Common name: match wood.

# 10. ARISTOLOCHIACEAE

(Dutchman's Pipe Family)

#### 1. ARISTOLOCHIA L.

Key to the species

- 1. Pseudostipules absent or inconspicuous; leaves ovate, lanceolate or hastate A. odoratissima
- 1. Pseudostipules large, clasping the stem; leaves trilobate or kidney-shaped.
  - 2. Leaves trilobate (at least some); flowers with long filiform, hanging appendage A. trilobata
  - 2. Leaves kidney-shaped; flowers without appendage A. elegans
- 1. Aristolochia elegans Mast., Gard. Chron. II, 24: 301. 1885.

**Distribution**: In secondary growth, as an escape. Apparently a recent introduction since it is restricted to Carolina (A4136). Also on Tortola; native to South America, but cultivated throughout the West Indies.

**2.** Aristolochia odoratissima L., Sp. Pl. ed. 2, 2: 1362. 1763.

**Distribution**: In secondary growth, in semi-dry areas. Bethany (B338); Caneel Bay (A4098). Also in Mexico to Central America and the West Indies.

3. Aristolochia trilobata L., Sp. Pl. 960. 1753.

**Distribution**: In moist forest. Bordeaux Mountain (B583, A5080). Also on St. Croix, St. Thomas and Tortola; from Central America to northern South America and the West Indies.

Common names: tobacco pipe, pelican plant.

# 11. ASCLEPIADACEAE

(Milk weed Family)

Key to the genera

1. Twining lianas, vines or scandent shrubs.

- 2. Robust liana; leaf blade without glands; corolla lavender, funnel-shaped, 5-7 cm long; stamens with distinct filaments; fruits winged or keeled .**Cryptostegia**
- 2. Herbaceous to scarcely woody vines; leaf blade with a pair of minute gland-like projections at base on upper surface; corolla greenish or cream, nearly bell-shaped to rotate, less than 1 cm long; stamens connate to form a gynostegium.
  - 3. Stems slender (2-3 mm diam.); leaves lanceolate or ovate, to 2 cm long, the basal glands filiform; follicles linear-ellipsoid, smooth; corolla cream, bell-shaped **Metastelma**
  - 3. Stems 5-7 mm diam.; leaves ovate, cordate at base, to 8 cm long, the basal glands triangular; follicles nearly ovoid, with blunt, spine-like projections; corolla greenish, rotate **Matelea**
- 1. Erect herbs or shrubs.
  - 4. Herbs; base of blade without glands; corolla orange, with reflexed, oblong petals; corona yellow; follicles spindle-shaped, 0.5 cm wide . . **Asclepias**
  - 4. Shrubs; base of blade with numerous spine-like glands; corolla whitish, violet-tinged within, rotate, with spreading, obtuse petals; corona violet; follicles inflated, nearly ovoid, membranous, 6-7 cm wide **Calotropis**

#### 1. ASCLEPIAS L.

1. Asclepias curassavica L., Sp. Pl. 215. 1753.

**Distribution**: A common weed along roadsides and in open or waste grounds. Bordeaux area (A1898); Susannaberg (A4680). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; in Florida, continental tropical America and the West Indies.

Common names: kittie mcwanie, pretie guana, wild ipecacuana.

#### 2. CALOTROPIS R. Br.

**1. Calotropis procera** (Aiton) W.T. Aiton, Hort. Kew. 2: 78. 1811. *Asclepias procera* Aiton, Hort. Kew. 1: 305.

**Distribution**: Common along roadsides and open or waste grounds in dry areas. Coral Bay (A3770); Cruz Bay (A1949). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda. Native to tropical Africa, now widespread throughout the tropics.

Common names: cowheel, giant milkbush, milk weed, mountain cabbage.

**Note**: The abundant milky latex produced by the plant is said to be poisonous.

# 3. CRYPTOSTEGIA R. Br.

1. Cryptostegia grandiflora R. Br., Bot. Reg. tab. 435. 1820.

**Distribution**: This aggressive exotic species, was introduced to St. John in the 1950's as an ornamental. The plant has naturalized and is now well established on the island, and its range continues to expand. It is particularly abundant at Coral Bay (A4681) and at Lameshur. Also on Tortola; Native to Africa, introduced into the West Indies.

Common names: purple allamanda, rubber vine.

#### 4. MATELEA Aubl.

**1. Matelea maritima** (Jacq.) Woodson, Ann. Missouri Bot. Gard. 28: 22. 1941.

**Distribution**: Common in coastal forests or scrub. East side of Bordeaux (A4674); Lameshur (A2737). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Cuba, Hispaniola, Puerto Rico, Lesser Antilles and Panama to northern South America.

Common name: beach milk vine.

#### 5. METASTELMA R. Br.

1. Metastelma grisebachianum Schltr. in Urb., Symb. Antill. 5: 469. 1908.

**Distribution**: Common in most parts of the island. Southside Pond (A1815); Turner Bay (A3106). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Puerto Rico and the Lesser Antilles.

# 12. ASTERACEAE

(Sunflower Family) By V. A. Funk & John F. Pruski

Key to the genera

- 1. Plants with milky latex; heads homogamous, ligulate.
  - 2. Heads narrowly cylindrical; achenes weakly beaked (in ours) Launaea
  - 2. Heads bell-shaped; achenes not beaked **Sonchus**
- 1. Plants without milky latex; heads heterogamous (radiate, disciform, or ligulate-pseudobilabiate) or homogamous (discoid).
  - 3. Leaves generally pinnately dissected to compound (in ours).
    - 4. Involucral bracts uniseriate; leaves and involucre with oil glands **Tagetes**
    - 4. Involucral bracts bi- or few-seriate; leaves and involucre without oil glands.
      - 5. Heads inconspicuously radiate; involucral bracts monomorphic; achenes falling in an achene complex of 1 fertile ray achene (and the persistent corolla) and its subtending involucral bract attached to 2 disk flowers and their palea; corollas white; disk flowers functionally male or sterile; pappus of reduced awns (in ours). **Parthenium**
      - 5. Heads obviously radiate (in ours); involucral bracts dimorphic; achenes falling individually; corollas white or yellow; disk flowers bisexual and fertile; pappus of 2-6 (in ours) retrorsely barbed awns . **Bidens**
  - 3. Leaves simple (in ours).
    - 6. All leaves opposite (in ours), not basal.
      - 7. Leaves and involucre dotted with oil glands; leaf base with stiff marginal cilia Pectis
      - 7. Leaves and involucre not dotted with oil glands; leaf base without marginal cilia.
        - 8. Heads discoid; receptacle naked or with an involucral sheath totally surrounding each flower.
          - 9. Leaves densely short-pilose on both surfaces; inflorescence glomerate; heads 1-flowered; each flower within a sheath; style branches recurved, fertile throughout their length; pappus a low lacerate crown . **Lagascea**

- 9. Leaves not densely short-pilose on both surfaces; inflorescence branching; heads 4-many-flowered; flowers not enveloped within a sheath; style branches ascending, with a large sterile terminal appendage; pappus usually elongate.
  - 10. Twining vines (in ours); heads 4-flowered Mikania
  - 10. Herbs to shrubs; heads many-flowered.
    - 11. Involucral bracts persistent subequal, apically acuminate; pappus of 5 or 6 scales or crown-shaped . **Ageratum**
    - 11. Involucral bracts deciduous, graduated, apically broadly acute to rounded; pappus of about 40 bristles . **Chromolaena**
- 8. Heads radiate (in ours); receptacle paleate.
  - 12. Pappus of bristles or awns.
    - 13. Heads terminal, on long peduncles; ray corollas white; achenes monomorphic, obconic; pappus of many feather-like bristles **Tridax**
    - 13. Heads axillary subsessile or nearly so; ray corollas yellow; achenes dimorphic, outer ones flattened, winged; pappus of 2 or 3 awns **Synedrella**
- 12. Pappus absent or greatly reduced.
  - 14. Leaves lanceolate, or less commonly elliptic, eglandular; corollas white; palea filiform **Eclipta**
  - 14. Leaves elliptic to ovate, glandular; corollas pale yellow to orange; palea linear-lanceolate to lanceolate.
    - 15. Corollas pale yellow, those of the rays inconspicuous; disk flowers 5-9, functionally staminate; involucral fruit with uncinate prickles and topped by 2 prickles to 5 mm long **Acanthospermum**
    - 15. Corollas yellow to orange, those of the rays conspicuous; disk flowers many, bisexual; achenes not covered by prickles.
      - 16. Procumbent herbs rooting at the nodes; leaves commonly 3-lobed; ray corolla limbs glandular on lower surface, shallowly 3-lobed at apex; achenes tuberculate

#### **Sphagneticola**

- 16. Erect herbs or shrubs; leaves subentire to coarsely dentate; ray corolla limbs hispidulous on lower surface, deeply bilobed at apex; achenes pubescent, smooth **Wedelia**
- 6. Leaves alternate or basal.
  - 17. Leaves basal (in ours).
    - 18. Inflorescence unbranched, without bracts; leaves white on lower surface, lyrate-pinnatifid at base; heads to 2(-3.5) cm tall; inner flowers slightly zygomorphic, pseudobilabiate **Chaptalia**
    - 18. Inflorescence commonly branched, bracteolate; leaves green on both surfaces, attenuate at base; heads less than or equal to 1 cm tall; inner flowers actinomorphic, discoid **Erigeron**
  - 17. Leaves cauline (in ours), alternate.
    - 19. Involucre uniseriate Emilia
    - 19. Involucre 2-several-seriate.
    - 20. Receptacle paleate.
      - 21. Leaves often trilobed, glandular below; inflorescence of many (>5) discoid (in ours) heads; corollas yellow or greenish white; achenes cylindrical or nearly so; pappus of numerous erect bristles **Neurolaena**

- 21. Leaves crenate to dentate, eglandular; inflorescence of 1-5 radiate heads (in ours); corollas orange (in ours); achenes strongly winged; pappus of 2 awns, apically uncinate. **Verbesina**
- 20. Receptacle naked.
  - 22. Pappus biseriate, the outer series of reduced squamellae, the inner series of elongate, deciduous or persistent bristles or scales.
    - 23. Herbs; inner pappus series of many fragile bristles; achenes non-ribbed, appressed-pilose **Cyanthillium**
    - 23. Subshrubs to shrubs (in ours); inner pappus series of several deciduous scales or numerous persistent bristles; achenes ribbed, glabrous, pilose, or sericeous.
      - 24. Heads 4-7-flowered (in ours); inner pappus of 7-15 (in ours) deciduous scales . **Piptocoma**
      - 24. Heads 10-20-flowered; inner pappus of numerous persistent capillary bristles **Lepidaploa**
  - 22. Pappus of a single series of elongate, deciduous or persistent bristles.
    - 25. Leaves clasping the stem; heads glomerate, homogamous, discoid with all flowers bisexual; involucral bracts in 4 decussate pairs; style hispidulous in upper half, branches with a continuous stigmatic surface; pappus of 4-10 stiff bristles in a single series.
    - 26. Inflorescence corymbiform-paniculate with pedunculate glomerules, each glomerule subtended by 2 or 3 heart-shaped to deltoid leafy bracts; pappus of 5 straight bristles **Elephantopus**
    - 26. Inflorescence spicate-racemose with sessile axillary glomerules, each subtended by a lanceolate leafy bract; pappus of 8-10 bristles, 2 of these twice-folded at tips

#### **Pseudelephantopus**

- 25. Leaves petiolate, sessile, or weakly clasping the stem; heads not glomerate, heterogamous, disciform with outer series of flowers pistillate; involucral bracts overlapping, spirally arranged, graduated; style shaft glabrous, branches with parallel stigmatic lines; pappus of 10-many soft bristles.
  - 27. Leaves pubescent, eglandular; pistillate flowers with an inconspicuous, 0.3-0.6 mm long corolla limb; achenes compressed **Conyza**
  - 27. Leaves nearly glabrate to white-tomentose, often glandular; pistillate flowers lacking a corolla limb; achenes cylindrical.
    - 28. Stems winged; inflorescence spicate **Pterocaulon**
    - 28. Stems not winged (in ours); inflorescence corymbiform or paniculate
      - 29. Leaves whitish on lower surface, 0.3-1. 3 cm broad; pappus bristles often deciduous

#### . Gnaphalium

29. Leaves green on both surfaces, 1-6 cm broad; pappus persistent **Pluchea** 

#### 1. ACANTHOSPERMUM Schrank

# 1. Acanthospermum hispidum DC., Prodr. 5: 522. 1836.

**Distribution**: Occasional at sea level, on open roadsides and in dry scrublands. Coral Bay Quarter along Center Line Road (A3998); Trail to Fortsberg (A5271); between Bethany and Rosenberg (B252). Also on St. Croix, St. Thomas, Tortola, and Virgin Gorda; throughout the

Antilles, southeastern United States, Central America, South America, and naturalized throughout many areas of the world.

#### 2. AGERATUM L.

1. Ageratum conyzoides L., Sp. Pl. 839. 1753.

**Distribution:** Occasional in open or disturbed areas. Along road to Bordeaux Mountain (A2858); Emmaus (A3149); Rosenberg (B291). Also on St. Croix, St. Thomas, and Tortola; native to the Neotropics, but adventive in the subtropics and in the Paleotropics.

#### 3. BIDENS L.

#### Key to the species

- 1. Pappus 2-awned; outer achenes straight; involucral bracts slightly spreading in fruit; ray corollas white **B. alba** var. **radiata**
- 1. Pappus (3-)4(-6)-awned; outer achenes curved; involucral bracts greatly spreading in fruit; ray corollas yellow or white **B. cynapiifolia**
- **1. Bidens alba** (L.) DC. var. **radiata** (Sch.Bip.) Ballard *in* Melchert, Phytologia 32: 295. 1975.

**Distribution:** Common in open areas with secondary growth. Coral Bay Quarter along Center Line Road (A4012); Cruz Bay (A1953). Also on St. Croix and St. Thomas; widespread in the Caribbean, eastern Mexico, Central America, and northern South America.

**Common names:** shepard's needle, Spanish needle.

**2. Bidens cynapiifolia** Kunth *in* Humb., Bonpl. & Kunth, Nov. Gen. Sp., folio ed., 4: 185. 1820 [1818].

**Distribution:** Common on open disturbed roadsides. Along road to Bordeaux Mountain (A2890, A3193). Also on St. Croix, St. Thomas, Tortola, and Virgin Gorda; throughout the Antilles, Central America, and South America; naturalized in Hawaii and in the Old World

**Common name:** beggar ticks.

#### 4. CHAPTALIA Vent., nom. cons.

1. Chaptalia nutans (L.) Polak., Linnaea 41: 582. 1877.

**Distribution:** Occasional in open to shaded hills, roadsides, or moist banks. Along road to Bordeaux (A2859, A3181); between Bethany and Rosenberg (B240). Also on St. Croix, St. Thomas, and Tortola; throughout much of the West Indies, the Neotropics, and parts of the New World subtropics.

Common name: white back.

#### 5. CHROMOLAENA DC.

Key to the species

- 1. Stems and leaves commonly canescent throughout; heads 8-10-flowered; corolla tubes and achenes glandular; pappus slightly enlarged apically; involucral bracts spreading in flower, outer ones persistent past fruit, the flat receptacle thereby only visible from above . C. sinuata
- 1. Stems and leaves densely pilose to puberulent; heads with 15 or more flowers; corolla tubes and achenes not glandular; pappus not apically enlarged; involucral bracts tightly overlapping in flower, all late deciduous, the barrel- or club-shaped receptacle thereby wholly exposed.
  - 2. Leaf blades deltoid to cordate, the apex acute to obtuse, the upper surface sparsely glandular; inflorescence compactly corymbiform; involucral bracts to 2 mm broad, rounded and glandular at apex; achenes 4-5 mm long, pappus 3.5-4.5 mm long C. corymbosa
  - 2. Leaf blades deltoid to rhombic-ovate, the apex acuminate, the upper surface not glandular; inflorescence corymbiform to paniculate; involucral bracts less than 1.5 mm broad, not apically glandular, the inner ones acute at tips; achenes 3.5-4 mm long, pappus 5-6 mm long **C. odorata**
- 1. Chromolaena corymbosa (Aubl.) R.M. King & H. Rob., Phytologia 20: 200. 1970. Distribution: Common in rocky coastal areas and disturbed hillsides. Solomon Bay (A2280); Cob Gut (A3225); Dittlif Point (A3972). Also on Buck Island, Little St. James Island, St. Croix, St. Thomas, Tortola, and Virgin Gorda (fide Britton & Wilson, 1925); Bahamas, Hispaniola, Puerto Rico, and the Lesser Antilles.
- **2. Chromolaena odorata** (L.) R.M. King & H. Rob., Phytologia 20:204.1970. **Distribution:** An occasional roadside weed. Coral Bay Quarter at km 3.5 along Road 107 (A3767); Cruz Bay (A2360); Susannaberg (A3092). Also on St. Croix, St. Thomas, and Tortola; widespread in tropical and subtropical America from the southern U.S.A. to southern South America and introduced into the Paleotropics.

**Common names:** bitter bush, christmas bush, geritoo.

3. Chromolaena sinuata (Lam.) R.M. King & H. Rob., Phytologia 32:283. 1975.

**Distribution:** Occasional in disturbed areas to rocky hillsides. Nanny Point (A2444); Lameshur (B635). Also on Guana Island, St. Croix, St. Thomas (fide de Candolle, Prodr. 5: 155. 1836), Tortola (fide D'Arcy, 1967), and Virgin Gorda; Cuba, Hispaniola, Puerto Rico, and the Lesser Antilles.

#### **6. CONYZA** Less., nom. cons.

**1. Conyza bonariensis** (L.) Cronq., Bull. Torrey Bot. Club 70: 632. 1943.

**Distribution:** An occasional weed of open disturbed areas such as roadsides. Along road to Bordeaux (A2882, A3135); Susannaberg (A852). Also on St. Thomas and Tortola; throughout much of the West Indies, Neotropics, and warmer parts of non-tropical America. Introduced into the Paleotropics.

Common name: hairy horseweed.

#### 7. CYANTHILLIUM Blume

**1.** Cyanthillium cinereum (L.) H. Rob., Proc. Biol. Soc. Wash. 103: 252. 1990. *Conyza cinerea* L., Sp. Pl. 862. 1753. *Vernonia cinerea* (L.) Less., Linnaea 4: 291. 1829.

**Distribution:** Common weed of disturbed areas, fields, and moist upland forests. Bordeaux Mountain (M17043); Lind Point (A3145); Lameshur (A2740). Also on St. Croix, St. Thomas, and Tortola; throughout the West Indies; Florida, Mexico, Central America, northern South America, Africa, Asia, and the Pacific.

#### 8. ECLIPTA L., nom. cons.

1. Eclipta prostrata (L.) L., Mant. Pl. 2: 286. 1771.

**Distribution**: Occasional on open sandy coasts, roadsides, and in waste areas, often where soil is damp or wet. Carolina (A4141); Turner Bay (A3107); Enighed (A3926). Also on St. Croix, St. Thomas, and Tortola; Florida, pantropics.

#### 9. ELEPHANTOPUS L.

**1. Elephantopus mollis** Kunth *in* Humb., Bonpl. & Kunth, Nov.Gen. Sp., folio ed. 4: 20. 1820 [1818].

**Distribution:** Occasional along roadsides and in wet shaded areas. Along road to Bordeaux (A3141); between Bethany and Rosenberg (B259); Lameshur Trail (A3185). Also on St. Croix, St. Thomas, and Tortola; throughout the West Indies and much of the Neotropics; introduced into tropical Africa, the Pacific (Fiji), and southeastern Asia.

**Common name:** elephant's foot.

#### 10. EMILIA Cass.

#### Key to the species

- 1. Corollas red, extended above the tips of the involucral bracts; involucre 1-2 times longer than wide **E. fosbergii**
- 1. Corollas pink to lavender, not exserted from the involucral bracts; involucre 3-4 times longer than wide **E. sonchifolia**
- **1. Emilia fosbergii** Nicolson, Phytologia 32: 33. 1975.

**Distribution**: An occasional weed in disturbed sites. Bordeaux Mountain (M17024); Maria Bluff (A612); Maho Bay (A2408). Also on St. Croix and St. Thomas; tropical America, Florida, and some Pacific islands.

**2. Emilia sonchifolia** (L.) DC. ex Wight, Contr. Bot. India 24. 1834.

**Distribution**: An occasional weed of disturbed sites. Carolina (A4140); Reef Bay (A2640). Also on St. Croix, St. Thomas, and Tortola; a pantropical weed of Old World origin.

Common name: scarlet paint bush.

#### 11. ERIGERON L.

**1. Erigeron cuneifolius** DC., Prodr. 5: 288. 1836.

**Distribution:** Uncommon weedy plant of wet shaded banks. Cruz Bay (W680); Rosenberg (B293). Also on St. Thomas and Tortola; throughout the Greater Antilles; Philippines (Guy Nesom, pers. comm.).

#### 12. GNAPHALIUM L.

1. Gnaphalium domingense Lam., Encycl. 2: 743. 1788.

**Distribution:** Rare coastal weed. Caneel Bay (W673). Throughout the Greater Antilles.

#### 13. LAGASCEA Cav., nom. cons.

**1. Lagascea mollis** Cav., Anales Ci. Nat. 6: 331. 1803.

**Distribution**: In open disturbed areas. Coral Bay Quarter along Center Line Road (A3996). Also on St. Croix, St. Thomas, and Tortola; throughout much of the West Indies, Florida, Arizona, coastal Mexico, northern Central America, South America, and in the Old World.

**Common name:** silkleaf.

#### 14. LAUNAEA Cass.

1. Launaea intybacea (Jacq.) Beauverd, Bull. Soc. Bot. Genève II, 2: 114. 1910.

**Distribution**: Occasional in open dry areas, usually along sandy coasts. Cruz Bay (A2346); Chocolate Hole (A4067); East End (A684). Also on St. Croix, St. Thomas, and Tortola; a pantropical and subtropical weed of lowland areas.

Common name: wild lettuce.

#### 15. LEPIDAPLOA (Cass.) Cass.

#### Key to the species

- Leaves rounded at apex, glandular on upper surface; outer involucral bracts deltoid to triangular, with narrowly acute apices; corolla lavender or violet; pappus cream-colored L. glabra
- 1. Leaves acute to acuminate at apex, non-glandular on upper surface; outer involucral bracts linear-lanceolate, with attenuate apices; corolla white; pappus brownish **L. sericea**
- **1. Lepidaploa glabra** (Willd.) H. Rob., Proc. Biol. Soc. Wash. 103: 487. 1990. **Distribution:** Common in disturbed areas and moist upland forests. Maria Bluff (A3148); Annaberg Ruins (A1930); Center Line Road, km 4.5 (A2910). Also on St. Croix, St. Thomas, Tortola, and Virgin Gorda; Puerto Rico, Lesser Antilles.
- 2. Lepidaploa sericea (Rich.) H. Rob., Proc. Biol. Soc. Wash. 103: 492. 1990.

**Distribution:** A common weed of roadsides to wet shaded banks. Coral Bay (A3139); Rosenberg (B303); Bordeaux (A3855). Also on St. Croix, St. Thomas, Tortola, and Virgin Gorda; Cuba, Hispaniola, and Puerto Rico.

#### 16. MIKANIA Willd., nom. cons.

#### **1. Mikania cordifolia** (L.f.) Willd., Sp. Pl. 3: 1746. 1804.

**Distribution:** Occasional in disturbed areas. Along road to Bordeaux (A4109). Also on St. Croix, St. Thomas, and Tortola; throughout much of the West Indies and the lowland Neotropics, also in Gulf Coastal United States.

#### 17. NEUROLAENA R. Br.

#### 1. Neurolaena lobata (L.) Cass., Dict. Sci. Nat. 34: 502. 1825.

**Distribution**: Rare shrub in open wet areas. Top of Bordeaux Mountain (W114). Also on St. Thomas and Tortola; southern Mexico, Central America, West Indies, and northern South America.

#### 18. PARTHENIUM L.

#### **1. Parthenium hysterophorus** L., Sp. Pl. 988. 1753.

Fig. 41 A-E.

**Distribution**: Common in waste or open disturbed areas. Enighed (A3930). Also on St. Croix, St. Thomas, and Tortola; throughout much of the West Indies, primarily Mexican, but ranging from southern U.S.A. into Central America, South America, and the Paleotropics.

Common names: false ragweed, feverfew, mule weed, quinine weed, whitehead broom.

#### 19. PECTIS L.

#### Key to the species

- 1. Prostrate small annual herb, or more often perennial with more or less woody base; leaves oblanceolate to obovate; pappus a combination of scabrid bristles and shorter scales or slender bristles **P. humifusa**
- 1. Erect, finely branching annual herb; leaves narrowly linear to lanceolate; pappus of 1-4 spreading awns flattened at the base . **P. linifolia**

#### 1. Pectis humifusa Sw., Prodr. 114. 1788.

**Distribution**: Rare in coastal or open areas. Dittlif Point (A3968). Also on St. Croix and St. Thomas [fide Lessing in Schlechtendal (1831), Britton (1918), and Britton & Wilson (1925)]; from Puerto Rico eastward and southward throughout the Lesser Antilles to the coast of Guyana; also collected once in Florida.

#### **2. Pectis linifolia** L., Syst. Nat. ed. 10, 2: 1221. 1759.

**Distribution**: Rare along hillsides and openings in forests. Southside Pond (A4072); Lameshur (B629). Also on Buck Island, St. Croix, St. Thomas, Tortola (fide D'Arcy, 1967), and Virgin Gorda; this species is native to three distinct areas: the Sonoran Desert of the

#### 20. PIPTOCOMA Cass.

1. Piptocoma antillana Urb., Ark. Bot. 23A, 11: 50. 1931.

**Distribution:** Common in sandy or rocky areas behind shore vegetation. Coral Bay (R1916); East End (A666); Southside Pond (A1816). Also on Peter Island (fide D'Arcy, 1967), St. Thomas, Tortola, and Virgin Gorda; Puerto Rico.

#### 21. PLUCHEA Cass.

#### Key to the species

- 1. Shrubs; stems pubescent to sometimes glabrate; leaves chartaceous to firmly so, commonly moderately pubescent on lower surface, the margins entire or nearly so; inner flowers 15 or more **P. carolinensis**
- Herbs; stems puberulent to nearly glabrous; leaves chartaceous to thinly so, commonly puberulent on lower surface, the margins subentire or serrate; inner flowers 12 or fewer P. odorata
- Pluchea carolinensis (Jacq.) G. Don in Sweet, Hort. Brit. ed. 3, 350. 1839.
   Distribution: Common in coastal scrubs and disturbed areas. Emmaus (A2440, A3239);
   Maria Bluff (A609). Also on St. Croix, St. Thomas, Tortola, and Virgin Gorda; throughout much of the West Indies, Florida, Mexico, Central America, northern South America, and the Pacific region.

**Common names:** cattle tongue, sourbush, ovra bla, ramgoat bush, sweet scent.

**2. Pluchea odorata** (L.) Cass., Dict. Sci. Nat. 42: 3. 1826.

**Distribution:** Common in disturbed open areas. Coral Bay (A733); Emmaus (A1996, A3240). Also on Anegada, St. Croix, St. Thomas, and Tortola; throughout much of the West Indies, U.S.A., Mexico, Central America, and northern South America.

Common name: marsh fleabane.

#### 22. PSEUDELEPHANTOPUS Rohr

**1. Pseudelephantopus spicatus** (Juss. *ex* Aubl.) C.F. Baker, Trans. St. Louis Acad. Sci. 12: 45, 54, 56. 1902.

**Distribution:** Occasional along roadsides and in other disturbed areas. Cruz Bay Quarter along Center Line Road (A4160). Also on St. Croix, St. Thomas, and Tortola; throughout much of the West Indies and the Neotropics, introduced into Florida, Africa, Asia, the Pacific region, and Australia.

Common name: bulltongue bush.

#### 23. PTEROCAULON Elliott

1. Pterocaulon virgatum (L.) DC., Prodr. 5: 454. 1836.

**Distribution:** Occasional in open or disturbed areas. Rosenberg (B314). Also on St. Croix, St. Thomas, and Tortola; Greater Antilles, Texas, Mexico, Honduras, and South America.

#### 24. SONCHUS L.

#### **1. Sonchus oleraceus** L., Sp. Pl. 794. 1753.

**Distribution**: Uncommon weed of moist soils. Cinnamon Bay (W681). Also found on St. Croix, St. Thomas (fide Lessing in Schlechtendal, 1831), and Tortola; native to temperate regions of the Old World, but widely distributed as a weed in temperate and tropical regions.

Common names: sow thistle, wild salad.

#### 25. SPHAGNETICOLA Hoffm.

#### 1. Sphagneticola trilobata (L.) Pruski Mem. New York Bot. Gard. 78: 114. 1996.

**Distribution:** Occasional in strand vegetation, roadsides, to dry evergreen hillsides, but more common in wet areas. Along road to Bordeaux Mountain (A2894); Hillside above Cinnamon Bay (M17091). Also on St. Croix, St. Thomas, and Tortola; throughout much of the West Indies, southeastern United States, Mexico, Central America, and South America. Widely cultivated, escaping and becoming naturalized throughout tropical regions of both hemispheres (except Africa).

Common names: creeping ox eye, wild marigold.

#### **26. SYNEDRELLA** Gaertn., nom. cons.

#### **1. Synedrella nodiflora** (L.) Gaertn., Fruct. Sem.Pl. 2: 456. 1791.

**Distribution:** Common in disturbed open areas. Coral Bay Quarter along Road 107 (A4041); Near mouth of Fish Bay Gut (A3888). Also on St. Croix, St. Thomas, and Tortola; Florida, widespread throughout the West Indies, Mexico, Central America, tropical South America, and parts of the Old World tropics and subtropics.

**Common names:** fatten barrow, node weed.

#### 27. TAGETES L.

#### **1.** Tagetes erecta L., Sp. Pl. 887. 1753.

**Distribution:** Escaped from cultivation in open sunny areas. Along road to Bordeaux (A2860, A2888). This species is commonly cultivated throughout the world and naturalized in many areas. *Tagetes erecta* is native to Mexico, but all or most extant populations are probably derived from cultivated individuals.

Common name: African marigold.

#### 28. TRIDAX L.

#### 1. Tridax procumbens L., Sp. Pl. 900. 1753.

**Distribution:** Common weed of open disturbed areas. Calabash Boom (A2870, A4025). Also on St. Croix, Tortola, and Water Island; widely distributed throughout the Neotropics and introduced into the warmer regions of the Old World.

#### 29. VERBESINA L.

1. Verbesina alata L., Sp. Pl. 901. 1753.

**Distribution:** Occasional on open hillsides. American Hill [Raunkiær s.n., 15 Mar 1906 (US)]. Also on St. Croix, St. Thomas, and Tortola; Greater Antilles and Lesser Antilles.

#### 30. WEDELIA Jacq., nom. cons.

1. Wedelia calycina Rich. In Pers., Syn. Pl. 2: 490. 1807.

**Distribution:** Occasional in rocky hills, thickets, and disturbed areas. Hart Bay (A801); Dittlif Point (A3978). Also on Anegada, Little St. James Island, St. Croix, St. Thomas, Tortola, and Virgin Gorda; throughout much of the West Indies (but not Jamaica), southern Central America to northern South America.

# 13. BASELLACEAE (Basella Family)

#### 1. ANREDERA Juss.

**1.** Anredera vesicaria (Lam.) C.F. Gaertn., Suppl. Carp. 176, t. 213. 1807.

**Distribution:** In open, disturbed areas, such as roadsides or along secondary coastal scrubs. Cruz Bay (A2512); trail to Brown Bay (A1870); Mary Pt. (A4228). Also on St. Croix, St. Thomas and Tortola; southern United States (Texas and Florida) to northern South America, including the West Indies.

# 14. BATACEAE (Saltwort Family) 1. BATIS P. Browne

**1. Batis maritima** L., Syst. Nat. ed. 10, 2: 1289. 1759.

**Distribution**: Common along coastal areas in salt marshes. Newfound Bay (A4150, A4257). Also on Anegada, St. Croix, St. Thomas and Tortola; througho ut tropical America, the Galapagos Archipelago and Hawaii.

Common names: saltwort, salt plant.

| 15. BIGNONIACEAE       |   |
|------------------------|---|
| (Calabash tree Family) | _ |
| Key to the genera      |   |

1. Tendrilled lianas.

- 2. Tendrils 3-fid, claw-like; corolla yellow; stems cylindrical when young Macfadyena
- 2. Tendrils simple, filiform, coiling; corolla pinkish to lavender or violet; stems 4-angled when young.
  - 3. Corolla funnel-shaped, 1.5-3 cm long, violet; mature stems 4-angled, sulcate; cross section of stem with 4 marginal, dark, phloem arms; foliage drying reddish **Arrabidaea**
  - 3. Corolla tubular-bell-shaped, 2.5-7.5 cm long, pinkish to lavender with yellowish throat; mature stems cylindrical; cross section of stem with 8 marginal, dark phloem arms; foliage drying green or brown . **Cydista**
- 1. Trees or shrubs.
  - 4. Leaves simple, alternate or clustered; fruits indehiscent, broadly ellipsoid to globose.
    - 5. Leaves alternate to nearly opposite; fruits relatively fragile, easily crushed **Amphitecna**
    - 5. Leaves clustered on short lateral branches; fruits woody, hard-shelled Crescentia
  - 4. Leaves compound (or unifoliolate), opposite; fruits elongate, dehiscent.
    - 6. Capsules erect angular, boat-shaped; corolla orange . Spathodea
    - 6. Capsules hanging, linear, flattened; corolla white, pink or yellow.
      - 7. Leaves pinnately compound; leaflets serrate; corolla yellow, funnel-shaped **Tecoma**
      - 7. Leaves palmately compound or simple; leaflets entire; corolla white, pink or yellow, salverform. **Tabebuia**

#### 1. AMPHITECNA Miers

**1. Amphitecna latifolia** (Miller) A. Gentry, Taxon 25: 108.1976.

**Distribution**: Along ravines and in coastal forests. Battery Gut (A4161); Fish Bay Gut (A2491). Also on St. Croix and St. Thomas; Florida, Mexico, Central America, West Indies and northern South America.

Common name: jumbie calabash

#### **2. ARRABIDAEA** DC.

**1.** Arrabidaea chica (Humb. & Bonpl.) Verl., Rev. Hort. 40: 154. 1868.

**Distribution:** Along ravines in gallery forests. Maho Bay Gut (A2105). Throughout the Neotropics.

#### 3. CRESCENTIA L.

Key to the species

- 1. Leaves oblanceolate or obovate, > 2.5 cm wide; tertiary venation coarsely reticulate C. cujete
- 1. Leaves linear or very narrowly oblanceolate, 1-1.8 cm wide; tertiary venation finely reticulate **C.** linearifolia
- 1. Crescentia cujete L., Sp. Pl. 629. 1753.

**Distribution:** Common throughout the island. Susannaberg (A2087). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; widely cultivated in tropical America, probably native to Belize (Gentry, 1982).

Common names: calabash tree, gobi, gobi tree.

2. Crescentia linearifolia Miers, Trans. Linn. Soc. London I, 26: 172. 1868.

**Distribution:** Common throughout the island, especially in dry areas. Holter Road (A2342); Lameshur (B601). Also on St. Thomas; and Puerto Rico.

**Common names:** black calabash, calabash tree, jumbie calabash, minie gobi.

#### 4. CYDISTA Miers

1. Cydista aequinoctialis (L.) Miers, Proc. Roy. Hort. Soc. London 3: 191. 1863.

**Distribution:** Along coastal plains, usually near mangrove swamps. Fish Bay (A2810). Also on St. Croix and St. Thomas; and throughout tropical America.

Common name: guard wiss.

#### 5. MACFADYENA A.DC.

**1. Macfadyena unguis-cati** (L.) A. Gentry, Brittonia 25: 236. 1973.

**Distribution**: Abundant on trees, in dry or moist forests or in open, disturbed areas such as roadsides. Cruz Bay Quarter along Center Line Road (A2110); Susannaberg (A3958). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; and throughout tropical and subtropical America.

Common names: cat claw, cat paw, monkey earring, wist.

#### **6. SPATHODEA** P. Beauv.

**1. Spathodea campanulata** P. Beauv., Fl. Oware 1: 47. 1805.

**Distribution:** Introduced as ornamental, only a few individuals known on St. John. Maho Bay Quarter along Center Line Road (A2511). Also on St. Thomas and Tortola; native to tropical Africa, but widely cultivated and naturalized throughout the tropics.

Common name: African tulip tree.

#### 7. TABEBUIA DC.

Key to the species

- 1. Corolla yellow; leaves with (3-)5-7 leaflets; petiolules 1-4.5 cm long . **T. aurea**
- 1. Corolla pink to white; leaves with 1-5 leaflets; petiolules 0.2-2 cm long T. heterophylla
- **1. Tabebuia aurea** (Silva Manso) S. Moore, Trans. Linn. Soc. London, Bot. 4: 423.

**Distribution:** Uncommon, introduced species, planted in gardens and along roadsides. Coral Bay (A2027, V3120). Native to Brazil, but widely planted throughout tropical America.

Common name: yellow oak.

**2. Tabebuia heterophylla** (DC.) Britton, Ann. Missouri Bot.Gard. 2: 48. 1915. **Distribution**: Common throughout the island, from coastal scrub to moist forests. East End (GTP29320); Lameshur (B638). Also on Anegada, Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; Hispaniola, Puerto Rico and the Lesser Antilles, naturalized in Florida and Bahamas.

**Common names:** tooshee, white cedar, black cedar, pink cedar, pink manjack.

**Note:** This is the official tree of the British Virgin Islands.

#### 8. TECOMA Juss.

**1. Tecoma stans** (L.) A. Juss. *ex* Kunth *in* Humb., Bonpl. & Kunth, Nov. Gen. Sp. 3: 144. 1819

**Distribution:** Commonly cultivated in St. John, becoming naturalized. Johnson Bay (A2125). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; native to the Neotropics but widespread throughout the tropics through cultivation.

Common names: catapult tree, ginger thomas, yellow cedar,

**Note:** This is the official flower of the United States Virgin Islands.

# 16. BOMBACACEAE (Balsa wood Family)

Key to the genera

- 1. Leaves palmately compound; fruit a fusiform capsule, 8-10 cm long; bark with deciduous thorns . **Ceiba**
- 1. Leaves simple; fruit nearly globose, indehiscent, < 2 cm long; bark smooth **Quararibea**

#### 1. CEIBA Miller

1. Ceiba pentandra (L.) Gaertn., Fruct. Sem. Pl. 2: 244. 1791.

**Distribution**: In moist forests or on coastal plains with deep soils. Cinnamon Bay Campground (A4231). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; native to tropical America, naturalized in the Old World tropics.

**Common names:** jumbie tree, kapok tree, silk cotton tree.

#### 2. QUARARIBEA Aubl.

**1. Quararibea turbinata** (Sw.) Poir. in Lam., Encycl. Suppl. 4: 636. 1816.

**Distribution**: Common as an understory shrub or small tree in moist forests. East End (A2115); Cinnamon Bay (A2091). Also on St. Croix; and from Hispaniola southeast to the Lesser Antilles.

Common names: garrot, swizzle stick tree.

#### 17. BORAGINACEAE

(Borage Family)

Key to the genera

- 1. Flowers solitary or paired in leaf axils; branches spiny Rochefortia
- 1. Flowers in inflorescences; branches without spines.
  - 2. Inflorescence an unbranched or 2-branched spike, coiled (scorpioid) at distal end; herbs or low subshrubs.
    - 3. Leaves somewhat succulent; fruit fleshy, of 2 nutlets, initially hollowed at base . **Argusia**
    - 3. Leaves not succulent; fruit a dry capsule, not hollowed at base . Heliotropium
  - 2. Inflorescences many-branched (panicles, cymes or heads), coiled (scorpioid) or not at distal end; shrubs, trees or vines.
    - 4. Style bifid, with 4 stigmatic branches. Cordia
    - 4. Style simple or crowned by 2 stigmatic branches.
      - 5. Twining vines, lianas, scandent or erect shrubs; style unbranched; stamens and style not projecting beyond the corolla; corolla lobes reflexed or spreading; fruit white or pale orange
        - . Tournefortia
      - 5. Trees; style with 2-lobed stigma; stamens and style projecting beyond the corolla; corolla lobes spreading, but not reflexed; fruit red or red-orange. **Bourreria**

#### 1. ARGUSIA Boehmer

1. Argusia gnaphalodes (L.) Heine, Fl. Nouv. Caled. 7: 108. 1976.

**Distribution**: Common along sandy coasts. Johns Folly Bay (A4062); Europa Bay (A747); Lameshur (B652). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda; and throughout the West Indies.

**Common names:** sea lavender, crab bush, bay lavender.

#### **2. BOURRERIA** P. Browne, nom. cons.

1. Bourreria succulenta Jacq., Enum. Syst. Pl. 14. 1760.

**Distribution**: One of the commonest trees on the island, in dry to moist areas. Hawksnest (A2667). Also on Anegada, Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; in Florida, the West Indies and Venezuela.

**Common names:** chink, chinkwood, juniper, pigeon berry, pigeon wood, spoon tree,

**Note:** Sterile specimens of *Cordia laevigata* Lam. are often confused with *B. succulenta*. However, *B. succulenta* has leaves that are glabrous beneath while *C. laevigata* has leaves that are canescent beneath.

#### 3. CORDIA L.

Key to the species

- 1. Leaf margins serrate or dentate.
  - 2. Inflorescence of globose cymes; plant a climbing or scandent shrub; fruits red, < 4 mm long **C. polycephala**
  - 2. Inflorescence a paniculate cyme; plant a small tree or shrub; fruits white, > 6 mm long C. dentata
- 1. Leaf margins entire or wavy.
  - 3. Plant densely covered with stellate hairs, especially on young parts; calyx tubular, striate **C. alliodora**
  - 3. Plant variously pubescent but not stellate; calyx bell-shaped or tubular, not striate.
    - 4. Calyx tubular or nearly so, accrescent in fruit; corolla > 1.5 cm long, bright orange, trumpet-shaped.
      - 5. Calyx long tubular (1.3-2.3 cm long), pubescent or puberulent; fruit ovoid to globose . **C. sebestena**
      - 5. Calyx tubular (1-1.3 cm long), glabrous or nearly so; fruits obconical

#### .C. rickseckeri

- 4. Calyx bell-shaped, not accrescent; corolla, < 1 cm long, white, funnel-shaped.
  - 6. Fruit white or cream; leaves (9-)15-45 cm long, lanceolate, elliptic or ovate C. sulcata
  - 6. Fruit red or red-orange; leaves 8-20 cm long, elliptic or obovate.
    - 7. Corolla > 6 mm long, with ascending lobes; leaves elliptic, with alternate secondary veins **C. laevigata**
    - 7. Corolla < 4 mm long, with reflexed lobes; leaves mostly obovate, with opposite (at least in some of the leaves), ascending, prominent secondary veins

#### C. collococca

1. Cordia alliodora (Ruíz & Pavón) Cham. in DC., Linnaea 8: 121. 1833.

**Distribution**: Commonly found in moist areas but also planted along streets. Annaberg (A1925); Lameshur (B527). Also on Jost van Dyke, St. Thomas, Tortola and Virgin Gorda; Cuba, Hispaniola, Puerto Rico, Lesser Antilles, Mexico, Central America and northern South America.

Common name: copper.

2. Cordia collococca L., Amoen. Acad. 5: 377. 1760.

**Distribution**: Common tree in moist areas and coastal plains with deep soils. Gift Hill (A830); Lameshur (A2745); Reef Bay Trail (P29264). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; in the Greater and Lesser Antilles, Mexico to northern South America.

Common names: red manjack, manjack.

3. Cordia dentata Poir. in Lam., Encycl. 7: 48. 1806.

**Distribution**: Apparently introduced, found mostly along roadsides. Along road from Fish Bay to Coccoloba (A2816); Susannaberg (A3806). Also on St. Croix and St. Thomas; the West Indies, Central America and northern South America.

Common names: flute boom, white manjack.

4. Cordia laevigata Lam., Tabl. Encycl. 1: 422. 1792.

**Distribution**: Uncommon in dry to moist forests. America Hill (R1431); Bordeaux Mountain (A4261). Also on Anegada, St. Croix, St. Thomas and Tortola; Greater Antilles, and Central America.

**Common names:** bastard capa, manjack, West Indian cherry, wild capa.

**5. Cordia polycephala** (Lam.) I.M. Johnst., J. Arnold Arbor. 16: 33. 1935.

**Distribution**: Common in open disturbed areas. Along road to Bordeaux (A3834); Bethany (B188, B248). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Hispaniola, Puerto Rico, Lesser Antilles, and northern South America.

**6. Cordia rickseckeri** Millsp., Publ. Field Columbian Mus., Bot. Ser. 1: 522. 1902.

**Distribution**: A common tree, especially on the coastal plains with deep soil. Coral Bay (L21924); Lameshur (A3957); Pen Pt. (A2011). Native to Puerto Rico and the Virgin Islands (Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda).

Common names: black manjack, dog almond.

7. Cordia sebestena L., Sp. Pl. 190. 1753.

**Distribution**: Commonly planted along roadsides and in gardens. Coral Bay (A4065); Lameshur (A738). Apparently native to the Virgin Islands, (St. Croix, St. John, St. Thomas, Tortola and Virgin Gorda); the Greater Antilles and the Bahamas, introduced elsewhere as an ornamental.

Common names: bay almond, geiger, scarlet cordia, trumpet tree.

8. Cordia sulcata A.DC., Prodr. 9: 488. 1845.

**Distribution**: A common tree of secondary forests and disturbed moist areas. Bordeaux Mountain (A1885, B586); Cinnamon Bay (A1090). Also on Jost van Dyke, St. Croix, St. Thomas and Tortola; Cuba, Hispaniola, Puerto Rico, and the Lesser Antilles.

**Common names:** mucilage manjack, white manjack.

#### 4. HELIOTROPIUM L.

Key to the species

1. Leaves succulent, narrowly oblanceolate, without petioles; plant glabrous

#### H. curassavicum

- 1. Leaves not succulent, variously shaped but not oblanceolate, petiolate; plant pubescent.
  - 2. Plants densely sericeous (appressed, long, white hairs); leaves lanceolate, linear or elliptic, mostly subopposite or in whorls of 3; fruits subglobose **H. ternatum**
  - 2. Plants pubescent or glabrescent; leaves elliptic or ovate, alternate or subopposite; fruits 2-lobed, emarginate or slightly compressed.
    - 3. Leaves 4-17 cm long; petioles 4-10 cm long; stems 4-angled; corolla 4-5 mm long; fruits emarginate at apex . **H. indicum**
    - 3. Leaves 2-5 cm long; petioles 1-1.5 cm long; stems terete; corolla 0.5-2.5 mm long; fruits slightly compressed

#### H. angiospermum

1. Heliotropium angiospermum Murray, Prodr. Stirp. Gött.217. 1770.

**Distribution**: A common weed along roadsides and in disturbed areas. East End (A665); along trail to Fortsberg (A4095); Maria Bluff (A2336). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; southeastern United States to South America, including the West Indies.

Common name: eyebright.

#### 2. Heliotropium curassavicum L., Sp. Pl. 130. 1753.

**Distribution**: A common herb from open, disturbed areas, especially along sandy beaches. Great Cruz Bay (A795, A3104); East End (A2426). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; southeastern United States to Central America, the West Indies and Asia.

#### 3. Heliotropium indicum L., Sp. Pl. 130. 1753.

**Distribution**: An uncommon herb in open and disturbed areas. Lameshur (A2572, A2736). Also on St. Croix, St. Thomas, Tortola, Virgin Gorda; throughout the Greater Antilles and Trinidad.

#### **4. Heliotropium ternatum** Vahl, Symb. Bot. 3: 21. 1794.

**Distribution**: In open, dry areas. Dittlif Pt. (A3977); Lameshur (B602); Maria Bluff (A2333). Also on St. Croix, St. Thomas and Virgin Gorda; throughout the West Indies and northern South America.

#### **5. ROCHEFORTIA** Sw.

#### 1. Rochefortia acanthophora (A.DC.) Griseb., Fl. Brit. W. I. 482. 1862.

**Distribution**: A common tree of dry coastal scrub. West slopes of Fish Bay (A3909). Also on St. Croix, St. Thomas and Virgin Gorda; the Greater and Lesser Antilles.

#### 6. TOURNEFORTIA L.

Key to the species

- 1. Erect shrub or small tree **T. filiflora**
- 1. Twining vines or lianas.
  - 2. Plants hirsute T. hirsutissima
  - 2. Plants glabrous or pubescent.
    - 3. Plants slender (stems usually < 8 mm diam.); leaves 1-3.5 cm long; fruits nearly globose, white, with 4 black, round spots **T. microphylla**
    - 3. Plants robust (stems > 8 mm diam.); leaves 3-9 cm long; fruits globose, white
      - . T. bicolor

#### 1. Tournefortia bicolor Sw., Prodr. 40. 1788.

**Distribution**: Uncommon, mostly found in gallery forests. Caneel Bay Trail to Turtle Pt. (A4121). Also on St. Thomas and Tortola; throughout tropical America.

#### **2. Tournefortia filiflora** Griseb., Fl. Brit. W. I. 483. 1862.

**Distribution**: A rare tree, found only in a few locations. Trunk Bay (W174). Also on St. Croix; Puerto Rico and the Lesser Antilles.

**3. Tournefortia hirsutissima** L., Sp. Pl. 140. 1753.

**Distribution**: Common in open or disturbed areas. Coral Bay (A2458); Cruz Bay Quarter along Center Line Road (A2865). Also on St. Croix, St. Thomas and Tortola; Greater and Lesser Antilles and Trinidad.

**Common names:** giniper, chiggernit, chichery grape.

**4. Tournefortia microphylla** Bertero *ex* Spreng., Syst. Veg. 1: 644. 1824.

**Distribution**: Common in open or disturbed areas, such as roadsides and secondary forests. Along trail to Brown Bay (A1881); Cruz Bay (A2326); East End (A3793). Also on Anegada, St. Croix, St. Thomas, Tortola, Virgin Gorda; Hispaniola, Puerto Rico and the Lesser Antilles.

#### 18. BRASSICACEAE

(Mustard Family)

Key to the genera

- 1. Fruit fusiform, 20-25 mm long; flowers 6-8 mm long . Cakile
- 1. Fruit lenticular, to 5 mm long; flowers 1-1.5 mm long **Lepidium**

#### 1. CAKILE Miller

1. Cakile lanceolata (Willd.) O. Schulz in Urb., Symb. Antill. 3: 504. 1903.

**Distribution**: Common along sandy beaches or in disturbed coastal areas. Chocolate Hole (A780); Dittlif Pt. (A3969); trail to Salt Pond (A2047). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; widespread throughout the Caribbean basin.

#### 2. LEPIDIUM L.

**Reference:** Hitchcock, C. L. 1945. The Mexican, Central American, and West Indian Lepidia. Madroño 8: 118-143.

1. Lepidium virginicum L., Sp. Pl. 645. 1753.

**Distribution**: A common weed of open areas, especially on sandy beaches. Bordeaux Road (A2891); along road to Herman Farm (A866). Also on St. Croix, St. Thomas and Tortola; native to North America, introduced and naturalized elsewhere.

### 19. BURSERACEAE (Frankincense Family)

1. BURSERA L., nom. cons.

**1. Bursera simaruba** (L.) Sarg., Gard. & Forest 3: 260. 1890.

**Distribution**: A common tree of dry forested hills. Susannaberg (A840, A1861). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout the Caribbean, also Florida, and Mexico to South America.

**Common names:** cachibou, naked indian, gommier, gumbo limbo, red bellytree, takantin, tourist tree.

## 20. CACTACEAE (Cactus Family)

#### Key to the genera

- 1. Stem terete, without ribs; normal foliage leaves present in addition to spines Pereskia
- 1. Stem various, but not as above; leaves in the form of spines only.
  - 2. Plants spherical, not elongate, with longitudinal ribs.
    - 3. Plants crowned by an elongate cephalium; the cephalium covered with numerous, slender red spines; plants to 60 cm tall; flowers reddish pink **Melocactus**
    - 3. Plants rounded, not crowned by a cephalium; plant to 15 cm tall; flowers yellow . **Mammillaria**
  - 2. Plants elongate; stems either flattened or variously ribbed.
    - 4. Branches flattened, jointed and constricted at joints . **Opuntia**
    - 4. Branches cylindrical, variously ribbed, but not flattened, jointed or constricted at joints.
      - 5. Plants lianas, climbing by means of adventitious roots; stems deeply ribbed; flowers > 12 cm long.
        - 6. Stems with 3 or 4 prominent ribs; spines conical, < 7 mm long, with swollen bases, 2-3 mm wide; hypanthium glabrous without **Hylocereus**
        - 6. Stems with 5 to 8, slightly prominent ribs; spines acicular, 5-8 mm long, < 1 mm wide at base; often with long hairs; hypanthium densely woolly without . **Selenicereus**
      - 5. Plants shrubs or small trees, erect, columnar; stems nearly cylindrical with many shallow ribs.
        - 7. Stems with 7-11 longitudinal ribs; areoles with tuft of whitish, long, woolly hairs, especially at apex of stem; spines yellowish, 1-3 cm long **Pilosocereus**
        - 7. Stems with 9-14 longitudinal ribs; areoles felted, but without long woolly hairs; spines yellow but turning grayish, 3-7 cm long
          - . Stenocereus

#### 1. **HYLOCEREUS** Britton & Rose

**1. Hylocereus trigonus** (Haw.) Saff., Annual Rep. Board Regents Smithsonian Inst. 1908: 553. 1909.

**Distribution**: Common throughout dry areas. Calabash Boom (A2874). Also on St. Thomas, Tortola and Virgin Gorda; Puerto Rico, Mona, and the Lesser Antilles, cultivated and escaped elsewhere.

**Common names:** chigger apple, chickenet, nightblooming cereus.

**Cultivated species:** *Hylocereus undatus* (Haw.) Britton & Rose is found occasionally growing in gardens.

#### **2. MAMMILLARIA** Haw.

1. Mammillaria nivosa Link ex Pfeiff., Beschr. Synon. Cact. 12. 1837.

**Distribution**: A rare plant, only a few colonies known from the north shore. New Found Bay (A4149). Also on Tortola; the Puerto Rican islands of Mona and Desecheo, and on Turk, Caicos, Bahamas, Antigua, Barbuda, St. Martin, and St. Barts.

#### 3. MELOCACTUS Link & Otto

1. Melocactus intortus (Miller) Urb., Repert. Spec. Nov.Regni Veg. 16: 35. 1919.

**Distribution**: Common in dry coastal areas. Along trail to Drunk Bay (A4679). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda; Puerto Rico, Bahamas and the Lesser Antilles.

**Common names:** barrel cactus, pope's head, turk's cap.

#### 4. **OPUNTIA** Miller

#### Key to the species

- 1. Plant tree-like, 2-3 m tall, with a single main cylindrical trunk; joint branches on upper portion, spreading or descending **O. rubescens**
- 1. Plant shrubby or creeping, with or without a short, main cylindrical stem.
  - 2. Joints oblong to linear **O. repens**
  - 2. Joints obovate, oval or nearly round.
    - 3. Perianth red or crimson and erect; stamens and style longer than petals; areoles lacking spines

#### . O. cochenillifera

- 3. Perianth yellow and spreading; stamens and style shorter than petals; areoles with or lacking spines.
  - 4. Areoles usually lacking spines or a few present . **O. ficus-indica**
  - 4. Areoles with acicular clusters of long (1-3 cm), yellowish spines. **O. dillenii**

#### **1. Opuntia cochenillifera** (L.) Miller, Gard. Dict. ed. 8.1768.

**Distribution**: Uncommon in dry coastal scrub, persistent after cultivation. Lameshur (A4145). Also on St. Croix. St. Thomas, Tortola and Virgin Gorda; possibly native to Jamaica, now widespread in tropical areas through cultivation.

Common name: French prickly pear.

2. Opuntia dillenii (Ker Gawl.) Haw., Suppl. Pl. Succ. 79.1819.

**Distribution**: One of the most common *Opuntia* species in dry coastal scrub vegetation. Hurricane Hole (A2831). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda;

native to southeastern United States to eastern Mexico, and the West Indies, introduced in northern South America.

**Common names:** bull sucker, miss blyden, prickly pear.

**3. Opuntia repens** Bello, Anales Soc. Esp. Hist. Nat. 10:277. 1881.

**Distribution**: Common in dry coastal scrub. Drunk Bay (A4135); Southeast Pond (A2907). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Puerto Rico.

Common name: suckers.

**4. Opuntia rubescens** Salm-Dyck *ex* DC., Prodr. 3: 474. 1828.

**Distribution**: Common in dry coastal scrub areas. Waterlemon Bay (A4132). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Puerto Rico and the Lesser Antilles.

Common names: blyden bush, buds an' rice, prickly pear.

**Cultivated species:** *Opuntia ficus-indica* (L.) Miller is found occasionally growing in gardens as an ornamental plant, but has not naturalized.

#### **5. PERESKIA** Miller

**1. Pereskia aculeata** Miller, Gard. Dict. ed. 8. 1768.

**Distribution**: Apparently spontaneous after cultivation. Along road from Bordeaux to Coral Bay (A4267). Also on St. Croix and St. Thomas; now throughout tropical America, its place of origin unknown.

**Common names:** Barbados gooseberry.

#### **6. PILOSOCEREUS** Byles & G. Rowley

1. Pilosocereus royenii (L.) Byles & G. D. Rowley, Cact. Succ. J. Gr. Brit. 19: 67. 1957.

**Distribution**: Common in dry, coastal scrub areas. Salt Pond (A4668). Also on Anegada, Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; Puerto Rico and the Lesser Antilles.

Common names: dacta dul dul, didledoo, pipe organ.

#### 7. SELENICEREUS Britton & Rose

**1. Selenicereus grandiflorus** (L.) Britton & Rose, Contr.U.S. Natl. Herb. 12: 430. 1909.

**Distribution**: Common in dry disturbed areas and along coastal trails (Cruz Bay to Lind Point). Hurricane Hole (A2835). Also on St. Croix, St. Thomas and Tortola; native to Jamaica and Cuba, now widely planted and naturalized throughout tropical areas.

Common name: night blooming cereus.

#### 8. STENOCEREUS (Berger) Riccob.

1. Stenocereus peruvianus (Miller) R. Kiesling, Darwiniana 24: 446. 1982.

**Distribution**: Uncommon in dry, coastal scrub. Drunk Bay (A5061). Also occurs on Cuba, Jamaica, Hispaniola, and the Puerto Rican islands of Desecheo, Muertos and Mona.

Common name: pipe organ.

#### 21. CAMPANULACEAE

(Bellflower Family)

#### 1. HIPPOBROMA G. Don

1. Hippobroma longiflora (L.) G. Don, Gen. Hist. 3: 717.1834.

**Distribution**: Uncommon along moist disturbed areas. Along road to Bordeaux (A3130); along trail to Sieben (A2065a). Also on St. Croix, St. Thomas and Tortola; throughout the West Indies, southern Florida and tropical continental America, naturalized in the Old World.

**Note:** The plant is said to be toxic to grazing animals and the milky exudate to be an irritant to skin and eyes.

## 22. CANELLACEAE (Wild Cinnamon Family)

1. CANELLA P. Browne, nom. cons.

1. Canella winterana (L.) Gaertn., Fruct. Sem. Pl. 1: 373.1788.

**Distribution**: Common along moist, coastal forests. Cruz Bay Quarter along Center Line Road (A2936); Maho Bay Quarter along North Shore Road (A2841). Also on Anegada, St. Croix and St. Thomas; southern Florida, the West Indies and northern South America.

**Common names:** caneel, pepper cinnamon, white bark, wild cinnamon.

# Caper Family)

Key to the genera

- 1. Herbs or subshrubs; leaves palmately compound (with three to seven leaflets), membranous to chartaceous; fruits opening by valves, leaving a border where the seeds are attached (replum)
- 1. Shrubs or small trees, leaves simple, leathery; fruits opening or not, not leaving a replum.
  - 2. Fruit globose . Morisonia
  - 2. Fruit nearly cylindrical, elongate. Capparis

#### 1. CAPPARIS L.

Key to the species

- 1. Underside of leaves silvery to golden (covered with star-shaped scales).
  - 2. Leaves leathery, margins strongly revolute; flower buds 4-angular, with sepals enclosing the petals; petals with disk-shaped scales on lower surface **C. cynophallophora**
  - 2. Leaves chartaceous, margins slightly or not revolute; flower buds ellipsoid, with short sepals not enclosing the petals; petals densely covered with white, stellate hairs on both surfaces **C. indica**
- 1. Underside of leaves green, without hairs or scales.
  - 3. Petioles to 5.5 cm long, swollen at both ends; leaves obovate to elliptic, tapering to an auriculate base . **C. baducca**
  - 3. Petioles less than 1 cm long, not swollen; leaves not as above.
    - 4. Leaves chartaceous, usually elliptic, with acute or acuminate apex; fruit woody, ellipsoid, to 6 cm long; stipe as long as or longer than the fruit **C. amplissima**
    - 4. Leaves thick-leathery, with rounded, obtuse or acute apex; fruit fleshy, oblong, more than 8 cm long; stipe shorter than the fruit.
      - 5. Leaves broadly oblong, oval or obovate, with obtuse or subcordate base, with 5-7 pairs of secondary veins, lower surface with minute cavities (visible with a hand lens); fruit 1-1.3 cm wide **C. hastata**
      - 5. Leaves variable, linear, oblong, lanceolate or obovate, with rounded or obtuse base, with 7-11 pairs of secondary veins, lower surface smooth; fruits 6-8 mm wide . **C. flexuosa**

#### 1. Capparis amplissima Lam., Encycl. 1: 607. 1785.

**Distribution**: In dry and moist forests from sea level to 300 m elevation. Coral Bay (A1848); Bordeaux Mountain (A1899). Also on St. Thomas and Tortola; Hispaniola, Puerto Rico, and Dominica.

#### **2.** Capparis baducca L., Sp. Pl. 504. 1753.

**Distribution:** Common in the understory of moist to dry forests. Along road to Bordeaux (A4259); Susannaberg (A4663). Also on Jost van Dyke, St. Croix, St. Thomas and Tortola; southern Mexico to northern South America, including the West Indies

Common name: rat bean.

#### **3.** Capparis cynophallophora L., Sp. Pl. 504. 1753.

**Distribution**: A common tree found in moist or dry coastal forests. East End (A1798, A1821). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout the West Indies, Florida to Central America.

**Common names:** Jamaican caper, linguam tree, black willie, black witty.

#### **4.** Capparis flexuosa (L.) L., Sp. Pl. ed. 2, 1: 722. 1762.

**Distribution**: Common in dry and coastal forests. Lind Pt. (A2312). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout the West Indies, and Florida to South America.

**Common names:** bottle wiss, dog caper, limber caper.

#### **5.** Capparis hastata Jacq., Enum. Syst. Pl. 23. 1760.

**Distribution:** Common in dry seasonal and coastal forests, from sea level to 500 m elevation. Along trail to Brown Bay (A1879); Princess Bay (A4685). Also on Jost van Dyke, St. Croix and St. Thomas; Hispaniola, Puerto Rico, Lesser Antilles, to northern South America.

Common name: caper tree.

**6. Capparis indica** (L.) Druce, Bot. Exch. Club Soc. Brit. Isles 3: 415. 1914 [Feb].

**Distribution:** In dry forests or thickets, from sea level to 330 m elev. Along road to Bordeaux (W117); Cruz Bay Quarter along Center Line Road (5036); Lameshur (A5444). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; southern Mexico to northern South America, including the West Indies.

Common name: linguam.

#### 2. CLEOME L.

#### Key to the species

- 1. Petals yellow, stamens not projecting beyond the petals; plants viscous . C. viscosa
- 1. Petals white, stamens projecting beyond the petals; plants not viscous.
  - 2. Stipules spiny; floral bracts simple; fruit stipe without articulation . C. spinosa
  - 2. Stipules wanting; floral bracts trifoliolate; fruit stipe with articulation at its middle C. gynandra
- 1. Cleome gynandra L., Sp. Pl. 671. 1753.

**Distribution:** In open, disturbed areas. Emmaus (W326). Also on St. Croix, St. Thomas and Tortola; introduced from Africa into the Caribbean at an early date, now from southeastern United States to Brazil.

Common names: massambee, small spider flower.

2. Cleome spinosa Jacq., Enum. Syst. Pl. 26. 1760.

**Distribution**: In open disturbed areas and along roadsides. Emmaus (A1993, A3777). Also on St. Croix and St. Thomas; widely distributed in the New World.

**Common names:** spider flower, wild massambee.

**Note:** This is not the cultivated *C. spinosa* of authors (*C. hassleriana* Chod.) with pink petals and glabrous ovaries.

**3.** Cleome viscosa L., Sp. Pl. 672. 1753.

**Distribution**: Common in open, disturbed areas. Cruz Bay (A1954, A2353); Emmaus (A1997). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; a temperate and tropical weed native to the Old World tropics.

#### 3. MORISONIA L.

1. Morisonia americana L., Sp. Pl. 503. 1753.

**Distribution:** A common species in moist to dry forests. Along road to Bordeaux (A4678); Lameshur (B514, V3100). Also on Jost van Dyke, St. Croix, St. Thomas and Tortola; and from western Mexico to northern South America, including the West Indies.

Common name: rat apple.

#### 24. CARICACEAE

(Papaya Family)

#### 1. CARICA L.

**1.** Carica papaya L., Sp. Pl. 1036. 1753.

**Distribution**: Mainly cultivated, but also spontaneous in moist, disturbed areas. Gift Hill (A820); Great Cruz Bay (A2365). Native to tropical America, now widely cultivated throughout the tropics.

Common name: papaya.

#### 25. CASUARINACEAE

(Australian Pine Family)

#### 1. CASUARINA L.

1. Casuarina equisetifolia L., Amoen. Acad. 4: 143. 1759.

**Distribution:** An uncommon ornamental tree. Turner Bay (A4661). Native to Australia, now widely planted throughout the tropics.

**Common name:** Australian pine, weeping willow.

#### 26. CECROPIACEAE

1. CECROPIA Loefl., nom. cons.

1. Cecropia schreberiana Miq. in Mart., Fl. Bras. 4: 150. 1853.

**Distribution**: A fast growing tree of moist secondary forests and disturbed areas such as roadsides and landslides. Cruz Bay Quarter, along Center Line Road (A2845). Also on St. Croix, St. Thomas and Tortola; throughout the West Indies.

Common names: trumpet tree, trumpet wood.

#### 27. CELASTRACEAE

(Bittersweet Family)

Key to the genera

- 1. Leaves opposite to subopposite; flowers in axillary, dichasial cymes.
  - 2. Flower 5-merous; fruits > 2 cm long, leathery. Cassine
  - 2. Flowers 4-merous; fruits < 5 mm long, fleshy . **Crossopetalum**
- 1. Leaves alternate; flowers fasciculate in leaf axils.
  - 3. Leaf margins strongly revolute, and white; flower 5- merous; fruits ellipsoid to nearly globose, green, 1-1.2 cm long, capsular; seed with white aril . **Maytenus**

3. Leaf margins slightly revolute but not white; flowers 4-merous; fruits ellipsoid to nearly globose, with a median longitudinal groove, yellow to orange, 4-5 mm long, drupaceous; seed not arillate **Schaefferia** 

#### 1. CASSINE L.

1. Cassine xylocarpa Vent., Choix Pl. 23, t. 23. 1803.

**Distribution:** Common in dry forests along the coast. Cinnamon Bay (M17083); Salt Pond (A2951); Southside Pond (A1824). Also on Anegada, Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; in eastern Mexico, Panama, Venezuela and the West Indies.

Common names: nut muscat, nothing nut, spoon tree, ton ton.

#### 2. CROSSOPETALUM P. Browne

1. Crossopetalum rhacoma Crantz, Inst. Rei Herb. 2: 321.1766.

**Distribution:** Common in dry forests. Fish Bay (A2372); Salt Pond (M17063). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda; Mexico to northern South America, including the West Indies.

#### 3. MAYTENUS Molina

**1. Maytenus laevigata** (Vahl) Griseb. *ex* Eggers, Vidensk. Meddel.Dansk Naturhist. Foren. Kjøbenhavn 8: 109. 1876.

**Distribution:** Common in moist forests and in dry evergreen woodlands. Lameshur (A2716); along trail to Sieben (A2069). Also on Jost van Dyke, St. Croix and St. Thomas; and throughout the Greater and Lesser Antilles.

#### 4. SCHAEFFERIA Jacq.

1. Schaefferia frutescens Jacq., Enum. Syst. Pl. 33. 1760.

**Distribution:** Common in dry forests and dry evergreen woodlands. Monte (A2375); Southside Pond (A1859). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; Greater and Lesser Antilles, southern Mexico to South America.

**Common name:** boxwood.

#### 28. CHENOPODIACEAE

(Goosefoot Family)

Key to the genera

1. Leaves 1-3 cm long, farinaceous, densely covered with whitish hairs on lower surface; inflorescence a short cluster of flowers . **Atriplex** 

1. Leaves 2-9 cm long, glabrous or nearly so; inflorescence elongate, with distinct clusters of flowers spaced along the rachis **Chenopodium** 

#### 1. ATRIPLEX L.

1. Atriplex cristata Humb. & Bonpl. ex Willd., Sp. Pl. 4: 959. 1806.

**Distribution:** Rare, occasionally found along sandy beaches. Newfound Bay (W285F). Also on St. Croix, St. Thomas and Tortola; Florida, Bahamas, Greater Antilles, Curação and northern South America.

#### 2. CHENOPODIUM L.

1. Chenopodium ambrosioides L., Sp. Pl. 219. 1753.

**Distribution:** In open waste ground. Cinnamon Bay (W634). Also on St. Croix, St. Thomas and Tortola; a weedy species native to Central America, now cultivated and naturalized worldwide in warm regions.

Common names: wormseed, wormwood.

### 29. CHRYSOBALANACEAE (Coco Plum Family)

#### 1. CHRYSOBALANUS L.

1. Chrysobalanus icaco L., Sp. Pl. 513. 1753.

**Distribution:** Uncommon in moist forests. Bordeaux (B564); Rosenberg (B286). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Florida to coastal southern Brazil, including the West Indies, the Pacific coast of Central America and the western coast of Africa.

Common names: cacos, coco plum, icaco, fat pork, Spanish nectarine.

# 30. CLUSIACEAE (Mammee Apple Family)

#### Key to the genera

- 1. Free standing or strangling tree, usually with numerous stilt roots; flowers 8-10 cm diam.; fruit a green capsule, 3.5-5 cm diam.; seeds numerous, 5 mm long, with reddish aril **Clusia**
- 1. Free standing tree, without stilt roots; flowers 2.5-3 cm diam.; fruit indehiscent, tan, 7-15 cm diam.; seeds 2-4, 5-8 cm long, without aril . **Mammea**

#### 1. CLUSIA L.

1. Clusia rosea Jacq., Enum. Syst. Pl. 34. 1760.

**Distribution:** Common in moist forests, but also present in dry coastal vegetation. Bordeaux (A1919); White Cliffs (A756). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; the Bahamas, Greater Antilles, Anguilla and St. Martin.

**Common names:** pitch apple, autograph tree, chigger, false mammee.

#### 2. MAMMEA L.

1. Mammea americana L., Sp. Pl. 512. 1753.

**Distribution:** Uncommon in moist forests. Coral Bay Quarter along Center Line Road (A2842). Also on St. Croix, St. Thomas and Tortola; throughout the West Indies, Mexico, Central America and Trinidad.

Common name: mammee apple.

#### 31. COMBRETACEAE

Key to the genera

- 1. Liana or climbing shrub; hypanthium bright red, long-tubular Quisqualis
- 1. Trees; hypanthium greenish to whitish, cup-shaped.
  - 2. Fruit multiple, pine-cone-like Conocarpus
  - 2. Fruit solitary, smooth or ridged, not pine-cone-like.
    - 3. Trees growing in permanent or seasonally flooded areas. . Laguncularia
    - 3. Trees growing on non-flooded land.
      - 4. Fruit 4.5-6 cm long, hard; leaves obovate, 12 to 30 cm long. Terminalia
      - 4. Fruit < 2.5 cm long, fleshy; leaves spatulate, < 7 cm long.
        - 5. Leaf blade without glands; fruits ellipsoid, 2-2.5 cm long, smooth; inner bark yellowish **Buchenavia**
        - 5. Leaf blade with a pair of impressed glands at base; fruits conical, 4-6 mm long, 5-angled; inner bark light brown **Bucida**

#### 1. BUCHENAVIA L., nom. cons.

1. Buchenavia tetraphylla (Aubl.) R. A. Howard, J. Arnold Arbor. 64: 266.1983.

**Distribution:** Common in moist forests. Bordeaux (A4702). Also on Tortola; the West Indies and Panama to South America.

#### 2. BUCIDA L.

**1. Bucida buceras** L., Syst. Nat. ed. 10, 2: 1025. 1759.

**Distribution:** Common in moist and coastal forests. Adrian Ruins (A722); Lameshur (A4047). Also on Jost van Dyke, St. Croix, St. Thomas and Tortola; throughout the West Indies, Florida and Central America.

Common names: gree gree tree, gregery, gri gri.

#### 3. CONOCARPUS L.

**1. Conocarpus erectus** L., Sp. Pl. 176. 1753.

**Distribution:** Common along the coast, sometimes in swampy areas but also in dry soils or even on rocky shores. Fortsberg (A4082). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout tropical America and the western coast of Africa.

Common names: button wood, button mangrove.

#### 4. LAGUNCULARIA C.F. Gaertn.

1. Laguncularia racemosa (L.) C.F. Gaertn., Suppl. Carp. 209, t. 217, f. 3. 1807.

**Distribution**: Common along the coast in mangrove swamps and along sandy beaches. Great Cruz Bay (A791); Fish Bay (A3902). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout tropical America and western Africa.

Common name: white mangrove.

#### **5. QUISQUALIS** L.

**1. Quisqualis indica** L., Sp. Pl. ed. 2, 1: 556. 1762.

**Distribution:** Uncommon ornamental plant, in gardens, persistent after cultivation. Mary Pt. (W535). Commonly persisting after cultivation throughout the tropics.

Common names: heart o'man, Rangoon creeper.

#### 6. TERMINALIA L.

**1. Terminalia catappa** L., Syst. Nat. ed. 12, 2: 674. 1767.

**Distribution:** Commonly planted along roads. Cruz Bay Quarter in front of Park Service Headquarters (A2917). Also on St. Croix, St. Thomas and Tortola; native to Malaysia, now naturalized mainly in coastal areas throughout the Neotropics.

Common names: almond tree, West Indian almond.

#### 32. CONVOLVULACEAE

(Morning Glory Family)

Key to the genera

- 1. Styles 2; prostrate to erect herbs or subshrubs . Evolvulus
- 1. Style 1; twining vines (except for *Ipomoea carnea* which is an erect shrub).
  - 2. Stigma globose or nearly so; fruits indehiscent or 4- valvate.
    - 3. Fruits indehiscent, seeds freed by dissolution of fruit wall **Stictocardia**
    - 3. Fruit a dehiscent capsule, opening along 4 valves.

- 4. Anthers twisted after dehiscence; leaves usually palmately compound (except *M. umbellata*); sepals elongate in fruit **Merremia**
- 4. Anthers not twisted; leaves entire or lobed; sepals not elongate in fruit . **Ipomoea**
- 2. Stigma filiform, oblong or ellipsoid; fruits 4-valvate but each valve splitting in two.
  - 5. Stigma filiform; corolla white . Convolvulus
  - 5. Stigma oblong; corolla blue, white or red Jacquemontia

#### 1. CONVOLVULUS L.

**1. Convolvulus nodiflorus** Desr. *in* Lam., Encycl. 3: 557. 1792.

**Distribution:** Common in dry open areas. Coral Bay (A4000); Fish Bay (A2378); Salt Pond (A3165). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout the West Indies, Central and South America.

Common name: clashi mulat.

#### 2. EVOLVULUS L.

#### Key to the species

- 1. Plants creeping, rooting at nodes; leaf apex usually notched; flowers sessile or nearly so . E. nummularius
- 1. Plants erect to decumbent; leaf apex obtuse, rounded or seldom notched and mucronate; flowers or inflorescences on elongate peduncle.
  - 2. Leaf oblong to obovate or nearly rounded, mucronate at apex; corolla 8-10 mm diam.; flowers solitary **E. convolvuloides**
  - 2. Leaves lanceolate or linear, acute at apex; corolla 3-5 mm diam.; flowers solitary or several in cymes . **E. filipes**
- **1. Evolvulus convolvuloides** (Willd. ex Schult.) Stearn, Taxon 21: 649. 1972.

**Distribution:** Uncommon herb found in moist disturbed areas. East End Quarter along Center Line Road (A2780); Southside Pond (W604A). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout tropical America.

**2. Evolvulus filipes** Mart., Flora 24(Beibl. 2): 100. 1841.

**Distribution:** An uncommon herb found in disturbed areas. Enighed (A4269). Also on St. Croix, St. Thomas and Virgin Gorda; Mexico to South America, Jamaica, and the Lesser Antilles.

**3. Evolvulus nummularius** (L.) L., Sp. Pl. ed. 2, 1: 391. 1762.

**Distribution:** Found along disturbed areas. Lameshur (A3151, A4045). Also on St. Croix and St. Thomas; throughout tropical America, Africa, Madagascar and India.

#### 3. IPOMOEA L.

Key to the species

- 1. Plant an erect shrub
  - . I. carnea subsp. fistulosa
- 1. Plants creeping or twining vines.
  - 2. Plants creeping, rooting at nodes, seldom climbing; leaves deeply notched at apex; found along sandy beaches . **I. pes-caprae**
  - 2. Plants twining vines, usually not rooting at nodes; leaves otherwise; inland, rarely along the coast.
    - 3. Corolla yellow, with burgundy center . I. ochracea
    - 3. Corolla variously colored, but not yellow.
      - 4. Corolla trumpet-shaped (usually with exserted stamens and stigmas).
        - 5. Corolla scarlet to orange-red or bright pink, diurnal.
          - 6. Corolla bright pink, thick, with 5 reflexed, acute lobes; stamens pink; sepals pink, rounded; leaves usually ovate to lanceolate, with a nearly truncate base **I. repanda**
          - 6. Corolla scarlet to red-orange, thin, the lobes shallow and rounded, not reflexed; stamens white or pink; sepals green, lanceolate; leaves ovate, 3-5-lobed, cordate at base **I. hederifolia**
        - 5. Corolla white, nocturnal I. violacea
      - 4. Corolla funnel- or bell-shaped; stamens and stigmas included.
        - 7. Leaves kidney-shaped to lyrate, less than 1.5 cm long, congested on short axillary branches; petioles often longer than the blades **I. eggersii**
        - 7. Leaves variously shaped, but not kidney-shaped or lyrate, longer than 2.5 cm long, seldom congested on lateral branches; petioles shorter than the blades.
          - 8. Corolla less than 1.5 cm long I. triloba
          - 8. Corolla 4 cm or longer.
            - 9. Corolla 5-7 cm long, 5.5-6.6 cm wide.
              - 10. Sepals 12-18 mm long, without hyaline margins, the apex acuminate; corolla tube darker within.
    - 11. Sepals with 3 prominent main, parallel veins, projecting like keels; corolla pink . **I.** setifera
    - 11. Sepals without veins projecting as keels; corolla reddish violet
      - I. indica var. acuminata
  - 10. Sepals 6-8 mm long, without conspicuous veins, the margins hyaline; corolla blue, turning violet with age **I. tricolor**
  - 9. Corolla 4-4.5 cm long, 3.5-5 cm wide.
    - 12. Sepals lanceolate, 2-3 cm long, hirsute at base; corolla pale blue, lilac or fuchsia, the tube whitish within . **I. nil**
    - 12. Sepals ovate, 8-12 mm long, glabrous; corolla pink, the tube darker within . I. tiliacea
- **1. Ipomoea carnea** Jacq. subsp. **fistulosa** (Mart. *ex* Choisy) D.F. Austin, Taxon 26: 237. 1977.

**Distribution:** Uncommon, mostly found under cultivation as an ornamental, with a few naturalized populations. Maria Bluff (A1988). Cultivated throughout the tropics.

2. Ipomoea eggersii (House) D.F. Austin, Ann. Missouri Bot. Gard. 64: 335. 1979.

**Distribution:** Common in dry coastal scrub and along beach areas. Lind Point (A3095); Salt Pond (A762); White Cliffs (A2711). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; the Lesser Antilles.

#### **3. Ipomoea hederifolia** L., Syst. Nat. ed. 10, 2: 925. 1759.

**Distribution:** Uncommon in disturbed open areas. Cruz Bay (A2347, A3082); Enighed (A3101). Also on St. Croix and St. Thomas; throughout the West Indies, Central and South America, introduced into the Old World tropics.

**Common name:** sweet william.

#### 4. Ipomoea indica (Burman) Merr. var. acuminata (Vahl)

Fosberg, Bot. Not. 129: 38. 1976.

**Distribution:** Not common, found in open, disturbed areas near the coast. Along trail to Brown Bay (A4127); Johnson Bay (A4666); Maho Bay Camp (A4051). Also on St. Croix, St. Thomas and Tortola; throughout tropical America.

#### **5. Ipomoea nil** (L.) Roth, Catal. Bot. 1: 36. 1797.

**Distribution:** Uncommon in open disturbed areas. Enighed (A3100); Lind Point (A2315); Lameshur Bay (A3161). Also on St. Croix, St. Thomas and Tortola; native to Mexico, now widespread throughout the tropics.

**Common name:** morning glory.

#### **6. Ipomoea ochracea** (Lindl.) G. Don, Gen. Hist.4: 270.1838.

**Distribution:** Apparently a recent introduction, found only in Cruz Bay Quarter along North Shore Road close to vic. of Caneel Bay (A2607, A3096, A4099). Also on St. Croix; possibly native to tropical Africa, now cultivated throughout the tropics.

#### 7. Ipomoea pes-caprae (L.) R. Br. in Tuckey, Narr. Exped. Zaire 477. 1818.

**Distribution:** Common along sandy beaches. Salt Pond Bay (A2052). Also on Anegada, St. Croix, St. Thomas and Tortola; throughout the tropics.

**Common names:** bay vine, beach morning glory, goat foot morning glory.

#### 8. Ipomoea repanda Jacq., Enum. Syst. Pl. 13. 1760.

**Distribution:** One of the most common *Ipomoea* species on the island, mostly found in moist areas. Center Line Road by km 3.4 (A2400); along road to Bordeaux (A3123). Also on St. Thomas and Tortola; Puerto Rico and in the Lesser Antilles.

Common name: Mari de Lugo.

#### 9. Ipomoea setifera Poir. in Lam., Encycl. 6: 17. 1804.

**Distribution:** Uncommon in moist open areas. Center Line Road by km 1 (A3094). Also in tropical America and tropical Africa.

#### **10. Ipomoea tiliacea** (Willd.) Choisy *in* A.DC., Prodr. 9: 375. 1845.

**Distribution:** Common in moist open areas. Cruz Bay Quarter along Road 104 by km 3.4 (A2650); Fish Bay (A2468). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout tropical America, introduced into the Old World tropics.

Common name: willy vine.

#### **11. Ipomoea tricolor** Cav., Icon. 3: 5, t. 208. 1795.

*Ipomoea violacea* sensu authors, not L., 1753.

**Distribution:** Introduced, probably as an ornamental, found in a few open disturbed areas. Bethany (B210); Susannaberg (A3119). Also on St. Croix and St. Thomas; native to Central America, now widely cultivated and naturalized throughout the tropics.

#### **12. Ipomoea triloba** L., Sp. Pl. 161. 1753.

**Distribution:** A common weed of open disturbed areas. Enighed (A3099); Lind Point (A2314); trail to Sieben (A2056). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; native to tropical America, now widespread as a weed throughout the tropics.

#### 13. Ipomoea violacea L., Sp. Pl. 161. 1753.

**Distribution:** Common in coastal areas. Emmaus (A4007); Nanny Point (A2451). Also on St. Croix, St. Thomas and Tortola; throughout the tropics.

#### 4. JACQUEMONTIA Choisy

Key to the species

- 1. Corolla tubular, 2-2.5 cm long, scarlet . J. solanifolia
- 1. Corolla rotate or funnel-shaped, < 1.5 cm long, blue or white.
  - 2. Corolla funnel-shaped, white . J. havanensis
  - 2. Corolla rotate, blue or violet-blue, with whitish star-shaped center.
    - 3. Plant ferruginous, tomentose J. cumanensis
    - 3. Plant finely pubescent . J. pentanthos
- **1. Jacquemontia cumanensis** (Kunth) Kuntze, Revis. Gen. Pl.2: 441. 1891. **Distribution:** Occasional along coastal areas. Dittlif Point (A3964, A3971); east side of Minna Hill (A4237). Also on St. Croix, St. Thomas and Tortola; Puerto Rico, the Netherlands Antilles and Venezuela.
- **2. Jacquemontia havanensis** (Jacq.) Urb., Symb. Antill. 3: 342. 1902.

**Distribution:** Uncommon along coastal areas. Chocolate Hole (A2348); Harbor Point (A4077). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout the West Indies, Florida and eastern Mexico to Belize.

**3. Jacquemontia pentanthos** (Jacq.) G. Don, Gen. Hist. 4: 283. 1838.

**Distribution:** Very common throughout the island. Bordeaux (B592); East End Pt. (A687); trail to Margaret Hill (A2306). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout the Neotropics, introduced in Malaysia and Ceylon.

Common names: clashie malashie, wild daisy.

**4. Jacquemontia solanifolia** (L.) H. Hallier, Bot. Jahrb. Syst. 16: 542. 1893.

**Distribution:** Uncommon, found in a few locations in coastal forests. Eastern side of Reef Bay (A2663, A3989). Also on St. Croix and St. Thomas; Puerto Rico and the Lesser Antilles.

#### **5. MERREMIA** Endl.

Key to the species

- 1. Leaves simple; inflorescence umbel-like . M. umbellata
- 1. Leaves 5-7-palmately compound or palmately-lobed; flowers solitary or a few in lax dichasial cymes.
  - 2. Plant glabrous; leaves 7-palmately-lobed; corolla bright yellow . M. tuberosa
  - 2. Plant hispid; leaves 5-palmately compound; corolla white (with reddish or pinkish center) or light yellow.
    - 3. Margins of leaflets entire; inflorescence axes and sepals hispid M. aegyptia
    - 3. Margins of leaflets serrate or lobed; inflorescence axes and sepals glabrous.
      - 4. Margins of leaflets lobed; corolla 2.5-3.5 cm long, white with reddish center; sepals accrescent in fruit (2.5 cm or longer). **M. dissecta**
      - 4. Margins of leaflets serrate; corolla to 2 cm long, light yellow or whitish with pinkish center; sepals not accrescent (1 cm long)

#### .M. quinquefolia

1. Merremia aegyptia (L.) Urb., Symb. Antill. 4: 505. 1910.

**Distribution:** Occasional in open disturbed areas. Cruz Bay (A3080). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout the tropics.

2. Merremia dissecta (Jacq.) H. Hallier, Bot. Jahrb. Syst. 16: 552. 1893.

**Distribution:** Occasional in open, disturbed areas. Coral Bay (A1987). Also on St. Croix, St. Thomas and Tortola; throughout the tropics.

Common name: noyan vine.

3. Merremia quinquefolia (L.) H. Hallier, Bot. Jahrb. Syst. 16: 552. 1893.

**Distribution:** A common weed, found in open areas. Cruz Bay (A3081); Fish Bay (A3895); Lind Point (A2296). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout tropical America.

**4. Merremia tuberosa** (L.) Rendle in Dyer, Fl. Trop. Afr. 4: 104. 1905.

**Distribution:** Uncommon, cultivated or found as an escape. Lower Cruz Bay Gut (W787). Apparently native to tropical America, now widespread in cultivation and escaped throughout the tropics.

Common name: wood rose.

**5.** Merremia umbellata (L.) H. Hallier, Bot. Jahrb. Syst. 16: 552. 1893.

**Distribution:** Common in open, disturbed areas. Fish Bay (A2467, A2472); Peter Peak (A4103). Also on St. Croix, St. Thomas and Tortola; throughout the tropics.

#### 6. STICTOCARDIA H. Hallier

**1. Stictocardia tiliifolia** (Desr.) H. Hallier, Bot. Jahrb. Syst. 18: 159. 1893.

**Distribution:** Uncommon, found in open disturbed areas. Adrian Ruins (A2898, A3120, A4008). Also on St. Croix, St. Thomas and Tortola; native to the Asian tropics, now widespread through cultivation.

#### 33. CRASSULACEAE

(Life Plant Family)

#### 1. BRYOPHYLLUM Salisb.

1. Bryophyllum pinnatum (Lam.) Oken, Allg. Naturgesch. 3: 1966. 1841.

**Distribution:** A common weed found in open, disturbed areas. Susannaberg (A2384, A3959). Also on St. Croix, St. Thomas and Tortola; native to Madagascar, now cultivated and naturalized throughout the Neotropics.

Common names: clapper bush, green love, leaf of life, life plant, wonderful leaf.

| 34. CUCURBITACEAE |  |
|-------------------|--|
| (Cucumber Family) |  |

Key to the genera

- 1. Fruit ellipsoid-angular to fusiform-angular, orange-yellow, with thorn-like projections (muricate) along 6 ridges, opening along 3 valves, exposing numerous seeds covered with red arils **Momordica**
- 1. Fruit ellipsoid, obovoid to cylindrical, not angular, variously colored but not orange-yellow, smooth or with spine-like projections, indehiscent; seeds not covered with a red aril.
  - 2. Fruit with numerous spine-like projections (spinulose); vine mostly creeping Cucumis
  - 2. Fruit smooth; vine climbing.
    - 3. Fruit 20-45 cm long with fibrous mesocarp; corolla bright yellow, 2-4.5 cm long Luffa
    - 3. Fruit 1-2 cm long with fleshy mesocarp; corolla white or light yellow, to 1.5 cm wide.
      - 4. Fruit congested in leaf axils . Doyerea
      - 4. Fruit solitary or in racemes.
        - 5. Plant slender, to 2 m long; leaves membranous; corolla light yellow, 5 mm across . **Melothria**
        - 5. Plant robust, to 10 m long; leaves chartaceous; corolla whitish or yellowish green, 1.5 cm across **Cayaponia**

#### 1. CAYAPONIA Silva Manso, nom. cons.

**1. Cayaponia americana** (Lam.) Cogn. *in* A.DC. & C.DC., Monogr. Phan. 3: 785, 1881.

**Distribution:** Common in open moist areas. Bethany (B205); Susannaberg (A702); trail to Sieben (A2065). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout the West Indies.

#### 2. CUCUMIS L.

1. Cucumis anguria L., Sp. Pl. 1011. 1753.

**Distribution:** Not common, found in a few disturbed sites. Pen Point (A4023). Also Anegada, St. Croix, St. Thomas and Tortola; native to Africa, now spontaneous throughout the West Indies, Central America and South America.

Common name: wild cucumber.

#### 3. DOYEREA Grosourdy

**1. Doyerea emetocathartica** Grosourdy, Med. Bot. Criollo 2: 338. 1864.

**Distribution:** Common in coastal scrubs. Haulover Pt. (A4226); Lameshur (A4044); Maho Bay (A1944). Also on St. Croix and St. Thomas; Mexico to northern South America including the West Indies.

#### 4. LUFFA Miller

1. Luffa aegyptiaca Miller, Gard. Dict. ed. 8. 1768.

**Distribution:** Spontaneous after cultivation. Turner Bay (A4066). Also on St. Croix and St. Thomas; native to the Old World, but cultivated and now spontaneous throughout the tropics.

**Common names:** sponge cucumber, strainer vine.

#### **5. MELOTHRIA** L.

**1. Melothria pendula** L., Sp. Pl. 35. 1753.

**Distribution:** Occasional in open, moist areas. Maho Bay Quarter along Center Line Road (A2413). Also St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout tropical America.

#### 6. MOMORDICA L.

**1. Momordica charantia** L., Sp. Pl. 1009. 1753.

Fig. 90 A-F.

**Distribution:** Common in open, moist areas. Lameshur (A2734); Johnson Bay (A4671). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; originally native to the Old World tropics, now pantropical in distribution.

Common names: jumbie pumkin, maiden apple, old maid.

**Note:** The ground seeds are said to be poisonous.

**Cultivated species:** The common squash or pumpkin (*Cucurbita moschata* (Lam.) Poir.) has been collected from spontaneous individuals (A3118); however, it does not seem to be persistent.

### (Love Plant Family)

#### 1. CUSCUTA L.

#### Key to the species

- 1. Plant robust; stems 1.5-2.5 mm diam., forming a tangle a few meters long; sepals rounded; capsules mostly one-seeded . **C. americana**
- 1. Plant slender; stems to 0.5 mm diam., less than 30 cm long; sepals lanceolate; capsules four-seeded **C. umbellata**
- 1. Cuscuta americana L., Sp. Pl. 124. 1753.

**Distribution:** Common in open, dry areas. Fish Bay (A2466); Lameshur (A2569); Nanny Pt. (A2453). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; a common weed throughout the New World.

Common names: love, love bush, love vine, yellow dodder, yellow love.

**2. Cuscuta umbellata** Kunth *in* Humb., Bonpl. & Kunth, Nov.Gen. Sp. 3: 121. 1819.

**Distribution:** Rare, found only in a few localities. Annaberg (W784). Also throughout tropical America.

#### 36. ERYTHROXYLACEAE

(Coca Family)

#### 1. ERYTHROXYLUM P. Browne

1. Erythroxylum brevipes DC., Prodr. 1: 573. 1824.

**Distribution:** A common shrub from moist forests to coastal scrub. Cinnamon Bay (M17010); Europa Bay (A742); Lind Point (A2696). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; Hispaniola, Puerto Rico and St. Barts.

Common names: brazilette, brizzlet, wild cherry.

#### 37. EUPHORBIACEAE

(Poinsettia Family) Reviewed by Lynn J. Gillespie

Key to the genera

- 1. Flowers in pseudanthia.
  - 2. Plants twining climbers, not producing milky latex; pseudanthial bracts foliaceous . **Dalechampia**
  - 2. Plants erect or prostrate, not twining or climbing, producing abundant milky latex; pseudanthia cup-shaped (cyathia) or elongate.
    - 3. Cyathia elongate, with a basal spur, reddish, showy, without apical glands **Pedilanthus**
    - 3. Cyathia cup-shaped and not spurred, mostly green, usually with 4 or 5 apical glands bearing a petal-like appendage.
      - 4. Plants prostrate to erect; leaves opposite, oblique at base, usually with serrate margins; pistillate flowers lacking calyx

#### Chamaesyce

- 4. Plants erect; leaves alternate, symmetrical at base, usually with entire margins; pistillate flowers with minute or rudimentary calyx . **Euphorbia**
- 1. Flowers in spikes, cymes, cymules, racemes, panicles or fascicles.
  - 5. Ovary with two ovules per locule.
    - 6. Nectary disk intrastaminal; ovary of one carpel; fruit an ellipsoid drupe. **Drypetes**
    - 6. Nectary disk extrastaminal or wanting; ovary of 3-many carpels; fruit a capsule, or a many-lobed drupe, flattened at poles.
      - 7. Corolla present Savia
      - 7. Corolla absent.
        - 8. Lateral branch tips sharp, spine-like; staminate flower subsessile (pedicel to 1 mm long) . **Flueggea**
        - 8. Plants without spines; staminate flowers distinctly pedicellate.
          - 9. Plants dioecious; seeds with fleshy bluish seed coat Margaritaria
          - 9. Plants monoecious; seeds without a fleshy or bluish coat . Phyllanthus
  - 5. Ovary with one ovule per locule.

- 10. Plants dioecious . Adelia
- 10. Plant monoecious.
  - 11. Plant covered with stellate hairs or usually with lepidote scales Croton
  - 11. Plant glabrous or pubescent but not as above.
    - 12. Corolla present.
      - 13. Corolla red, pink or rarely white; nectary disk annular, cup-shaped or lobed; stamens 8-15, in two whorls; style simple or bifid; plant usually with glandular viscidulous hairs or glabrous . **Jatropha**
      - 13. Corolla white; nectary disk divided into 4-5 glands; stamens 4-5, in one whorl; style twice bifid; plant glabrous or covered with T-shaped hairs **Argythamnia**
- 12. Corolla wanting.
  - 14. Plants climbing or twining, covered with stinging hairs. Tragia
  - 14. Plants erect herbs, shrubs or trees, without stinging hairs.
    - 15. Bracts non-glandular.
      - 16. Herbs; leaf margins serrate; calyx present, stamens 4-8. Acalypha
      - 16. Shrubs or small trees; leaf margins toothed to crenate; calyx wanting or rudimentary, stamens 2 or 3 . **Gymnanthes**
    - 15. Bracts of staminate flowers bi-glandular.
      - 17. Plant with clear latex; petioles not glandular **Ricinus**
      - 17. Plant with copious milky latex; petioles with 1 or 2 apical glands.
        - 18. Staminate flowers of numerous stamens in 2 or 3 whorls . Hura
        - 18. Staminate flowers of 2 stamens in one whorl.
          - 19. Fruit a 3-locular capsule, 5-6 cm long; petioles with 2 apical glands **Sapium**
          - 19. Fruit a 6-10 locular drupe, 1-1.5 cm long; petioles with 1 apical gland . **Hippomane**

#### 1. ACALYPHA L.

1. Acalypha poiretii Spreng., Syst. Veg. 3: 879. 1826.

**Distribution**: A weed of open areas, introduced from the Old World tropics. Annaberg Ruins (A2925); Center Line Road by entrance to Bordeaux (A3846); Johnson Bay (A3156). Also on St. Thomas and St. Croix; Puerto Rico and the Lesser Antilles.

#### 2. ADELIA L., nom. cons.

**1. Adelia ricinella** L., Syst. Nat. ed. 10, 2: 1298. 1759.

**Distribution:** Occasional in coastal thickets. Caneel Bay (A5261); Coral Bay (Raunkiær s.n.). Also on Tortola and Virgin Gorda; Greater Antilles, Lesser Antilles and northern Venezuela.

#### 3. ARGYTHAMNIA P. Browne

Key to the species

1. Low erect or decumbent subshrub; pistillate flowers apetalous A. stahlii

- 1. Erect shrubs or subshrubs; pistillate and staminate flowers with petals.
  - 2. Leaves alternate, not congested; stamens 4 . A. candicans
  - 2. Leaves congested on short lateral shoots; stamens 10 A. fasciculata

#### **1. Argythamnia candicans** Sw., Prodr. 39. 1788.

**Distribution:** Common as an understory shrub in coastal woodlands. Bethany (B199); Europa Bay (A3195). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda; Bahamas, Greater Antilles, and rare in the Lesser Antilles.

**2.** Argythamnia fasciculata (Vahl ex A. Juss.) Müll. Arg., Linnaea 34: 146. 1865.

**Distribution:** A common shrub in coastal woodlands. Great Cruz Bay (A2374); Emmaus (A3117); southern slopes of Fish Bay (A3113). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Puerto Rico, Cuba and St. Martin.

**3.** Argythamnia stahlii Urb., Symb. Antill. 1: 336. 1899.

**Distribution:** An uncommon shrub of coastal open areas. East End Pond (A4070); eastern slopes of White Cliffs (A2033). Also on Anegada; Puerto Rico.

### **4. CHAMAESYCE** Gray Reviewed by Alan Herndon

- 1. Shrub to small tree; leaves linear to narrowly oblong . C. articulata
- 1. Herbs or low shrubs; leaves variously shaped but not linear.
  - 2. Capsules glabrous.
    - 3. Leaves with entire margins.
      - 4. Plants erect, to 50 cm tall; leaves nearly coriaceous, ascending, nearly overlapping, 5-13 mm long, with truncate to cordate base **C. mesembrianthemifolia**
      - 4. Plants usually prostrate (seldom erect), to 20 cm long; leaves membranous; spreading, not overlapping, 2-6 mm long, with rounded to subcordate base **C. serpens**
    - 3. Leaves with serrate margins.
      - 5. Stipules lanceolate, 1-2.5 mm long, usually spreading at maturity . C. hypericifolia
    - 5. Stipules wide triangular, 0.5 mm long, not reflexed **C. hyssopifolia**
  - 2. Capsules pubescent.
    - 6. Plant usually prostrate and spreading, glabrous or tomentose (pubescence of minute curly hairs).
      - 7. Capsule pubescent only on angles; leaves glabrous . C. prostrata
      - 7. Capsule with scattered hairs; leaves pubescent . C. thymifolia
    - 6. Plant usually erect or decumbent; pubescence of two type of hairs (whitish, minute, curly or appressed; or long, erect with reddish or orange crosswalls).
      - 8. Plant many branched from base; inflorescence on short axillary densely clustered glomerules; cyathia glands with rounded appendages . **C. hirta**
      - 8. Plant pseudodichotomously branched; inflorescence terminal on leafy branches; cyathia glands without appendages **C. opthalmica**
- **1. Chamaesyce articulata** (Aubl.) Britton, Mem. New York Bot. Gard. 6: 574. 1916.

**Distribution:** A common shrub of open sandy coasts and coastal thickets. Emmaus (A3116); Lameshur (A603). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda; Puerto Rico the Bahamas, and the Lesser Antilles.

- Chamaesyce hirta (L.) Millsp., Publ. Field Columbian Mus., Bot. Ser. 2: 303. 1909.
   Distribution: A common weed of open and disturbed areas. Lind Pt. (A1973); Maria Bluff (A3110). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; a pantropical weed.
   Common name: milk weed.
- **3.** Chamaesyce hypericifolia (L.) Millsp., Publ. Field Columbian Mus., Bot. Ser. 2: 302. 1913. **Distribution:** A common weed. Fish Bay Gut (A3872); Johnson Bay (A3159). Also on St. Croix, St. Thomas and Tortola; throughout tropical America.
- 4. Chamaesyce hyssopifolia (L.) Small, Bull. New York Bot. Gard. 3: 429. 1905.
   Distribution: A common weed. Along road to Bordeaux (A2590); Cruz Bay (A3090); Fish Bay (A2499). Also on St. Thomas and Tortola; throughout tropical America.
- 5. Chamaesyce mesembrianthemifolia (Jacq.) Dugand, Phytologia 13: 385. 1966.
  Distribution: Common along sandy coasts. Ram Head Pt. (A2916); Fortsberg (A4079);
  Brown Bay (A1871). Also on Anegada, St. Croix, St. Thomas and Virgin Gorda; the West Indies,
  Venezuela and Colombia.
- 6. Chamaesyce opthalmica (Pers.) Burch, Ann. Missouri Bot. Gard. 53: 98. 1966.
   Distribution: Common in disturbed, open areas. Johns Folly (A3941); Lind Pt. (A4238).
   Also throughout the West Indies and in Florida.
- 7. Chamaesyce prostrata (Aiton) Small, Fl. S.E. U.S. 713. 1903.

  Distribution: Uncommon in disturbed, open areas. Johns Folly (A3940, A3942). Also on Tortola, Virgin Gorda; throughout the West Indies, Florida, Mexico and South America.
- 8. Chamaesyce serpens (Kunth) Small, Fl. S.E. U.S. 709. 1903.

  Distribution: A common roadside weed. Cruz Bay (A3089); Enighed (A3102); Johnson Bay (A4029). Also on Anegada, St. Croix, St. Thomas and Tortola; Mexico, Florida and the West Indies.
- 9. Chamaesyce thymifolia (L.) Millsp., Publ. Field Columbian Mus., Bot. Ser. 2: 412. 1916.
   Distribution: A common roadside weed. Gift Hill (A2482). Also on St. Croix and St. Thomas; Florida, Mexico to South America including the West Indies.

#### 5. CROTON L.

- 1. Underside of mature leaves densely covered with yellowish or whitish stellate hairs.
  - 2. Leaf margins entire, obscurely serrate or crenate; plant with strong or weak foetid smell.
    - 3. Petioles with a pair of glands near the blade; leaf margins entire or crenulate; plant producing copious orange watery latex **C. flavens** var. **rigidus**

- 3. Petioles without glands; leaf margins finely serrate to crenate; plant producing clear latex . **C. astroites**
- 2. Leaf margins crenate; plant not foetid **C. betulinus**
- 1. Mature leaves sparsely stellate pubescent to glabrescent.
  - 4. Leaves deeply 3(-5)-lobed . C. lobatus
  - 4. Leaves simple, entire.
    - 5. Leaves elliptic; stellate hairs white; sepals fringed by glandular margins C. ovalifolius
    - 5. Leaves ovate to rounded; lateral arms of stellate hairs reddish brown; sepal with entire, non-glandular margins **C. fishlockii**

#### **1. Croton astroites** Aiton, Hort. Kew. 3: 375. 1789.

**Distribution:** A common shrub of coastal scrub and disturbed areas. Fish Bay (A2388); vic. of White Cliff (A2713); Lameshur (A2759). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Puerto Rico and Lesser Antilles.

**Common names:** white marang, marang.

#### **2. Croton betulinus** Vahl, Symb. Bot. 2: 98. 1791.

**Distribution:** A common shrub of coastal scrubs and disturbed areas. Margaret Hill (A2309); Southside Pond (A1838); Susannaberg (A836). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda; Puerto Rico, Cuba, Hispaniola and Lesser Antilles.

**Common names:** broom bush, pistarckle broom.

#### **3. Croton fishlockii** Britton, Torreya 20: 84. 1920

**Distribution:** A rare subshrub found in the southeastern scrub of St. John. Concordia (A4251); Minna Hill (A4236); Salt Pond (A757). Also on Anegada, Great Camanoe, Tortola and Virgin Gorda; introduced on Guana Island.

#### **4. Croton flavens** L. var. **rigidus** Müll. Arg. *in* A.DC., Prodr. 15(2): 613. 1866.

**Distribution:** A common shrub of dry coastal scrub and disturbed areas. Brown Bay (A1865); Dittlif Pt. (A3967); Salt Pond (A3772). This variety endemic to Puerto Rico and the Virgin Islands (St. Croix, St. Thomas, Tortola, Virgin Gorda).

Common names: marang, yellow marang.

#### 5. Croton lobatus L., Sp. Pl. 1005. 1753.

**Distribution:** A common herb of disturbed areas. Cruz Bay Quarter along Center Line Road (A645); Enighed (A3103); Fish Bay (A3874). Also on St. Croix, St. Thomas and Tortola; throughout the West Indies (except Jamaica), Mexico and Central America.

#### **6. Croton ovalifolius** Vahl *in* H. West, Bidr. Beskr. Ste. Croix 307. 1793.

**Distribution:** A common weed of open disturbed areas. Emmaus (A1998); Hurricane Hole (A2768); Lameshur (B640). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Greater Antilles, Lesser Antilles, and northern South America.

**Note:** Two individuals of *Croton discolor* Willd. were pointed out to me by Eleanor Gibney and Gary Ray. These are found along North Shore Road in the area around Hawksnest. They seem to be recent introductions from seeds carried in imported land fill (possibly from St. Thomas) for road improvement.

#### 6. DALECHAMPIA L.

#### **1. Dalechampia scandens** L., Sp. Pl. 1054. 1753.

**Distribution:** Not very common, mostly found in open disturbed areas. Brown Bay (A1882); East End Pt. (A660); Lameshur (B511). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout the West Indies (except Jamaica), and Mexico to South America.

#### 7. DRYPETES Vahl

1. Drypetes alba Poit., Mém. Mus. Hist. Nat. 1: 157. 1815.

**Distribution:** Rare, found only in moist forests. Bordeaux Mountain (A4704, A4710). Also in Cuba, Hispaniola, Puerto Rico and Jamaica.

#### 8. EUPHORBIA L.

Key to the species

- 1. Trees; leaves congested at nodes, or reduced to scales.
  - 2. Stems and branches succulent, green; leaves reduced to scales or lacking.
    - 3. Stems cylindrical, without spines; branches whorled; leaves obovate . E. tirucalli
    - 3. Stems 4-ribbed, with spines along margins; branches alternate; leaves wanting E. lactea
  - 2. Stems not succulent, with blackish brown, papery bark; leaves long-petioled, congested at swollen nodes . **E. petiolaris**
- 1. Herbs; leaves alternate.
  - 4. Cyathia glands 2, with petaloid appendages E. oerstediana
  - 4. Cyathia gland solitary, without petaloid appendages E. heterophylla

#### 1. Euphorbia heterophylla L., Sp. Pl. 453. 1753.

**Distribution:** A common roadside weed. Fish Bay (A3875); Gift Hill (A821); Peter Peak (A4104). Also on St. Croix, St. Thomas and Tortola; throughout the tropics.

2. Euphorbia oerstediana (Klotzsch & Garcke) Boiss. in A.DC., Prodr. 15(2): 59. 1862.

**Distribution:** Not very common; found mostly in coastal forest understory. Fish Bay (A3883); Hawksnest Beach (A2902). Also on St. Croix and St. Thomas; Greater Antilles, Lesser Antilles and northern South America.

3. Euphorbia petiolaris Sims, Bot. Mag. 23: pl. 883. 1805.

**Distribution:** A common tree of dry coastal forests and scrub. Bethany (B234); Susannaberg (A701, A844). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda; Jamaica, Hispaniola, Puerto Rico and Lesser Antilles.

Common name: black manchineel.

**Note:** A highly poisonous tree with caustic milky sap.

#### 4. Euphorbia tirucalli L., Sp. Pl. 452. 1753.

**Distribution:** An occasional shrub of dry open areas, persistent after cultivation. Lind Pt. (A4241). Also St. Thomas and Tortola; native to tropical and southern Africa, now widespread through cultivation.

**Common names:** milk bush, pencil-bush.

**Cultivated species:** Euphorbia lactea Roxb. and Euphorbia leucocephala Lotsy, are occasionally found in gardens or persistent after cultivation, but not naturalized.

#### 9. FLUEGGEA Willd.

**1. Flueggea acidoton** (L.) G. L. Webster, Allertonia 3: 299. 1984.

**Distribution:** Rare, in dry forests and coastal scrubs. Nanny Pt. (A2448); Little St. James Island (B1403). Also on St. Croix and St. Thomas; the Greater Antilles and the Bahamas.

#### 10. GYMNANTHES Sw.

1. Gymnanthes lucida Sw., Prodr. 96. 1788.

**Distribution:** A common tree of coastal dry forests and scrubs. Cob Gut (A3219); Gift Hill (A817); Maria Bluff (A2328). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Florida and throughout the West Indies.

Common names: crab wood, goat wood.

#### 11. HIPPOMANE L.

**1. Hippomane mancinella** L., Sp. Pl. 1191. 1753.

**Distribution:** A common tree of coastal sandy beaches. Chocolate Hole (A781). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda; a Caribbean and circum-Caribbean species.

**Common names:** death apple, manchineel, mangineedle, poison apple.

**Note:** The latex and fruits from this tree are deadly poisonous if ingested and not treated in time. The latex causes severe dermatitis and/or temporary blindness when it comes in contact with the skin or eyes. The plant is dangerous because the fruits resemble a small apple and have a sweet smell, enticing people to eat them.

#### **12. HURA** L.

1. Hura crepitans L., Sp. Pl. 1008. 1753.

**Distribution:** Not very common, found mostly as a roadside tree in humid areas. Adrian Ruins (A730, A4010); Enighed (A2368). Also on St. Croix, St. Thomas and Tortola; common throughout tropical America.

**Common names:** monkey no climb, monkey pistol, sand box.

**Note:** The latex of this tree is poisonous and caustic.

#### 13. JATROPHA L.

- 1. Leaves palmately compound, with 10-12 lobes, the segments dissected (corolla rose to scarlet).
  - J. multifida
- 1. Leaves 3-5-lobed or entire.
  - 2. Plants with glandular viscidulous hairs (corolla dark red) . J. gossypifolia
  - 2. Plants not glandular.
    - 3. Corolla white **J. curcas**
    - 3. Corolla bright red J. integerrima
- 1. Jatropha gossypifolia L., Sp. Pl. 1006. 1753.

**Distribution:** A common roadside weed. Emmaus (A3776); Salt Pond area (A3166); Susannaberg (A832). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout tropical America.

**Common names:** wild physicnut, belly ache bush, body catta.

**Cultivated species:** The following species are growing in gardens, but are not known to be spontaneous: *Jatropha curcas* L., *Jatropha integerrima* Jacq., and *Jatropha multifida* L.

#### 14. MARGARITARIA L.f.

1. Margaritaria nobilis L.f., Suppl. Pl. 428. 1782

**Distribution:** A common tree of moist to dry forests. Adrian Ruins (A2844); Enighed (A828). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout tropical America.

Common name: gonglehout.

#### 15. PEDILANTHUS Poit.

**Reference:** Dressler, R. L. 1957. The genus *Pedilanthus* (Euphorbiaceae). Contr. Gray Herb. 182: 1-188.

1. Pedilanthus tithymaloides (L.) Poit., Ann. Mus. Natl. Hist. Nat. 19: 393. 1812.

#### Key to the subspecies

- 1. Leaves linear or narrowly elliptic, underside without a distinctive keel on midvein; styles < 5 mm long
  - . P. tithymaloides subsp. angustifolius
- 1. Leaves lanceolate to ovate, underside with keel along midvein; styles > 7 mm long
  - P. tithymaloides subsp. tithymaloides
- **1a. Pedilanthus tithymaloides** (L.) Poit. subsp. **angustifolius** (Poit.) Dressler, Contr. Gray Herb. 182: 161. 1957.

**Distribution:** Persistent after cultivation, in scrub areas. Minna Hill (A3224); Lameshur (B619). Also on St. Croix, St. Thomas and Tortola; throughout the Greater Antilles.

Common name: Christmas candle.

**Note:** The sap produced by this species is said to be poisonous.

**Cultivated species:** *Pedilanthus tithymaloides* (L.) Poit. subsp. *tithymaloides* is occasionally found in gardens.

#### 16. PHYLLANTHUS L.

#### Key to the species

- 1. Small trees or shrubs; ovary of 3 or 4 carpels; flowers on leafless branches; fruit a fleshy drupe **P. acidus**
- 1. Herbs; ovary of 3 carpels; flowers on leafy branches; fruit a dry capsule.
  - 2. Leaves unequal (obtuse-rounded) at base; seeds verrucose P. niruri
  - 2. Leaves symmetrical at base; seeds 5-6-ribbed . P. amarus
- 1. Phyllanthus acidus (L.) Skeels, U.S.D.A. Bur. Pl. Industr. Bull. 148: 17. 1909.

**Distribution:** Persistent after cultivation, but apparently not spreading. Emmaus (A2010). Also on St. Croix, St. Thomas and Tortola; native to South America but cultivated throughout the tropics.

**Common name:** gooseberry.

**2. Phyllanthus amarus** Schum. & Thonn., Kongel. Danske Vidensk.-Selsk. Skr. 4: 195. 1829.

**Distribution:** Common weed occurring along roadsides and in open disturbed areas. Bordeaux (A3138); Cruz Bay (A3091); Fish Bay (A3871). Also on Tortola and Virgin Gorda; throughout the tropics as a weed.

**3. Phyllanthus niruri** L., Sp. Pl. 981. 1753.

**Distribution:** Common roadside weed. Coral Bay Quarter along Center Line Road (A4245); Lameshur (W585); along road to Peter Peak (A4107). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; typical subspecies restricted to the West Indies (except Jamaica, Cayman Islands and Bahamas).

**Common names:** cane piece senna, creole chinine, creole senna, gale of wind.

#### 17. RICINUS L.

1. Ricinus communis L., Sp. Pl. 1007. 1753.

**Distribution:** A weed of disturbed areas. Fish Bay (A2502). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; native to Africa but cultivated and naturalized throughout tropical America.

Common names: castor oil plant, castorbean, castornut, ricin.

#### 18. SAPIUM P. Browne

1. Sapium caribaeum Urb., Symb. Antill. 3: 308. 1902.

**Distribution:** A common tree of moist areas. Maho Bay Gut (A2127). Also on Tortola; the Lesser Antilles.

Common name: milk tree.

**Note:** The latex from this tree is caustic.

#### 19. SAVIA Willd.

1. Savia sessiliflora (Sw.) Willd., Sp. Pl. 4: 771. 1806. Fig. 101 A-D.

**Distribution:** A common tree of coastal dry forests and scrub. Battery Gut (A4168); Cob Gut (A3209); Lameshur (B521). Also on Jost van Dyke, St. Croix and St. Thomas; the Greater Antilles.

#### 20. TRAGIA L.

**1. Tragia volubilis** L., Sp. Pl. 980. 1753.

**Distribution:** A common weed of disturbed dry areas, but also in humid forests. Bethany (B204); Cinnamon Bay (M17008); Susannaberg (A703). Also on St. Croix, St. Thomas and Tortola; throughout tropical America.

**Common names:** stinging nettle, bran nettle, creeping cowitch.

**Note:** Contact with this plant causes a severe rash and a burning sensation that can last for nearly half an hour.

**Cultivated species:** One individual of *Cnidoscolus aconitifolius* (Miller) I. M. Johnst. was observed at Cruz Bay.

#### 38. FABACEAE

(Legume Family) Reviewed by James W. Grimes

#### Key to the subfamilies

- 1. Corolla of connate petals, actinomorphic; flowers usually in heads or dense spikes **Mimosoideae**
- 1. Corolla of petals distinct, zygomorphic or only slightly so; flowers usually in racemose inflorescences.
  - 2. Corolla with an extended central petal (standard), 2 lateral ones connate into a keel, and 2 smaller lateral petals **Faboideae**
  - 2. Corolla with 5 equal or subequal petals . Caesalpinioideae

#### I. CAESALPINIOIDEAE

(Tamarind Subfamily)

Key to the genera

- 1. Leaves simple (two fused leaflets) with deeply notched apex . Bauhinia
- 1. Leaves compound.
  - 2. Leaves bipinnate.
    - 3. Rachis of pinna flattened and laminar; leaflets alternate, minute < 5 mm long; fruit torulose . **Parkinsonia**
    - 3. Rachis of pinna cylindrical; leaflets opposite, 6 mm long or longer; fruits flattened or slightly inflated.

- 4. Trees, not spiny; legume flattened, woody or semi-woody.
  - 5. Stipules pinnatisect (leaf-like); corolla 6-8 cm wide, orange or red; legume 30-60 cm long, woody . **Delonix**
  - 5. Stipules minute, early deciduous; corolla yellow, 4.5-5 cm wide; legume 7.5-10 cm long, slightly woody, winged at margins **Peltophorum**
  - 4. Erect or scandent spiny shrubs; legume flattened or semi-inflated (then spiny), leathery or papery. **Caesalpinia**
- 2. Leaves once-pinnate.
  - 6. Leaves of two opposite leaflets; corolla white, to 6 cm wide; fruit wall thick and woody . **Hymenaea**
  - 6. Leaves of numerous leaflets; corolla yellow, to 2.5 cm wide; fruit wall thin, papery, leathery or woody.
    - 7. Erect or decumbent subshrubs; petioles with stipitate glands

#### Chamaecrista

- 7. Trees, erect shrubs or scandent shrubs; petioles lacking stipitate glands.
  - 8. Fruits crustaceous, torulose; seeds covered by fleshy tart pulp
    - . Tamarindus
  - 8. Fruits cylindrical, compressed, 4-winged, leathery or fleshy, not torulose Senna

#### 1. CAESALPINIA L.

#### Key to the species

- 1. Scandent shrubs; corolla yellow, 1-2 cm wide; fruits slightly inflated, spiny.
  - 2. Stipules large, foliaceous; bracts persistent; fruits densely spiny; seeds gray . C. bonduc
  - 2. Stipules minute; bracts deciduous; fruits sparsely spiny; seeds yellow to orange-brown **C.** ciliata
- 1. Erect shrubs; corolla (yellow) orange or red, 3-5 cm wide; fruits flattened, not spiny **C.** pulcherrima
- **1. Caesalpinia bonduc** (L.) Roxb., Fl. Ind. ed. 2, 2: 362. 1832.

**Distribution:** Along sandy beaches. Johnson Bay (A4021); Little Lameshur Bay (A3932). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout tropical coastal areas

**Common names:** gray nicker, neckar, nickel, nicker nut, scorcher.

**2.** Caesalpinia ciliata (Bergius ex Wikstr.) Urb., Symb.Antill. 2: 275. 1900.

**Distribution:** Along sandy beaches. Drunk Bay (A4134); Haulover Point (A4227). Also on St. Croix, Tortola and Virgin Gorda; Hispaniola, Puerto Rico and the Lesser Antilles.

Common name: yellow nicker.

**3. Caesalpinia pulcherrima** (L.) Sw., Observ. Bot. 166. 1791.

**Distribution:** Cultivated throughout the island, sometimes escaping cultivation. Along road to Ajax Peak (A2655). Also on St. Croix, St. Thomas and Tortola; native to South America, but widely cultivated and sometimes naturalizing throughout the Caribbean.

Common names: Barbados pride, dudeldu, dwarf poinciana.

#### 2. CHAMAECRISTA Moench

#### Key to the species

- 1. Perennial erect shrubs or subshrubs; corolla to 3 cm wide; pedicels 7-28 mm long
  - . C. glandulosa var. swartzii
- 1. Annual or biennial herbs, erect or decumbent, sometimes with semi-woody base; corolla to 1 cm wide; pedicels 0.5-4 mm long
  - C. nictitans ssp. nictitans var. diffusa
- **1. Chamaecrista glandulosa** (L.) Greene var. **swartzii (**Wikstr.) H.S. Irwin & Barneby, Mem. New York Bot. Gard. 35: 784. 1982.

**Distribution:** A common weed of open areas. Annaberg Ruins (A1926); Bordeaux (A3172); Maria Bluff (A598). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Puerto Rico and in the Lesser Antilles.

**2.** Chamaecrista nictitans (L.) Moench subsp. nictitans var. diffusa (DC.) H.S. Irwin & Barneby, Mem. New York Bot.Gard. 35: 833. 1982.

**Distribution:** A common weed of open areas. Fish Bay (A3893); Lameshur (B502). Also on St. Croix; throughout the West Indies, northern Venezuela and Colombia.

#### 3. DELONIX Raf.

**1. Delonix regia** (Bojer *ex* Hook.) Raf., Fl. Tellur. 2: 92. 1836.

**Distribution:** A common tree, planted along roads and gardens. Along Center Line road by km 7.5 (A2076). Native to Madagascar, now cultivated and naturalized throughout the tropics.

Common names: flamboyant tree, poinciana.

#### 4. HYMENAEA L.

**1. Hymenaea courbaril** L., Sp. Pl. 1192. 1753.

**Distribution:** Common tree of humid areas. Annaberg (A2868); Reef Bay Trail (P29270). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout tropical America.

**Common names:** locust tree, stinking toe.

#### **5. PARKINSONIA** L.

1. Parkinsonia aculeata L., Sp. Pl. 375. 1753.

**Distribution:** Common shrub of dry areas. Fortsberg (A4040); Lameshur (A736); Waterlemon Bay (A1932). Also on Anegada, Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; apparently native to southern United States and Mexico, cultivated throughout the Caribbean region.

**Common names:** horse bean, Jerusalem thorn.

#### **6. PELTOPHORUM** Walp., nom. cons.

**1. Peltophorum pterocarpum** (DC.) Baker *ex* K. Heyne, Nutt. Pl. Ned. Ind. ed. 2, 2: 755. 1927.

**Distribution:** Mostly planted along roadsides, but becoming naturalized. Cruz Bay (A4662). Also on St. Thomas and Tortola; native to tropical Asia and Australia, but widely cultivated throughout the tropics.

#### 7. SENNA Miller

Key to the species

- 1. Trees to 15 m tall; legumes 15-30 cm long . S. siamea
- 1. Erect or climbing shrubs, 0.5-3 m tall; legumes to 19 cm long.
  - 2. Legumes with 2 longitudinal wings S. alata
  - 2. Legumes not winged.
    - 3. Scandent shrubs; legumes cylindrical, fleshy . S. bicapsularis
    - 3. Erect shrubs; legumes flattened, dry, semi-woody.
      - 4. Legumes turgid, nearly cylindrical (5-6 mm wide); leaf rachis with an elongate, stipitate gland between the lowermost pair of leaflets; petiole without glands . **S. obtusifolia**
      - 4. Legumes flattened (7-9 mm wide); leaf rachis without glands; petiole with a sessile, rounded gland at base . **S. occidentalis**
- 1. Senna alata (L.) Roxb., Fl. Ind. ed. 2, 2: 349. 1832.

**Distribution:** Uncommon shrub of moist open areas, sometimes grown in gardens. Cruz Bay (A4063). Also on St. Croix, St. Thomas and Tortola; native probably to the Guianas, Orinoco and Amazon basins in Venezuela, Brazil and Colombia, but naturalized throughout the tropics.

**Common names:** candle bush, Christmas candle, fleiti, golden candlestick, ringworm bush, saparilla.

**2. Senna bicapsularis** (L.) Roxb., Fl. Ind. ed. 2, 2: 342.1832.

**Distribution:** Common roadside shrub. Adrian Ruins (A3121); Cruz Bay (B191); Fish Bay (A3917). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda; probably native to the Greater Antilles, now widespread throughout the tropics.

Common names: styver bla, stiverbush.

**3. Senna obtusifolia** (L.) H. S. Irwin & Barneby, Mem. New York Bot. Gard. 35: 252. 1982. **Distribution:** Common roadside weed. Coral Bay Quarter along Center Line Road

(A3995). Also on St. Croix, St. Thomas and Tortola; weedy throughout the tropics.

**4. Senna occidentalis** (L.) Link, Handbuch 2: 140. 1829.

**Distribution:** Common roadside weed. Along dirt road to Bordeaux (A1902); Fish Bay (A3905). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda; weedy throughout the Neotropics.

Common names: stinking weed, wild coffee.

**5. Senna siamea** (Lam.) H.S. Irwin & Barneby, Mem. New York Bot. Gard. 35: 98. 1982.

**Distribution:** Common roadside tree of humid areas. Cruz Bay (A1989). Also on St. Thomas; native to Burma and Thailand, cultivated or naturalized throughout the tropics.

Common name: yellow cassia.

#### 8. TAMARINDUS L

**1. Tamarindus indica** L., Sp. Pl. 34. 1753.

**Distribution**: A common tree of open dry areas. Lameshur (A1810). Also on other islands of the Virgin Islands; apparently native to India, now cultivated and naturalized throughout the tropics.

Common name: tamarind.

**Cultivated species:** Bauhinia monandra Kurz (with pink flowers), Bauhinia tomentosa L. (with white or yellow flowers), and Cassia fistula L. (with golden yellow flowers), are occasionally cultivated.

### II. FABOIDEAE (Papilionoideae) (Pea Subfamily)

Key to the genera

- 1. Leaves trifoliolate.
  - 2. Twining vines or scandent herbs (*Macroptilium lathyroides* sometimes erect).
    - 3. Keel spirally twisted.
      - 4. Corolla burgundy; legume linear, cylindrical Macroptilium
      - 4. Corolla pink to light purple; legume linear, flattened . Phaseolus
    - 3. Keel petal recurved, not spirally twisted.
      - 5. Corolla yellow.
        - 6. Corolla < 1 cm long; underside of leaflet with numerous, yellow, resinous dots; legumes oblong, flattened **Rhynchosia**
        - 6. Corolla > 1.2 cm long; underside of leaflet without resinous dots; legumes linear, slightly flattened **Vigna**
      - 5. Corolla pink, white, red or lavender.
        - 7. Standard 3-4 cm wide: corolla lavender Centrosema
  - 7. Standard < 1.5 cm wide; corolla white, pink, red or lavender.
    - 8. Legumes to 5 cm long.
      - 9. Corolla white **Teramnus**
      - 9. Corolla pink or red . Galactia
    - 8. Legumes > 6 cm long.
      - 10. Legumes pubescent, 3.5-4 mm wide **Pueraria**
      - 10. Legumes glabrous, 1.5-4 cm wide.
        - 11. Corolla white; terminal leaflet deltoid; legumes with verrucose margins Lablab
        - 11. Corolla pink; terminal leaflet elliptic; legumes with smooth margins. Canavalia
  - 2. Erect shrubs, trees or prostrate herbs.
    - 12. Erect or prostrate herbs.

- 13. Corolla pink, lavender, or violet, sometimes with light yellowish margins; legumes indehiscent, covered with hooked hairs (that stick to cloth), separating into one-seeded segments, the apex apiculate . **Desmodium**
- 13. Corolla yellow; legume dehiscent, glabrous, hooked at apex Stylosanthes
- 12. Shrubs or trees.
- 14. Corolla bright red to red-orange, the standard tubular, 4-6 cm long; branches usually spiny . **Erythrina**
- 14. Corolla yellow, the standard nearly rounded, reflexed, 2-3.5 cm long; branches not spiny.
  - 15. Legumes slightly inflated, laterally depressed between seeds; seeds few rounded, slightly flattened **Cajanus**
  - 15. Legumes nearly cylindrical, inflated; seeds numerous, kidney-shaped . Crotalaria
- 1. Leaves pinnate or unifoliolate.
  - 16. Twining woody vines or scandent shrubs.
    - 17. Corolla blue-violet Clitoria
    - 17. Corolla pink or pinkish purple.
      - 18. Twining woody vines to 3 m long; stems thin; leaflets opposite; seeds bright red with black spot . **Abrus**
      - 18. Scandent shrubs, woody; leaflets alternate or only one; seeds brown.
        - 19. Plants to 15 m long; stems to 12 cm diam., spiny; leaflets alternate; fruit circular-curled **Machaerium**
        - 19. Plants 2-4 m long; stems to 3 cm diam., not spiny; leaflet only one; fruit flattened, nearly circular **Dalbergia**
  - 16. Shrubs, herbs, or trees, not climbing.
    - 20. Leaf with a single leaflet.
      - 21. Corolla < 7 mm long, pink; legume cylindrical, splitting into cylindrical joints **Alysicarpus**
      - 21. Corolla 1-1.7 cm long, yellow or lavender; legume slightly inflated, opening along one side **Crotalaria**
    - 20. Leaf once-pinnate.
      - 22. Corolla yellow.
        - 23. Legume torulose Sophora
        - 23. Legume not torulose.
          - 24. Leaflets ending in a sharp spiny tip **Pictetia**
          - 24. Leaflets not spiny tipped.
            - 25. Legume flattened, the lower margin notched between seeds
              - . Aeschynomene
            - 25. Legume cylindrical . Sesbania
      - 22. Corolla pink.
        - 26. Trees to 10 m tall.
          - 27. Legumes indehiscent, ellipsoid to globose. Andira
          - 27. Legumes elongate, splitting along both sutures or breaking into segments.
            - $28.\ Legumes\ 4\text{-winged},$  the wings papery, breaking into transverse segments .

#### **Piscidia**

- 28. Legumes flattened, not winged, opening along both sutures Gliricidia
- 26. Shrubs, small tree (to 6 m), or decumbent herbs.
  - 29. Legumes nearly cylindrical, linear, curved **Indigofera**
  - 29. Legumes flattened, straight or curved at apex.
    - 30. Inflorescence terminal or opposite to leaves Tephrosia

- 30. Inflorescence axillary.
  - 31. Legumes transversely septate; plant herbaceous or scarcely woody (subshrub). **Coursetia**
  - 31. Legumes not septate; plant a shrub or small tree Poitea

#### 9. ABRUS Adans.

**1. Abrus precatorius** L., Syst. Nat. ed. 12, 2: 472. 1767.

**Distribution:** Common roadside weed of disturbed areas. Great Cruz Bay (A2370). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; native to the Old World, now naturalized throughout the tropics and subtropics.

Common names: crab's eye, jumbie bead, rosary bead, scrubber, wild liquorice.

**Note:** Seeds of this vine are deadly poisonous if chewed and swallowed.

#### **10. AESCHYNOMENE** L.

1. Aeschynomene americana L., Sp. Pl. 713. 1753.

**Distribution:** Common roadside weed of humid areas. Fish Bay (A3892); Lameshur (B613); Rosenberg (B313). Also on St. Croix, St. Thomas and Tortola; throughout warm areas of the New World.

#### 11. ALYSICARPUS Desv.

**1. Alysicarpus vaginalis** (L.) DC., Prodr. 2: 353. 1825.

**Distribution:** Common roadside weed of humid areas. Susannaberg (A4157). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; native to tropical Asia, now weedy throughout the tropics.

#### **12. ANDIRA** Juss.

1. Andira inermis (W. Wright) Kunth ex DC., Prodr. 2: 475. 1825.

**Distribution:** Common tree of moist areas, abundant in secondary forests or along roadsides. Emmaus (A3775); trail to Sieben (A2083). Also on St. Croix, St. Thomas and Tortola; throughout warm areas of the New World.

**Common names:** bastard mahogany, dog almond, hon kloot, pig turd.

#### 13. CAJANUS DC., nom. cons.

1. Cajanus cajan (L.) Millsp., Publ. Field Columbian Mus., Bot. Ser. 2: 53. 1900.

**Distribution:** Spontaneous after cultivation. Cruz Bay (A1952). Also on St. Croix, St. Thomas and Tortola; presumably native to Africa, widely cultivated throughout the tropics.

Common names: gungo pea, pigeon pea, vendu bountje.

#### 14. CANAVALIA DC., nom. cons.

1. Canavalia rosea (Sw.) DC., Prodr. 2: 404. 1825.

**Distribution:** A common coastal vine. Chocolate Hole (A776); Little Lameshur Bay (A2018). Also on Tortola and Virgin Gorda; throughout warm coastal areas of the world.

Common name: bay bean.

#### 15. CENTROSEMA Benth., nom. cons.

1. Centrosema virginianum (L.) Benth., Comm. Legum. Gen. 56. 1837.

**Distribution:** Common weed throughout the island. Fish Bay (A3896); trail to Solomon Bay (A2318). Also on all islands of the Virgin Islands; native throughout tropical and subtropical America.

Common name: wist vine.

#### 16. CLITORIA L.

1. Clitoria ternatea L., Sp. Pl. 753. 1753.

**Distribution:** Spontaneous after cultivation. Johnson Bay (A2623). Also on St. Croix, St. Thomas and Tortola; native to the Old World, but cultivated and naturalized throughout the tropics.

**Common names:** blue vine, butterfly pea.

#### 17. COURSETIA L.

1. Coursetia caribaea (Jacq.) Lavin, Adv. Leg. Syst. 3: 63. 1987.

**Distribution:** Occasional in wooded understory. Caneel Bay (A4117); Frank Bay (A4219). Also on St. Croix, St. Thomas and Tortola; Puerto Rico, Hispaniola, the Lesser Antilles and from Mexico to northern South America.

#### **18. CROTALARIA** L.

#### Key to the species

- 1. Leaves simple.
  - 2. Corolla light violet to lavender; leaves broadly ovate; stipules foliaceous; legume tan when dry **C. verrucosa**
  - 2. Corolla yellow; leaves oblanceolate to spatulate; stipules minute, early deciduous; legume blackish when dry **C. retusa**
- 1. Leaves trifoliolate.
  - 3. Inflorescence terminal (sometimes appearing opposite to leaves), longer than subtending leaf.
    - 4. Inflorescence 15-25 cm long, densely flowered

C. pallida var. ovata

- 4. Inflorescence 5-15 cm long, sparsely flowered C. incana
- 3. Inflorescence axillary, shorter than the subtending leaf C. lotifolia

#### **1. Crotalaria incana** L., Sp. Pl. 716. 1753.

**Distribution:** A common weed of open disturbed areas. Coral Bay (A4244); Maho Bay Quarter along Center Line Road (A1853). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; widespread throughout the tropics.

Common name: rattle bush.

#### 2. Crotalaria lotifolia L., Sp. Pl. 715. 1753.

**Distribution:** A common weed of open dry areas. White Cliffs (A2038); along trail from Lameshur to Reef Bay (A2719). Also on Anegada, St. Croix, St. Thomas and Virgin Gorda; throughout the West Indies, Mexico and Central America.

**3. Crotalaria pallida** Dryand. var. **ovata** (G. Don) Pohill, Kew Bull.22: 365.1968.

**Distribution:** A common weed of open, disturbed areas. Emmaus (A3931); Lameshur (A2026). Also on St. Croix; Bahamas, Puerto Rico (including Vieques); native to the Old World tropics.

**4.** Crotalaria retusa L., Sp. Pl. 715. 1753.

**Distribution:** A common weed of open disturbed areas. Cruz Bay (A3085); Bovocop Pt. (A1975). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; originally from Asia, now pantropical.

Common names: rattle box, yellow lupine.

5. Crotalaria verrucosa L., Sp. Pl. 715. 1753.

**Distribution:** A common weed of open disturbed areas. Coral Bay (A2621); Lameshur (A2044). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; originally from Asia, now pantropical.

#### **19. DALBERGIA** L.f., nom. cons.

**1. Dalbergia ecastaphyllum** (L.) Taub. *in* Engl. & Prantl, Nat. Pflanzenfam. 3(3): 335. 1894. **Distribution:** A common coastal species. White Cliffs (A2039). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout tropical America and tropical Africa.

#### **20. DESMODIUM** Desv., nom. cons.

- 1. Legumes notched between segments along one margin.
  - 2. Plant creeping, rooting at the nodes; leaflets < 1 cm long . **D. triflorum**
  - 2. Plant decumbent or scandent, seldom rooting at the nodes; leaflets 3-9 cm long **D.** incanum
- 1. Legumes notched between segments along both margins.
  - 3. Legumes puberulent, with one fertile segment **D. glabrum**
  - 3. Legumes with hooked hairs and 4-8 fertile segments . **D. procumbens**

1. Desmodium glabrum (Miller) DC., Prodr. 2: 338. 1825.

**Distribution:** A weedy species of open disturbed areas. Rendezvous Pt. (A3990). Also in St. Croix, St. Thomas, Tortola and Virgin Gorda; a West Indian and circum-Caribbean species.

#### **2. Desmodium incanum** DC., Prodr. 2: 332. 1825.

**Distribution:** Common in understory of woodlands and in open disturbed areas. Solomon Bay (A2291); East End (A2785). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; a pantropical species.

**3. Desmodium procumbens** (Miller) Hitchc., Annual Rep. Missouri Bot. Gard. 4: 76. 1893

**Distribution:** A weed of open disturbed areas. Coral Bay (A3999). Also on St. Croix, St. Thomas and Tortola; a West Indian and circum-Caribbean species, introduced into the Philippines and tropical Africa.

4. Desmodium triflorum (L.) DC., Prodr. 2: 334. 1825.

**Distribution:** Common roadside weed. Bordeaux area (A2616); Fish Bay Gut (A3898); Susannaberg (A4158). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; a pantropical weed.

#### **21. ERYTHRINA** L.

Key to the species

- 1. Leaflets without spines (cultivated) . E. corallodendrum
- 1. Leaflets with spines on both surfaces . E. eggersii
- 1. Erythrina eggersii Krukoff & Moldenke, Phytologia 1: 289. 1938.

**Distribution:** A rare or nearly endangered species, found in few localities. Bordeaux (A1923). Also on St. Croix and St. Thomas; Puerto Rico (including Vieques).

Common name: cockspur.

**Cultivated species:** *Erythrina corallodendrum* L. is known from a few individuals growing along roads.

#### **22. GALACTIA** P. Browne

A genus of 50 species, primarily distributed in tropical regions of the New World.

- 1. Corolla bright red . G. eggersii
- 1. Corolla pink to lavender.
  - 2. Legumes 5-5.5 mm wide; standard 12-15 mm long G. dubia
  - 2. Legumes 6-9 mm wide; standard 8-10 mm long . G. striata
- 1. Galactia dubia DC., Prodr. 2: 238. 1825.

**Distribution:** Common in open disturbed areas and in coastal scrub or forests. Fish Bay (A3114); Maria Bluff (A2331); Salt Pond (M17062). Also on Anegada, St. Croix, St. Thomas and Tortola; Puerto Rico (including Mona, Vieques, Culebra and Icacos), the Lesser Antilles.

Common name: iron weed.

#### 2. Galactia eggersii Urb., Symb. Antill. 2: 311. 1900.

**Distribution:** Occasional in dry woodlands and in open, disturbed areas. Carolina (A4138). Endemic to Guana Island, St. John, St. Thomas and Tortola.

3. Galactia striata (Jacq.) Urb., Symb. Antill. 2: 320.1900.

**Distribution:** A common species from open disturbed areas or secondary moist forests. Lameshur (B607); Maho Bay Quarter along Center Line Road (A3816). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout the Neotropics.

#### 23. GLIRICIDIA Kunth

**1. Gliricidia sepium** (Jacq.) Kunth *ex* Walp., Repert. Bot. Syst. 1: 679. 1842.

**Distribution:** Not very common, persistent after cultivation. Caneel Bay (A4119). Native to South America, but widespread in cultivation (usually reproduced by cuttings) throughout the Neotropics.

Common names: pea tree, quick stick.

#### 24. INDIGOFERA L.

Key to the species

- 1. Legumes 3 to 3.5 cm long, nearly straight **I. tinctoria**
- 1. Legumes 1 to 1.5 cm long, strongly curved . **I. suffruticosa**
- 1. Indigofera suffruticosa Miller, Gard. Dict. ed. 8. 1768.

**Distribution:** A common roadside weed. Bordeaux (A3183); Coral Bay Quarter and along Center Line Road (A4246). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; native to the Neotropics, introduced into the Old World.

2. Indigofera tinctoria L., Sp. Pl. 751. 1753.

**Distribution:** An occasional roadside weed. Round Bay (W667). Also on St. Croix and St. Thomas; native to the Old World tropics, now naturalized throughout the tropics.

Common name: indigo.

#### **25.** LABLAB Adans.

1. Lablab purpureus (L.) Sweet, Hort. Brit. ed. 1, 481. 1826.

**Distribution:** An occasional roadside weed. Cruz Bay Quarter along Center Line Road (A2899, A2908). Native to Africa, now naturalized throughout the tropics.

Common name: bona wiss.

#### 26. MACHAERIUM Pers., nom. cons.

1. Machaerium lunatum (L.f.) Ducke, Arch. Jard. Bot. Rio de Janeiro 4: 310. 1925.

**Distribution:** Common in coastal swamps bordering mangroves. Coral Bay (A2829). Also on St. Croix and St. Thomas; native to tropical America.

#### 27. MACROPTILIUM Urb.

1. Macroptilium lathyroides (L.) Urb., Symb. Antill. 9: 457. 1928.

**Distribution:** A common roadside weed. Cruz Bay (A860); Fish Bay (A3879); Lameshur (A2757). Also on St. Croix, St. Thomas and Tortola; the West Indies and Central America.

**Common name:** wild-bush-bean.

#### 28. PHASEOLUS L.

**1. Phaseolus peduncularis** Kunth *in* Humb., Bonpl. & Kunth, Nov. Gen. Sp. 6: 47. 1824. **Distribution:** An occasional roadside weed. Along road from Bordeaux to Coral Bay (A3796, A3868). Also in the Greater Antilles and northern South America.

#### 29. PICTETIA DC.

1. Pictetia aculeata (Vahl) Urb., Symb. Antill. 2: 294. 1900.

**Distribution:** A common shrub of dry coastal scrub.

Bethany (B219); East End (A668). Also on all islands of the Virgin Islands and Puerto Rico (including Viegues and Culebra).

Common name: fustic.

#### 30. PISCIDIA L., nom. cons.

1. Piscidia carthagenensis Jacq., Enum. Syst. Pl. 27. 1760.

**Distribution:** An occasional tree of coastal forests and scrub. Bethany (B336). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; occurring naturally from Mexico to Peru and from Puerto Rico to the Lesser Antilles, apparently introduced in Cuba.

Common names: dogwood, fish poison tree, stink tree.

#### 31. POITEA Vent.

1. Poitea florida (Vahl) Lavin, Syst. Bot. Monogr 37: 61. 1993.

**Distribution:** Common in moist to dry forest. Susannaberg (A2799, M16572). Also on St. Thomas, Tortola, Virgin Gorda; Puerto Rico (including Culebra and Vieques).

Common names: wattapama, soldier whip.

#### **32. PUERARIA** DC.

1. Pueraria phaseoloides (Roxb.) Benth., J. Linn. Soc., Bot. 9: 125. 1865.

**Distribution:** An occasional roadside weed. Along Center Line Road by entrance to Ajax Peak (W630); Maho Bay Quarter along Center Line Road (A2411). This aggressive species, native to Southeast Asia, has been introduced into the New World as a forage and erosion control plant; it has become naturalized in some areas of the Neotropics.

#### 33. RHYNCHOSIA Lour., nom. cons.

#### Key to the species

- 1. Leaflets prominently reticulate below; calyx 6-10 mm long . R. reticulata
- 1. Leaflets not prominently reticulate below; calyx 2.5-3 mm long R. minima
- **1. Rhynchosia minima** (L.) DC., Prodr. 2: 385. 1825.

**Distribution:** Common along roadsides and open ground.

Enighed (A3921); Maria Bluff (A2337). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; common throughout the Caribbean and the tropics.

2. Rhynchosia reticulata (Sw.) DC., Prodr. 2: 385. 1825.

**Distribution:** Common along roadsides and open ground.

Cob Gut (A3227); Fish Bay Gut (A3889); Lind Pt. (A2304). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout the Caribbean, Mexico, Central America and South America.

#### 34. SESBANIA Scop.

1. Sesbania sericea (Willd.) Link, Enum. Hort. Berol. Alt. 2: 244. 1822.

**Distribution:** An occasional weed of open disturbed areas. Enighed (A3925); Fish Bay (A2475). Also on St. Croix and St. Thomas; native to Sri Lanka, now a widespread weed throughout the tropics.

#### 35. SOPHORA L.

**1. Sophora tomentosa** L., Sp. Pl. 373. 1753.

**Distribution:** Occasional along the sandy coast. Dittlif Pt. (W805); Haulover Bay (A4146). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda; pantropical.

#### **36. STYLOSANTHES** Sw.

**1. Stylosanthes hamata** (L.) Taub., Verh. Bot. Vereins Prov. Brandenburg 32: 22. 1889.

**Distribution:** A weed commonly found in open disturbed areas. East End (A2778); Lind Pt. (A2303). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout the West Indies and from Mexico to northern South America.

Common names: donkey weed, mother sea gel.

#### **37. TEPHROSIA** Pers., nom. cons.

#### Key to the species

- 1. Leaflets 11-15, elliptic, oblanceolate to elliptic, obtuse, rounded or acute at apex . T. cinerea
- 1. Leaflets 5-9, oblong to obovate, notched at apex T. senna
- 1. Tephrosia cinerea (L.) Pers., Syn. Pl. 2: 328. 1807.

**Distribution:** A common weed of open dry areas. Ram Head (A2049, W28). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout the Neotropics.

**2. Tephrosia senna** Kunth *in* Humb., Bonpl. & Kunth, Nov. Gen. Sp. 6: 458. 1824.

**Distribution:** An occasional weed of the sandy coast. Cinnamon Bay (W635B). Also on Tortola and Virgin Gorda; throughout the West Indies and northern South America.

#### 38. TERAMNUS P. Browne

1. Teramnus labialis (L.f.) Spreng., Syst. Veg. 3: 235. 1826.

**Distribution:** A common weed of open and disturbed areas. Cruz Bay (A1956); Lameshur (B645). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout the West Indies and Central America.

Common name: blue wiss.

#### 39. VIGNA Savi

**1. Vigna luteola** (Jacq.) Benth. *in* Mart., Fl. Bras. 15(1): 194, t. 50, f. 2. 1859.

**Distribution:** A common coastal vine, sometimes in open disturbed areas. Enighed (A4005). Also on St. Croix, St. Thomas and Tortola; throughout tropical and subtropical America.

Common names: goat wiss, wild pea.

#### III. MIMOSOIDEAE

(Sensitive Plant Subfamily)

#### Key to the genera

- 1. Filaments free or united only at the very base.
  - 2. Petals connate into a tubular or funnel-shaped corolla; plants spiny (if not spiny, then inflorescence an elongate spike, or a panicle of heads).
    - 3. Fruit indehiscent, breaking away from ribbed, thickened margins (replum); petiole and rachis without nectary glands . **Mimosa**

- 3. Fruit dehiscent lengthwise, not leaving a replum; petiole and rachis usually with nectary glands . **Acacia**
- 2. Petals free to base; plant not spiny (inflorescence of a single globose heads) Leucaena
- 1. Filaments connate into a more or less elongate tube.
  - 4. Petiole and rachis without nectary glands.
    - 5. Seeds bright orange-red, angular, partially compressed; leaflets alternate Adenanthera
    - 5. Seeds brown, lenticular or elliptic, flattened; leaflets opposite.
      - 6. Inflorescence globose, bright red (cultivated) Calliandra
      - 6. Inflorescence obconical, white **Zapoteca**
  - 4. Petiole and rachis with nectary gland(s).
    - 7. Plant spiny; fruits turgid, twisting upon dehiscence and exposing several black, pendulous seeds with a red aril **Pithecellobium**
    - 7. Plant not spiny; fruits and seeds otherwise.
      - 8. Leaves once-pinnate; seeds covered with a white fleshy pulp **Inga**
      - 8. Leaves twice pinnate; seeds without a fleshy covering.
        - 9. Small to large trees; legumes > 1 cm wide.
          - 10. Legumes oblong, papery to fleshy, tardily dehiscent or indehiscent; seeds lighter along margins.
            - 11. Corolla light yellow; legumes papery, flattened, ca. 2 mm thick, 3-4 cm wide, late dehiscent; rachis with a single nectariferous gland at base of petiole **Albizia**
            - 11. Corolla pink; legumes fleshy-leathery, compressed, ca. 4 mm thick, 1.4-1.5 cm wide, indehiscent; leaf rachis with a discoid nectariferous gland between each pair of pinna **Samanea**
            - 10. Legumes compressed, curled and nearly circular in shape, indehiscent; seeds reddish brown (cultivated) . **Enterolobium**
        - 9. Subshrubs to 1 m tall; legumes 0.3-0.4 cm wide **Desmanthus**

#### **40. ACACIA** Miller

- 1. Lianas.
  - 2. Plant not spiny; stems cylindrical or nearly so; legume 2.5-3 cm wide A. vogeliana
  - 2. Stem and leaf rachis with prickles; stems obtusely 4-angled, usually splitting longitudinally into 4 segments when old; legume 1.5-2 cm wide . **A. retusa**
- 1. Small to medium-sized trees.
  - 3. Plant not spiny; inflorescence an elongate spike; corolla cream . A. muricata
  - 3. Plant spiny; inflorescence a globose head; corolla bright yellow.
    - 4. Pinnae 8-18 pairs; leaf rachis with 1-3 nectary glands toward distal end; legume 9-10 mm wide, flattened, with constricted margins between seeds . **A. macracantha**
    - 4. Pinnae 2-6 pairs; leaf rachis with 1 or 2 nectary glands at distal end; legume 5-6 mm wide, nearly cylindrical, usually with constricted margins between seeds **A.** tortuosa
- **1.** Acacia macracantha Humb. & Bonpl. ex Willd., Sp. Pl. 4:1080. 1806.

**Distribution:** A common tree of dry coastal scrub. Bordeaux (A2617); Fish Bay (A3915); Hansen Bay (A1805). Also on Jost van Dyke, St. Croix, St. Thomas and Tortola; the Greater Antilles, Lesser Antilles and Venezuela.

Common name: stink-casha.

2. Acacia muricata (L.) Willd., Sp. Pl. 4: 1058. 1806.

**Distribution:** Common in moist to dry forests, and coastal scrub. Along road to Bordeaux (M17056); Hansen Bay (A1802); Lameshur (B513). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; the Greater and Lesser Antilles.

Common name: amaret.

3. Acacia retusa (Jacq.) R. A. Howard, J. Arnold Arbor. 54: 459. 1973.

**Distribution:** A common weed of dry districts and open disturbed areas. East End (A3791); Bordeaux area (A4055). Also on St. Thomas, Tortola and Virgin Gorda; Hispaniola (a doubtful record), Puerto Rico (including Vieques and Culebra), Lesser Antilles, and northern South America.

Common names: catch and keep, white police.

4. Acacia tortuosa (L.) Willd., Sp. Pl. 4: 1083. 1806.

**Distribution:** A common tree of dry coastal scrub. Hurricane Hole (A2765). Also on St. Croix, St. Thomas and Tortola; the Greater Antilles, Lesser Antilles and northern South America.

Common name: casha.

**5. Acacia vogeliana** Steud., Nomencl. Bot. ed. 2, 1: 1840.

**Distribution:** Uncommon plant, known only from a single locality. Coral Bay Quarter along dirt road to Bordeaux, a few meters from Center Line Road (A3794). Also on Hispaniola, Puerto Rico and probably Martinique.

#### 41. ADENANTHERA L.

1. Adenanthera pavonina L., Sp. Pl. 384. 1753.

**Distribution:** Occasional in moist forests. Along trail to Petroglyphs (A2930). Native to tropical Asia, persistent after cultivation; naturalized throughout the tropics.

Common names: jumbie bead, coquelicot.

#### 42. ALBIZIA Durazz.

1. Albizia lebbeck (L.) Benth., London J. Bot. 3: 87. 1844.

**Distribution:** A few individuals along roadsides. Lind Point (A2516, A3981). Also on St. Croix, St. Thomas and Tortola; native to tropical Asia, cultivated and naturalized in tropical America.

**Common names:** kitty katties, rattle bush, sheck sheck, Tibet tree, tibit, tipit, woman's tongue.

#### **43. DESMANTHUS** Willd., nom. cons.

#### 1. Desmanthus virgatus (L.) Willd., Sp. Pl. 4: 1047. 1806.

**Distribution:** Common in open and disturbed areas. Cruz Bay (A2316); Fish Bay (A3904); Reef Bay trail (A2722). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout the West Indies, Guyana and Surinam to the coast of northeastern Brazil.

#### 44. INGA Miller

1. Inga laurina (Sw.) Willd., Sp. Pl. 4: 1018. 1806.

**Distribution:** A common tree of moist forests. Bordeaux area (A2877, B561). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Greater and Lesser Antilles and Trinidad.

**Common names:** lady finger tree, pomshock, Spanish oak, sweet pea.

#### 45. LEUCAENA Benth.

**1. Leucaena leucocephala** (Lam.) de Wit, Taxon 10: 54. 1961.

**Distribution:** Common throughout the island, from moist forests to dry coastal scrubs. Susannaberg (M16576); Lameshur (A2753). Common on most of the Virgin Islands; native to Central America, but widely cultivated throughout the tropics.

Common names: tan tan, tanty, wild tamarind.

#### 46. MIMOSA L.

Key to the species

- 1. Scandent shrub to 6 m long; stems glabrous, 4-angled, striate; leaves with spiny rachis, the pinnae 4 or 5 pairs; corolla 3-merous . **M. ceratonia**
- 1. Erect to decumbent herb to 50 cm tall; stems pilose, cylindrical; leaf rachis without spines, the pinnae 1 or 2 pairs; corolla 4-merous **M. pudica**
- 1. Mimosa ceratonia L., Sp. Pl. 523. 1753.

**Distribution:** Common weed of dry coastal scrub. Bethany (B200). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Hispaniola, Puerto Rico and the Lesser Antilles.

Common names: amaretsteckel, black amaret.

**2. Mimosa pudica** L., Sp. Pl. 518. 1753.

**Distribution:** Common weed of open disturbed areas. Maho Bay Quarter along Center Line Road (A2410). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; widespread throughout the tropics.

**Common names:** grishi grishi, gritchee, sensitive plant.

#### **47. PITHECELLOBIUM** Mart., nom. cons.

**1. Pithecellobium unguis-cati** (L.) Benth., London J. Bot. 3:200. 1844.

**Distribution:** Common shrub of coastal scrublands and open disturbed areas. Great Cruz Bay (A2355); Enighed (A4006). Also on Anegada, Jost van Dyke, St. Croix, St. Thomas and Virgin Gorda; Florida, throughout the West Indies, Venezuela.

Common names: bread & cheese, blackbead, crabprickle, goatbush.

#### **48. SAMANEA** (Benth.) Merr.

**1. Samanea saman** (Jacq.) Merr., J. Wash. Acad. Sci. 6: 47. 1916.

**Distribution:** Cultivated on St. John, with a few spontaneous individuals. Coral Bay (A2631, A2817); Lameshur Bay (A737). Apparently native to northern South America, planted and naturalized in the West Indies and throughout the tropics.

Common names: licorice, rain tree.

#### **49. ZAPOTECA** H. Hernández

1. Zapoteca portoricensis (Jacq.) H. Hernández, Ann. Missouri Bot. Gard. 73: 758. 1986. Distribution: A common shrub of dry areas, also found in open disturbed areas. Along road to Ajax Peak (A2654); Bordeaux area (A3238). Also on St. Thomas and Tortola; Jamaica, Hispaniola, Puerto Rico, Grenada, continental tropical America.

**Cultivated species:** Calliandra haematocephala Hassk. with bright red flowers and Enterolobium cyclocarpum (Jacq.) Griseb with pinkish flowers are occasionally used as ornamental plants.

### 39. FLACOURTIACEAE

(Flacourtia Family)

#### Key to genera

- 1. Leaves with 3 main veins arising from a rounded to cordate base; blades usually with a pair of rounded glands close to the petiole; stipules 1-1.5 cm long, deciduous, leaving a conspicuous scar; inflorescence terminal, racemose **Prockia**
- 1. Leaves with a single midvein, the base obtuse, attenuate, cuneate or rounded; blades without glands at base; stipules < 5 mm long, usually early deciduous or wanting; inflorescence axillary, fasciculate.
  - 2. Trunk with branched spines; leaves rigid-coriaceous; stipules wanting; flowers unisexual; fruit a berry **Xylosma**
  - 2. Trunk smooth, without spines; leaves coriaceous-chartaceous; stipules minute, usually early deciduous; flowers bisexual; fruit a fleshy capsule.
    - 3. Lower surface of leaf glabrous or puberulent, tertiary veins not prominent; sepals free or only connate at base, reflexed; staminodes alternating with filaments, filaments free **Casearia**

3. Lower surface of leaf pubescent, tertiary veins very prominent on lower surface; sepals connate into a tubular calyx; staminodes wanting; filaments connate into a tube adnate to the calvx tube . **Samvda** 

#### 1. CASEARIA Jacq.

#### Key to the species

- 1. Style short, stigmas 3, glabrous, the ovary glabrous; sepals and pedicels glabrous C. sylvestris
- 1. Style elongate and simple, the stigma capitate and pubescent, the ovary pubescent; sepals and pedicels pubescent to puberulent.
  - 2. Lower surface of leaves puberulent along veins, not barbate in axils of veins; stipules pubescent; sepals puberulent; stamens 8; staminodes lanceolate; fruits ellipsoid, ridged, brown, the pericarp thick **C. guianensis**
  - 2. Lower surface of leaves barbate (tuft of hairs) in axils of veins; stipules glabrous; sepals pubescent; stamens 10; staminodes oblong-club-shaped; fruits globose, smooth, yellow, the pericarp thin . **C. decandra**
- 1. Casearia decandra Jacq., Enum. Syst. Pl. 21. 1760.

**Distribution:** A common shrub of moist areas, usually along roadsides and open disturbed areas. Emmaus (A735); Susannaberg (A2805). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; common in the West Indies south from Hispaniola, and from Honduras to Brazil and Argentina.

2. Casearia guianensis (Aubl.) Urb., Symb. Antill. 3: 322. 1902.

**Distribution:** A common tree of moist secondary forests and open disturbed areas. Adrian Ruins (A2700); trail to Genti Bay (P29266). Also on St. Croix, St. Thomas and Tortola; the Greater Antilles, Lesser Antilles, Panama to northern South America south to Brazil.

3. Casearia sylvestris Sw., Fl. Ind. Occid. 2: 752. 1798.

**Distribution:** A common tree of moist secondary forests and open disturbed areas. Adrian Ruins (A2109); Susannaberg (A713, A2801). Also on St. Croix, St. Thomas and Tortola; the Greater Antilles, the Lesser Antilles and continental tropical America.

#### 2. PROCKIA P. Browne ex L.

**1. Prockia crucis** P. Browne *ex* L., Syst. Nat. ed. 0, 2: 1074. 1759.

**Distribution:** An uncommon tree of moist forests. Bordeaux Mountain (W218); Fish Bay (A2671). Also on St. Thomas; tropical America.

#### 3. SAMYDA Jacq.

1. Samyda dodecandra Jacq., Enum. Syst. Pl. 21. 1760.

**Distribution:** Found in dry forests and in coastal scrub. Bethany (B340); trail to Brown Bay (A1875). Also on St. Croix, St. Thomas and Tortola; the Greater Antilles (except Jamaica) and the Lesser Antilles.

#### **4. XYLOSMA** G. Fors., nom. cons.

**1. Xylosma buxifolia** A. Gray *in* Griseb., Pl. Wright. 155.

**Distribution:** An uncommon shrub found in moist forests to coastal thickets. Bordeaux Mountain (W686). Also on St. Croix and Virgin Gorda; throughout the West Indies (except Jamaica).

# 40. GOODENIACEAE (Goodenia Family)

#### 1. SCAEVOLA L., nom. cons.

1. Scaevola plumieri (L.) Vahl, Symb. Bot. 2: 26. 1791.

**Distribution:** An uncommon shrub found along sandy coasts. Hansen Bay (A4222). Also on Anegada, St. Croix and Tortola; widespread on tropical sandy coasts.

## 41. LAMIACEAE (Mint Family)

Key to the genera

- 1. Stamens declined or resting on lower lip of corolla.
  - 2. Calyx conspicuously 2-lipped; lower corolla lobe plane or spreading . **Ocimum**
  - 2. Calyx lobes equal; lower corolla lobe pouch-like . Hyptis
- 1. Stamens erect or ascending, not declined or resting on lower lip of corolla.
  - 3. Stamens 4; upper corolla lobe concave.
    - 4. Leaves deeply 3-5-lobed; inflorescence a glomerule to 1.5 cm wide; corolla lavender **Leonurus**
    - 4. Leaves not lobed, serrate; head-like inflorescence to 4.5 cm wide; corolla orange **Leonotis**
  - 3. Stamens 2; upper corolla lobe not concave Salvia

#### 1. HYPTIS Jacq., nom. cons.

- 1. Inflorescence of globose heads . H. capitata
- 1. Inflorescence racemose or cymose, not forming globose heads.
  - 2. Flowers congested in leaf axils, or in terminal spikes; calyx puberulent, with subulate-lanceolate lobes **H. verticillata**
  - 2. Flowers in axillary racemes or terminal panicles; calyx pubescent, with bristle-like lobes.
    - 3. Stems pilose; calyx 9-10 mm long . H. suaveolens
    - 3. Stems puberulent; calyx 5.5-6 mm long . H. pectinata

1. Hyptis capitata Jacq., Icon. Pl. Rar. 1: 11, t. 114. 1781.

**Distribution:** A common roadside weed. Bethany (B261). Also on St. Croix, St. Thomas and Tortola; apparently native to tropical America, established in the Old World tropics.

**Common name:** wild hops.

2. Hyptis pectinata (L.) Poit., Ann. Mus. Natl. Hist. Nat. 7: 474. 1806.

**Distribution:** A common weed of disturbed, open ground. Bordeaux area (A2587). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; a pantropical weed.

Common name: French tea.

**3. Hyptis suaveolens** (L.) Poit., Ann. Mus. Natl. Hist. Nat. 7: 472. 1806.

**Distribution:** A common weed of disturbed, open ground. Johnson Bay (A4027); Lameshur (B503). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout tropical America, naturalized in the Old World.

**4. Hyptis verticillata** Jacq., Icon. Pl. Rar. 1: 11. 1781.

**Distribution:** A common weed of disturbed, open ground. Cinnamon Bay (M17089). Also on St. Thomas; throughout tropical America.

#### 2. LEONOTIS R. Br.

1. Leonotis nepetifolia (L.) W.T. Aiton, Hort. Kew. ed. 2, 3: 409. 1811.

**Distribution:** A common weed of disturbed, open ground. Fish Bay (A3878). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; native to tropical Africa but widespread throughout the tropics.

**Common names:** hollow stalk, hollow stock, rabbitfood.

#### 3. LEONURUS L.

**1. Leonurus sibiricus** L., Sp. Pl. 584. 1753.

**Distribution:** A fairly common weed of disturbed, open, moist ground. Carolina (A2584). Also on St. Croix, St. Thomas and Tortola; native to Asia, but widespread from tropical to subtemperate America.

#### 4. OCIMUM L.

1. Ocimum campechianum Miller, Gard. Dict. ed. 8. 1768.

**Distribution:** A common weed of disturbed, open ground, also in understory of secondary vegetation. Coral Bay Quarter along Center Line Road (A3771). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; widespread through tropical America.

**Common names:** bellyache balsam, bitter bush plant, passia balsam.

#### 5. SALVIA L.

#### Key to the species

- 1. Plant puberulent to glabrescent, decumbent; leaf base narrowed; leaf margins serrate; bracts ovate **S. occidentalis**
- 1. Plant pubescent or pilose, erect; leaf base cordate or truncate; leaf margins crenate-dentate; bracts elliptic to lanceolate.
  - 2. Plant pilose; lower leaf surface densely covered with soft, curled, white hairs; corolla white or lavender . S. serotina
  - 2. Plant pubescent (curved hairs); lower leaf surface glabrous except for hairs along veins; corolla blue or violet . **S. micrantha**

#### **1. Salvia micrantha** Vahl. Enum. Pl. 1: 235. 1804.

**Distribution:** Common herb, found in open disturbed areas. Mandal (A2575); Susannaberg (A2806). Also on St. Croix; the Greater Antilles, Lesser Antilles, Florida and Panama.

#### 2. Salvia occidentalis Sw., Prodr. 14. 1788.

**Distribution:** Uncommon herb, found in open, moist areas. Bordeaux area (4059); along road to Peter Peak (A4108). Also on St. Croix, St. Thomas and Tortola; widespread throughout the tropics.

#### **3. Salvia serotina** L., Mant. Pl. 1: 25. 1767.

**Distribution:** Common herb, found in open fields and on sandy beaches. Long Bay (A671). Also on Anegada, St. Croix, St. Thomas and Tortola; throughout the West Indies and Central America.

## 42. LAURACEAE (Avocado Family)

#### Key to the genera

- 1. Parasitic herbaceous twining vines; leaves scale-like, 0.1-0.2 cm long or wanting; inflorescence of short spikes . **Cassytha**
- 1. Non-parasitic trees or shrubs; leaves with typical regular blade, 8-25 cm long; inflorescence paniculate.
  - 2. Leaves with 3 main veins from near the base (lower pair of secondary veins stout and ascending). **Cinnamomum**
  - 2. Leaves with 1 main vein bearing weak secondary veins (pinnately veined).
    - 3. Fruit > 7 cm long; pericarp fleshy . **Persea**
    - 3. Fruit 0.8-2.5 cm long; pericarp leathery.
      - 4. Fertile stamens 3; fruiting receptacle double rimmed; leaves strongly aromatic; bark peeling off in long thick flakes **Licaria**
      - 4. Fertile stamens 9; fruiting receptacle not rimmed; leaves weakly aromatic; bark smooth . **Ocotea**

#### 1. CASSYTHA L.

1. Cassytha filiformis L., Sp. Pl. 35. 1753.

**Distribution:** Uncommon herb, found in open fields. Maria Bluff (W802). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; a cosmopolitan species.

#### 2. CINNAMOMUM Schaeff., nom. cons.

1. Cinnamomum elongatum (Nees) Kosterm., Reinwardtia 6: 21.1961.

**Distribution:** Common in moist forests. Bordeaux (A4264). Also on St. Thomas; Cuba, Hispaniola, Puerto Rico and the Lesser Antilles.

#### 3. LICARIA L.

#### Key to the species

- 1. Stamens free; staminodes present; fruit cupule to 8 mm diam.; leaves lanceolate to elliptic-lanceolate . L. parvifolia
- 1. Stamens connate into a short tube; staminodes wanting; fruit cupule 12-19 mm diam.; leaves ovate-elliptic **L. triandra** 
  - 1. Licaria parvifolia (Lam.) Kosterm., J. Sci. Res. (Jakarta) 1: 149. 1952.

**Distribution:** Occasional in moist forests. Bordeaux Mountain (A4696). Also on St. Croix, St. Thomas and Tortola; probably in Hispaniola (fide Lamarck, 1792), Puerto Rico (including Vieques), and the Lesser Antilles.

2. Licaria triandra (Sw.) Kosterm., Recueil Trav. Bot. Néerl. 34: 588. 1937.

**Distribution:** Common in moist forests. Trail to Petroglyph (A4122). Also in the Greater Antilles, Lesser Antilles and Florida.

#### 4. OCOTEA Aubl.

- 1. Leaf blades gall infected (at least some of the leaves); fruit cupule warty **O. leucoxylon**
- 1. Leaf blades not gall infected; fruit cupule smooth.
  - 2. Leaves coriaceous, with upper shiny surface; tepals oblong or oblanceolate, densely pubescent within; flowers bisexual.
    - 3. Tepals oblong to oblanceolate, 4.5-5.5 mm long; stems glabrescent, shiny, grayish **O. coriacea**
    - 3. Tepals oblong, 2-2.5 mm long; stems with appressed white or yellowish hairs . **O.** patens
  - 2. Leaves chartaceous-coriaceous, upper surface dull; tepals ovate, 2-2.5 mm long, sparsely pubescent; flowers functionally unisexual; stems with appressed white or yellowish hairs **O. floribunda**
- **1. Ocotea coriacea** (Sw.) Britton *in* Britton & Millsp., Bahama Fl. 143. 1920.

**Distribution:** A very common species throughout the island, occurring in dry to moist forest understory. Bordeaux area (A4260); Susannaberg (A847). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; Florida, from Mexico to northern South America, and the West Indies.

Common name: pepper cillament.

2. Ocotea floribunda (Sw.) Mez, Jahrb. Königl. Bot. Gart. Berlin 5: 325. 1889.

**Distribution:** An uncommon species of moist forests. Bordeaux (M17052, W619, A4694). Also on Tortola; Central America to northern South America, including the Greater and Lesser Antilles.

3. Ocotea leucoxylon (Sw.) Laness., Pl. Util. Col. Franç. 156. 1886.

**Distribution:** A common species of moist secondary forests. Bordeaux area (A2099); Susannaberg (A847). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Greater Antilles, Lesser Antilles.

4. Ocotea patens (Sw.) Nees, Hufeland. Ill. 10. 1833.

**Distribution:** An uncommon species of moist secondary forests. Bordeaux area (A5116). Also in Hispaniola, Puerto Rico and the Lesser Antilles.

**Cultivated species:** *Persea americana* Miller, the avocado, is cultivated on the island, but not known to be spontaneous.

# (Logania Family)

#### 1. SPIGELIA L.

1. Spigelia anthelmia L., Sp. Pl. 149. 1753.

**Distribution:** An occasional roadside weed of moist areas. Carolina (A4139); Lind Pt. (A3087). Also on St. Croix, St. Thomas and Virgin Gorda; a circum-Caribbean species, including the West Indies.

Common names: water grass, worm grass.

# 44. LORANTHACEAE (Mistletoe Family)

#### 1. **DENDROPEMON** Rchb.

1. Dendropemon caribaeus Krug & Urb., Bot. Jahrb. Syst. 24:27. 1897.

**Distribution:** Common in moist and dry forests. Maria Bluff (A599); Fish Bay (A3907). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda; Puerto Rico and the Lesser Antilles.

**Common names:** bass an'boom, gadamighty.

#### 45. LYTHRACEAE

(Loosestrife Family)

Key to the genera

- 1. Shrub over 2 m tall; stipules spiny; corolla white . Ginoria
- 1. Herb 0.35 to 1.0 m tall; stipules wanting; corolla white, pink or purple-pink . Ammannia

#### 1. AMMANNIA L.

Key to the species

- 1. Style > 1.5 mm long; corolla purple-pink; cymes 1-5-flowered **A. coccinea**
- 1. Style to 0.5 mm long; corolla wanting or light pink to white; cymes 1-3-flowered A. latifolia
- 1. Ammannia coccinea Rottb., Pl. Horti Univ. Rar. Progr. (Hafn.) 7. 1773.

**Distribution:** Occasional in moist open areas and in salt flats along the coast. Fortsberg (A4080); Lameshur (A3199). Also on St. Croix and St. Thomas; eastern North America to northern South America, including the West Indies.

**2. Ammannia latifolia** L., Sp. Pl. 119. 1753.

**Distribution:** Occasional in salt flats along coastal areas. Annaberg (A2922). Also on St. Croix, St. Thomas and Tortola; eastern North America, the West Indies and scattered throughout South America.

#### 2. GINORIA Jacq.

1. Ginoria rohrii (Vahl) Koehne, Bot. Jahrb. Syst. 3: 351. 1882.

**Distribution:** A common shrub of coastal dry forests or thickets. Cob Gut (A3221); East End (A682). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Hispaniola and Puerto Rico.

**Common names:** prickle wood, sugar ant.

#### **46. MALPIGHIACEAE**

(Barbados Cherry Family)

Key to the genera

- 1. Trees or shrubs; fruits wingless, fleshy or dry.
  - 2. Leaf blades conspicuously glandular; plant without bristles or stiff hairs.
    - 3. Leaf glands 2, cone-shaped, on lower portion of leaf margins; sepals without glands; stamens with free filaments; fruit capsular (cultivated) **Galphimia**
    - 3. Leaf glands 2, impressed at base of blade between midrib and margins; sepals with a pair of elongate glands on lower surface; fruit a fleshy drupe . **Bunchosia**
  - 2. Leaf blades eglandular or if glandular then the plant with bristles or stiff hairs.

- 4. Styles slender and subulate, the stigma minute; fruits turning from green to yellow; plant not covered with stiff hairs . **Byrsonima**
- 4. Styles stout and cylindrical, the stigma elongate; fruits red when mature; plant with stiff hairs causing dermatitis on contact (not very obvious in the cultivated *M. emarginata*) **Malpighia**
- 1. Twining vines or lianas; fruit winged, samaroid schizocarps.
  - 5. Corolla yellow; inflorescence as wide or wider than long; leaves (at least some) > 5 cm long **Stigmaphyllon**
  - 5. Corolla pink; inflorescence longer than wide; leaves < 2 cm long **Heteropterys**

#### 1. BUNCHOSIA Kunth

1. Bunchosia glandulosa (Cav.) DC., Prodr. 1: 581. 1824.

**Distribution:** A common shrub of coastal dry forests or thickets. Carolina (A2819); Lameshur (B646). Also on Anegada, Jost van Dyke, St. Croix and St. Thomas; the Bahamas, Hispaniola, Puerto Rico and Lesser Antilles.

#### 2. BYRSONIMA Kunth

Key to the species

- 1. Leaves elliptic to oblong-lanceolate, 5-15 cm long, secondary veins prominent on lower surface; petals yellow **B. spicata**
- 1. Leaves obovate or oblanceolate, 1.5-4 cm long, secondary veins inconspicuous; petals turning from white to pink, becoming red at maturity . **B. lucida** 
  - 1. Byrsonima lucida (Miller) DC., Prodr. 1: 580. 1824.

**Distribution:** A common shrub of dry to moist forests or coastal thickets. Coral Bay Quarter along Center Line Road (A2942); White Cliffs (A2035). Also on Anegada, St. Croix and St. Thomas; Florida, Bahamas, Greater and Lesser Antilles.

Common name: goose berry.

**2. Byrsonima spicata** (Cav.) DC., Prodr. 1: 580. 1824.

**Distribution:** A common tree of moist forests. Bordeaux area (A3820); Cruz Bay Quarter along Center Line road (A2939); Rosenberg (B319). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Cuba, Hispaniola, Puerto Rico, Lesser Antilles, northern South America, south to Bolivia.

#### **3. HETEROPTERYS** Kunth

**1. Heteropterys purpurea** (L.) Kunth *in* Humb., Bonpl. & Kunth, Nov. Gen. Sp. (quarto ed.) 5: 164. 1821 [1822].

**Distribution:** Common in dry open areas and coastal scrub. Coral Bay (A2658); Lameshur (B627). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Florida, Bahamas, Greater and Lesser Antilles.

#### 4. MALPIGHIA L.

#### Key to the species

- 1. Leaves < 2.5 cm long, the margins sinuate-dentate, with marginal bristles; corolla pink **M.** coccigera
- 1. Leaves > 2.5 cm long, the margins entire; corolla white, light yellow or pink.
  - 2. Corolla pink.
    - 3. Leaves linear or narrowly elliptic, 4-10 cm long, with acute apices; fruits 1-1.3 cm wide . M. linearis
    - 3. Leaves elliptic, 2.5-7 cm long, with retuse apices; fruit 1.5-2.5 cm wide, edible (cultivated) . **M. emarginata**
  - 2. Corolla whitish, sometimes yellowish- or pinkish-tinged.
    - 4. Leaf margins with perpendicular, T-shaped bristles, 2.5-5 mm long; leaf blade scabrous on upper surface (because of V-shaped hairs), lower surface strigose, with T-shaped hairs 2.5-5 mm long; corolla white to yellowish-tinged . **M. woodburyana**
    - 4. Leaf margins without bristles; leaf blades nearly smooth (hairs T-shaped, 1-1.5 mm long), lower surface strigillose, with T-shaped hairs 1-1.5 mm long; corolla white to pinkish tinged **M. infestissima**

#### 1. Malpighia coccigera L., Sp. Pl. 426. 1753.

**Distribution:** A rare species of coastal scrub and dry deciduous forests. Salt Pond trail (M17064); Trail to Drunk Bay (A4133). Also in Cuba, Hispaniola and Puerto Rico, cultivated elsewhere.

#### **2.** Malpighia infestissima Rich. *ex* Nied., Malpighia 15. 1899.

**Distribution:** A rare species of coastal scrub and dry deciduous forests. Probably extirpated on St. John; only known from a single collection by Vest in 1906. Also on Buck Island and St. Croix.

**Common names:** mad dog, stinging bush, touch me not.

#### **3. Malpighia linearis** Jacq., Enum. Syst. Pl. 21. 1760.

**Distribution:** An uncommon species of coastal scrub and dry deciduous forests. Lameshur (A3229). Also on Anegada, St. Thomas and Water Island; Culebra Island (Puerto Rico) and the Lesser Antilles.

#### **4.** Malpighia woodburyana Vivaldi in Acev.-Rodr., Brittonia 45: 130. 1993.

**Distribution:** An uncommon species of coastal scrub and dry deciduous forests. Bethany (B179); Hawksnest Bay (A2311). Also on Anegada, Buck Island, St. Thomas and Water Island; Puerto Rico including Magueyes, Culebra and Vieques.

**Cultivated species:** *Malpighia emarginata* DC., commonly known as the Barbados Cherry, is cultivated for its red, edible, tasty fruits, exceptionally rich in vitamin C.

#### 5. STIGMAPHYLLON Juss.

- 1. Young branches tomentose; leaves densely covered with appressed hairs on lower surface (tomentose to sericeous); blades with conspicuous reticulate venation; samaras tomentose, greenish when young **S. floribundum**
- 1. Young branches strigillose; leaves glabrescent on both surfaces (strigillose when young); blades with pinnate venation (3° veins not conspicuous); samaras becoming glabrous with age, usually reddish when young . **S. emarginatum**
- 1. Stigmaphyllon emarginatum (Cav.) A. Juss., Ann. Sci. Nat. Bot., II, 13: 290. 1840.

**Distribution:** Common in dry open areas and coastal scrub. Dittlif Pt. (A3965); Salt Pond (A4042). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda; Jamaica, Hispaniola, Puerto Rico (including Culebra Island), and the Lesser Antilles, south to St. Lucia.

**2. Stigmaphyllon floribundum** (DC.) C.E. Anderson, Syst.Bot.11:128.1986.

**Distribution:** Common in moist to deciduous, coastal forests. Bordeaux area (A2854). Also on Virgin Gorda; Puerto Rico (including Mona island).

Common name: bull wiss.

**Cultivated species:** Galphimia gracilis Bartl. with yellow flowers, although not very common, is cultivated in gardens.

#### 47. MALVACEAE

(Cotton Family) By P. Fryxell

Key to the genera

- 1. Flowers subtended by an involucel at base of calyx.
  - 2. Involucel 3-parted.
    - 3. Involucellar bracts broadly cordate-ovate, foliaceous . **Gossypium**
    - 3. Involucellar bracts linear, spatulate, or ligulate.
      - 4. Leaves cordate-ovate, entire, coriaceous; corolla 4-6 cm long; fruits capsular, indehiscent, 5-celled **Thespesia**
      - 4. Leaves truncate, serrate, crenate, or dentate; corolla to 1 cm long; fruits schizocarpic mericarps 10-14 **Malvastrum**
  - 2. Involucel 5-9 (or more)-parted.
    - 5. Styles and stigmas 5; fruit a 5-celled capsule . (cultivated) Hibiscus
    - 5. Styles and stigmas 10; fruit a schizocarp of 5 mericarps.
      - 6. Leaves with nectary on underside at base of midrib; corolla lavender; mericarps with numerous glochids **Urena**
      - 6. Leaves lacking nectaries; corolla yellow; mericarps apically 3-spined, the spines retrorsely barbed . **Pavonia**
- 1. Flowers lacking an involucel.
  - 7. Fruits globose, inflated, hispid, pendent on slender pedicels; plants decumbent to ascending, often scandent; corolla white **Herissantia**
  - 7. Fruits neither inflated nor pendent; plants usually erect shrubs, rarely trees (sometimes prostrate herbs), seldom scandent; corolla of various colors, often yellow.
    - 8. Carpels 3-seeded, often acute or acuminate apically.

- 9. Mericarps 3-5, divided into 2 cells by a medial constriction, the lower cell indehiscent, 1-seeded, the upper cell dehiscent, 2-seeded, apically bulbousapiculate **Wissadula**
- 9. Mericarps 6-8, undivided, with apical spines 2-4 mm long Abutilon
- 8. Carpels 1-seeded, blunt or spined apically.
  - 10. Flowers congested in few-flowered heads subtended by specialized flora bracts; styles and stigmas twice as many (10) as mericarps (5) **Malachra**
  - 10. Flowers solitary, fasciculate, or disposed in inflorescences, but not subtended by specialized floral bracts; styles and stigmas of same number as mericarps (5-14).
- 11. Plants arborescent
  - . (cultivated) Bastardiopsis
- 11. Plants subshrubs or herbs.
  - 12. Calyx 4-5 mm long, unribbed; mericarps essentially indehiscent, fragile-walled . **Sidastrum**
  - 12. Calyx usually more than 5 mm long, often ribbed or angular; mericarps usually more or less dehiscent, often indurate.
    - 13. Calyx basally 10-ribbed; mericarps 5-14, indurate, usually more or less reticulate laterally, often apically 2-spined; plants variously pubescent, viscid or not . **Sida**
    - 13. Calyx obscurely 5-nerved; mericarps 6-8, essentially unornamented, blunt at apex; plant notably viscid and malodorous **Bastardia**

# 1. ABUTILON Miller

1. Abutilon umbellatum (L.) Sweet, Hort. Brit. ed. 1, 53. 1826.

**Distribution**: Common in open disturbed areas. Fish Bay near mouth of Fish Bay Gut (A3899); Johns Folly (A3933); Ram Head Trail (W194a). Also on St. Croix, St. Thomas, Tortola, and Virgin Gorda; the West Indies and the USA (Texas) to Central and South America (Venezuela to Peru).

### 2. BASTARDIA Kunth

**1. Bastardia viscosa** (L.) Kunth *in* Humb., Bonpl. & Kunth, Nov. Gen. Sp. 5: 199. 1822.

# Key to the varieties

- 1. Plants stellate-tomentose (glandular hairs absent), the long simple hairs few or absent; corolla ca. 4 mm long
  - . B. viscosa var. sanctae-crucis
- 1. Plants with short glandular hairs and with long simple hairs, more or less throughout; corolla 5-7 mm long
  - . B. viscosa var. viscosa
- **1a. Bastardia viscosa** var. **sanctae-crucis** R.E. Fries, Kongl. Svenska Vetenskapsakad. Handl. III, 24: 22, t. 5, f. 1. 1947.

**Distribution**: A common roadside weed. Annaberg (W780); Coral Bay (A2787); Hurricane Hole (A2436). Also on St. Croix; throughout the West Indies.

1b. Bastardia viscosa (L.) Kunth var. viscosa

**Distribution**: Coral Bay (A2707); Hawksnest Beach (A2901); Lameshur (W573). Also on St. Croix, St. Thomas and Virgin Gorda; West Indies and the southern United States (Texas) to South America (Peru).

#### 3. GOSSYPIUM L.

# 1. Gossypium barbadense L., Sp. Pl. 693. 1753.

**Distribution**: Occasional to common in open dry areas. Maria Bluff (A613); North Shore Road (A3235); Center Line Road near turn off to Bordeaux Mountain (Mori & Woodbury 17079). Also on Jost Van Dyke, St. Croix and St. Thomas; native to South America but cultivated now in many parts of the world as a commercial crop and as a garden plant throughout the tropics.

### 4. HERISSANTIA Medik.

1. Herissantia crispa (L.) Brizicky, J. Arnold Arbor. 49: 279. 1968.

**Distribution**: Dittlif Point (W759). Also on St. Thomas; the southern United States to South America (Argentina), adventive in the Old World.

# 7. MALACHRA L.

1. Malachra alceifolia Jacq., Collectanea 2: 350. 1789.

**Distribution**: Often in disturbed ground. Lameshur (W515); Enighed (A3098). Also on St. Croix and St. Thomas; West Indies and southern Mexico, Central America, and northern South America.

### **6. MALVASTRUM** A. Gray

- 1. Hairs of upper leaf surface simple; flowers all axillary, scattered along branches, manifestly pedicellate, the pedicels 2-10 mm long; stem pubescence of appressed stellate hairs with 4 rays, 2 antrorse and 2 retrorse; mericarps with 3 prominent cusps; staminal column glabrous **M. coromandelianum**
- 1. Hairs of upper leaf surface stellate; flowers sometimes solitary but usually in terminal spicate inflorescences, sessile or subsessile; stem pubescence of stellate hairs with 3-12 more or less spreading radii; mericarps with rounded dorsal wall lacking cusps (or these obscure); staminal column pubescent.
  - 2. Stem hairs mostly 3-5-rayed, appressed stellate hairs; inflorescence a spike usually no more than 2 cm long; flowers with pedicels ca. 1 mm long; lateral walls of mericarp more or less pubescent . **M. corchorifolium**
  - 2. Stem hairs mostly 5-12-rayed, tufted stellate hairs; inflorescence a dense spike usually more than 3 cm long; flowers sessile; lateral walls of mericarp nearly glabrous **M. americanum**
- 1. Malvastrum americanum (L.) Torr. in Emory, Rep. U.S. Mex. Bound. 2: 38. 1859.

**Distribution**: Common along open and disturbed ground. East End (A5389); Johns Folly (A3943); Southside Pond (A4069). Also on St. Croix, St. Thomas and Virgin Gorda (fide Britton & Wilson, 1924, p. 550); West Indies, southern United States (Florida, Texas) south to Mexico, Central America and South America (Argentina), also adventive in the Old World.

# **2. Malvastrum corchorifolium** (Desr.) Britton ex Small, Fl. Miami 119. 1913.

**Distribution**: Common in open disturbed and waste ground. In vic. of Enighed (A3924); Coral Bay (A2578); Maho Bay Quarter along Center Line Road (A1852). Also on St. Croix and Virgin Gorda (fide Britton & Wilson, 1924, p. 550); West Indies, United States (Florida), Mexico, and Central America.

3. Malvastrum coromandelianum (L.) Garcke, Bonplandia 5:295.1857.

**Distribution**: Occasional to common in open areas. Fish Bay (A3918); Lameshur (A3200). Also on St. Croix, St. Thomas (fide Britton, 1918) and Tortola; a pantropical weed, from the United States (Florida, Texas) to South America (northern Argentina).

# 7. PAVONIA Cav.

**1. Pavonia spinifex** (L.) Cav., Diss. 3: 133, t. 45,. 2. 1787.

**Distribution**: Occasional in open disturbed areas such as roadsides and waste ground. Solomon Bay close to Research Center (A2293); road to Bordeaux (A3836). Also on St. Croix, St. Thomas, and Tortola; the southeastern United States, the Bahaman Archipelago, and the Greater and Lesser Antilles, but not in South America (where it has frequently been cited as a result of misidentifications of related species).

### 8. SIDA L.

- 1. Plants prostrate herbs.
  - 2. Leaves ovate-cordate; calyx lobes trullate, the margins dark green; plants rooting at the nodes; corolla yellow **S. repens**
  - 2. Leaves narrowly elliptic; calyx lobes lacking dark green margins; plants not rooting at the nodes; corolla pink **S. ciliaris**
- 1. Plants erect or ascending (sometimes scandent) herbs or subshrubs.
  - 3. Leaf disposition (and branching pattern) distichous; stipules prominent, often falcate, several-veined.
    - 4. Styles and mericarps 8-10; calyx 6-8 mm long . S. acuta
    - 4. Styles and mericarps 5; calyx 4-7 mm long.
      - 5. Calyx 4-5 mm long; plants sparsely pubescent; leaves narrowly lanceolate, acute; mericarps minutely apiculate . **S. glomerata**
      - 5. Calyx 6-7 mm long; plants densely and softly stellate-pubescent; leaves broadly ovate-elliptic, often obtuse; mericarps with beaks 1-1.5 mm long **S.** jamaicensis
  - 3. Leaves and branches spirally disposed; stipules inconspicuous, usually 1-veined.

- 6. Flowers and fruits subsessile, aggregated into dense axillary glomerules (or in axillary pedunculate "heads"); stems often hispid, the hairs 2-3 mm long; mericarps muticous, glabrous; stems often reclining or scandent. **S. urens**
- 6. Flowers and fruits usually pedicellate, not glomerulate (usually solitary); stems not hispid (except sometimes in *S. aggregata*); mericarps usually apically spined, often pubescent; stems usually erect (except often reclining in *S. glabra*).
  - 7. Styles and mericarps 8-14; calyx manifestly 10-ribbed.
    - 8. Plant densely stellate-tomentose throughout; leaves serrate nearly to the base; mericarps with spines that are retrorsely pubescent **S. cordifolia**
    - 8. Plant minutely puberulent (appearing farinose) to glabrate; leaves serrate distally, entire basally; mericarps glabrous **S. rhombifolia**
- 7. Styles and mericarps 5-8; calyx 5- or 10-angled.
  - 9. Leaves ovate, lanceolate, or narrowly oblong; plant minutely stellate-pubescent; calyx 5-7 mm long, stellate-tomentose, the margins sometimes reddish **S. spinosa**
  - 9. Leaves cordate-ovate; plant sometimes viscid; calyx 4-6 mm long, the margins dark green.
    - 10. Calyx lobes lanceolate, longer than wide, equaling or exceeding the calyx tube; spines of mericarps 1.5-2 mm long; stems stellate-pubescent; flowers axillary **S. glabra**
    - 10. Calyx lobes triangular, wider than long, shorter than the calyx tube; spines of mericarps 0.5-1 mm long; stems viscid; flowers in panicles **S. glutinosa**

# 1. Sida acuta Burm.f., Fl. Indica 147. 1768.

**Distribution**: A common weed of open areas such as roadsides and waste ground. Annaberg (M17080); Cruz Bay (A2273); trail to Sieben (A2061). Also on St. Croix and St. Thomas and Tortola; pantropical.

# **2. Sida ciliaris** L., Syst. Nat. ed. 10, 2: 1145. 1759.

**Distribution**: Recently disturbed sites. Bethany (B329); Frank Bay (A4217); Nanny Point (A2441). Also on St. Croix, St. Thomas, Tortola, Virgin Gorda, and Anegada; the southern United States to Argentina.

# 3. Sida cordifolia L., Sp. Pl. 684. 1753.

**Distribution**: Occasional in moist or marshy areas. Lameshur (W677); without locality (CFM174). Also on St. Croix, St. Thomas, and Virgin Gorda; pantropical.

# 4. Sida glabra Mill., Gard. Dict. ed. 8. 1768, non Nutt., 1834.

**Distribution**: Occasional in open habitats. Lameshur (A3230); Ram Head (W197); between Salt Pond and Coral Bay (A2793). Also on St. Croix, St. Thomas, and Tortola; the West Indies and Central America to Colombia and Venezuela.

# **5. Sida glomerata** Cav., Diss. 1: 18, t. 2, f. 6. 1785.

**Distribution**: Common widespread weed of open habitats. Bethany to Rosenberg (B213); Bordeaux (A3850); Coral Bay (A2447). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; West Indies and Central America (as far north as Nicaragua) to much of South America.

# **6. Sida glutinosa** Cav., Diss. 1: 16, t. 2, f. 8. 1785.

**Distribution**: Occasional in open, disturbed habitats. Fish Bay (W738). Also on St. Croix; the West Indies, Mexico, and Central America to Colombia and Venezuela.

**7. Sida jamaicensis** L., Syst. Nat. ed. 10, 2: 1145. 1759.

**Distribution**: East End (A3214); Fortsberg (A4086); Lameshur (B632). Also on St. Croix, St. Thomas, and Virgin Gorda; the West Indies and Mexico to northern South America.

**8. Sida repens** Dombey *ex* Cav., Diss. 1: 7. 1785.

**Distribution**: Occasional to common, in open and disturbed habitats. Bethany (B331); Lameshur (A4046); Solomon Beach (A2290). Also on St. Croix, St. Thomas, Tortola, and Virgin Gorda; Central America, northeastern South America, and West Indies; possibly introduced from Malaysia (Java to the Philippines).

**9. Sida spinosa** L., Sp. Pl. 683. 1753.

**Distribution**: Occasional in open disturbed areas such as roadsides and waste ground. Coral Bay (A4243); Enighed (A3920). Also on St. Croix, St. Thomas, and Virgin Gorda; pantropical and extending into the temperate zones as an annual.

**10. Sida urens** L., Syst. Nat. ed. 10, 2: 1145. 1759.

**Distribution**: Uncommon, known from a single collection. Bordeaux Mountain (W695). Also on St. Thomas; Mexico, West Indies, Central and South America, and Africa.

#### **9. SIDASTRUM** E. G. Baker

**1. Sidastrum multiflorum** (Jacq.) Fryxell, Brittonia 31: 298.1979.

**Distribution**: Common in open, disturbed habitats such as clearings and roadsides. Coral Bay (A2788); L'Esperance (A2558); trail to Seiben (A2646). Also on St. Croix, St. Thomas, Guana Island (Tortola), and Virgin Gorda.

#### 10. THESPESIA Sol. ex Corrêa

**1. Thespesia populnea** (L.) Sol. *ex* Corrêa, Ann. Mus. Hist.Nat. Paris 9: 290, t. 8, f. 2. 1807.

**Distribution**: Common along sandy beaches. Coral Bay (A4028); Solomon Bay (A2286); Waterlemon Bay (A2522). Also on Jost Van Dyke, St. Croix, and St. Thomas; pantropical in littoral habitats; sometimes cultivated as an ornamental shade tree.

#### 11. URENA L.

1. Urena lobata L., Sp. Pl. 692. 1753.

**Distribution**: Occasional in disturbed sites along roadsides. Bordeaux Mountain (A3177, A3849). Also on St. Croix, St. Thomas, and Tortola; pantropical.

### 12. WISSADULA Medik.

# Key to the species

- 1. Petioles to 1.5 cm long; leaf blades shallowly cordate, more than twice as long as wide, ovate-triangular, the margins relatively straight . **W. periplocifolia**
- 1. Petioles 4-7 cm long; leaf blades deeply cordate, less than twice as long as wide, orbiculate- or ovate-acuminate, the margins curved throughout . **W. amplissima**
- **1. Wissadula amplissima** (L.) R.E. Fries, Kongl. Svenska Vetenskapsakad. Handl. 43(4): 48, 1908.

**Distribution**: A common roadside weed. Between Bethany and Rosenberg (B216); Coral Bay (A4001); Fish Bay area (W676). Also on St. Croix and Tortola (fide Britton, 1918; Britton & Wilson, 1924, p. 548); Texas and the West Indies to northern South America and parts of Africa.

2. Wissadula periplocifolia (L.) C. Presl ex Thwaites, Enum. Pl. Zeyl. 27. 1858. Fig.

**Distribution:** Common in open disturbed habitats. Road to Bordeaux Mountain (A3127); trail to Brown Bay (A1866); trail to Fortsberg (A4093). Also on St. Croix; the West Indies and Mexico to South America and the Paleotropics.

# **Cultivated species:**

**Bastardiopsis eggersii** (E. G. Baker) Fuertes & Fryxell, Caneel Bay Hotel ground (A4113). Endemic to Culebra and Tortola.

*Hibiscus rosa-sinensis* L. var. *rosa-sinensis* The common hibiscus, commonly cultivated but unknown in the wild.

# 48. MELASTOMATACEAE

(Melastome Family)

Key to the genera

- 1. Lower surface of leaf densely covered with stellate hairs, surface rusty-brown or grayish-white . **Tetrazygia**
- 1. Lower surface of leaf green, only sparsely covered with stellate hairs, surface greenish **Miconia**

# 1. MICONIA Ruíz & Pavón, nom. cons.

**1. Miconia laevigata** (L.) G. Don *in* Sweet, Hort. Brit. 159. 1826.

**Distribution:** Common in moist disturbed areas. Road to Bordeaux (A2594); Maho Bay Quarter along Center Line Road (A2406). Also on St. Croix, St. Thomas and Tortola; Central America to northern South America, including the West Indies.

#### 2. TETRAZYGIA DC.

- 1. Lower surface of leaves ash-colored (grayish white); petals 1.2-1.4 cm long; calyx urn-shaped, greenish, sparsely covered with minute stellate hairs **T. eleagnoides**
- 1. Lower surface of leaves rusty-brown; petals ca. 3 mm long; calyx bell-shaped, densely covered with rusty-brown, stellate hairs **T. angustifolia**
- 1. Tetrazygia angustifolia (Sw.) DC., Prodr. 3: 172. 1828.

**Distribution:** Common in moist forests. Road to Bordeaux (A2600, A3822). Also on St. Thomas, Tortola and Virgin Gorda; Jamaica, Puerto Rico and in the Lesser Antilles.

**Common names:** stinking fish, sprat wood.

2. Tetrazygia eleagnoides (Sw.) DC., Prodr. 3: 172. 1828.

**Distribution:** Common in moist and dry evergreen forests. Susannaberg (A3809); trail to Genti Bay (GTP29289). Also on St. Croix, St. Thomas and Virgin Gorda; Hispaniola and Puerto Rico (including Vieques).

**Common name:** kre kre.

# 49. MELIACEAE

(Mahogany Family)

Key to the genera

- 1. Fruit a drupe; leaflets serrate.
  - 2. Leaves 2-3-pinnate; flowers 0.8-1.2 cm long; staminal column violet Melia
  - 2. Leaves once pinnate; flowers 4-5 mm long; staminal column white; (cultivated)

    Azadirachta
- 1. Fruit a capsule; leaflets entire.
  - 3. Capsule ovoid, 6-10 cm long, with thick pericarp . Swietenia
  - 3. Capsule ellipsoid, 2.5-3 cm long, with thin pericarp. Cedrela

# 1. CEDRELA P. Browne

1. Cedrela odorata L., Syst. Nat. ed. 10, 2: 940. 1759.

**Distribution:** Uncommon in moist deep soil of forests. Trunk Bay (A2608, A2850). Common throughout the Neotropics.

Common names: acajou, red cedar.

#### 2. MELIA L.

1. Melia azedarach L., Sp. Pl. 384. 1753.

**Distribution:** A common roadside shrub, naturalized on St. John. Carolina (A4137); Great Cruz Bay (A2371). Also on St. Croix, St. Thomas and Tortola; cultivated and naturalized throughout the tropics and subtropics of the New World.

Common names: chinaberry, hagbush, lilac.

# 3. SWIETENIA Jacq.

1. Swietenia mahagoni (L.) Jacq., Enum. Syst. Pl. 20. 1760.

**Distribution:** Persistent after cultivation; Cruz Bay Town (A2514). Native to southern Florida, the Bahamas, Cuba, Cayman Islands, Jamaica and Hispaniola; introduced into Puerto Rico, the Virgin Islands and the Lesser Antilles.

Common name: mahogany.

Cultivated species: Azadirachta indica Juss., only known in cultivation on St. John.

# **50. MENISPERMACEAE**

(Moonseed Family)

Key to the genera

- 1. Herbaceous, pubescent vine to 5 m long; leaves widely ovate to nearly rounded, cordate or truncate and peltate at base; fruits globose, bright red-orange. **Cissampelos**
- 1. Glabrous liana to 15 m long; leaves ovate to widely ovate; fruits obovoid, purple . **Hyperbaena**

#### 1. CISSAMPELOS L.

1. Cissampelos pareira L., Sp. Pl. 1031. 1753.

**Distribution:** A common weedy vine of open disturbed, moist areas or secondary forests. Road to Bordeaux (A3126); trail to Brown Bay (A1868). Also on St. Croix, St. Thomas and Tortola; throughout the tropics.

Common names: pataka, velvet leaf.

# **2. HYPERBAENA** Miers *ex* Benth., nom. cons.

**1. Hyperbaena domingensis** (DC.) Benth., J. Proc. Linn. Soc., Bot. 5, Suppl. 2: 50. 1861. **Distribution:** An uncommon vine of moist forests; only one male plant known at Bordeaux (A3173). Also on St. Thomas; the Greater and Lesser Antilles, northern South America to Bolivia.

# 51. MOLLUGINACEAE (Carpet-weed Family)

### 1. MOLLUGO L.

1. Mollugo nudicaulis Lam., Encycl. 4: 234. 1797.

**Distribution:** A common weed of open areas. Johns Folly (A3934). Also on St. Croix and St. Thomas; native to the Old World, now a weed in the Neotropics.

# **52. MORACEAE**

(Mulberry Family)

Key to the genera

- 1. Leaves to 50 cm long, deeply lobed; fruit globose, 15-20 cm diam.
  - . (cultivated) **Artocarpus**
- 1. Leaves to 10 cm long, entire; fruit a globose or obovoid syconium less than 1.8 cm diam. . Ficus

### 1. FICUS L.

A genus of about 800 species, with tropical and subtropical distribution.

# Key to the species

- 1. Leaves chartaceous to subcoriaceous, elliptic, ovate, elliptic-lanceolate or seldom oblanceolate, the apex acuminate, the base cordate to obtuse; stipules glabrous; syconia yellowish green, red-spotted, becoming red at maturity, the operculum not surrounded by a rim . **F. citrifolia**
- 1. Leaves coriaceous, elliptic, oblong or obovate, the apex obtuse or acute, the base rounded to obtuse; stipules sericeous to hirsute; syconia yellowish green, not spotted, the operculum surrounded by a rim **F. trigonata**
- **1. Ficus citrifolia** Miller, Gard. Dict. ed. 8. 1768.

**Distribution:** A common tree of moist forests to coastal scrub. Bordeaux Mountain (A1895); White Cliffs (A2042). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; Florida, Greater and Lesser Antilles.

Common name: white fig.

2. Ficus trigonata L., Pl. Surin. 17. 1775.

**Distribution:** A common tree of moist forests. Bordeaux Mountain (A1912); Cruz Bay Quarter along Center Line Road (A2392). Also on St. Croix, St. Thomas and Tortola; throughout tropical America.

**Cultivated species:** *Artocarpus altilis* (Parkins.) Fosberg, commonly known as the breadfruit tree, is sometimes cultivated on the island.

# 53. MORINGACEAE (Horseradish Tree Family)

## 1. MORINGA Adanson

1. Moringa oleifera Lam., Encycl. 1: 398. 1785.

**Distribution:** Persistent after cultivation, perhaps becoming naturalized. Coral Bay (A1950); Cruz Bay Town (A4039). Also on St. Croix, St. Thomas and Tortola; native to the Old World but widely cultivated and naturalizing throughout tropical America.

Common name: horseradish tree.



### 1. BONTIA L.

**1. Bontia daphnoides** L., Sp. Pl. 638. 1753.

**Distribution:** A common coastal shrub. Waterlemon Bay (A1933). Also on St. Thomas and Tortola; throughout the West Indies, south to Venezuela.

# 55. MYRSINACEAE (Myrsine Family)

# 1. ARDISIA Sw., nom. cons.

1. Ardisia obovata Ham., Prodr. Pl. Ind. Occid. 26. 1825.

**Distribution:** A common shrub in secondary vegetation. Bordeaux (M17053); Gift Hill (A2464); road to Herman Farm (M17009). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; Puerto Rico and the Lesser Antilles.

Common name: breakbill.

# Guavaberry Family)

- 1. Leaves sessile or nearly so, the base usually clasping the stem.
  - 2. Leaves > 3.5 cm long, thick coriaceous, with strongly revolute margins; flowers ca. 1.5 cm across.
    - 3. Flowers cauliflorous; fruit depressed-globose, purplish, one-seeded . Eugenia earhartii
    - 3. Flowers solitary or paired in leaf axils; fruits ellipsoid to globose, green, many seeded **Psidium amplexicaule**
  - 2. Leaves 2-5 cm long, coriaceous, margins usually not revolute; flowers ca. 5 mm wide .Eugenia cordata
- 1. Leaves distinctly petiolate, the base not clasping the stem.
  - 4. Leaf apex obtuse or rounded.

5. Flowers cauliflorous (at least some of them); fruits red-orange to bright red, 1.5-2 cm diam.

# Eugenia sessiliflora

- 5. Flowers congested in leaf axils, in axillary cymes, or in terminal panicles, never cauliflorous; fruits green (unknown in *E. xerophytica*).
  - 6. Leaf blades with crenate margins; flowers > 2 cm wide.
  - 7. Leaf blades chartaceous, involute, venation not impressed above, the base nearly cordate to truncate; young stems slightly flattened, glabrous **Eugenia xerophytica**
  - 7. Leaf blades coriaceous, flattened, venation impressed on upper surface, the base obtuse; young branches 4-winged, pubescent . **Psidium guajava**
- 6. Leaf blades with entire margins; flowers to 1 cm wide.
  - 8. Leaves rigid coriaceous, strongly aromatic, midvein impressed on upper surface; hypanthium canescent within.
    - 9. Leaves 3-15 cm long, with strong bay rum smell; hypanthium glabrous without; calyx and corolla 5-merous; fruits 1-4-seeded **Pimenta racemosa**
    - 9. Leaves 2.5-7 cm long, with strong lemony smell; hypanthium appressed-canescent without; calyx and corolla 4-merous; fruits 1-2-seeded . **Myrcianthes fragrans**
  - 8. Leaves chartaceous, slightly or not aromatic, midvein prominent on upper surface; hypanthium glabrous within

# . Myrcia citrifolia var. imrayana

- 4. Leaf apex acute to acuminate (at least some).
  - 10. Flowers in axillary panicles to 5 cm long, rusty-brown-pubescent; calyx opening by a circumscissile lid; petals wanting **Calyptranthes thomasiana**
  - 10. Flowers congested in leaf axils, or in short racemes, the main axis 0.1-3 cm long; calyx of imbricate sepals; petals present.
    - 11. Flowers nearly sessile

# Myrciaria floribunda

- 11. Flowers pedicellate.
- 12. Raceme axis 1-3 cm long Eugenia biflora
  - 12. Raceme axis less than 1 cm long, or flowers 1-3 in leaf axils.
    - 13. Reticulate venation conspicuous (prominent) at least on lower surface of leaf blade.
    - 14. Leaves thick coriaceous, long acuminate; flowers 2-6, in short axillary racemes (the axis 1-8 mm long); sepals ca. 1.5 mm long; fruits ca. 7 mm diam. **Eugenia confusa**
    - 14. Leaves chartaceous, bluntly acuminate; flowers 1-3 per leaf axil (inflorescence axis ca. 1 mm long or shorter); sepals 3-3.5 mm long; fruits 1.3-2 cm diam.

### Eugenia pseudopsidium

- 13. Primary and secondary veins slightly conspicuous.
  - 15. Leaves with impressed midvein on upper surface; meristems covered with overlapping, elongate scales; flowers ≥ 1 cm across

# Eugenia ligustrina

- 15. Leaves with slightly prominent midvein on upper surface; branches naked; flowers < 8 mm across.
  - 16. Pedicels 5-15 mm long; flowers appearing fasciculate, raceme axis 1-2 mm long.

17. Leaves 1.5-4.5 cm long, elliptic to elliptic-ovate; branchlets, petioles and leaf midveins hispidulous

# . Eugenia procera

17. Leaves 3-6 cm long, ovate to lanceolate; plant glabrous

# Eugenia rhombea

- 16. Pedicels to 5 mm long, axis of raceme to 5 mm long.
  - 18. Leaves 1.5-4 cm long, elliptic, elliptic-lanceolate or ovate with revolute base

# .Eugenia monticola

18. Leaves 3-8 cm long, ovate to elliptic, base not revolute

# Eugenia axillaris

# 1. CALYPTRANTHES Sw., nom. cons.

**1.** Calyptranthes thomasiana O. Berg, Linnaea 27: 26. 1855.

**Distribution:** A rare species found only in moist forest. Bordeaux Mountain (W827, A1913, A5103). Also known from St. Thomas, Virgin Gorda; Vieques (Puerto Rico).

# 2. EUGENIA L.

- 1. Leaf base cordate.
  - 2. Leaves thick-coriaceous, brittle; flowers cauliflorous . E. earhartii
  - 2. Leaves coriaceous or chartaceous; flowers axillary.
    - 3. Flowers 2 cm wide E. xerophytica
    - 3. Flowers 7-8 mm wide E. cordata
- 1. Leaf base rounded, obtuse, acute or tapering.
  - 4. Leaves thick-coriaceous, the apex obtuse to rounded; flowers (at least some) cauliflorous; fruits 1.5-2 cm diam. **E. sessiliflora**
  - 4. Leaves coriaceous to chartaceous, the apex acute, acuminate or seldom obtuse; flowers in axillary inflorescences; fruits < 1 cm diam.
    - 5. Raceme axis 1-3 cm long; the flowers in axillary racemes . E. biflora
    - 5. Raceme axis less than 1 cm long; the flowers appearing fasciculate, or solitary in leaf axils.
      - 6. Flowers solitary or paired in leaf axil.
        - 7. Leaves elliptic, coriaceous, 2-5 cm long, conspicuously yellowish punctate, the tertiary venation inconspicuous; meristems covered with overlapping scales; flowers solitary, the peduncles 1.8-3.5 cm long, with a persistent, elongate scale at base; fruits black E. ligustrina
      - 7. Leaves ovate or elliptic, 3.5-9 cm long, inconspicuously punctate, the tertiary venation conspicuous; meristems naked; flowers 2-3 or less often solitary, the pedicels 1.5-2 cm long; fruit red-orange when mature . **E. pseudopsidium**
    - 6. Flowers (2-)6 to numerous in leaf axils.
      - 8. Leaves thick coriaceous, abruptly long acuminate at apex E. confusa
      - 8. Leaves chartaceous to coriaceous, acuminate (the acumen obtuse) or acute.
        - 9. Pedicels 5-15 mm long; raceme axis 1 mm long or less.
          - 10. Leaves 1.5-4 cm long, ovate-elliptic; branchlets, petioles, lower side of leaf midveins, and leaf margins hispidulous . **E. procera**

- 10. Leaves 3-6 cm long, ovate to lanceolate; plant glabrous . E. rhombea
- 9. Pedicels 1-5 mm long, axis of raceme to 5 mm long.
  - 11. Leaves 1.5-4 cm long, elliptic, elliptic-lanceolate or ovate, with revolute base . E. monticola
  - 11. Leaves 3-8 cm long, ovate to elliptic, base not revolute E. axillaris

# 1. Eugenia axillaris (Sw.) Willd., Sp. Pl. 2: 960. 1799.

**Distribution:** An uncommon tree of moist to dry evergreen forests. Road to Bordeaux (A4053). Also on Anegada, St. Croix, Tortola and Virgin Gorda; throughout the Caribbean, and coastal Mexico.

# 2. Eugenia biflora (L.) DC., Prodr. 3: 276. 1828.

**Distribution:** A common tree of moist to dry evergreen forests. Cruz Bay Quarter along Center Line Road (A2808); trail to Petroglyphs (A2931). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout the West Indies and Mexico to northern South America, apparently not present in Cuba.

# **3. Eugenia confusa** DC., Prodr. 3: 279. 1828.

**Distribution:** A rather uncommon tree of moist or dry evergreen forests. Road to Bordeaux (A2098). Also in Florida, Greater Antilles, Bahamas, and Lesser Antilles.

# 4. Eugenia cordata (Sw.) DC., Prodr. 3: 272. 1828.

**Distribution:** A common shrub of coastal scrub or seasonal deciduous forests. East side of Minna Hill (A3205); Newfound Bay (A4148); Lameshur (B636). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; St. Barts.

# **5. Eugenia earhartii** Acev.-Rodr., Brittonia 45: 133. 1993.

**Distribution:** A rare shrub of coastal thickets or thorny scrub. Known only from two localities on St. John. Eastern side of Minna Hill (A3204); trail from Europa Bay to White Cliffs (A5233).

# **6. Eugenia ligustrina** (Sw.) Willd., Sp. Pl. 2: 962. 1799.

**Distribution:** A common shrub of coastal scrub or seasonal deciduous forests. Bethany (B347); Lameshur (A743). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout the Caribbean and northern South America.

Common names: birch berry, crumberry.

# 7. Eugenia monticola (Sw.) DC., Prodr. 3: 275. 1828.

**Distribution:** A common shrub of dry to moist forests. Susannaberg (A3808); trail to Brown Bay; along trail to Lameshur (A3184). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout the West Indies and northern South America.

# 8. Eugenia procera (Sw.) Poir. in Lam., Encycl. Suppl. 3: 129. 1813.

**Distribution:** A common shrub of scrub or dry to moist forests. Bordeaux Mountain (W105); Reef Bay trail (A4123). Also on Jost van Dyke, St. Croix, St. Thomas, and Tortola; Cuba, Hispaniola, Puerto Rico, Lesser Antilles and northern Colombia and Venezuela.

# 9. Eugenia pseudopsidium Jacq., Enum. Syst. Pl. 23. 1760.

**Distribution:** A common shrub of moist to dry forests, mostly in understory, but also in disturbed, open areas. Road to Bordeaux (A2853); Bethany (B341). Also on St. Croix, St. Thomas, and Tortola; Hispaniola, Puerto Rico (including Vieques and Culebra) and Lesser Antilles.

Common names: bastard guava, Christmas cherry, wild guava.

**10. Eugenia rhombea** Krug & Urb. *ex* Urb., Bot. Jahrb. Syst. 19: 644. 1895.

**Distribution:** An uncommon shrub of dry forests or scrub. Lameshur-Reef Bay trail (W429). Also on St. Croix; Florida, eastern Mexico, Guatemala, Honduras, and throughout the West Indies.

Common name: crumberry.

11. Eugenia sessiliflora Vahl, Symb. Bot. 3: 64. 1794.

**Distribution:** An uncommon shrub of scrub, dry forests or moist forests. Concordia (A2763); vic. of Southside Pond (A1830). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Puerto Rico, including Vieques and Culebra.

**12. Eugenia xerophytica** Britton, Bull. Torrey Bot. Club 51: 11. 1924.

**Distribution:** A rare shrub of scrub or dry forests. Previously known on St. John from three individuals, of which only one remains. Maria Bluff (A764). Also on southern Puerto Rico, and Caja de Muerto Island.

# **3. MYRCIA** DC. *ex* Guillemin

About 300 species, from tropical and subtropical America.

**1. Myrcia citrifolia** (Aubl.) Urb. var. **imrayana** (Griseb.) Stehlé & Quentin, Fl. Guadalupe 2(3): 57. 1949.

**Distribution:** A common tree of moist forests. Bordeaux (A2598, A2861, B566). Also on St. Thomas, Tortola and Virgin Gorda; Puerto Rico and the Lesser Antilles.

# 4. MYRCIANTHES O. Berg

**1. Myrcianthes fragrans** (Sw.) McVaugh, Fieldiana, Bot. 29: 485. 1963.

**Distribution:** A common tree of moist forests. Camelberg Peak (A4249). Also on St. Croix and Tortola; throughout the West Indies and Mexico to northern South America.

# **5. MYRCIARIA** O. Berg

**1. Myrciaria floribunda** (H. West *ex* Willd.) O. Berg, Linnaea 27:330.1856.

**Distribution:** An uncommon tree of moist forests. Bordeaux (A2626, A3823). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; Puerto Rico (including Vieques), Cuba, Hispaniola, Lesser Antilles, Mexico and northern South America.

Common name: guavaberry.

#### 6. PIMENTA Lindl.

**1. Pimenta racemosa** (Miller) J.W. Moore var. **racemosa**, Bernice P. Bishop Mus. Bull. 102: 33. 1933.

**Distribution:** A common tree of moist secondary forests, previously widely cultivated; not known for sure whether native to the Virgin Islands or not. Bordeaux (A829); Gift Hill (A2852). This variety is also found on St. Croix, Tortola and Virgin Gorda; Puerto Rico, Cuba and the Lesser Antilles.

**Common names:** bay leaf, bay rum tree, cinnamon, cinnamon bush.

# 7. PSIDIUM L.

# Key to the species

- 1. Leaves nearly sessile, with base usually clasping the stem; venation inconspicuous . P. amplexicaule
- 1. Leaves distinctly petiolate, base not clasping stem; venation prominent on lower surface **P. guajava**
- 1. Psidium amplexicaule Pers., Syn. Pl. 2: 27. 1806.

**Distribution:** A common shrub of moist forests. Bordeaux (A2862, A5216). Also on St. Thomas, Tortola and Virgin Gorda; Puerto Rico and Nevis. According to Britton & P. Wilson (1925), this species was cultivated on St. Croix and Guadeloupe.

Common name: mountain guava.

2. Psidium guajava L., Sp. Pl. 470. 1753.

**Distribution:** Apparently introduced, a few individuals known to be growing spontaneously. Road to Bordeaux (A2896); Cinnamon Bay (A5149). Native to tropical America, now cultivated and escape throughout the tropics.

Common name: guava.

# **57. NYCTAGINACEAE**

(Four O'Clock Family)

Key to the genera

- 1. Plants herbaceous; flowers bisexual Boerhavia
- 1. Plants woody (trees, shrubs or lianas); flowers unisexual.
  - 2. Shrub 1-3 m tall; leaves 0.5-2.5 cm long, oblanceolate to spatulate . Neea
  - 2. Trees or lianas, to over 5 m tall; leaves > 2.5 cm long, variously-shaped but not as above.
    - 3. Fruits not fleshy, covered with stipitate glands . Pisonia
    - 3. Fruit fleshy, not glandular Guapira

## 1. BOERHAVIA L.

- 1. Anthocarps glabrous, pedicellate; flowers white or pinkish-tinged.
  - 2. Plant erect to decumbent; anthocarps 3.2-3.5 mm long, 5-ribbed **B. erecta**
  - 2. Plant with elongate, climbing fragile stems; anthocarps 12-13~mm long, 10-striate when mature, glandular toward the apex . **B. scandens**
- 1. Anthocarps glandular pubescent, sessile; flowers red to violet.
  - 3. Inflorescences < 5 cm long, with puberulent axes; flowers 5-12 in dense subcapitate clusters **B. coccinea**
  - 3. Inflorescence > 10 cm long, with glabrous axes; flowers 2-4(-7) on long secondary axes **B. diffusa**
- 1. Boerhavia coccinea Miller, Gard. Dict. ed. 8. 1768.

**Distribution:** A common roadside weed. Emmaus (A2004, A2821); Reef Bay Quarter at Lameshur (B643). Also on St. Croix and St. Thomas; a pantropical weed.

2. Boerhavia diffusa Miller, Gard. Dict. ed. 8. 1768.

**Distribution:** A common weed of open areas, common along sandy beaches. Reef Bay (A2727). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; a pantropical weed.

Common names: batta batta, kallaloo bush.

3. Boerhavia erecta L., Sp. Pl. 3. 1753.

**Distribution:** A common roadside weed. Great Cruz Bay (A2356); Emmaus (A2822); Fish Bay (A2812). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; tropical America, West Africa and Malaysia.

4. Boerhavia scandens L., Sp. Pl. 3. 1753.

**Distribution:** A common roadside weed. Waterlemon Bay (A2520). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; tropical to subtemperate America.

#### 2. GUAPIRA Aubl.

**1. Guapira fragrans** (Dum. Cours.) Little, Phytologia 17: 368. 1968.

**Distribution:** A common tree of dry to moist forests. Bordeaux (P29306); Lind Pt. (A2695). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; the Greater Antilles, the Lesser Antilles and northern South America.

Common names: black mampoo, wild mampoo.

#### 3. NEEA Ruíz & Pavón

1. Neea buxifolia (Hook.f.) Heimerl, Bot. Jahrb. Syst. 21: 633. 1896.

**Distribution:** An uncommon shrub of dry to moist forests. Cruz Bay Quarter along trail to Margaret Hill (A2305), and Maria Bluff area (A4706); Reef Bay Quarter at Europa Bay (A4143). Also on St. Thomas and Guana Island; Puerto Rico, including Culebra.

### 4. PISONIA L.

# Key to the species

- 1. Liana, with recurved spines on trunk and lateral branches; branches 4-angled, divaricate; leaves usually elliptic **P. aculeata**
- 1. Tree, without spines; branches nearly cylindrical; leaves wide ovate to rounded . P. subcordata
- 1. Pisonia aculeata L., Sp. Pl. 1026. 1753.

**Distribution:** An occasional liana of thickets or dry to humid forest. Lameshur flood plain (W760). Also on St. Croix and St. Thomas; widespread throughout the Neotropics.

Common name: prickly mampoo.

2. Pisonia subcordata Sw., Prodr. 60. 1788.

**Distribution:** A common tree of dry forest and thickets. Denis Bay (M16586); East End Pt. (A657). Also on Anegada, St. Croix and St. Thomas, Tortola and Virgin Gorda; Jamaica, Puerto Rico, including Vieques and Culebrita, and the Lesser Antilles.

Common names: loblolly, mampoo, water mampoo.

**Cultivated species:** Bouganvillea glabra Choisy and Bouganvillea spectabilis Willd. are occasionally cultivated on the island.

# (Ochna Family)

# 1. OURATEA Aubl., nom. cons.

1. Ouratea litoralis Urb., Symb. Antill. 1: 363. 1899.

**Distribution:** An occasional shrub of moist forests. Bordeaux (A4675, A5215). Also on St. Thomas and Virgin Gorda; Puerto Rico.

# 59. OLACACEAE (Olax Family)

### Key to the genera

- 1. Unarmed shrubs or trees; leaves obovate to elliptic; bracteoles connate into an epicalyx; petals connate into a bell-corolla, with a tuft of hairs at the point of attachment of anthers; drupes ovoid to ellipsoid **Schoepfia**
- 1. Spiny shrubs or trees; leaves elliptic to ovate; bracteoles not forming an epicalyx; petals free to base, densely pubescent throughout most of their inner surface; drupes nearly globose **Ximenia**

## 1. SCHOEPFIA Schreber

# Key to the species

1. Shrub or small tree to 5 m tall; leaves obovate to elliptic, 2-4 cm long, with obtuse apex . S. obovata

- 1. Tree to 7 m tall; leaves ovate to lanceolate, 4-8 cm long, with acute to acuminate apex **S.** schreberi
- **1. Schoepfia obovata** C. Wright *in* Sauv., Anales Acad. Ci. Méd. Habana 5: 289. 1868. **Distribution:** A rare shrub in coastal thickets. Lameshur (W513). Also on Anegada; Bahamas, Puerto Rico, Cuba, Jamaica and Hispaniola.
- 2. Schoepfia schreberi J.F. Gmel., Syst. Nat. 2: 376. 1791.

**Distribution:** An uncommon shrub of coastal thickets and dry forests. Bordeaux (W617); Christ of the Caribbean (A2918); trail to Reef Bay (A2670). Also on St. Croix and St. Thomas; Puerto Rico (including Vieques), throughout the Caribbean region and Mexico to northern South America.

### 2. XIMENIA L.

**1. Ximenia americana** L., Sp. Pl. 1193. 1753.

**Distribution:** An uncommon shrub of coastal thickets. Drunk Bay (W541). Also throughout tropical America and Africa.

# (Olive Family) By Scott LaGreca

Key to the genera

- 1. Corolla salverform . **Jasminum**
- 1. Corolla of 4 nearly distinct petals, or wanting.
  - 2. Corolla of 4 white, narrowly lanceolate petals; flowers borne in loose, drooping, axillary panicles . **Chionanthus**
  - 2. Corolla wanting; flowers borne in short (5-7 mm long) axillary racemes Forestiera

### 1. CHIONANTHUS L.

1. Chionanthus compacta Sw., Prodr. 13. 1788.

**Distribution**: Frequent in moist forests. Bordeaux road (A1896); Susannaberg (A2800); Maho Bay Quarter along North Shore Road toward Annaberg Ruins (A1931). Also on Jost van Dyke, St. Croix and St. Thomas; Puerto Rico (including Culebra and Vieques), Hispaniola, the Lesser Antilles, Trinidad, Tobago, Venezuela (including Margarita Island), and Colombia.

#### **2. FORESTIERA** Poir.

**1. Forestiera eggersiana** Krug & Urb., Bot. Jahrb. Syst. 15: 339. 1893.

**Distribution:** A common shrub of coastal thickets and dry forests. Mary Pt. (A2343); trail from Lameshur to Europa Bay (A3194). Also on St. Thomas and Virgin Gorda; Puerto Rico (including Culebra and Viegues) and St. Barthelemy.

#### 3. JASMINUM L.

# Key to the species

- 1. Leaves trifoliate; calyx lobes sharply acuminate; anther-lobe apices narrowed . **J. fluminense**
- 1. Leaves simple; calyx lobes linear, narrow, elongate, and erect; anther-lobe apices blunt **J.** multiflorum
- 1. Jasminum fluminense Vell., Fl. Flumin. 10. 1825 [1829].

**Distribution:** A naturalized species, occasional in open, disturbed sites. Road to Bordeaux (A2892, A3839). A native of tropical Africa, but this plant was first described from Brazil, and is now naturalized throughout the tropics.

2. Jasminum multiflorum (Burm.f.) Andrews, Bot. Repos. 8: part 102, t. 496. 1807.

**Distribution:** A naturalized species, occasional in open, disturbed sites. Road to Bordeaux (A4672); Maho Bay Quarter along Center Line Road (A3854). Native to Asia but widely cultivated throughout the tropics.

**Common names:** star jessamine, hairy jasmine.

# 61. ONAGRACEAE (Evening Primrose Family)

#### 1. LUDWIGIA L.

**1. Ludwigia octovalvis** (Jacq.) Raven, Kew Bull. 15: 476. 1962.

**Distribution:** A common weed of wet ditches along roadsides. Road to Bordeaux (A1890). Also on St. Croix, St. Thomas and Tortola; widespread throughout the tropics.

# 62. OXALIDACEAE (Wood Sorrel Family)

# 1. OXALIS L.

**1. Oxalis corniculata** L., Sp. Pl. 435. 1753.

**Distribution:** An occasional weed of humid, shaded areas. Road to Bordeaux (A3848); Herman Farm (A870). Also on Tortola; widespread throughout the world.

# **63. PAPAVERACEAE**

(Poppy Family)

#### 1. ARGEMONE L.

1. Argemone mexicana L., Sp. Pl. 508. 1753.

**Distribution:** A common weed of open disturbed areas. Long Bay (A672). Also on St. Croix, St. Thomas and Tortola; widespread weed throughout the tropics.

**Common names:** Mexican poppy, thistleroot, yellow-thistle.

# **64. PASSIFLORACEAE**

(Passion Fruit Family)

# 1. PASSIFLORA L.

Key to the species

- 1. Leaves oblong to elliptic-lanceolate, entire, not lobed.
  - 2. Plant glabrous; flowers solitary, 6-8 cm wide, subtended by an involucre of 3, large, foliaceous bracts . **P. laurifolia**
  - 2. Plant tomentose; flowers clustered in leaf axils, 0.8 cm wide, subtended by a minute, subulate bract **P. multiflora**
- 1. Leaves variously shaped, shallowly to deeply lobed.
  - 3. Leaves deeply 3-lobed, with central lobe longer than the lateral ones (the leaf longer than wider); fruit yellow, orange or purple when mature.
    - 4. Leaf margins serrate or deeply crenate; fruits yellow to orange when mature.
      - 5. Plant glabrous, odorless; petioles with 2 glands; bracts leaf-like; fruit 5-7 cm long . **P. edulis**
      - 5. Plant pilose, with strong foetid odor; petioles glandless; bracts deeply dissected, covered with numerous sticky, glandular hairs; fruits 1.5-2.5 cm long . **P. foetida**
    - 4. Leaf margins entire; fruits bluish-purple when mature . . P. suberosa
  - 3. Leaves 2-lobed, the lobes projecting beyond the apex of the blade; fruits red or reddish pink when mature . **P. rubra**
- **1. Passiflora edulis** Sims, Bot. Mag. 45: t.1989. 1818.

**Distribution:** Introduced for its juicy fruits, found occasionally as an escape in open disturbed areas. Road to Susannaberg (A834). Also on St. Thomas; widely cultivated throughout the tropics for its edible fruits.

Common name: passion fruit.

**2. Passiflora foetida** L., Sp. Pl. 959. 1753.

**Distribution:** A common weedy species from open disturbed, dry areas. Chocolate Hole (A772); Cruz Bay (A1948). Populations on St. John seem to belong in *Passiflora foetida* var.

gossypifolia (Ham.) Masters, which is a common variety throughout tropical America. The species has been reported for St. Croix, St. Thomas and Tortola by Britton (1924) without reference to variety. *Passiflora foetida* var. *hispida* (DC.) Killip *ex* Gleason has been collected on St. Thomas (A5186).

**Common names:** love in the mist, pap bush.

# 3. Passiflora laurifolia L., Sp. Pl. 956. 1753.

**Distribution:** A common vine of moist disturbed areas. Road to Bordeaux (A1924, A2856). Reported for St. Croix, St. Thomas (Britton 1924) and Tortola (D'Arcy, 1967); throughout the West Indies and northern South America.

**Common names:** bell apple, water lemon.

# 4. Passiflora multiflora L., Sp. Pl. 956. 1753.

**Distribution:** An occasional vine of dry to moist forests. Bordeaux (A3857). Also on Tortola; Puerto Rico, Florida, Bahamas, Cuba and Hispaniola.

# **5. Passiflora rubra** L., Sp. Pl. 956. 1753.

**Distribution:** A common roadside weed, also in moist to dry forests. Bordeaux (A4052); Francis Bay (A905). Also on St. Croix, St. Thomas and Tortola; throughout tropical America.

Common name: bat wing.

# 6. Passiflora suberosa L., Sp. Pl. 958. 1753.

**Distribution:** A common weed, from moist to dry forests or open disturbed areas. Bordeaux (A3133); trail to L'Esperance (A2063). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda; common throughout the West Indies and tropical America, introduced into the Old World tropics.

Common names: indigo berry, ink berry.

# 65. PHYTOLACCACEAE

(Pokeweed Family)

Key to the genera

- 1. Erect herbs or subshrubs; stamens 4-8.
  - 2. Whole plant strongly foetid; inflorescence spicate; fruits oblong-trigonous, green, with 4-6 retrorse hooks . **Petiveria**
  - 2. Leaves slightly foetid; inflorescence racemose; fruits globose, fleshy, red or red-orange, smooth **Rivina**
- 1. Climbing shrubs or lianas; stamens 8-16. Trichostigma

#### 1. PETIVERIA L.

# **1. Petiveria alliacea** L., Sp. Pl. 342. 1753.

**Distribution:** A common weed of disturbed, open areas. Road to Susannaberg (A2807); Reef Bay Quarter at Fish Bay (A3886). Also on St. Croix, St. Thomas and Tortola; a common weed of tropical America.

**Common names:** Congo root, gully root, strong man bush.

#### 2. RIVINA L.

1. Rivina humilis L., Sp. Pl. 121. 1753.

**Distribution:** A common herb in the understory of coastal forests and adjacent areas. Chocolate Hole (A784); Great Cruz Bay (A2358). Also on St. Croix, St. Thomas and Tortola; a common weed of tropical America.

**Common names:** cat's blood, jumbie pepper bush, pimba pepper, snake bush, stock ma hark.

### 3. TRICHOSTIGMA A. Rich.

1. Trichostigma octandrum (L.) H. Walter, Pflanzenr. 4(83): 109. 1909.

**Distribution:** A common vine from moist to dry forests or in open disturbed areas. Maria Bluff (A628). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; common throughout tropical America.

**Common names**: basket wiss, black hoopwood, hoop, hoop vine.

# 66. PIPERACEAE

(Pepper Family) By Rodolfo Quiros

Key to the genera

- 1. Plants herbaceous, fleshy or succulent; leaves alternate, opposite or whorled; stigmas 1 **Peperomia**
- 1. Plants shrubs, more or less woody, not succulent; leaves alternate; stigmas 2-6. Piper

# 1. PEPEROMIA Ruíz & Pavón

- 1. Leaf blades with black or glandular dots.
  - 2. Leaves opposite, or whorled in 3's at the base of the inflorescences, glandular dotted . P. humilis
  - 2. Leaves alternate, with black dots.
    - 3. Epiphytic herbs; leaves 3-nerved, the petioles with 2 ciliate ridges **P. glabella**
    - 3. Terrestrial herbs, stem branching from the base, with a pink or reddish hue; leaves strongly 3- or 5-nerved from the base, the petioles glabrous . **P. myrtifolia**
- 1. Leaf blades without glandular or black dots.
  - 4. Terrestrial erect or decumbent herbs; stems brownish, rooting at lower nodes; leaves 4-15 cm long, obovate or obovate-elliptic, the base attenuate into a nearly winged petiole; spikes densely flowered **P. magnoliifolia**
  - 4. Terrestrial, erect herbs, with translucent stems; leaves usually cordate at base (less often subtruncate or rounded, petioles clasping-decurrent on stem at base; spikes loosely flowered . **P. pellucida**

# 1. Peperomia glabella (Sw.) A. Dietr., Sp. Pl. 1: 156. 1831.

**Distribution:** An occasional herb of moist shaded areas, very often in forest understory. Bordeaux (A4266, B576, W762). Also on St. Thomas and Tortola; throughout tropical America.

# **2. Peperomia humilis** A. Dietr., Sp. Pl. 1: 168. 1831.

**Distribution:** In shaded areas and disturbed open roadsides. Road to Ajax Peak (A2657); Center Line Road by km. 5.6 (A2418); White Cliffs (A2709). Also on St. Croix, St. Thomas and Tortola; in Florida, Central America, the Greater and Lesser Antilles.

# **3. Peperomia magnoliifolia** (Jacq.) A. Dietr., Sp. Pl. 1: 153.1831.

**Distribution:** Common herb in forest understory, found on humus layer. Bordeaux Mt. (A618). Also on St. Croix, St. Thomas and Tortola; Mexico, Central America, the West Indies and South America.

# 4. Peperomia myrtifolia (Vahl) A. Dietr., Sp. Pl. 1: 147. 1831.

**Distribution:** Mostly on organic matter in understory of secondary forest. Hawksnest Gut (A2669); Annaberg to North Shore Road (A2869). Also on St. Croix, Virgin Gorda; Vieques and in the Lesser Antilles.

**5. Peperomia pellucida** (L.) Kunth *in* Humb., Bonpl. & Kunth, Nov. Gen. Sp. 1: 53. 1816.

**Distribution.** Along shaded stream banks. Jeep trail to Seiben (A2054). Also on St. Croix, St. Thomas and Tortola; pantropical.

Common name: shiny bush.

### 2. PIPER L.

### 1. Piper amalago L., Sp. Pl. 29. 1753.

**Distribution:** Mostly found in secondary forest understory. Adrian Ruins (A725); Maho Bay (A2106); Salt Pond (GTP29326). Also on St. Croix, St. Thomas and Tortola; Mexico, Central America, Greater Antilles, Lesser Antilles and South America.

Common name: black wattle.

# 67. PLANTAGINACEAE

(Plantain Family)

# 1. PLANTAGO L.

### **1. Plantago major** L., Sp. Pl. 112. 1753.

**Distribution:** Very uncommon on St. John, found in wet moist areas. Road to Bordeaux Mt. (W471). Also on St. Croix and Tortola; a cosmopolitan weed.

# 68. PLUMBAGINACEAE

| (Leadwort Family) |  |
|-------------------|--|

# 1. PLUMBAGO L.

1. Plumbago scandens L., Sp. Pl. ed. 2, 1: 215. 1762.

**Distribution:** A common roadside weed. Road to Bordeaux (A1893); Maria Bluff (A627). Also on St. Croix, St. Thomas and Tortola; common throughout tropical America.

**Common names**: blister leaf, guinea leaf.

# 69. POLYGONACEAE

(Seagrape Family)

Key to the genera

- 1. Tendrilled vines; flowers bisexual, the tepals showy, petal-like, pink. Antigonon
- 1. Trees or shrubs; flowers functionally unisexual, the tepals minute, not brightly colored Coccoloba

# 1. ANTIGONON Endl.

**1. Antigonon leptopus** Hook. & Arn., Bot. Beechey Voy. 308,t. 69. 1838.

**Distribution:** This aggressive ornamental has naturalized and is common in a few localities, where it has become a pest. Hansen Bay (A1811). Native to Mexico and Central America but now widespread throughout the Caribbean region.

Common names: coral vine, Mexican creeper, coralita.

#### 2. COCCOLOBA L.

# Key to the species

- 1. Leaves reniform, rounded, or obovate, almost as broad as or broader than long; pedicels 2-2.5 mm; fruit inversely pear-shaped to obovoid, 1.4-2 cm long . **C. uvifera**
- 1. Leaves variously shaped, distinctly longer than broad; pedicels to 2 mm long or wanting; fruit ellipsoid, ovoid or ovoid-trigonous, 4-10 mm long.
  - 2. Leaves 2-5.5 cm long.
    - 3. Leaves ovate (sometimes nearly elliptic), cordate at base, with entire margins; tertiary veins inconspicuous, slightly prominent, finely reticulate, the loops nearly rounded to square, 0.2-0.4 mm wide . **C. krugii**
    - 3. Leaves elliptic, oblong or seldom ovate-lanceolate, obtuse, rounded or rarely cordate at base, with crenate, revolute margins; tertiary veins conspicuous, prominent, coarsely reticulate, the loops nearly rectangular, 1.3-2 mm long. C. microstachya
  - 2. Leaves more than 6 cm long.
    - 4. Leaves elliptic to oblanceolate, 8.5-21 cm long, the upper surface with sunken secondary veins, the base tapering to obtuse or slightly cordate lobes; fruit ca. 4.5 mm long, ovoid-trigonous, surrounded by accrescent perianth lobes . **C. venosa**
    - 4. Leaves elliptic, ovate, 6-10(-14.5) cm long, the upper surface flattened over the secondary veins, the base obtuse to rounded, slightly unequal; fruit 8-10 mm long, ovoid, surrounded completely by the hypanthium, the tepals minute, forming a crown at apex **C. swartzii**
- 1. Coccoloba krugii Lindau, Bot. Jahrb. Syst. 13: 145. 1890.

**Distribution:** A common shrub of coastal scrub and dry forests. Maria Bluff (A1984, A2329). Also on Anegada; the Bahamas, and the Greater and Lesser Antilles.

2. Coccoloba microstachya Willd., Sp. Pl. 2: 459. 1799.

**Distribution:** A common shrub or small tree of coastal scrub and dry forests. Monte (A2377); Reef Bay (M17072). Also on Jost van Dyke, St. Croix, St. Thomas and Virgin Gorda; Puerto Rico (including Mona, Culebra and Vieques) and Hispaniola.

**3. Coccoloba swartzii** Meisn. *in* A.DC., Prodr. 14: 159. 1856.

**Distribution:** Occasional tree of coastal and seasonal dry forests. Caneel Bay trail (A4118); Hawksnest Beach (A3187); Ram Head trail (W208). Also on St. Croix, St. Thomas and Virgin Gorda; the Greater and Lesser Antilles, Central America and northern South America.

**4. Coccoloba uvifera** (L.) L., Syst. Nat. ed. 10, 2: 1007. 1759.

**Distribution:** A common tree of coastal fronts and sandy beaches, also inland in dry forests. Chocolate Hole (A786); Susannaberg (A4156). Also on all other Virgin Islands; a pan-Caribbean species.

Common name: seagrape.

**5.** Coccoloba venosa L., Syst. Nat. ed. 10, 2: 1007. 1759.

**Distribution:** A common tree of dry to moist forests. Road to Bordeaux (A1918); Center Line Road (A2075). Also on Jost van Dyke, St. Croix, St. Thomas and Tortola; Hispaniola, Puerto Rico (including Viegues), the Lesser Antilles, Trinidad, Tobago and Venezuela.

Common names: cherry grape, chiggery grape, trible grape.

# **70. PORTULACACEAE**

(Purslane Family)

Key to the genera

- 1. Prostrate, decumbent or erect herbs; flowers solitary or fascicled; capsule circumscissile **Portulaca**
- 1. Erect herb or subshrub; inflorescence racemose or paniculate; capsule loculicidal **Talinum**

### 1. PORTULACA L.

Key to the species

- 1. Stems slender, filiform; leaves opposite . P. quadrifida
- 1. Stems succulent; leaves alternate.
  - 2. Leaves obovate; stipules glabrous or with few hairs . P. oleracea
  - 2. Leaves linear or oblong-linear, cylindrical or flattened; stipules densely hairy . P. rubricaulis
- **1. Portulaca oleracea** L., Sp. Pl. 445. 1753.

**Distribution:** A common weed of open areas, such as roadsides and sandy coasts. Road to Lameshur (A2791); Waterlemon Bay (A1937). Also on all of the Virgin Islands; a cosmopolitan weed.

**Common names**: jump up an' kiss me, purslane.

# 2. Portulaca quadrifida L., Mant. Pl. 1: 73. 1767.

**Distribution:** An occasional herb of open coastal and marshy areas. Trail to Fortsberg (A4089); Johns Folly (A3938). Also on Anegada, St. Croix, St. Thomas and Tortola; throughout the Greater and Lesser Antilles and South America.

**3. Portulaca rubricaulis** Kunth *in* Humb., Bonpl. & Kunth, Nov. Gen. Sp. 6: 73. 1823.

**Distribution:** An occasional herb of open coastal and waterlogged areas. Trail to Fortsberg (A4078); Hermitage Ruins (A2427); Lind Pt. (A2694); Also on St. Croix; throughout the Greater and Lesser Antilles and Mexico to northern South America.

# 2. TALINUM Adans., nom. cons.

Key to the species

- 1. Inflorescence a panicle; petals 3.5-5 mm long **T. paniculatum**
- 1. Inflorescence racemose; petals 6-10 mm long **T. fruticosum**
- **1. Talinum fruticosum** (L.) Juss., Gen. Pl. 312. 1789.

**Distribution:** A common plant of open disturbed areas, very often along roadsides. Lameshur (A2749); Mary Point (A2527). Also on St. Croix and St. Thomas; throughout the Greater and Lesser Antilles, Mexico, Central and South America.

2. Talinum paniculatum (Jacq.) Gaertn., Fruct. Sem. Pl.2: 219. 1791.

**Distribution:** An occasional shrub of rocky, open areas. East End (B1204); Lameshur (W851). Also on St. Croix and St. Thomas; throughout the Greater and Lesser Antilles, the United States, Mexico, Central and South America.

# 71. RHAMNACEAE (Buckthorn Family)

Key to the genera

- 1. Fruits dehiscent (splitting into 3 mericarps); leaves alternate.
  - 2. Woody vines, climbing by tendrils; fruit a 3-winged schizocarp, splitting into 3 indehiscent mericarps **Gouania**
  - 2. Shrubs or small trees; fruit a depressed-globose septicidal capsule, splitting into 3, dehiscent pyrene-like mericarps . **Colubrina**
- 1. Fruits indehiscent, with a slightly fleshy exocarp when fresh, but drying crustaceous; leaves opposite or nearly so.
  - 3. Fruit 1.5-1.7 cm long, turning blackish at maturity; petals present Reynosia
  - 3. Fruit 5-7 mm long, turning purplish red at maturity; petals wanting . **Krugiodendron**

# 1. COLUBRINA Brongn., nom. cons.

- 1. Leaves mostly 6.5-15 cm long, the blades with scattered submarginal glandular spots; twigs densely tomentose when young **C. arborescens**
- 1. Leaves mostly 3.5-7.5 cm long, the blades with 1 or 2 pairs of marginal glands at base; twigs ferruginous-pubescent to sparsely tomentose when young **C. elliptica**

# **1. Colubrina arborescens** (Miller) Sarg., Trees & Shrubs 2: 167. 1911.

**Distribution:** A common coastal tree, found mostly in sandy soils. Haulover Pt. (A4225). Also on Anegada, Buck Island, Jost van Dyke, St. Croix, St. Thomas, and Virgin Gorda; throughout the West Indies, southern Florida, southern Mexico and Central America.

2. Colubrina elliptica (Sw.) Briz. & W. Stern, Trop. Woods 109: 95. 1958.

**Distribution:** A common shrub of moist to dry forest or coastal scrub. Road to Bordeaux (A3863); Lameshur (B518). Also on Anegada, Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout the West Indies, southern Florida and central Mexico to Venezuela.

Common names: maubi, snake root.

### 2. GOUANIA Jacq.

A pantropical genus of about 50 species.

1. Gouania lupuloides (L.) Urb., Symb. Antill.4: 378. 1910.

**Distribution:** A common vine of open disturbed areas, such as roadsides and secondary forests. Bethany (B327); Susannaberg (A3812). Also on St. Croix, St. Thomas and Tortola; throughout the West Indies, southern Florida, southern Mexico to northern South America.

#### 3. KRUGIODENDRON Urb.

1. Krugiodendron ferreum (Vahl) Urb., Symb. Antill. 3: 314. 1902.

**Distribution:** A common tree of coastal dry forests and middle elevation moist forests. Little Lameshur Bay (A2024); Maria Bluff (A2332). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout the West Indies, southern Florida, southern Mexico to Honduras.

Common names: ebony, guatafer, ironwood.

# 4. REYNOSIA Griseb.

1. Reynosia guama Urb., Symb. Antill. 1: 356. 1899.

**Distribution:** An occasional tree of coastal dry forests at middle elevation and moist forests. Bordeaux Mt. (A5121); Cruz Bay (A2937); White Cliffs (A2031). Also on Guana Island, Jost van Dyke, St. Thomas and Virgin Gorda; Puerto Rico.

**Cultivated species:** Ziziphus mauritiana Lam. is known from a few cultivated trees growing in front yards.

# 72. RHIZOPHORACEAE

# (Red Mangrove Family)

### 1. RHIZOPHORA L.

**1. Rhizophora mangle** L., Sp. Pl. 443: 1753.

**Distribution:** A common species of mangrove swamps, along protected shallow coasts. Probably on all Virgin Islands; common throughout tropical, subtropical America and West Africa.

Common names: mangelboom, red mangrove.



### 1. PRUNUS L.

1. Prunus pleuradenia Griseb., Fl. Brit. W. I. 231. 1860.

**Distribution:** Known only from a single, sterile collection (A4703) from Bordeaux Mountain, in humid remnant forest. The vegetative characters of this specimen agree with those of *Prunus pleuradenia*. See Howard (1988) for a discussion of the correct name of this species, which he also considered as endemic to the Lesser Antilles.

# (Coffee Family) Reviewed by C. M. Taylor

Key to the genera

- 1. Herbs, only woody at base.
  - 2. Creeping, spreading herb, rooting at nodes; fruit a fleshy drupe, bright red Geophila
  - 2. Erect or decumbent herbs, many-branched from a nearly woody base; fruit a dry capsule separating into two mericarps.
    - 3. Mericarp (one or both) splitting full length **Spermacoce**
    - 3. Mericarps indehiscent or dehiscent only at base . Diodia
- 1. Shrubs, trees or lianas.
  - 4. Twining liana or scandent shrub Chiococca
  - 4. Erect or arching shrubs or trees.
    - 5. Fruit a dry capsule or schizocarp.
      - 6. Flowers 5-merous, solitary in leaf axils; corolla 6-9 cm long, the lobes linear or oblong . **Exostema**
      - 6. Flowers 4-merous, in axillary or terminal cymes; corolla less than 1.3 cm long, the lobes rounded.
        - 7. Plants bearing numerous, short, lateral branches and pairs of decussate, ascending spines at nodes; leaves less than 1.2 cm long; calyx lobes oblong, 1.8-2.6 long; corolla ca. 3 mm long, cream or white, villous within . Machaonia

- 7. Plants unarmed; leaves 4-8 cm long; calyx lobes filiform, 7-8 mm long; corolla 10.5-13 mm long, pink, with an annular thickening at the throat **Rondeletia**
- 5. Fruit a fleshy or leathery drupe or a berry.
  - 8. Plants armed with two or more spines on short axillary branches.
    - 9. Leaves 4-7 mm long, coriaceous; flower 4-merous; corolla reddish brown, with yellowish lobes; fruit fleshy, ellipsoid, ca. 7 mm long, white **Scolosanthus**
    - 9. Leaves 1-3 cm long, chartaceous; flowers 5-merous; corolla white; fruit leathery to crustaceous, globose to ovoid, 1-1.2 cm diam., turning from green to white (black when dried) **Randia**
- 8. Plants unarmed.
  - 10. Fruits longer than 4 cm.
    - 11. Fruits compound, fleshy, white, ovoid, potato-shaped, with numerous eyes (scars where the corollas were attached); inflorescence a congested head; corolla to 1 cm long **Morinda**
    - 11. Fruit simple, coriaceous, brown, globose to nearly ellipsoid, smooth; inflorescence a few-flowered cyme, or the flowers solitary; corolla 2.2-2.6 cm long **Genipa**
  - 10. Fruits shorter than 2.5 cm long.
    - 12. Flowers 4-merous.
      - 13. Shrubs; inflorescence long racemose, arched toward the apex; calyx crowned by lanceolate sepals; fruits white, bluish or lavender **Gonzalagunia**
      - 13. Shrubs or small trees; inflorescence cymose; calyx truncate at apex; fruits black.
        - 14. Cymes sessile to 2 cm long, the axes reddish; corolla tube reddish, < 5 mm long, the lobes oblong, rounded at apex **Ixora**
        - 14. Cymes 5-10 cm long, the axes green; corolla tube white, ca. 7-12 mm long, the lobes lanceolate, acuminate at apex .**Faramea**
    - 12. Flowers 5(-6)-merous.
      - 15. Hypanthium, calyx and corolla yellow; inflorescence axes bright orange to red . **Palicourea**
- 15. Hypanthium and or calyx green; corolla white, sometimes greenish or pinkish tinged; inflorescence axes green, or sometimes pinkish tinged.
  - 16. Corolla pinkish tinged; bark smooth, peeling off in large irregular plates. **Guettarda**
  - 16. Corolla white, or sometimes greenish tinged; bark smooth or rough, but not peeling off in plates.
    - 17. Flowers sessile or nearly so and

axillary . Coffea

- 17. Flowers in long branched racemes, corymbs or panicles.
  - 18. Trees 8-10 m tall; fruit narrowly ellipsoid, green . . Chione
  - 18. Shrubs 1-3 m tall; fruits globose, oblate or obovoid, red, black or white.
    - 19. Corolla bell- or trumpet-shaped, 3-4 mm long, the lobes 2-3 mm long; fruit globose or bilobed, bright red, 2-seeded . **Psychotria**
    - 19. Corolla funnel-shaped, 7-10 mm long, the tube 1-2 mm long; fruit depressed-globose, globose or ovoid, white or black, 8-10-seeded . . . **Erithalis**

#### 1. CHIOCOCCA P. Browne

1. Chiococca alba (L.) Hitchc., Rep. Missouri Bot. Gard. 4: 94. 1893.

**Distribution:** A common climber of open disturbed, moist environments, also in mature secondary forests. Bordeaux (A1914); Rosenberg (B322). Also on St. Croix, St. Thomas and Virgin Gorda; throughout the West Indies, Florida, and from Mexico to northern South America.

# 2. CHIONE DC.

1. Chione venosa (Sw.) Urb., Symb. Antill. 4: 594. 1911.

**Distribution:** A rare tree of moist forests. Bordeaux Mt. (A4700). Also on Tortola; Hispaniola, Puerto Rico and the Lesser Antilles.

# 3. COFFEA L.

1. Coffea arabica L., Sp. Pl. 172. 1753.

**Distribution:** Persistent after cultivation in moist secondary forest. Gut from Bordeaux to Reef Bay (A5277). Formerly cultivated on most of the Virgin Islands; widely cultivated through the tropics.

Common name: coffee.

#### 4. DIODIA L.

**1. Diodia ocymifolia** (Willd.) Bremekamp, Rec. Trav. Bot. Neerl. 31: 305. 1934.

**Distribution:** An uncommon weed of open disturbed areas, especially along roadsides. Road to Bordeaux (A3182, A3826). Throughout tropical America, introduced into the Old World tropics.

### 5. ERITHALIS P. Browne

**1. Erithalis fruticosa** L., Syst. Nat. ed. 10, 2: 930. 1759.

**Distribution:** A common shrub of sandy coastal thickets and forests. Hawksnest Beach (A2904); Reef Bay (A3988); Southside Pond (A1812). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda; Florida, Mexico (Yucatán), Belize, widespread throughout the West Indies.

# **6. EXOSTEMA** Rich. *ex* Humb. & Bonpl.

**1. Exostema caribaeum** (Jacq.) Roemer & Schult., Syst. Veg. 5:18. 1819.

**Distribution:** A common shrub of coastal thickets and dry forests. Trail to Brown Bay (A1878); Fish Bay (A3911); Margaret Hill (A2308). Also on St. Croix and Tortola; widespread throughout the West Indies, the Florida Keys, and Mexico to Costa Rica.

Common names: black torch, yellow torch.

#### 7. FARAMEA Aubl.

1. Faramea occidentalis (L.) A. Rich., Mém. Rubiac. 96.

**Distribution:** A common shrub of secondary moist forests. Bordeaux (A3840); Cinnamon Bay (M17015). Also on St. Thomas and Tortola; widespread throughout the West Indies, and Mexico to northern South America.

Common name: wild coffee.

# 8. GENIPA L.

1. Genipa americana L., Sp. Pl. ed. 2, 1: 251. 1762.

**Distribution:** An occasional tree of secondary moist forests. Battery Gut (A4164); Cinnamon Bay trail (A4232). Also on St. Thomas; widespread throughout the West Indies, Central and South America.

# 9. GEOPHILA D. Don

1. Geophila repens (L.) I.M. Johnston, Sargentia 8: 281. 1949.

**Distribution:** A rare herb of shaded, moist forest. Trail to Reef Bay (A2672, A2927). Also on St. Thomas; widespread throughout the West Indies, and Mexico to South America.

# 10. GONZALAGUNIA Ruíz & Pavón

**1. Gonzalagunia hirsuta** (Jacq.) Schum. *in* Mart., Fl. Bras. 6(6): 291.1889.

**Distribution:** A common shrub of open, disturbed, moist areas. Road to Bordeaux (A2950); Maria Bluff (A610). Also on St. Thomas and Tortola; Hispaniola, Puerto Rico, the Lesser Antilles, Trinidad, Venezuela, the Guianas and Brazil.

# 11. GUETTARDA L.

- 1. Leaves 1.5-5 cm long, membranous to chartaceous, puberulent along veins in lower surface, smooth on upper surface; flowers in groups of 2 or 3 on pedunculate inflorescences **G.** odorata
- 1. Leaves 3.5-15 cm long, rigidly coriaceous, densely pubescent on lower surface, scabrous (rough) on upper surface; flowers in long peduncled cymose inflorescences **G. scabra**

# 1. Guettarda odorata (Jacq.) Lam., Tabl. Encycl. 2: 219.1819.

**Distribution:** A common shrub of dry forest and woodlands. Cruz Bay Quarter at Lind Pt. (A2698); Maho Bay Quarter along road to Annaberg (A1927); Reef Bay Quarter on western slopes of Fish Bay (A3906). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; Puerto Rico, the Lesser Antilles, Central America and Venezuela.

Common name: blackberry.

# 2. Guettarda scabra (L.) Vent., Choix Pl. t. 1. 1803.

**Distribution:** A common shrub of dry to moist forests and coastal woodlands. Bordeaux (A4676); Cinnamon Bay (M17025); Susannaberg (A698). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout the West Indies, Florida, Central America, Venezuela and Trinidad.

Common name: green heart.

#### **12. IXORA** L.

# **1. Ixora ferrea** (Jacq.) Benth., Linnaea 23: 447. 1850.

**Distribution:** A common shrub of moist secondary forests. Coral Bay Quarter at Bordeaux (A4056, A4708). Also on St. Thomas, Tortola and Virgin Gorda; Cuba, Hispaniola, Puerto Rico, the Lesser Antilles and northern Venezuela.

# 13. MACHAONIA Humb. & Bonpl.

# **1. Machaonia woodburyana** Acev.-Rodr., Brittonia 45: 136.1993.

**Distribution:** A rare shrub of woodlands and coastal thickets. Minna Hill (A4235); Cob Gut (A3207); trail to Southside Pond (A2661). Endemic to St. John.

#### 14. MORINDA L

# 1. Morinda citrifolia L., Sp. Pl. 176. 1753.

**Distribution:** A native of Asia and Australia. Becoming increasingly common on St. John, particularly along sandy beaches and in disturbed coastal areas. Chocolate Hole (A1843); Cinnamon Bay (A622). Also on St. Croix and St. Thomas; widely distributed throughout the Caribbean.

**Common names**: headache tree, monkey apple, pain in de back bush, painkiller, starvation fruit.

# 15. PALICOUREA Aubl.

# 1. Palicourea croceoides Ham., Prodr. Pl. Ind. Occid. 29.1825.

**Distribution:** An occasional shrub of open disturbed moist areas, or early secondary moist forests. Bordeaux Mt. (A2609, A2947). Also on St. Croix and Tortola; throughout tropical America.

**Common name**: yellow cedar.

# 16. PSYCHOTRIA L., nom. cons.

# Key to the species

- 1. Scandent shrub P. microdon
- 1. Erect shrubs.
  - 2. Fruits black or purple when mature; leaves without pockets (domatia) in axils of midveins **P. domingensis**
  - 2. Fruits orange to red when mature; leaves with pockets (domatia) in axils of midveins.
    - 3. Leaves long acuminate at apex; calyx truncate or wavy at apex . P. nervosa
    - 3. Leaves acute or shortly acuminate at apex; calyx 5-lobed (lobes 0.3-0.4 mm long) **P. brownei**

# 1. Psychotria brownei Spreng., Syst. Veg. 1: 742. 1825.

**Distribution:** An understory shrub of moist to dry forests. Road to Bordeaux (A2886); Susannaberg (A4697). Also on Jost van Dyke, St. Thomas and Tortola; Puerto Rico and Cuba.

# 2. Psychotria domingensis Jacq., Enum. Syst. Pl. 16. 1760.

**Distribution:** An occasional shrub of open, disturbed, moist areas or in moist secondary forests. Adrian Ruins (A2461); Bordeaux Mt. (A2103). Also on St. Croix and St. Thomas; Jamaica, Hispaniola, Puerto Rico and the Lesser Antilles.

# **3. Psychotria microdon** (DC.) Urb., Symb. Antill. 9: 539. 1928.

**Distribution:** An occasional shrub of open, disturbed, moist areas. Adrian Ruins (A2395); road to Bordeaux (A2876). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Cuba, Hispaniola, Puerto Rico, the Lesser Antilles and northern South America, and along the Pacific coast to Peru.

# 4. Psychotria nervosa Sw., Prodr. 43. 1788.

**Distribution:** A common understory shrub of secondary forests. Trail to Margaret Hill (A2307); Susannaberg (A695). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Greater Antilles, Lesser Antilles, Central America to northern South America.

# 17. RANDIA L.

## 1. Randia aculeata L., Sp. Pl. 1192. 1753.

**Distribution:** A common shrub of scrub and dry forests. Hansen Bay (A1803); Solomon Bay (A2282); White Cliff (A2712). Also on Jost van Dyke, St. Croix, St. Thomas and Virgin Gorda; Greater Antilles, Lesser Antilles, Central America to northern South America.

Common names: Christmas tree, ink berry.

### 18. RONDELETIA L.

1. Rondeletia pilosa Sw., Prodr. 41. 1788.

**Distribution:** A common shrub of scrub and dry forests. Along Cob Gut (A3208); Maria Bluff (A592); Hawksnest (A2271). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Puerto Rico.

#### 19. SCOLOSANTHUS Vahl

**1. Scolosanthus versicolor** Vahl, Eclog. Amer. 1: 11. 1796 [1797].

**Distribution:** An occasional shrub of coastal scrub. Cruz Bay Quarter along Center Line Road (A3982); Reef Bay Quarter on southern slopes of Fish Bay (A3115). Also on Guana Island, St. Croix, St. Thomas and Virgin Gorda (fide Britton, 1925); Puerto Rico, including Vieques.

#### **20. SPERMACOCE** L.

Key to the species

- 1. Stems ridged, nearly 4-angled; seeds foveolate, not transversely furrowed.
  - 2. Leaves to 2 cm long, elliptic, oblong-elliptic to obovate; capsules 0.7-1 mm long; both mericarps dehiscent . **S. prostrata**
  - 2. Leaves 1.5-7 cm long, elliptic to lanceolate; capsules 2-2.5 mm long; only one mericarp dehiscent **S. confusa**
- 1. Stems not ridged, nearly cylindrical; seeds transversely furrowed S. assurgens
- 1. Spermacoce assurgens Ruíz & Pavón, Fl. Peruv. 1: 60, t. 92b. 1794.

**Distribution:** A common weed of open disturbed areas, especially along roadsides. Coral Bay Quarter along road to Bordeaux (A3827); Cruz Bay Quarter along trail to Sieben (A2074). Also on St. Croix and Tortola; throughout tropical America, introduced and naturalized in tropical Africa and Asia.

2. Spermacoce confusa Rendle, J. Bot. 74: 12. 1936.

**Distribution:** A common weed of open disturbed areas, especially along roadsides and sandy coasts. Johnson Bay (A3155); along road to Bordeaux (A3847); Fish Bay Gut (A3876). Also on Anegada, St. Croix, St. Thomas and Tortola; throughout tropical America.

3. Spermacoce prostrata Aubl., Hist. Pl. Guiane 1: 58, t. 20, f. 3. 1775.

**Distribution:** A common weed of open disturbed, moist areas. Coral Bay Quarter along road to Bordeaux (A3180); Cruz Bay Quarter along trail to Sieben (A2062). Also on Tortola; throughout tropical America and Asia.

# 75. RUTACEAE (Orange Family)

Key to the genera

1. Fruit fleshy (hesperidium), nearly globose, 2.5-4.5 cm long, turning yellow at maturity; leaves unifoliolate; petiole winged . **Citrus** 

- 1. Fruit capsular, fleshy, or an aggregate of follicles, less than 1 cm long, turning brown, purplish-black, black or red at maturity; leaves unifoliolate, or with 3 to many leaflets; petioles not winged.
  - 2. Leaves trifoliolate (at least some of the leaves).
    - 3. Plant usually less than 1-2(-3) m tall, armed with stipular spines; fruits juicy berries, ellipsoid, bright red when mature **Triphasia**
    - 3. Plants 2-8 m tall, unarmed; fruits drupes or capsules.
      - 4. Fruits capsular; leaflets elliptic, rounded and usually retuse at apex . Pilocarpus
      - 4. Fruits fleshy drupes, nearly globose, purplish to black when mature; leaflets rhombic, ovate to lanceolate **Amyris**
  - 2. Leaves unifoliolate or with 5-21 leaflets.
    - 5. Plant spiny, specially the stems; [fruit of aggregate dehiscent follicles] Zanthoxylum
    - 5. Plant unarmed.
      - 6. Leaflets with entire margins; fruit a berry with mucilaginous pulp Murraya
      - 6. Leaflets with crenate margins; fruit of aggregate dehiscent follicles
      - . Zanthoxylum (in part)

#### 1. AMYRIS P. Browne

# Key to the species

- 1. Twigs, petioles and inflorescence axes puberulent; leaflets rhombic to nearly ovate, with conspicuous punctations, the apex obtuse or rarely shortly acuminate, the venation conspicuously lighter color on upper surface, the margins revolute **A. diatrypa**
- 1. Twigs, petioles, inflorescence and leaves glabrous; leaflets ovate-lanceolate, the punctations very often inconspicuous, the apex long acuminate, the venation usually of same color as the blade, the margins not revolute **A. elemifera**
- **1. Amyris diatrypa** Spreng., Neue Entdeck. Pflanzenk. 3: 48. 1822.

**Distribution:** A common shrub of dry forests and scrub. Cob Gut (A4234); trail from Bordeaux to Lameshur (A3864). Also on Anegada, Jost van Dyke and St. Thomas; Hispaniola and probably Puerto Rico.

**2. Amyris elemifera** L., Syst. Nat. ed. 10, 2: 1000. 1759.

**Distribution:** A common shrub of dry forests and scrub. Cob Gut (A4233); Maria Bluff (4707); New Found Bay (A4256). Also on Jost van Dyke, St. Croix, St. Thomas and Virgin Gorda; throughout the West Indies and Trinidad.

Common names: candle wood, flamboyant, torch wood.

#### 2. CITRUS L.

**1. Citrus aurantifolia** (Christm.) Swingle, J. Wash. Acad. Sci.3:465.1913.

**Distribution:** Persistent after cultivation. Emmaus (A2007); Reef Bay (A5251). Previously cultivated on other Virgin Islands and throughout the Neotropics.

Common names: lime, lime bush.

#### 1. Murraya exotica L., Mant. Pl. 2: 563. 1771.

**Distribution:** Persistent after cultivation. Adrian ruins (A4009). Probably native to China, cultivated on St. Croix, St. Thomas and throughout the tropics, sometimes naturalized.

Common name: St. Patrick bush.

#### 4. PILOCARPUS Vahl

#### 1. Pilocarpus racemosus Vahl, Eclog. Amer. 1: 29. 1797.

**Distribution:** Uncommon, known on St. John from only two collections. Eggers (s.n.); along Battery Gut (W357). Also throughout the Greater Antilles (except Jamaica), Lesser Antilles and in Venezuela.

#### **5. TRIPHASIA** Lour.

# 1. Triphasia trifolia (Burm.f.) P. Wilson, Torreya 9: 53. 1909.

**Distribution:** Naturalized after cultivation, a common understory shrub of coastal dry forests and open coastal areas. Sieben (A2060); Reef Bay (A2723). Native of the East Indies, cultivated and naturalized on St. Croix, St. Thomas, Tortola and throughout the Caribbean.

Common name: sweet lime.

#### 6. ZANTHOXYLUM L.

Key to the species

- 1. Leaves unifoliolate . **Z. monophyllum**
- 1. Leaves pinnately compound.
  - 2. Plant not armed with prickles or spines; plant stellate-pubescent **Z. flavum**
  - 2. Plants armed with prickles and or spines; pubescence of simple hairs, papillate or glabrous.
    - 3. Leaves to 8 cm long; leaflets 5-9, elliptic ovate or obovate, rigidly coriaceous, 1.4-3.2 cm long, the margins entire or crenate, sometimes with spines on lower surface of midvein . **Z. thomasianum**
    - 3. Leaves to 35 cm long; leaflets 15-21, oblong to oblong-elliptic, chartaceous, 5-10 cm long, margins crenate to entire, the blades without spines **Z. martinicense**

### 1. Zanthoxylum flavum Vahl, Eclog. Amer. 3: 48. 1807.

**Distribution:** A rare tree, known only from a single individual on Ajax Peak (A5284). Probably once common on St. John but extirpated due to timber exploitation. Also found in Florida, throughout the West Indies and northern South America.

Common names: satin wood, yellow sandalwood.

# **2. Zanthoxylum martinicense** (Lam.) DC., Prodr. 1: 726. 1824.

**Distribution:** A common tree of moist forests. Road to Bordeaux (A1920); Adrian ruins (A2510). Also on St. Croix, St. Thomas and Tortola; the Greater Antilles, Lesser Antilles and northern South America.

**3. Zanthoxylum monophyllum** (Lam.) P. Wilson, Bull. Torrey Bot. Club 37: 86 1910.

**Distribution:** A common tree of dry forests. Carolina (A4673); Lameshur (A2744); Pen Pt. (A2012). Also on Jost van Dyke and St. Thomas; Puerto Rico, Hispaniola, the Lesser Antilles, Central America, and northern South America.

Common name: yellow prickle.

3. Zanthoxylum thomasianum (Krug & Urb.) P. Wilson, N. Amer. Fl. 25: 182. 1911.

**Distribution:** A rare, endangered shrub of dry forests and scrub. Cob Gut (A3206); Lameshur (B520); Gift Hill (A2940). Also on St. Thomas and Puerto Rico.

Common name: St. Thomas bush, St. Thomas prickly-ash.

# 76. SAPINDACEAE (Soapberry Family)

Key to the genera

- 1. Tendrilled vines or lianas.
  - 2. Liana to 10 m long, producing milky latex; cross section of stem with 8-10, smaller, vascular cylinders, surrounding a larger one; fruit of 3, winged mericarps **Serjania**
  - 2. Herbaceous vines, 1-2 m long, without milky latex; cross section of stem with a single vascular cylinder; fruit an inflated, membranous capsule. **Cardiospermum**
- 1. Trees or shrubs.
  - 3. Leaves trifoliolate Allophylus
  - 3. Leaves pinnate, with 2-9 leaflets.
    - 4. Leaflets usually with serrate margins; fruit a 3-locular capsule; seeds covered with a fleshy coat . **Cupania**
    - 4. Leaflets with entire margins; fruit a 1-2-locular drupe or berry.
      - 5. Fruit subglobose or ellipsoid, longer than 2 cm, green; seeds with a tan, juicy, edible seed coat . **Melicoccus**
      - 5. Fruit spherical, 1 cm long or less, dark red, purplish or black; seed without a fleshy coat . **Exothea**

#### 1. ALLOPHYLUS L.

1. Allophylus racemosus Sw., Prodr. 62. 1788.

**Distribution**: An occasional tree of lowland moist forests. Road to Bordeaux (A935, A5117); Maho Bay (A1847). Also on St. Croix; Greater Antilles (except Jamaica), Lesser Antilles and from Central America to northern South America.

#### 2. CARDIOSPERMUM L.

Key to the species

1. Plant herbaceous; leaflets deeply lobed or dissected; capsules globose to trigonous-top-shaped.

C. halicacabum

- 1. Plant slightly woody; leaflets sinuate-dentate; capsules ellipsoid to nearly globose . C. corindum
- **1. Cardiospermum corindum** L., Sp. Pl. ed. 2, 1: 526. 1762.

**Distribution**: In open, disturbed areas. Coral Bay (A1844); Chocolate Hole Bay (A2345); Fish Bay (A4154). Also on St. Croix, St. Thomas and Little St. James; weedy throughout the tropics.

Common name: ballon vine.

# 2. Cardiospermum halicacabum L., Sp. Pl. 366. 1753.

**Distribution**: Disturbed areas, mostly along roadsides. Fish Bay (A2501); trail to Mennebeck Bay (A2429); Monte (A2474). Also on St. Croix and St. Thomas; elsewhere in the tropics and subtropics as a weed; cultivated as an ornamental in temperate areas.

Common name: ballon vine.

#### 3. CUPANIA L.

1. Cupania triquetra A. Rich. in Sagra, Hist. Fis. Cuba, Bot. 119. 1845.

**Distribution**: Occasional in moist forests. Adrian ruins (A4031); Cinnamon Bay (A2093); Rosenberg (B310). Also on St. Thomas; Hispaniola, Puerto Rico and Lesser Antilles.

#### 4. EXOTHEA Macfad.

**1. Exothea paniculata** (Juss.) Radlk. *in* Durand, Index Gen. Phan. 81. 1888.

**Distribution**: Occasional in moist forest. Maho Bay Quarter along Center Line Road near intersection with Road 20 (A3992). Also in Florida, the West Indies, Guatemala, Belize and Colombia.

#### 5. MELICOCCUS P. Browne

1. Melicoccus bijugatus Jacq., Enum. Syst. Pl. 19. 1760.

**Distribution**: Widespread throughout the island in moist to semi-dry areas, especially along roads. Adrian Ruins (A728, A1858). Also on Jost van Dyke, St. Croix, St. Thomas and Virgin Gorda; native to northern South America, but commonly planted and naturalized throughout Central America, the West Indies. Apparently introduced on St. John in the 18th century.

Common names: genip, kenep, keneppy tree, quenepa.

# 6. SERJANIA Miller

**1. Serjania polyphylla** (L.) Radlk., Monogr. Serjania 179. 1875.

**Distribution**: A common liana of open disturbed areas in moist to dry environments. Cruz Bay Quarter near Lind Pt. (A2313); East End Quarter by Southside Pond (A1828). Also on Anegada, St. Croix, St. Thomas and Tortola; Hispaniola and Puerto Rico, including Vieques.

**Common names**: basket wiss, basket wood, black wist, cabrite rotting, white root, white wist.

#### 77. SAPOTACEAE

(Sapodilla Family)

Key to the genera

- 1. Calyx of 2 whorls of 3 sepals, the outer whorl valvate Manilkara
- 1. Calyx of a single whorl of 4-6 imbricate sepals.
  - 2. Corolla lobes divided into 3 segments . Sideroxylon
    - 2. Corolla lobes simple.
      - 3. Fruits green or purplish; leaves elliptic, 3-10.5 cm long Chrysophyllum
      - 3. Fruits yellow; leaves elliptic to oblanceolate, 2.5-5 cm long Pouteria

#### 1. CHRYSOPHYLLUM L.

Key to the species

- 1. Leaves oblong-lanceolate, green underneath; fruit narrowly ovoid (1-1.5 cm long), as long as the subtending peduncle **C. pauciflorum**
- 1. Leaves elliptic, rusty brown underneath (densely sericeous); fruit ellipsoid to depressed-globose (3-7 cm long), much longer than the subtending peduncle.
  - 2. Fruit depressed-globose, 4-6 cm diam. . (cultivated) C. cainito
  - 2. Fruit nearly ellipsoid, ca. 1 cm diam C. bicolor
- 1. Chrysophyllum bicolor Poir., Encycl. Suppl. 2: 15. 1811.

**Distribution**: Rare, known from only a few individuals in moist secondary forests. Adrian Ruins (A2028, A2900); Sieben (A2080). Also in Puerto Rico and Hispaniola.

2. Chrysophyllum pauciflorum Lam., Tabl. Encycl. 2: 44. 1794.

**Distribution**: A common tree of moist and dry forests. Center Line Road (A2393); Sieben (A2067). Also on St. Croix and St. Thomas; Puerto Rico, including Vieques Island.

Common name: palmet.

**Cultivated species:** *Chrysophyllum cainito* L. is occasionally cultivated on St. John and other Virgin Islands.

#### 2. MANILKARA Adans., nom. cons.

Key to the species

- 1. Flowers 2-12 in axillary fascicles; pedicels glabrous; fruits 1(-2)-seeded, ellipsoid to nearly globose, 1.5-3 cm long **M. bidentata**
- 1. Flowers solitary; pedicels pubescent; fruits many-seeded, ovoid to depressed-globose, 3-4 cm long . (cultivated) **M. zapota**
- 1. Manilkara bidentata (A.DC.) A. Chev., Rev. Int. Bot Appl. Agric. Trop. 12: 270.

**Distribution**: An occasional tree of moist forests. Bordeaux (A2102, B574). Also on Tortola; the West Indies, Panama to northern South America.

Common name: bullet.

**Cultivated species:** *Manilkara zapota* (L.) P. Royen, the edible sapote is occasionally cultivated.

#### 3. POUTERIA Aubl.

**1. Pouteria multiflora** (A.DC.) Eyma, Recueil Trav. Bot. Néerl.33:164.1936.

**Distribution**: An occasional tree of moist forests. Bordeaux (A2126). Also on Jamaica, Puerto Rico, the Lesser Antilles, Panama to northern Venezuela and Peru.

Common name: canistel.

#### 4. SIDEROXYLON L.

#### Key to the species

- 1. Often spiny shrub or small tree; leaves obovate, oblanceolate or spatulate, 0.7-4.5 cm long **S. obovatum**
- 1. Unarmed trees; leaves narrowly elliptic, elliptic, oblong-elliptic or elliptic-lanceolate, 4.5-14.5 cm long.
  - 2. Leaves 1.5-4 cm wide; fruit 6-10 mm long, ellipsoid to subglobose, reddish brown **S.** salicifolium
  - 2. Leaves 3.3-7.7 cm wide; fruit 1.5-2.6 cm long, ellipsoid to narrowly ovoid, yellow **S. foetidissimum**
- 1. Sideroxylon foetidissimum Jacq., Enum. Syst. Pl. 15. 1760.

**Distribution**: An occasional tree of moist forests. Coral Bay Quarter along Center Line Road (A2114). Also on St. Croix and Tortola; throughout the West Indies, Florida, Mexico, Guatemala and Belize.

Common names: bully, bully-mastic.

2. Sideroxylon obovatum Lam., Tabl. Encycl. 2: 42. 1794.

**Distribution**: A common shrub of dry forests and scrublands. Maria Bluff (A2338); East End Pt. (A3792); Lameshur (B526). Also on Anegada, Jost van Dyke, St. Croix St. Thomas, Tortola and Virgin Gorda; Hispaniola, Puerto Rico (including Vieques) and the Lesser Antilles.

3. Sideroxylon salicifolium (L.) Lam., Tabl. Encycl. 2: 42. 1794.

**Distribution**: A common tree of dry to moist forests. Cinnamon Bay (A2919); Hawksnest (A2668); Susannaberg (A5264). Also on St. Croix St. Thomas and Tortola; Florida, West Indies and Central America.

#### 78. SCROPHULARIACEAE

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# (Figwort Family)

#### Key to the genera

- 1. Plants herbaceous, prostrate, mat-forming, with creeping stems rooting at nodes Bacopa
- 1. Plants woody, at least at base, with erect stems.
  - 2. Leaves opposite; corolla 3.5-4 mm long, 4-merous, the tube with long, ascending hairs at base **Scoparia**
  - 2. Leaves alternate; corolla 6-9 mm long, 5-merous, the tube glabrous within Capraria

#### 1. BACOPA Aubl., nom. cons.

1. Bacopa monnieri (L.) Pennell, Proc. Acad. Nat. Sci. Philadelphia 98: 94. 1946.

**Distribution**: An occasional herb of sandy, saline or seasonally flooded, open areas. Trail to Fortsberg (A4083); Hansen Bay (A3780); Waterlemon Bay (A1935). Also on St. Croix, St. Thomas and Tortola; throughout tropical America.

#### 2. CAPRARIA L.

1. Capraria biflora L., Sp. Pl. 628. 1753.

**Distribution**: A common plant of open disturbed areas, especially along sandy beaches. Center Line road (A633); Waterlemon Bay (A1936). Also on St. Croix and St. Thomas; throughout tropical America.

**Common names**: goat weed, kabrita rotin.

#### 3. SCOPARIA L.

1. Scoparia dulcis L., Sp. Pl. 116. 1753.

**Distribution**: A common weed of open, disturbed areas, especially along roadsides and along trails. Bordeaux (A3824); Fortsberg (A2424). Also on St. Croix, St. Thomas and Tortola; a pantropical weed.

Common name: teeth bush.

# 79. SIMAROUBACEAE

(Quassia Family)

Key to the genera

- 1. Petioles and leaf rachis winged; corolla red (cultivated) Quassia
- 1. Petioles and leaf rachis not winged; corolla yellowish green ... Picrasma

#### 1. PICRASMA Blume

1. Picrasma excelsa (Sw.) Planch., London J. Bot. 5: 574. 1846.

**Distribution**: An occasional tree of moist forests. Road to Bordeaux (A4262), Reef Bay trail (A4124); Maho Bay (A5266). Also on St. Croix, St. Thomas and Tortola; Jamaica, Hispaniola, Puerto Rico, the Lesser Antilles and northern Venezuela.

Common name: bitter ash.

**Cultivated species:** Collections of *Quassia amara* L. from St. John have been made from a few individuals in cultivation.

# 80. SOLANACEAE (Tomato Family)

Key to the genera

- 1. Corolla funnel- or trumpet-shaped, with a narrow elongate tube.
  - 2. Corolla 7-13 cm long; fruits spiny . Datura
  - 2. Corolla < 6 cm long; fruits smooth.
    - 3. Corolla 1-1.2 cm long; fruit a fleshy, oblong-ellipsoid, black berry to 1.5 cm long **Cestrum**
    - 3. Corolla 4.5-6 cm long; fruit a dry, ovoid, orange-yellow capsule to 2 cm long **Brunfelsia**
- 1. Corolla bell-, saucer-, or broadly funnel-shaped, not tubular.
  - 4. Fruit a fleshy, naked berry (not covered by an inflated calyx).
    - 5. Anthers opening by terminal pores . **Solanum**
    - 5. Anthers opening by longitudinal slits Capsicum
  - 4. Fruit enveloped by an accrescent, membranous, inflated calyx. . Physalis

#### 1. BRUNFELSIA L.

1. Brunfelsia americana L., Sp. Pl. 191. 1753.

**Distribution**: A common shrub of dry forests, scrub vegetation and occasionally in open, disturbed areas. Lameshur (A2742); Threadneedle Pt. (A4129); White Cliff (A2715). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Hispaniola, Puerto Rico, and the Lesser Antilles.

Common name: rain tree.

#### 2. CAPSICUM L.

1. Capsicum frutescens L., Sp. Pl. 189. 1753.

**Distribution**: A common roadside weed. Center Line road (A2122); Ajax (A2653). Also on St. Croix and St. Thomas; Puerto Rico and the Lesser Antilles.

Common name: wild pepper.

#### 3. CESTRUM L.

1. Cestrum laurifolium L'Hér., Stirp. Nov. 4: 69, t. 34. 1788.

**Distribution**: A common shrub of moist areas, especially along shaded roadsides. Road to Bordeaux (A3137); Center Line road (A2391). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Greater and Lesser Antilles.

#### 4. DATURA L.

### Key to the species

- 1. Plant pilose; leaves deeply sinuate or with rounded lobes; calyx nearly tubular, not angled; capsules with reflexed peduncle **D. inoxia**
- 1. Plant glabrous or puberulent; leaves lobed to deeply toothed, the teeth irregular, acuminate; calyx tubular, 5-angled, the angles narrowly keeled; capsules erect **D. stramonium**
- 1. Datura inoxia Miller, Gard. Dict. ed. 8. 1768.

**Distribution**: Common in recently disturbed areas such as roadsides and waste ground. Emmaus (A1991); Great Cruz Bay (A2362). Also on St. Croix, St. Thomas and Tortola; southeastern United States to South America, including the West Indies, introduced throughout the tropics.

Common name: prickly bur.

**2. Datura stramonium** L., Sp. Pl. 179. 1753.

**Distribution**: An occasional herb of open disturbed areas. Susannaberg (A4114). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; native to Mexico but widespread as a weed throughout the world.

Common names: deadly nightshade, jimsonweed, stinking bush, thorn apple.

#### 5. PHYSALIS L.

# Key to the species

- 1. Fruiting calyx 10-angled; sepals triangular to triangular ovate **P. angulata**
- 1. Fruiting calyx 5-angled; sepals lanceolate to subulate.
  - 2. Plant glandular-pubescent; fruiting calvx with ovoid outline, 2-2.7 cm long. P. turbinata
  - 2. Plant sparsely pubescent (not glandular), with minute appressed hairs; fruiting calyx with elongate, cone-shaped outline, 4-4.5 cm long **P. cordata**
- 1. Physalis angulata L., Sp. Pl. 183. 1753.

**Distribution**: A common roadside weed, also found in open disturbed areas. Cruz Bay (A3076); Lameshur (A3212); Johns Folly (A3937). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda; widespread throughout temperate and tropical areas of the world.

Common name: ground cherry.

2. Physalis cordata Miller, Gard. Dict. ed. 8. 1768.

**Distribution**: An occasional roadside weed. Bethany (B328); Mandal (A2585). Widespread throughout tropical America.

3. Physalis turbinata Medik., Hist. & Commentat. Acad. Elect. Sci. Theod.-Palat. 4: 189. 1780.

**Distribution**: An occasional roadside weed of moist areas. Road to Bordeaux (A2851, A3136). Widespread throughout tropical America.

#### 6. SOLANUM L.

#### Key to the species

- 1. Plants unarmed.
  - 2. Plants herbaceous.
    - 3. Vine 2-5 m long; leaves simple and dissected; fruits red when mature (cultivated) **S. seaforthianum**
    - 3. Erect herb 30-80 cm tall; leaves simple and entire to sinuate; fruits purplish black when mature **S. americanum**
  - 2. Plants shrubs.
    - 4. Young parts covered with appressed, multicellular hairs; leaves glabrous, 3.5-7 cm long; fruit ovoid-conical, 2-3 cm long . **S. conocarpum**
    - 4. Plant stellate pubescent or pilose; leaves stellate pubescent underneath, 3.5-20 cm long.
      - 5. Upper leaf surface with simple hairs (sparsely strigose) . **S. mucronatum**
      - 5. Upper leaf surface with stellate hairs.
        - 6. Lower leaf surface whitish, densely stellate-tomentose S. erianthum
        - 6. Lower leaf surface greenish, sparsely covered with stellate hairs

#### . S. racemosum

- 1. Plants armed.
  - 7. Scandent shrubs or scrambling lianas S. lancifolium
  - 7. Erect shrubs.
    - 8. Leaves deeply sinuate or lobed, 4.5-11 cm wide; fruits yellow when mature . S. torvum
    - 8. Leaves entire or nearly so, 1-5.6 cm wide; fruit orange or red when mature.
      - 9. Fruit depressed-globose, puberulent, orange when mature, 1.5-2 cm wide, with accrescent calyx at base; flowers staminate and bisexual
        - . S. polygamum
      - 9. Fruit globose, glabrous, red when mature, 6-8 mm wide, the calyx not accrescent; flowers bisexual . **S. racemosum**
- 1. Solanum americanum Miller, Gard. Dict. ed.8. 1768.

**Distribution**: A common roadside weed of moist areas. Road to Bordeaux (A3140); Concordia (A4254); trail to Sieben (A2058). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; widespread as a weed throughout the tropics.

**2. Solanum conocarpum** Dunal *in* Poir., Encycl. Suppl. 3: 748. 1813.

**Distribution**: A rare, endangered species, known only from a few old collections and from two recent collections. The species is known on St. John from only a single living plant, from dry, deciduous forest. Coral Bay (the type collected by L.C. Richard); north of White Cliffs (A2710, A5437). Possibly on St. Thomas (according to Krebs, 1847) and on Virgin Gorda (sterile specimen, *Little 23836*, may belong this species).

**Common name**: marron bacora (as given by Dunal in original description of the species).

#### 3. Solanum erianthum D. Don, Fl. Nepal. 96. 1825.

**Distribution**: An occasional shrub of open disturbed areas. Ajax (A2121); Susannaberg (A706). Also on St. Croix, St. Thomas and Tortola; native to the Old World tropics, now widespread throughout tropical America.

Common names: turkey-berry, wild tobacco.

# 4. Solanum lancifolium Jacq., Collectanea 2: 286. 1788 [1789].

**Distribution**: A common liana of open disturbed areas, such as roadsides. Bordeaux (A2848); Center Line road (A2417). Also on St. Thomas (according to Krebs, 1847) and Tortola; Greater Antilles (except Jamaica), Lesser Antilles and Mexico to South America.

# 5. Solanum mucronatum O.E. Schulz in Urb., Symb. Antill. 6: 191. 1909.

**Distribution**: Perhaps extinct. Collected once by Raunkiær (no. 1927) in March 1906 at Dent Hill in Coral Bay. Also later collected once on St. Thomas and once on Puerto Rico.

#### 6. Solanum polygamum Vahl, Symb. Bot. 3: 39. 1794.

**Distribution**: A common shrub of dry forests and open disturbed areas. Coral Bay (A2689); Susannaberg (A4155). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Hispaniola, Puerto Rico, including Vieques.

Common names: kackalake berry, kakalaka, kakker lakka.

#### **7. Solanum racemosum** Jacq., Enum. Syst. Pl. 15. 1760.

**Distribution**: A common shrub of scrub, dry forests and open disturbed areas. Emmaus (A1995); Chocolate Hole (A1976); East End (A1833). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda; Puerto Rico including Culebra, Icacos, Vieques, and the Lesser Antilles.

**Common name:** cankerberry.

#### 8. Solanum torvum Sw., Prodr. 47. 1788.

**Distribution**: A common shrub of open disturbed areas. Emmaus (A3215); road to Bordeaux (A5090). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; native of tropical America but now naturalized throughout the tropics.

**Common names**: plate bush, shoo shoo bush, turkey berry.

**Cultivated species:** *Solanum seaforthianum* Andr. was reported for St. John by Britton and Wilson (1925), and by Woodbury and Weaver (1987), apparently from a cultivated plant.

# 81. STERCULIACEAE

(Cacao Family)
By Laurence J. Dorr

Key to the genera

- 1. Androgynophore  $\geq 6$  cm long; fruit spirally twisted **Helicteres**
- 1. Androgynophore absent or 1-1.5 mm long; fruit not spirally twisted.
  - 2. Staminodes 5; petals hooded, each with a terminal or subterminal appendage, deciduous.

- 3. Shrubs or subshrubs; androgynophore 1-1.5 mm long; petals adnate to the apex of the staminal tube; stamens 5, each with a single 3-locular anther. **Ayenia**
- 3. Trees (rarely shrubs); androgynophore absent; petals free; stamens 10 or 15, arranged in 5 groups, each group with two or three 2-locular anthers.
  - 4. Calyx of (2)3 sepals; petal limb prolonged apically into a strap-shaped, deeply bifid appendage; flowers on axillary inflorescences; fruits indehiscent or partly dehiscent capsules, 1.2-2.5 3 cm long, muricate . **Guazuma**
  - 4. Calyx of 5 sepals; petal limb prolonged apically into an attenuate-spatulate, entire appendage; flowers borne on the trunk (cauliflorous) and older branches; fruits indehiscent, fleshy (drupe-like) berries, greater than 10 cm long, smooth to rugose **Theobroma**
- 2. Staminodes absent (or obsolete); petals flattened throughout, not hooded, not appendaged, withering and persisting in fruit.
  - 5. Corolla yellow to yellow-orange; ovary 1-carpellate, style 1, stigma plumose, brushlike; fruit a 2-valved follicle, 1-seeded . . **Waltheria**
  - 5. Corolla pink, lavender, mauve, rose or white with dark-red veins; ovary 5-carpellate, styles 5, stigmata subulate; fruit a capsule, 5-10-seeded . **Melochia**

#### 1. AYENIA L.

1. Ayenia insulicola Cristóbal, Opera Lilloana 4: 164. 1960.

**Distribution:** Shaded banks and old cultivated grounds. South Side Pond (A4071); trail from Lameshur to Reef Bay Ruins (A5442). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Bahamas, Hispaniola, Puerto Rico and the Lesser Antilles.

#### 2. GUAZUMA Miller

**1. Guazuma ulmifolia** Lam., Encycl. 3: 52. 1789.

**Distribution:** A common tree of disturbed sites such as roadsides, pastures, and secondary vegetation. Center Line road (A4050); Coral Bay (P29325). Also on St. Croix, St. Thomas and Tortola; throughout tropical and subtropical America, including the West Indies (except the Bahamas); introduced in the Old World (Asia, Africa, and Hawaii).

Common names: bastard cedar, jackass calalu, jackocalalu, jacocalalu, West Indian elm.

#### 3. HELICTERES L.

1. Helicteres jamaicensis Jacq., Enum. Syst. Pl. 30. 1760.

**Distribution:** A common shrub of coastal thickets and woodlands. Nanny Point (A2457). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; endemic to the West Indies from the Bahamas, Greater Antilles and Grand Cayman Island east to St. Martin.

Common names: cats balls, cow bush.

#### 4. MELOCHIA L.

#### Key to the species

- 1. Fruit depressed-globose, not prolonged into a beak, not winged; petals pink to white with dark-red veins **M. nodiflora**
- 1. Fruit pyramidal, prolonged into a beak, 5-winged; petals pink, lavender, mauve, rose, rose-purple to violet, rarely white.
  - 2. Inflorescences mostly axillary; leaves densely stellate-tomentose to canescent at least beneath; capsules shortly beaked **M. tomentosa**
  - 2. Inflorescences mostly leaf-opposed; leaves sparsely pubescent with simple and bifurcated hairs at least beneath; capsules long beaked . **M. pyramidata**

#### 1. Melochia nodiflora Sw., Prodr. 97. 1788.

**Distribution:** A common weed of roadsides, pastures, and waste places. Trail to Caneel Hill (A2301); Reef Bay (A2643). Also on St. Croix, St. Thomas and Tortola; the West Indies, Mexico and Central America south to northern and eastern Brazil.

#### 2. Melochia pyramidata L., Sp. Pl. 674. 1753.

**Distribution:** A weed along roads, in pastures, and in open places. Cruz Bay (A2323); Christ of the Caribbean (A2849). Also on St. Croix, St. Thomas (Britton & Wilson, 1924 "according to West and to Krebs") and Tortola; Texas, Florida, the West Indies, Mexico, Central America, to northern Argentina, naturalized elsewhere in tropical and subtropical areas.

#### 3. Melochia tomentosa L., Syst. Nat. ed. 10, 2: 1140. 1759.

**Distribution:** Common weed of open disturbed areas such as roadsides. Lameshur (A2760); Coral Bay (A2445). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda (Britton & Wilson, 1924); Florida, Texas, West Indies, Mexico, Central America to Brazil.

Common names: broom weed, broom wood.

### 5. THEOBROMA L.

#### 1. Theobroma cacao L., Sp. Pl. 782. 1753.

**Distribution:** Uncommon, naturalized in Cinnamon Bay, area along trail south of ruins (A 4153). Also on St. Croix (Eggers, 1879; Little & Wadsworth, 1964) and Tortola (D'Arcy, 1967); native of Central and South America, widely cultivated in the tropics.

Common names: cacao, cocoa tree, chocolate tree.

#### 6. WALTHERIA L.

# **1.** Waltheria indica L., Sp. Pl. 673. 1753.

**Distribution:** A common weed of open places and waste areas. Fish Bay (A2479); East End (A2782). Also on Anegada (Britton & Wilson, 1924; D'Arcy, 1971), St. Croix, St. Thomas, Tortola (D'Arcy, 1967) and Virgin Gorda (Britton & Wilson, 1924); a pantropical weed, native to the New World where it occurs from Florida and the West Indies south through continental tropical America; introduced and naturalized in the Old World.

Common name: marsh-mallow.

# 82. SURIANACEAE

(Suriana Family)

#### 1. SURIANA L.

1. Suriana maritima L., Sp. Pl. 284. 1753.

**Distribution**: A common shrub of sandy coasts. Europa Bay (A746); Hart Bay (A809). Also on Anegada, St. Croix, St. Thomas and Virgin Gorda; throughout coastal tropical and subtropical America, Madagascar, Polynesia, New Guinea and Australia.

Common name: bay cedar.

# 83. SYMPLOCACEAE

(Symplocos Family)

# 1. SYMPLOCOS Jacq.

1. Symplocos martinicensis Jacq., Enum. Syst. Pl. 24. 1760.

**Distribution**: An occasional tree of moist forests. Bordeaux Mt. (A4693, A5107, W457). Also on St. Thomas and Tortola; Puerto Rico, the Lesser Antilles and French Guiana.

# (Tea Family)

#### 1. TERNSTROEMIA L.f.

A tropical genus of about 100 species.

1. Ternstroemia peduncularis DC., Mém. Soc. Phys. Genève 1:409. 1822.

**Distribution**: An occasional tree of moist forests. Bordeaux Mt. (A1917, A5106). Also on St. Croix; Cuba, Hispaniola, Puerto Rico and the Lesser Antilles.

# 85. THEOPHRASTACEAE

(Theophrasta Family)

#### 1. JACQUINIA L.

Key to the species

1. Racemes much shorter than the subtending leaves; pedicels reflexed; leaves 2-4.5 cm long, slightly revolute . **J. berterii** 

- 1. Racemes much longer than the subtending leaves; pedicels ascending; leaves 4-10 cm long, strongly revolute . J. arborea
- **1. Jacquinia arborea** Vahl, Eclog. 1: 26. 1796. *J*

**Distribution**: A common shrub of coastal scrub and dry forests, usually along sandy beaches. Hawksnest Beach (A3186); Reef Bay (A3987). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda; Puerto Rico, Jamaica, Hispaniola and the Lesser Antilles.

2. Jacquinia berterii Spreng., Syst. Veg. 1: 668. 1825.

**Distribution**: A common shrub of coastal scrub, dry forests, and sandy beaches. Europa Bay (A748); Maria Bluff (A2335); White Cliffs (A2717). Also on Jost Van Dyke and St. Thomas; Puerto Rico, Bahamas, Cuba, Hispaniola and the Lesser Antilles.

#### 86. THYMELAEACEAE

(Thymelaea Family)

#### 1. DAPHNOPSIS Mart.

1. Daphnopsis americana (Miller) J. Johnst. subsp. caribaea (Griseb.) Nevl., Ann.

Missouri Bot. Gard. 46: 315. 1959.

**Distribution**: A common shrub of dry to moist forests. Center Line Road (A2487); Cinnamon Bay (M17006). Also on Jost van Dyke, St. Croix and St. Thomas; Puerto Rico, Central America to northern South America and the Lesser Antilles.

# 87. TILIACEAE (Linden Family) By Laurence J. Dorr

Key to the genera

1. Fruit loculicidally dehiscent, unarmed, ellipsoid to linear-cylindric; leaves not lobed.

# **Corchorus**

1. Fruit indehiscent (or tardily splitting), armed with hooked spines, subglobose; leaves often palmately 3- to 5-lobed. Triumfetta

#### 1. CORCHORUS L.

Key to the species

- 1. Leaf blades with the 2 basal teeth prolonged into setaceous hairs; stipules conspicuous, linearlanceolate, 5 mm or more long . C. aestuans
- 1. Leaf blades without hair-like prolongations at their base; stipules inconspicuous, linear to subulate, less than 5 mm long.

- 2. Capsule 4-locular, 1-1.5 cm long, oblong-ellipsoid, densely tomentose, with a short, erect beak; stems densely stellate-pubescent . **C. hirsutus**
- 2. Capsule 2-locular, (3.5-)5-8 cm long, linear, pubescent or glabrate, with 2 short bifid teeth; stems with lines of short hairs **C. siliquosus**
- 1. Corchorus aestuans L., Syst. Nat. ed. 10, 2: 1079. 1759.

**Distribution:** Occasional weed of open, disturbed areas. Lind Point Research Station (A2297); Maho Bay (A1942); Great Lameshur Bay (A2564). Also on St. Croix, St. Thomas and Tortola; tropics and subtropics from the Gulf Coast to the Amazon, and in the Old World.

**2.** Corchorus hirsutus L. , Sp. Pl. 530. 1753.

**Distribution:** Common on beaches and in open areas in well-drained sandy or rocky soils. East End (A673); Coral Bay (A2580); Dittlif Point (A3962). Also on Anegada, St. Croix, St. Thomas and Tortola; Mexico to northern South America including the West Indies, and Africa.

Common name: jack switch.

3. Corchorus siliquosus L., Sp. Pl. 529. 1753.

**Distribution:** A weed of cultivated and other disturbed areas. Fish Bay near mouth of Fish Bay Gut (A3877); trail to Seiben (A2641); hillside above Cinnamon Bay (M17007). Also on St. Croix, St. Thomas and Tortola; occurring almost throughout tropical America.

Common name: broom weed.

#### 2. TRIUMFETTA L.

#### Key to the species

- 1. Petals, androgynophore, glands, and disk absent; fruit (excluding spines) conspicuously stellate-pubescent . **T. lappula**
- 1. Petals, androgynophore, glands, and disk present; fruit (excluding spines) glabrous or minutely puberulent . **T. semitriloba**
- **1. Triumfetta lappula** L. , Sp. Pl. 444. 1753.

**Distribution:** A weed of waste places and thickets. Trail to Reef Bay (A2724). Also on St. Croix, St. Thomas and Tortola; common throughout tropical America and also reported from the Cape Verde Islands and Mauritius.

Common name: maho.

**2. Triumfetta semitriloba** Jacq. , Enum. Syst. Pl. 22. 1760.

**Distribution:** A weed in disturbed areas. Cruz Bay (A2396); L'Esperance (A2560); along road to Bordeaux (A3125). Also on St. Croix, St. Thomas and Tortola; native to tropical America, reportedly naturalized in Africa and the Pacific.

Common name: bur bark.

# 88. TURNERACEAE (Turnera Family)

#### 1. TURNERA Mart.

#### Key to the species

- 1. Erect or spreading shrub; leaves 0.4-1.0 cm long, not glandular; petals 4-6 mm long **T. diffusa**
- 1. Erect shrub; leaves 6-10 cm long, glandular at the junction between the blade and the petiole; petals 2-3 cm long **T. ulmifolia**
- 1. Turnera diffusa Willd. in Schult., Syst. Veg. 6: 679. 1820.

**Distribution**: A common subshrub of scrub and open dry areas. Dittlif Pt. (A3979); Maria Bluff (A2334). Also on Little St. James, St. Croix, St. Thomas and Virgin Gorda; Bahamas, the Greater Antilles and continental tropical America.

**Common name:** old woman broom.

**2. Turnera ulmifolia** L., Sp. Pl. 271. 1753.

**Distribution**: An occasional shrub of open, disturbed areas, especially along roads. Emmaus (A2828); Fish Bay (A3900). Also on St. Croix, St. Thomas and Virgin Gorda; throughout tropical America, naturalized throughout the tropics.

# 89. ULMACEAE (Elm Family)

# Key to the genera

- 1. Drupes 6-10 mm long; leaves puberulent, smooth on upper surface, the margins entire, crenate or coarsely serrate (3-4 teeth/cm) above the base . **Celtis**
- 1. Drupes to 3 mm long; leaves weakly scabrous on upper surface, the margins finely serrate (7-8 teeth/cm) from base to apex . **Trema**

#### 1. CELTIS L.

# Key to the species

- 1. Scandent shrub or liana, with a pair of axillary, recurved or straight spines; leaves entire, crenate or remotely serrate **C. iguanaea**
- 1. Small tree, unarmed; leaves coarsely serrate C. trinervia
- 1. Celtis iguanaea (Jacq.) Sarg., Silva 7: 64. 1895.

**Distribution**: A common woody vine of scrub and dry coastal forests. Cinnamon Bay (A5150); Great Cruz Bay (A2361); Lameshur (A3237). Also on St. Croix, St. Thomas and Tortola; the Greater and Lesser Antilles and continental tropical America.

Common names: cat-claw, cockspur.

2. Celtis trinervia Lam., Encycl. 4: 140. 1797.

**Distribution**: A rare tree of moist to dry forests. Bordeaux (W833). Also on St. Croix, St. Thomas and Tortola; the Greater Antilles.

#### 2. TREMA Lour.

**1. Trema micranthum** (L.) Blume, Mus. Bot. Lugduno-Batavum 2: 58. 1856.

**Distribution**: A common tree of moist to dry forests. Road to Bordeaux (A2100); Maria Bluff (A619); Susannaberg (A3841). Also on Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout tropical and subtropical America.

# 90. URTICACEAE (Nettle Family) Key to the genera

- 1. Leaves alternate . Laportea
- 1. Leaves opposite Pilea

#### 1. LAPORTEA Gaudich.

1. Laportea aestuans (L.) Chew, Gard. Bull. Straits Settlem. 21: 200. 1965.

**Distribution**: Occasional in open disturbed areas. Bethany (B258); Susannaberg (A3807). Also on St. Croix, St. Thomas and Tortola; throughout tropical and subtropical America.

#### 2. PILEA Lindl.

Key to the species

- 1. Leaves < 1 cm long, 1-nerved, with entire margins.
  - 2. Plants 15-40 cm tall; stems fleshy, drying dark-colored, showing numerous cystoliths when dried **P. microphylla**
  - 2. Plants 5-15 cm tall; stems slender, slightly translucent, usually with a few reddish spots when dried **P. tenerrima**
- 1. Leaves > 1 cm long (at least some of them), 3-nerved from base, with toothed margins.
  - 3. Plants creeping, rooting at nodes; leaves 0.8-2.5 cm long ovate to orbicular . P. nummulariifolia
  - 3. Plant erect; leaves 5-10 cm long, ovate, oblong or elliptic **P. sanctae-crucis**
- Pilea microphylla (L.) Liebm., Kongel. Danske Vidensk.-Selsk. Skr. 5(2): 296.
   Distribution: A common herb of moist shaded open habitats. East End (A1837);
   Susannaberg (A2132); Waterlemon Bay (A2524). Also on Anegada, St. Croix, St. Thomas and Tortola; throughout tropical and subtropical America.

Common name: artillery plant.

2. Pilea nummulariifolia (Sw.) Wedd., Ann. Sci. Nat. Bot. III, 18: 225. 1852.

**Distribution**: An occasional herb of moist, shaded habitats. Adrian ruins (W865). Also on St. Croix and St. Thomas; throughout the West Indies.

- **3. Pilea sanctae-crucis** Liebm., Kongel. Danske Vidensk.- Selsk. Skr. 5(2:) 301. 1851. **Distribution**: A common herb in moist forest understory, growing on ground or rocks. Bordeaux (A1884, A5069). Also on St. Croix, St. Thomas and Tortola; Puerto Rico (according to Urban, 1905).
- 4. Pilea tenerrima Miquel, Linnaea 26: 219. 1854.

**Distribution**: An occasional herb of moist, shaded, open habitats. Coral Bay (A2583); East End (A3782). Also on St. Thomas and Tortola; Florida, Greater Antilles, the Bahamas and South America.

# 91. VERBENACEAE (Verbena Family)

Key to the genera

- 1. Plants herbaceous, sometimes woody at base, usually less than 60 cm tall.
  - 2. Flowers sessile, arranged in elongate spikes; fertile stamens 2 Stachytarpheta
  - 2. Flowers short- to long-pedicellate, arranged in racemes; fertile stamens 4.
    - 3. Racemes densely flowered; fruiting calyx straw-colored, tubular to narrowly bell-shaped with setaceous lobes, puberulent, not completely enclosing the fruit.

#### Rouchea

- 3. Racemes loosely flowered; fruiting calyx green, ovoid, with short obtuse lobes, covered with uncinate hairs, completely enclosing the fruit **Priva**
- 1. Plants woody, trees, shrubs or vines.
  - 4. Woody vines or scandent shrubs.
    - 5. Scandent or leaning shrubs, to 3 m long, bearing 2-3 spines in the nodes; fruiting calyx not winged. **Clerodendrum**
    - 5. Twining, woody vine to 10 m long, unarmed; fruiting calyx with elongate, wing-like, spreading lobes. (cultivated) **Petrea**
  - 4. Trees or shrubs.
    - 6. Plant with axillary spines; fruiting calyx ovoid, narrowed toward apex, yellow-orange, fleshy, enclosing the fruit . **Duranta**
    - 6. Plants unarmed or if armed the spines scattered along the stem; fruiting calyx green, not enclosing the fruit.
      - 7. Shrubs with strongly aromatic foliage. Lantana
      - 7. Small to medium sized, non-aromatic trees.
        - 8. Leaves trifoliolate (seldom unifoliolate); corolla light violet to bluish . Vitex
        - 8. Leaves simple; corolla white.
          - 9. Trees of brackish habitats, producing numerous erect pneumatophores; fruit elliptic, ovate to oblong, leathery, compressed, green
            - . Avicennia
          - 9. Trees of dry inland habitats, without pneumatophores; fruits ellipsoid to ovoid, fleshy, orange to purple at maturity

# Citharexylum

#### 1. AVICENNIA L.

**1. Avicennia germinans** (L.) L., Sp. Pl. ed. 3, 1: 891. 1764.

**Distribution:** A common species of the inland side of brackish mangrove swamps. Lameshur (A5136); probably on all Virgin Islands; common throughout the Caribbean, Florida, Mexico to northern South America.

Common name: black mangrove.

#### 2. BOUCHEA Cham.

1. Bouchea prismatica (L.) Kuntze, Revis. Gen. Pl. 2: 502. 1891.

**Distribution:** A common weed of open, disturbed areas.

Lameshur (A2576, A2789). Also on St. Croix; common throughout the West Indies, Mexico, Central America and Venezuela.

#### 3. CITHAREXYLUM L.

**1. Citharexylum fruticosum** L., Syst. Nat. ed. 10, 2: 1115. 1759.

**Distribution:** A common tree or shrub of dry to moist forests. Center Line road (A3814); Emmaus (A2005); Southside Pond (A1839). Also on Anegada, Jost van Dyke, St. Croix, St. Thomas, Tortola and Virgin Gorda; common throughout the West Indies and northern South America

**Common names:** fiddlewood, old woman bitter, susannaleche.

#### 4. CLERODENDRUM L.

**1. Clerodendrum aculeatum** (L.) Schltdtl., Linnaea 6: 750. 1831.

**Distribution:** A common shrub of dry and disturbed habitats. East End (A5140); Emmaus (A1994); Waterlemon Bay (1934). Also on Anegada, Jost van Dyke, St. Croix, St. Thomas and Tortola; throughout the West Indies and in Venezuela.

Common name: chuc chuc.

#### 5. DURANTA L.

1. Duranta erecta L., Sp. Pl. 637. 1753.

**Distribution:** An occasional shrub of dry and disturbed habitats. Brown Bay (A1880). Also on St. Croix, St. Thomas and Virgin Gorda; throughout tropical and subtropical America.

# 6. LANTANA L.

Key to the species

1. Corollas lavender to pale pink; plant unarmed; leaves crenate . L. involucrata

- 1. Corollas orange or yellow; stems sometimes with recurved prickles; leaves serrate.
  - 2. Leaves sparsely pubescent beneath, the hairs coarse, and bent at base L. camara
  - 2. Leaves densely pubescent beneath, the hairs slender, straight L. urticifolia

#### 1. Lantana camara L., Sp. Pl. 627. 1753.

**Distribution:** A common shrub of dry and disturbed habitats. Emmaus (A2826); Nanny Pt. (A2456); Susannaberg (A3385). Also on St. Croix, St. Thomas and Tortola; apparently native to the Greater Antilles, introduced and naturalized throughout the tropics and subtropics of the world.

Common names: red sage, wild sage, yellow sage.

# **2.** Lantana involucrata L., Cent. Pl. 2: 22. 1756.

**Distribution:** A common shrub of dry and disturbed habitats. Emmaus (A2827); Hurricane Hole (A2425); Susannaberg (A5087). Also on Anegada, St. Croix, St. Thomas and Tortola; throughout the West Indies, Florida and from Mexico to northern South America.

Common name: sage.

### 3. Lantana urticifolia Miller, Gard. Dict. ed. 8. 1768.

**Distribution:** An occasional shrub of dry and disturbed habitats. Lameshur (A2741); Rosenberg (B255). Also on St. Thomas and Tortola; throughout the West Indies and from Mexico south to Argentina.

#### 7. PRIVA Adans.

# 1. Priva lappulacea (L.) Pers., Syn. Pl. 2: 139. 1806.

**Distribution:** An occasional herb of disturbed habitats. Coral Bay along Center Line road (A3994); Great Cruz Bay (A2359); Lameshur (B507). Also on St. Croix and St. Thomas; native to tropical and subtropical America, introduced and naturalized into the Old World.

#### 8. STACHYTARPHETA Vahl

Key to the species

- 1. Plant and inflorescence essentially glabrous or with a few scattered slender hairs, especially at nodes . S. jamaicensis
- 1. Plant and inflorescence pilose to strigose S. strigosa

#### **1. Stachytarpheta jamaicensis** (L.) Vahl, Enum. Pl. 1: 206. 1804.

**Distribution:** A common herb of disturbed, open habitats. Emmaus (A2579); Lameshur (A2739); Lind Pt. (A2955). Also on St. Croix, St. Thomas and Tortola; southern United States to northern South America including the West Indies, introduced and naturalized in other tropical regions.

Common name: verbain.

#### 2. Stachytarpheta strigosa Vahl, Enum. Pl. 1: 207. 1804.

**Distribution:** An occasional herb of recently disturbed, open areas. Lameshur (B505). Also on St. Thomas and Tortola; Hispaniola and Puerto Rico.

#### 9. VITEX L.

1. Vitex divaricata Sw., Prodr. 93. 1788.

**Distribution:** An occasional tree of moist forests. Bordeaux (A2846). Also on St. Thomas and Tortola; Cuba, Hispaniola, Puerto Rico, Lesser Antilles, Trinidad and Venezuela.

**Cultivated species:** *Petrea volubilis* L. has been collected from a plant persisting after cultivation.

# 92. VITACEAE (Grape Family)

Key to the genera

- 1. Inflorescences ascending and spreading, as wide or wider than long; plants fleshy, soft-stemmed; flowers 4-merous, with petals spreading at anthesis . **Cissus**
- 1. Inflorescences hanging, much longer than wide; stems becoming woody with age; flowers 5-merous, with petals apically coherent, falling off as a unit at anthesis **Vitis**

#### 1. CISSUS L.

#### Key to the species

- 1. Leaves simple . C. verticillata
- 1. Leaves trifoliolate.
  - 2. Leaflets crenate to scattered serrate above the middle; sepals and petals red . . C. obovata
  - 2. Leaflets deeply serrate above the middle; sepals and petals yellowish green . C. trifoliata
- 1. Cissus obovata Vahl, Symb. Bot. 3: 19. 1794.

**Distribution:** An occasional liana of moist to dry areas. Camelberg Peak (W293). Also on St. Croix and St. Thomas; Hispaniola, Puerto Rico and the northern Lesser Antilles.

**2. Cissus trifoliata** (L.) L., Syst. Nat. ed. 10, 897. 1759.

**Distribution:** A common weed of open disturbed, dry habitats. Great Lameshur Bay (A5446); Lind Pt. (A2693); Nanny Pt. (A2015). Also on St. Croix and St. Thomas; Bahamas, Cuba, Hispaniola and Puerto Rico.

**Common name:** sorrel vine.

3. Cissus verticillata (L.) Nicolson & Jarvis, Taxon 33: 727. 1984.

**Distribution:** A common weed of open disturbed, dry to moist habitats. Center Line road (A2420); Emmaus (A2820); Susannaberg (A2088). Also on St. Croix, St. Thomas and Tortola; southern United States to northern South America, including the West Indies.

Common name: pudding vine.

#### 2. VITIS L.

1. Vitis tiliifolia Roem. & Schult., Syst. Veg. 5: 320. 1819.

**Distribution:** An uncommon liana of wet and seepage areas. Bay Gut (A2128); Reef Bay Gut (W831). Also on St. Croix (according to Britton, 1924); Mexico to northern South America, including the West Indies.

Common name: wild grape.

#### 93. ZYGOPHYLLACEAE

(Lignum Vitae Family)

Key to the genera

- 1. Trees; petals blue; fruit flattened, cordate . Guaiacum
- 1. Prostrate or decumbent herbs; petals yellow; fruit conical, of 8-12 mericarps Kallstroemia

#### 1. GUAIACUM L.

1. Guaiacum officinale L., Sp. Pl. 381. 1753.

**Distribution:** An occasional tree of dry coastal forests, sometimes planted in parks and gardens. Cruz Bay (A2906). Also on Anegada, St. Croix and St. Thomas; throughout the West Indies, Colombia and Venezuela.

Common names: lignum vitae, liki wiki, pockenholt.

### 2. KALLSTROEMIA Scop.

Key to the species

- 1. Ovary and fruits glabrous . K. maxima
- 1. Ovary and fruits strigillose (appressed pubescent) K. pubescens
- 1. Kallstroemia maxima (L.) Torr. & A. Gray, Bot. Beechey Voy. 282. 1838.

**Distribution:** A common roadside weed of open, disturbed, dry areas. Enighed (A4270); Lind Pt. (A3162). Also on St. Croix, St. Thomas and Tortola; Texas to northern South America including the West Indies.

Common names: centipede root, longlo.

**2. Kallstroemia pubescens** (Don) Dandy *in* Keay, Kew Bull. 10: 138. 1955.

**Distribution:** A common roadside weed of open, disturbed, dry areas. Fish Bay (A2814, A2381). Also on St. Croix, St. Thomas and Tortola; Florida, Mexico to northern South America including the West Indies.

**Cultivated Families:** The families Bixaceae and Punicaceae are represented on St. John by a few cultivated individuals of *Bixa orellana* L. and *Punica granatum* L., respectively. As far as I am aware, these species are not naturalized on the island.

# MONOCOTYLEDONS

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#### Key to the Families

- 1. Plants aquatic or marine, submersed or floating.
  - 2. Plants floating in fresh to brackish waters.
    - 3. Plant with numerous leaves in a rosette at base, 3-12 cm long . . Araceae (Pistia)
    - 3. Plants plate-like, 1-2.5 mm long Lemnaceae
    - 2. Plants submersed in marine or brackish environment.
      - 4. Leaves strap-shaped, 4-12 mm wide . Hydrocharitaceae
      - 4. Leaves linear or cylindrical, to 2 mm wide.
        - 5. Leaves linear, with a conspicuous midvein, narrowly acuminate at apex.

#### Potamogetonaceae

5. Leaves cylindrical, without midvein, truncate to concave at the expanded apex (in ours)

#### . Cymodoceaceae

- 1. Plants terrestrial or epiphytic.
  - 6. Plants woody, with a single trunk and a crown of large (> 75 cm long) leaves (palm-like).

#### Arecaceae

- 6. Plants herbaceous or woody; stem short and covered by a basal rosette of leaves, or the stem elongate and branched, with leaves scattered along the stem.
  - 7. Leaves in a rosette or rosulate at base.
    - 8. Leaves chartaceous to rigid-coriaceous **Bromeliaceae**
    - 8. Leaves fleshy, thickened.
      - 9. Leaves 30-60 cm long, with a gelatinous core, not fibrous; scapes to 1 m tall .

#### **Asphodelaceae**

- 9. Leaves 90-275 cm long, with a fibrous core; scapes 5-7 m tall . Agavaceae (Agave)
- 7. Leaves alternate, opposite or spirally arranged.
  - 10. Plant with a definite woody stem; leaves spiny-tipped at apex . Agavaceae (Yucca)
  - 10. Plant herbaceous; leaves not spiny at apex.
    - 11. Plants climbing (vines).
      - 12. Plant monoecious, climbing aided by adventitious roots; leaves with a stout midvein and secondary pinnate veins; inflorescence a spadix, subtended by a spathe

# **Araceae** (*Philodendron*, *Syngonium*)

- 12. Plants dioecious, twining, or climbing by tendrils; leaves with 3-9 arcuate midveins; inflorescence spike-like, racemose, paniculate or umbellate, not subtended by a bract.
- 13. Plants with stipular tendrils; stems usually spiny; inflorescence umbellate; fruit a berry.

#### **Smilacaceae**

- 13. Plants twining, without tendrils; stems seldom spiny; inflorescence a spike, raceme or panicle; fruit a chartaceous, 3-winged capsule . **Dioscoreaceae**
- 11. Plants erect, prostrate or decumbent, not climbing.

- 14. Inflorescence a spadix subtended by a spathaceous bract Araceae
- 14. Inflorescence a spike, a cyme, a raceme or a panicle not subtended by a spathaceous bract.
  - 15. Flowers naked, perianth reduced to bristles or scales.
    - 16. Flowers spirally imbricate or less often 2-ranked, subtended by a single scale; leaf-sheath usually closed; stems triangular or cylindric al . **Cyperaceae**
    - 16. Flowers distichously arranged, subtended by a pair of scales; leaf-sheath usually ope n; stems cylindrical . **Poaceae**
  - 15. Flowers showy, either the sepals or the petals large, not reduced to bristles or scales.
    - 17. Ovary superior.
      - 18. Inflorescence cymose, usually enclosed by a folded, boat-shaped, spathe-like bract; flower with distinct calyx and coro lla, free or basally conna te.

#### Commelinaceae

18. Inflorescence racemose or paniculate, not enclosed by a boat-shaped bract; flower perianth tubular or funnel-shaped

#### Dracaenaceae

- 17. Ovary inferior.
- 19. Neither leaves nor stem swollen at base; plant rhizomatous . Cannaceae
- 19. Leaves swollen at base into a bulb or corm, or the stem swollen at base into a pseudobulb.
  - 20. Flowers zygomorphic (in ours); anthers usually 1, sessile near the apex of a column; plants commonly epiphytic, less often epilithic or terrestrial . **Orchidaceae**
  - 20. Flowers actinomorphic; stamens 6, with long, distinct or basally connate filaments; plants terrestrial.
    - 21. Perianth segments > 6.5 cm long; fruit a capsule; leaves swollen at base into a bulb **Amaryllidaceae**
    - 21. Perianth segments to 1.5 cm long; fruit a berry; leaves not swollen .

# Hypoxidaceae

# 1. AGAVACEAE (Century Plant Family) By Mark T. Strong

#### Key to the genera

- 1. Leaves in a rosette at base, the margins frequently prickly; ovary inferior; stamens longer than the perianth . **Agave**
- 1. Leaves spirally arranged on an elongate stem, the margins smooth or finely toothed; ovary superior; stamens shorter than the perianth . **Yucca**

#### 1. AGAVE L.

Key to the species

1. Mature leaves armed with well-developed prickles; leaves 13-25 cm wide.

- 2. Flowers 6-10 cm long; filaments 6-9 cm long; prickles (3-)5-10(-11) mm long, borne on raised undulations of leaf margin; plants typically producing suckers at base; plantlets usually absent in inflorescence (cultivated) . **A. americana**
- 2. Flowers 4.5-5.5 cm long; filaments 3.5-4 cm long; prickles 3-5(-6) mm long, borne along relatively straight edge of leaf margin; plants not producing suckers at base; plantlets usually present in inflorescence **A. missionum**
- 1. Mature leaves unarmed or with few minute prickles; leaves 7-12 cm wide . (cultivated) **A. sisalana**
- **1. Agave missionum** Trelease, Mem. Natl. Acad. Sci. 11: 37. 1913.

**Distribution**: Common along coastal thickets among rocky outcrops. Lameshur (B497). Also on Anegada, St. Thomas, Tortola, and Virgin Gorda; Puerto Rico (including Culebra and Vieques).

Common names: century plant, karata.

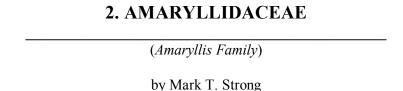
**Cultivated species**: Agave americana L., the Century Plant, and A. sisalana Perrine, both probably native to Mexico, are frequently planted in the Virgin Islands, but have not become naturalized on St. John.

#### 2. YUCCA L.

**1. Yucca aloifolia** L., Sp. Pl. 319. 1753.

**Distribution**: Introduced, commonly planted along roadsides, becoming naturalized in open, disturbed areas. Emmaus (A2008). Also in the southern United States, Mexico, Central America, West Indies.

Common names: Spanish bayonet, Spanish dagger.



Key to the genera

- 1. Filaments free to base **Crinum**
- 1. Filaments basally fused into a membranous cup Hymenocallis

#### 1. CRINUM L.

**1. Crinum zeylanicum** (L.) L., Syst. Nat. ed. 12, 2: 236. 1767.

**Distribution**: Occasional along roadsides or in disturbed secondary vegetation. Road to Ajax Peak (A5112). Also on St. Thomas; native of India and Sri Lanka, cultivated in tropical regions, but frequently escaping and becoming naturalized.

Common name: spider lily.

#### 2. HYMENOCALLIS Salisb.

#### Key to the species

- 1. Leaf blades linear to linear-oblong, long tapering at the base, (2.8-)4-9 cm wide **H. caribaea**
- 1. Leaf blades broadly elliptic to broadly oblong-elliptic, distinctly petiolate at base, 7-15 cm wide **H. speciosa**
- 1. Hymenocallis caribaea (L.) Herb. in Edw., Bot. Reg. 7(App.): 44. 1821.

**Distribution**: Occasional in disturbed areas and along roadsides. Bordeaux (A5130). Also on St. Croix and St. Thomas; Hispaniola, Puerto Rico (including Culebra), Jamaica, and the Lesser Antilles.

Common name: ladybug, white lily.

**2. Hymenocallis speciosa** (Salisb.) Salisb., Trans. Hort. Soc. London 1: 340. 1812. **Distribution**: Occasional on rocky hillsides. East End (B1207). Native to the West Indies.

# 3. ARACEAE

(Philodendron Family) Reviewed by Dan H. Nicolson

Key to the genera

- 1. Plants floating, aquatic; leaves subsessile, in a rosette . Pistia
- 1. Plants terrestrial or epiphytic; leaves long-petiolate, alternate.
  - 2. Spathe herbaceous, reflexed; flowers bisexual Anthurium
  - 2. Spathe fleshy, erect, surrounding the spadix; flowers unisexual.
    - 3. Leaves pedately dissected . Syngonium
    - 3. Leaves entire, cordate or elliptic.
      - 4. Plants with elongate climbing stems, or the plant acaulescent or with very short stems, not growing in swamps; leaf ovate, green, cordate at base

#### Philodendron

4. Plants with thick erect stems, of swampy or wet areas; leaves elliptic to oblongovate, usually variegated, rounded or cordate at base and usually asymmetric **Dieffenbachia** 

#### 1. ANTHURIUM Schott

Key to the species

- 1. Leaves ovate to triangular-ovate, the blades directed downward from the point of attachment at base **A. cordatum**
- 1. Leaves lanceolate or elliptic, the blades ascending.

- 2. Leaves lanceolate, oblong-lanceolate or cordate-lanceolate, the base nearly cordate or truncate; petioles nearly as long as the blades **A.** × **selloum**
- 2. Leaves elliptic, oblong-elliptic or oblanceolate, the base obtuse or rounded, tapering from the middle of the blade; petioles much shorter than the blades . **A. crenatum**
- 1. Anthurium cordatum (L.) Schott, Wiener Zeitschr. Kunst 3: 828. 1829.

**Distribution:** A common understory herb of shaded moist forests. Bordeaux (A2863). Also on St. Croix, St. Thomas and Tortola; the Lesser Antilles.

Common name: maroon jancole.

2. Anthurium crenatum (L.) Kunth, Enum. Pl. 3: 75. 1841.

**Distribution:** A common understory herb of shaded moist forests. Bordeaux (A2857). Also on St. Croix, St. Thomas and Tortola; Hispaniola and Puerto Rico (including Vieques and Culebra islands).

Common name: scrub-bush.

**3.** Anthurium × selloum C. Koch, Index Sem. Hort. Berol. App. 8. 1855.

**Distribution:** A common understory herb of shaded moist forests. Bordeaux (A2864, A2895); Camelberg Peak. (A4247). Known only from St. John and Tortola (*Proctor 41984*).

#### 2. DIEFFENBACHIA Schott

**1. Dieffenbachia seguine** (Jacq.) Schott, Wiener Zeitschr. Kunst 3: 803. 1829.

**Distribution:** An occasional herb of wet seepage areas. Bordeaux (A4705); Maho Bay Gut (W863). Also on St. Thomas and Tortola; throughout tropical America.

Common name: dumb cane.

**Note:** The sap of this plant is irritating to the skin, and if ingested, is inflammatory to the tongue and digestive tract; hence the common name, dumb cane.

#### 3. PHILODENDRON Schott

Key to the species

- 1. Vines, with elongate stems to 10 m long, and 1-2 cm diam.; petioles 10-15 cm long; cataphylls deciduous **P. scandens**
- 1. Erect plant, with stems to 2 m long, and 8-10 cm diam.; petioles to 1 m long; cataphylls weathering to a fibrous persistent structure **P. giganteum**
- 1. Philodendron giganteum Schott, Syn. Aroid 89. 1856.

**Distribution:** Not common, known only from a single locality in forested area. Along Reef Bay Gut (A4165). Also on St. Thomas (according to Eggers, 1879) and Tortola; Hispaniola, Puerto Rico, the Lesser Antilles, Trinidad and Venezuela.

Philodendron scandens C. Koch & H. Sello, Index Sem. Hort. Berol. App. 4. 1853.
 Distribution: A common vine of moist forests. Bordeaux Mountain (A2610, A2880).

Also on St. Thomas and Tortola; throughout tropical America.

#### 4. PISTIA L.

**1. Pistia stratiotes** L., Sp. Pl. 963. 1753.

**Distribution:** Not common, found in freshwater cisterns or pools, sometimes cultivated. Annaberg Ruins (A2866). Also on St. Thomas; a variable species found throughout tropical and subtropical regions.

#### 5. SYNGONIUM Schott

1. Syngonium podophyllum Schott, Bot. Zeitung (Berlin) 9: 85. 1851.

**Distribution:** Native to Mexico and grown as an ornamental throughout the Caribbean; a few individuals have escaped cultivation on St. John. Susannaberg (A4061). Also, now throughout tropical America.

# 4. ARECACEAE (Palm Family)

#### Key to the genera

- 1. Leaves palmate.
  - 2. Trunk 8-12 cm diam.; leaves to 1.5 m long, silvery white beneath; petioles ligulate at junction with blade **Coccothrinax**
  - 2. Trunk 25-30 cm diam.; leaves 2.5-3 m long, green beneath; petioles not ligulate at junction with blade (cultivated) **Sabal**
- 1. Leaves pinnately compound.
  - 3. Trunk widest at the very base, with many obvious leaf scars; fruit 20-30 cm long, green or yellowish at maturity . **Cocos**
  - 3. Trunk widest just below the crown, nearly smooth; fruits 1-1.3 cm long, light brown at maturity **Roystonea**

#### 1. COCCOTHRINAX Sargent

**1. Coccothrinax alta** (O.F. Cook) Beccari, Webbia 2: 331. 1907.

**Distribution:** Common throughout the Island in moist to dry forests. Bordeaux (A5089); Susannaberg (A2131). Also on St. Croix, St. Thomas, and Virgin Gorda; Puerto Rico (including Culebra and Vieques).

Common names: broom palm, broom teyer, fan palm, silver palm, teyer tree.

#### 2. COCOS L.

1. Cocos nucifera L., Sp. Pl. 1188. 1753.

**Distribution:** Native to the tropical coast of the Pacific Ocean, introduced into the New World by European settlers for its edible seeds. Self regenerating on sandy shores around the

island, where they were originally planted. Distributed throughout tropical and subtropical shores or inland.

Common name: coconut palm.

#### 3. ROYSTONEA O.F. Cook

A genus of about 12 species native to the Caribbean and circum-Caribbean region.

**1. Roystonea borinquena** O.F. Cook, Bull. Torrey Bot. Club 28: 552. 1901.

**Distribution:** Rare, a few individuals found along gallery forests or stream banks. Maho Bay Gut (field observations). Also on St. Croix; Puerto Rico (including Culebra and Vieques).

Common names: cabbage palm, mountain cabbage, royal palm.

**Cultivated species:** A few individuals of *Sabal casuarium* (O.F. Cook) Beccari (endemic to Puerto Rico) are cultivated on the grounds of Caneel Bay Hotel. Also, there are several immature individuals (persistent after cultivation) in the area of the old Reef Bay sugar plantation which seem to be this species. Woodbury and Weaver (1987) reported *Phoenix dactylifera* L. from a cultivated palm at Cruz Bay, but the palm has since died.

#### 5. ASPHODELACEAE

(Aloe Family)

By Mark T. Strong

Approximately 17 genera and 814 species in subtropical and tropical regions of the Old World with the center of distribution in southern Africa.

#### 1. ALOE L.

1. Aloe vera (L.) Burm.f., Fl. Ind. 83. 1768 [6 April].

**Distribution**: Locally common along roadsides and disturbed areas. East End (A4223). Also on St. Croix, St. Thomas, Vieques, and Virgin Gorda; probably native to the Mediterranean region, now naturalized and widespread in Florida, Central America and the West Indies.

Common names: aloes, bitter-aloes, sempervive.

# 6. BROMELIACEAE

(Pineapple Family)

Key to the genera

- 1. Leaf margins spiny.
  - 2. Scapes stout, short, with congested inflorescences to 3-15 cm long, the axes flattened, densely white-farinose pubescent; hypanthium densely white-farinose pubescent; fruit a leathery yellowish berry, 2.7-3.5 cm long, with whitish or creamy pulp inside . **Bromelia**

- 2. Scapes slender, elongate, with scattered inflorescences to 15-20 cm long, the axes angled-cylindrical, glabrous; hypanthium glabrous; fruits reddish, ovoid or ovoid-trigonous, <2 cm long.
  - 3. Leaves long-acuminate; fruits capsular; floral bracts ovate-lanceolate, acute; corolla red-orange, to 4 cm long, twice as long as the calyx **Pitcairnia**
  - 3. Leaves short-acuminate to cuspidate; fruit a berry; floral bracts spiny tipped; corolla 8-9 mm long, longer than the calyx **Aechmea**
- 1. Leaf margins entire, not spiny.
  - 4. Capsule ovoid; mature seeds with a tuft of folded, comose hairs at apex; flowers distant to approximate in the inflorescence (not overlapping) **Catopsis**
  - 4. Capsule elongate, oblong, linear or fusiform; mature seeds with a tuft of straight hairs at base; flowers close or crowded with overlapping floral bracts, or distant to approximate in the inflorescence .**Tillandsia**
- 1. AECHMEA Ruíz & Pavón, nom. cons.
- 1. Aechmea lingulata (L.) Baker, J. Bot. 17: 164. 1879.

**Distribution**: Occasional in moist forests. Bordeaux (A615, A5096); Center Line Road (A4035). Also on St. Thomas; Central America, West Indies and South America.

#### 2. BROMELIA L.

**1. Bromelia pinguin** L., Sp. Pl. 285. 1753.

**Distribution**: Apparently introduced as a hedge plant, now spontaneous on waste ground, roadsides and trail sides. Lind Point (A2798); Chocolate Hole (A1979). Also on St. Croix and St. Thomas; throughout tropical America.

Common name: ping wing.

#### 3. CATOPSIS Griseb.

A genus of 19 species occurring from Mexico to South America, and the West Indies.

1. Catopsis floribunda L.B. Sm., Contr. Gray Herb. 11: 5. 1937.

**Distribution**: Occasional in moist forests. Bordeaux (B572); Camelberg Peak (A4248). Also on St. Thomas and Tortola; Florida, the West Indies, Trinidad and Venezuela.

#### 4. PITCAIRNIA L'Hér.

**1. Pitcairnia angustifolia** Aiton, Hort. Kew. 1: 401. 1789.

**Distribution**: Occasional on rocky outcrops. Waterlemon Bay (A1940); by Petroglyphs (A2934). Also on St. Croix, St. Thomas, Tortola and Water Island; Puerto Rico (including Vieques) and the Lesser Antilles.

#### 5. TILLANDSIA L.

#### Key to the species

- 1. Plants forming dense clusters; leaves 3-12 cm long and 0.5-2 mm wide, strongly recurvate; scapes 1-2(-5)-flowered . **T. recurvata**
- 1. Plants solitary or forming small clusters; leaves > 30 cm long and > 1 cm wide, ascending or recurved at apex; scapes bearing numerous many-flowered inflorescences.
  - 2. Inflorescence of close or crowded flowers with distichously overlapping floral bracts.
    - 3. Inflorescence 5-15 cm long, 2-3 cm wide; floral bracts 3-4 cm long, green to straw-colored **T. fasciculata**
    - 3. Inflorescence 17-30 cm long, 0.8-1.0 cm wide; floral bracts 2.2-2.6 cm long, purplishred . **T. lineatispica**
  - 2. Inflorescence of distant to approximate flowers, the floral bracts not overlapping . T. utriculata

[add Tillandsia usneoides]

#### 1. Tillandsia fasciculata Sw., Prodr. 56. 1788.

**Distribution**: Occasional on rocky outcrops or epiphytic on trees along intermittent creeks. Battery Gut (A4169); Fish Bay Gut (A2495). Also on St. Thomas (according to Britton 1923); throughout tropical America. A species very variable throughout it range, ours is referable to *T. fasciculata* var. *venosispica* Mez.

**2. Tillandsia lineatispica** Mez *in* DC., Mon. Phan. 9: 699. 1896.

**Distribution**: Rare, known from a few populations, on rocky outcrops. Fish Bay (A815 & M17074). Known only from St. John and from Cerro Ventana on Vieques Island (Puerto Rico).

**3. Tillandsia recurvata** (L.) L., Sp. Pl. ed. 2, 1: 410. 1762.

**Distribution**: Occasional on trees and shrubs of open or dry areas; commonly found on telephone wires on other islands such as Puerto Rico. Trail to Fortsberg (A4096); Cruz Bay (A2515). Also on St. Croix and St. Thomas (according to Britton, 1923); southernmost United States to Argentina, including the West Indies.

Common name: old man hand.

#### 4. Tillandsia utriculata L., Sp. Pl. 286. 1753.

**Distribution**: A common epiphyte of moist to dry forests. Lind Point (A1971); Center Line Road (A4034); Fish Bay (A3914). Also on Anegada, St. Croix and St. Thomas; southeastern United States, Mexico, Central America, Venezuela and the West Indies.

Common name: wild pin.

| 7. CANNACEAE       |  |
|--------------------|--|
| (Arrowroot Family) |  |

1. CANNA L.

#### **1. Canna indica** L., Sp. Pl. 1753.

**Distribution**: An occasional escape along roadsides in humid areas. Bordeaux road (A3869). Common throughout tropical America, naturalized in Asia and tropical Africa.

Common names: Indian-shoot, tolama, toolima.

# 8. COMMELINACEAE

(Wandering Jew Family) Reviewed by Robert B. Faden

Key to the genera

- 1. Inflorescence subtended and enclosed by 1 or 2 spathaceous bracts.
  - 2. Bracts paired; flowers actinomorphic . Tradescantia
  - 2. Bract solitary; flower zygomorphic . Commelina
- 1. Inflorescence not subtended by spathaceous bracts Callisia

#### 1. CALLISIA Loefl.

Key to the species

- 1. Decumbent herb; stems 5-10 mm diam.; leaves 9-28 cm long; inflorescence elongate raceme-like or panicle-like; ovary and capsule trilocular . **C. fragrans**
- 1. Prostrate herb; stems 1-2 mm diam.; leaves 1-4 cm long; flowers in axillary, paired cymes; ovary and capsule discoid bilocular **C. repens**
- 1. Callisia fragrans (Lindl.) Woodson, Ann. Missouri Bot. Gard. 29: 154. 1942.

**Distribution**: Native to Mexico, cultivated and naturalized along roadsides and open disturbed areas. Fish Bay (A3870); Maria Bluff (A3805); trail to Solomon Beach (A2294). Also naturalized on St. Croix and Tortola; Bonaire (Dutch West Indies), Hawaii, India.

Common name: ground orchid.

**2.** Callisia repens (Jacq.) L., Sp. Pl. ed. 2, 1: 62. 1762.

**Distribution**: Native to tropical and subtropical America apparently introduced (and naturalized) on St. John, found along humid roadsides. Road to Ajax Peak (A2651); Waterlemon Bay (A1939); Lameshur (A3228). Also on St. Croix and Tortola; Texas, Mexico, Central America, West Indies, South America.

#### 2. COMMELINA L.

#### **1. Commelina erecta** L., Sp. Pl. 41. 1753.

**Distribution**: A common weedy herb of open, disturbed humid areas. Great Cruz Bay (A2357); Little Cruz Bay (A859). Also on St. Croix, St. Thomas and Tortola; throughout temperate and tropical America and tropical Africa.

**Common name:** French grass.

#### 3. TRADESCANTIA L.

Key to the species

- 1. Decumbent herb; leaves strap-shaped, spirally arranged, 15-40 cm long, not variegated, sessile; corolla white . **T. spathacea**
- 1. Prostrate herb; leaves ovate-lanceolate, 3-10 cm long, distichous, variegated (an elongate whitish marking along each side of the midvein), with maroon margins, shortly petiolate; corolla rose-purple **T. zebrina** 
  - 1. Tradescantia spathacea Sw., Prodr. 57. 1788.

**Distribution**: Cultivated but becoming naturalized. Tail to Margaret Hill (A2310). Also in Mexico, Guatemala and Belize, naturalized in the West Indies.

2. Tradescantia zebrina Bosse, Vollst. Handb. Blumeng. 4: 655. 1846.

**Distribution**: Cultivated but becoming naturalized. Along trail to L'Esperance (A4250). Native to Mexico, but naturalized throughout the Neotropics.

Common name: wandering Jew.

# 9. CYMODOCEACEAE

(Manatee-Grass Family) By Mark T. Strong

#### 1. SYRINGODIUM Kütz.

1. Syringodium filiforme Kütz. in Hohenacker, Algae Marinae Exs. 9: no. 426. 1860.

**Distribution**: Shallow saline water of lagoons and reefs. Fish Bay (*Acevedo-Rdgz. s.n.*). Probably around all islands of the Virgin Islands; throughout the Caribbean basin.

Common name: manatee-grass.

oblong-elliptic, 3-4 mm long. Pedicel of pistillate flower 1 mm long or less; style 2-3 mm long, the stigmas 4-7 mm long. Fruit ellipsoid to ellipsoid obovoid, slightly flattened, 5-8 mm long, 2.5-3 mm wide, narrowing to a rounded base, the beak 2-5 mm long. Seeds 2.5-3 mm long.

**Distribution**: Shallow saline water of lagoons and reefs. Fish Bay (*Acevedo-Rdgz. s.n.*). Probably around all islands of the Virgin Islands; throughout the Caribbean basin.

Common name: manatee-grass.

# 10. CYPERACEAE

(Sedge Family) By Mark T. Strong

Key to the genera

- 1. Fertile spikelet scales subtending unisexual flowers; achene (fruit) with crustaceous pericarp; [with or sometimes without hypogynium at base; bristles none] **Scleria**
- 1. Fertile spikelet scales subtending bisexual flowers (at least some present); achene lacking crustaceous pericarp; [with or without bristles at base; hypogynium none].
  - 2. Spikelets bearing many flowers with only 1(-2) of the basal scales reduced and sterile.
    - 3. Achenes with bristles at base **Eleocharis**
    - 3. Achenes without bristles at base.
      - 4. Scales spirally imbricate.
        - 5. Style base disarticulating from the summit of the achene; apex of leaf sheath entire **Fimbristylis**
        - 5. Style base persistent as a bulbous tubercle at summit of achene; apex of leaf sheath long-ciliate . **Bulbostylis**
      - 4. Scales 2-ranked.
        - 6. Unbranched portion of style fimbriate towards apex, expanded at base . **Abildgaardia**
        - 6. Unbranched portion of style smooth, uniform at base . Cyperus
  - 2. Spikelets bearing 1 to several flowers with 2-many basal scales reduced and sterile.
    - 7. Style base uniform, disarticulating from summit of the achene; scales 2-ranked **Kyllinga**
    - 7. Style base expanded, persistent at the summit of the achene; scales spirally imbricate. **Rhynchospora**

#### 1. ABILDGAARDIA Vahl

1. Abildgaardia ovata (Burm.f.) Kral, Sida 4: 72. 1971.

**Distribution:** Occasional in wet seepage areas. Bordeaux (A2614a); Dittlif Point (W648). Also on Anegada, St. Croix, and Virgin Gorda; pantropical.

# 2. BULBOSTYLIS Kunth, nom. cons.

**1. Bulbostylis pauciflora** (Liebm.) C.B. Clarke, Kew Bull. Add. Ser. 8: 26. 1908. **Distribution:** Rare, on rocky, coastal areas. Dittlif Point (W758). Also on St. Croix; Cuba, Hispaniola, Puerto Rico, and the Lesser Antilles.

#### 3. CYPERUS L.

### Key to the species

- 1. Inflorescence 5-8 mm diam.; culms 0.3-0.4 mm wide; leaves 0.3-1.6 mm wide . C. nanus
- 1. Inflorescence > 2 cm diam.; culms > 0.5 mm wide; well-developed leaves more than 2 mm wide.
  - 2. Stamen 1; achenes 0.8-0.9 mm long; scales 1.2-1.5 mm long C. surinamensis
  - 2. Stamens 3; achenes > 1 mm long; scales > 1.5 mm long
    - 3. Inflorescence a single, sessile or subsessile glomerule of spikelets at the summit of the culm; rays wanting **C. compressus**
    - 3. Inflorescence an umbel-like corymb; primary rays well-developed.
      - 4. Spikelets palmately disposed in dense clusters or glomerules; leaves and inflorescence sticky; culms remotely scabrous; apex of scale with a slightly recurved cusp **C. elegans**

- 4. Spikelets spicately disposed in loose to dense spikes; plant not sticky; culms unarmed; apex of scale straight.
  - 5. Spikelets 2.5-3 mm wide; rachilla wingless . C. compressus
  - 5. Spikelets < 2.5 mm wide; rachilla winged.
    - 6. Culms minutely papillose; leaf blades septate; spikes oblong-cylindrical to subglobose, congested at ray tips . **C. ligularis**
    - 6. Culms smooth; leaf blades not septate or obscurely so; spikes loosely disposed at ray tips.
      - 7. Rachilla disarticulating at the nodes (the rachilla node and floret falling together), the wings becoming thick and corky at maturity, enveloping the achene **C**. **flexuosus**
      - 7. Rachilla persistent or disarticulating at base of spikelet (the spikelet falling entire), the wings not becoming thick and corky, thereby not enveloping achene.
        - 8. Spikelets 0.5-0.6 mm wide; scales 1.6-2.0 mm long, spreading at maturity . **C. distans**
        - 8. Spikelets 1-2 mm wide; scales 2.8-3.5 mm long, not spreading at maturity.
          - 9. Rhizomatous, rhizome short, thick, not bearing tubers; leaves stiff, 50-90 cm long, (5-)6-10(-13) mm wide, glaucous and obscurely septate on upper surface, pale and reddish brown lineolate on lower surface **C. planifolius**
          - 9. Stoloniferous, stolons elongate, bearing tubers; leaves herbaceous, 5-40 cm long, 2-6 (-8) mm wide, green on both sides, not septate . C. rotundus
- **1.** Cyperus compressus L., Sp. Pl. 46. 1753.

**Distribution:** Occasional in sandy soils of roadsides and beaches. Lameshur (W775). Also on St. Thomas and Virgin Gorda; a cosmopolitan weed.

**2.** Cyperus distans L.f., Suppl. Pl. 103. 1781.

**Distribution:** Occasional in seepage areas along roadsides. Bordeaux Mt. (W59, A5066); Gift Hill (A5282). Also on St. Croix, St. Thomas, and Tortola; a pantropical weed.

**3. Cyperus elegans** L., Sp. Pl. ed. 2, 1: 68. 1762.

**Distribution:** Common in open, disturbed areas. Trail to Fortsberg (A4084); Emmaus (A1999). Also on Anegada, St. Croix, St. Thomas, and Virgin Gorda; southern United States, Mexico, Central America, Peru, Argentina, and throughout the West Indies.

**4. Cyperus flexuosus** Vahl, Enum. Pl. 2: 359.

**Distribution:** A common herb of moist, seepage areas. Lameshur (B623); road from Bordeaux to Coral Bay (A3799). Also on St. Thomas; Cuba, Jamaica, Hispaniola, Lesser Antilles, Mexico and Brazil.

**5. Cyperus ligularis** L., Pl. Jamaic. Pug. 3. 1759.

**Distribution:** Common in shallow pools and wet areas along roadsides and in disturbed habitats. Bordeaux Mt. (A2094); Cruz Bay (A856); Reef Bay trail by Petroglyphs (A2932). Also on St. Croix, St. Thomas, Tortola, and Virgin Gorda; tropical and subtropical America, tropical

West Africa, Chagos Archipelago (Indian Ocean), Seychelles, and western Pacific islands and atolls.

**6. Cyperus nanus** Willd., Sp. Pl. 1: 272. 1797.

**Distribution:** A rather common herb of wet, disturbed areas. Trail to Seiben (A2055); Reef Bay trail by Petroglyphs (A2929). Also on St. Croix and Virgin Gorda; throughout the West Indies and Mexico.

7. Cyperus planifolius Rich., Actes Soc. Hist. Nat. Paris1: 106. 1792.

**Distribution:** Occasional in scrubs and dry coastal forests. Southside Pond (A1831). Also on St. Croix, St. Thomas, Tortola, and Virgin Gorda; Cuba, Hispaniola, Jamaica, Puerto Rico, and the Lesser Antilles.

**8.** Cyperus rotundus L., Sp. Pl. 45. 1753.

**Distribution:** Occasional in sandy soils, along beaches, roadsides, and disturbed habitats. Coral Bay (*Raunkiær s.n.*). Also on St. Croix, St. Thomas, and Virgin Gorda; a cosmopolitan weed.

Common name: nut-grass.

**9. Cyperus surinamensis** Rottb., Descr. Icon. Rar. Pl. 35. 1773.

**Distribution:** Occasional in permanent shallow pools. Herman Farm (W457); Catherinesberg (A5070). Also on St. Thomas; southern United States to South America and the West Indies.

**Cultivated species:** *Cyperus involucratus* Rottb., the Umbrella-Plant, has been cultivated on St. John but has not become naturalized.

#### 4. ELEOCHARIS R. Br.

1. Eleocharis geniculata (L.) Roem. & Schult., Syst. Veg. 2: 150. 1817.

**Distribution:** Common in sandy, waterlogged areas. Concordia (A4253); Battery Gut (A4171); Fish Bay Gut (A2497). Also on St. Croix, St. Thomas, and Tortola; a pantropical weed.

#### 5. FIMBRISTYLIS Vahl

Key to the species

- 1. Unbranched portion of style slender, 3-angled at expanded base, entire; leaves eligulate; achenes verrucose-reticulate . **F. cymosa**
- 1. Unbranched portion of the style distinctly flattened, fimbriate along margin; leaves with a ligule of short hairs; achenes finely to coarsely reticulate.
  - 2. Scales glabrous; achenes coarsely reticulate with usually (5-)7-9(-12) rows of horizontally oriented, rectangular cells **F. dichotoma**
  - 2. Scales with dense, silvery, short-appressed hairs distally; achenes finely reticulate with usually 25-35 rows of isodiametric cells
    - . . F. ferruginea

1. Fimbristylis cymosa R. Br., Prodr. 1: 228. 1810.

**Distribution:** A common herb of coastal areas, along beaches, roadsides and disturbed habitats. Coral Bay (A2660); Great Cruz Bay (A796); Center Line Road (A3783). Also on St. Croix; a pantropical weed.

2. Fimbristylis dichotoma (L.) Vahl, Enum. Pl. 2: 287. 1805.

**Distribution:** Occasional in wet areas along roadsides. Bordeaux (B537, A3831); Bethany (B277). Also on St. Croix, St. Thomas, Tortola, and Virgin Gorda; cosmopolitan, primarily in warm-temperate and tropical regions.

3. Fimbristylis ferruginea (L.) Vahl, Enum. Pl. 2: 291. 1805.

**Distribution:** Occasional in wet, brackish habitats. Lameshur (B604). Also on St. Croix, St. Thomas, Tortola, and Virgin Gorda; a pantropical weed.

#### **6. KYLLINGA** Rottb.

1. Kyllinga odorata Vahl, Enum. Pl. 2: 382. 1806.

**Distribution:** Occasional along wet stream banks and roadsides. Rosenberg (B304). Also on St. Thomas; southeastern United States to South America, including the West Indies, also tropical Africa, Madagascar, southeast Asia, Malaysia, and northern Australia.

### 7. RHYNCHOSPORA Vahl

Rhynchospora nervosa (Vahl) Böck. ssp. ciliata T. Koyama, Madroño 20: 254.
 Distribution: Occasional on grassy hillsides and roadside banks. Bordeaux (B562, A3830); Lameshur (W226). Also on St. Thomas; Mexico to South America, and throughout the West Indies.

#### 8. SCLERIA Bergius

Key to the species

- 1. Culms 1.2-1.3 mm wide near base; leaves 1-3 mm wide; achenes without a hypogynium **S. lithosperma**
- 1. Culms 3-10 mm wide near base; leaves 5-17 mm wide; achenes with a 3-lobed hypogynium.
  - 2. Culms 3-5 mm wide near base; achenes 2-2.9 mm long (including hypogynium), 2-2.5 mm wide; terminal panicle 1-2.5 cm wide **S. melaleuca**
  - 2. Culms 5-10 mm wide near base; achenes 3-3.9 mm long (including hypogynium), 2.5-2.9 mm wide; terminal panicle 3-8 cm wide. **S. scindens**
- 1. Scleria lithosperma (L.) Sw., Prodr. 18. 1788.

**Distribution:** Common herb in understory of moist to dry forest and along gallery forests and roadsides. Bordeaux (A3828); Battery Gut (A4167); Fish Bay (A1966). Also on St. Croix, St. Thomas, and Virgin Gorda; a pantropical weed.

**2. Scleria melaleuca** Rchb. *ex* Schltdl. & Cham., Linnaea 6: 29. 1831.

**Distribution:** Common along wooded hillsides, roadsides, and seepage areas. Bordeaux Mountain (W58, A2096); between Bethany and Rosenberg (B275). Also on St. Croix, St. Thomas, and Tortola; Mexico to South America, and the West Indies.

Common name: cutting grass.

**3. Scleria scindens** Nees ex Kunth, Enum. Pl. 2: 343. 1837.

**Distribution:** Common in secondary vegetation along trails and roadsides. Bordeaux Mountain (A2606, A2884 & A5102). Also on St. Thomas, Tortola, and Virgin Gorda; Cuba, Hispaniola, Puerto Rico, and the Lesser Antilles.

Common name: razor-grass.

## 11. DIOSCOREACEAE

(Yam Family)

### 1. DIOSCOREA L.

Key to the species

- 1. Stems 4-winged; leaves opposite . **D. alata**
- 1. Stems cylindrical, not winged; leaves alternate **D. pilosiuscula**
- **1. Dioscorea alata** L., Sp. Pl. 1033. 1753.

**Distribution**: Collected only once on St. John, and perhaps not persistent on the island. Bordeaux (W461). Native of southeast Asia, but widely cultivated throughout the tropics.

Common names: red yam, yam.

**2. Dioscorea pilosiuscula** Bertero *ex* Spreng. , Syst. Veg. ed. 16, 2: 152. 1825.

**Distribution**: Occasional in open disturbed areas. Maho Bay Quarter along Center Line Road (A2419); trail to Sieben (A2645). Also on St. Thomas and Tortola; throughout the Greater and Lesser Antilles and South America.

## 12. DRACAENACEAE

(She-Dragon Family)
By Mark T. Strong

### 1. SANSEVIERIA Thunberg

1. Sansevieria trifasciata Prain, Bengal Plants 2: 1054. 1903.

**Distribution**: Along roadsides. Bordeaux Mountain (A3859). Native of Africa, cultivated and becoming naturalized. Also on St. Croix; Hispaniola, Puerto Rico, Jamaica, and Lesser Antilles.

**Common names:** guana tail, lizard tail, mother in law tongue, rhamni, snake plant.

## 13. HYDROCHARITACEAE

(Frog's-Bit Family) By Mark T. Strong

## 1. THALASSIA Banks & Solander ex König

1. Thalassia testudinum Banks & Solander ex König, Ann. Bot. 2: 96. 1805.

**Distribution**: Forming large colonies or prairies in shallow water of bays, beaches, and near reefs around the island. Fish Bay (*Acevedo-Rdgz. s.n.*). Also on Anegada, St. Croix, St. Thomas, Tortola, and Virgin Gorda; southern United States, Central America, West Indies, and northern South America.

Common name: turtle-grass.

### 14. HYPOXIDACEAE

(Stargrass Family) By Mark T. Strong

#### 1. HYPOXIS R. Br.

**1. Hypoxis decumbens** L., Syst. Nat. ed. 10, 2: 986. 1759.

**Distribution**: In wet, open areas. Bordeaux Mountain (W69A); between Bethany to Rosenberg (B279). Also on Tortola and Virgin Gorda; Greater Antilles, Lesser Antilles, Mexico, Central America, and South America.

## 15. LEMNACEAE

(Duckweed Family)

#### 1. LEMNA L.

**1. Lemna aequinoctialis** Welw., Ann. Conselho Ultram. 55: 578. 1859.

**Distribution:** Occasional in temporary bodies of fresh water or abandoned wells. In abandoned well at Emmaus (A4022); pool north of Europa Bay (A5260). Cosmopolitan, in temperate and tropical areas.

Common name: duckweed.

## 16. ORCHIDACEAE

(Orchid Family) By J.D. Ackerman

### Key to the genera

- 1. Vines Vanilla
- 1. Rhizomatous and often cespitose herbs.
  - 2. Leaf blades continuous (non-articulate) with sheaths; pollinia soft, mealy; plants terrestrial.
    - 3. Flowers resupinate, lip in the lowermost position Cyclopogon
    - 3. Flowers non-resupinate, lip in the uppermost position.
      - 4. Lip very fleshy, hood-like, covering the column; sepals and petals similar, reflexed-curled; lateral sepals basally united . **Prescottia**
      - 4. Lip suborbicular with margins flanking the column but not deeply hooded; sepals and petals dissimilar, not reflexed-curled; lateral sepals free **Ponthieva**
  - 2. Leaf blades articulate with sheaths or stems; pollinia hard; plants terrestrial, epiphytic or epilithic.
    - 5. Pseudobulbs present; leaves dorsal-ventrally flattened (conduplicate).
      - 6. Leaves mottled light and dark green; plants terrestrial; flowers spurred . Oeceoclades
      - 6. Leaves uniform in color; plants epiphytic or epilithic; flowers not spurred.
        - 7. Peduncle less than 50 cm long; lip white, green or brown, adnate to the length of the column, lateral lobes of lip free **Epidendrum**
        - 7. Peduncle 50-150 cm long; lip red to lavender, attached to the basal half of the column, lateral lobes of lip adnate to the sides of the column **Psychilis**
    - 5. Pseudobulbs absent or inconspicuous; leaves laterally flattened or subcylindrical.
      - 8. Leaves laterally flattened; pollinia 2 in each thecae **Tolumnia**
      - 8. Leaves subcylindrical; pollinia 8 . Tetramicra

#### 1. CYCLOPOGON Presl

#### Key to the species

- 1. Mid vein and margin of petals darkened at the apex; lip broadest below apical constriction; leaf blades dark, velvety green above, purplish below; petioles 1-3.5 cm long **C. cranichoides**
- 1. Petals unmarked at apex; lip equal or broadest above apical constriction; leaf blades green; petioles 1.5-10 cm long . **C. elatus**
- 1. Cyclopogon cranichoides (Griseb.) Schltr., Beih. Bot.Centralbl. 37(2): 387.1920. Distribution: Rare, collected once in deep humus of moist forest understory. Bordeaux Mountain (*Mrazek 4*). Also known from Florida (U.S.A.), Bahamas, Cuba, Jamaica, Dominican Republic, Puerto Rico, Dominica, Guadeloupe, Central and South America.
- Cyclopogon elatus (Sw.) Schltr., Beih. Bot. Centralbl. 37(2): 372, 387.
   Distribution: A rare terrestrial herb in the shady understory of moist forests. Rosenberg (B2899). Also known from St. Croix, St. Thomas, Tortola; the Bahamas, Jamaica, Hispaniola, Puerto Rico, Lesser Antilles, Florida, Mexico, Central America and Venezuela.

#### 2. EPIDENDRUM L.

#### Key to species

1. Stems slender, cane-like; leaves produced along length of stem; sepals and petals 5-8 mm long; lip brown or green with entire lateral lobes **E. anceps** 

- 1. Stems pseudobulbous; leaves produced at apex of stem; sepals and petals 40-50 mm long; lip white with dissected lateral lobes . **E. ciliare**
- **1. Epidendrum anceps** Jacq., Select. Stirp. Amer. Hist. 224, t. 138. 1763.

**Distribution:** Rare on trees in moist montane forests. Bordeaux Mountain (*Ray & Gibney s.n.*). Also on St. Thomas and Virgin Gorda; Florida, Mexico to South America including the West Indies.

2. Epidendrum ciliare L., Syst. Nat. ed. 10, 2: 1246. 1759.

**Distribution:** Locally common on boulders, particularly near the coast. Enighed (A5100); Solomon Bay (A2279). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Mexico to South America, including the West Indies.

Common name: Christmas orchid.

#### 3. OECEOCLADES Lindl.

**1. Oeceoclades maculata** (Lindl.) Lindl., Gen. Sp. Orchid. Pl. 237. 1833.

**Distribution:** A rapidly invading species currently known on St. John from one site, but expected to spread. Lameshur (A3236). Native to tropical Africa, but naturalized in Florida, Panama, South America and the West Indies

### 4. PONTHIEVA R. Br.

A New World genus of about 25 species in tropical and subtropical areas.

1. Ponthieva racemosa (Walter) Mohr, Contr. U.S. Natl. Herb. 6: 460. 1901.

**Distribution:** Rare; known from moist forests and thickets. Rosenberg (B289). Also reported from St. Thomas and Tortola; the West Indies, southern United States and Mexico to tropical South America.

#### 5. PRESCOTTIA Lindl.

Key to the species

- 1. Petioles less than 3 cm long, erect or prostrate; leaf blades green, usually less than 8 cm long; lip white, 1-2 mm long **P. oligantha**
- 1. Petioles 2.5-15 cm long, erect; leaf blades green to purplish green, usually more than 10 cm long; lip green, pink or straw-colored, 2.5-3.5 mm long . **P. stachyodes**
- 1. Prescottia oligantha (Sw.) Lindl., Gen. Sp. Orch. Pl. 454. 1840.

**Distribution:** Uncommon, known from shady sites in moist forests and thickets. Bordeaux (B535). Also on St. Thomas and Tortola; the West Indies, Florida and Mexico to South America.

2. Prescottia stachyodes (Sw.) Lindl., Bot. Reg. 22: 1916.

**Distribution:** Terrestrial in moist forests and thickets. Bordeaux (B559, A2604). Also reported from the Greater Antilles and Mexico to South America.

#### 6. PSYCHILIS Raf.

1. Psychilis macconnelliae Sauleda, Phytologia 65: 18. 1988.

**Distribution:** Common on small trees and shrubs in moist or dry regions, usually very near the ocean. Salt Pond (A759); East End (A1819). Also reported from St. Croix, St. Thomas, Anegada, Tortola and Virgin Gorda; St. Kitts and Puerto Rico.

#### 7. TETRAMICRA Lindl.

A Caribbean genus of about 10 species.

Tetramicra canaliculata (Aubl.) Urb., Repert. Spec. Nov. Regni Veg. 15: 306. 1918.
 Distribution: Locally common in exposed sites of dry or moist sites. Maria Bluff (A4060). Also reported from St. Croix, St. Thomas, Little St. James, Anegada, Virgin Gorda and George Dog; Puerto Rico, Hispaniola, the Lesser Antilles, and Florida.

#### 8. TOLUMNIA Raf.

A genus of about 30 species, some not well-defined.

#### Key to the species

- 1. Flowers yellow; lip conspicuously dentate-crenate; inflorescences often forming plantlets after flowering .**T. prionochila**
- 1. Flowers white to pinkish purple with brown markings; lip more or less entire; old inflorescences not forming plantlets .**T. variegata**
- Tolumnia prionochila (Kraenzl.) Braem, Orchidee (Hamburg)
   Distribution: In dry to moist scrub forests, often near the sea. Salt Pond (A758); White Cliffs (A2721). Also known from Guana Island, St. Thomas, Anegada, Tortola, and Virgin Gorda; Culebra and Cayo Luis Peña.

**Common name:** dancing lady.

2. Tolumnia variegata (Sw.) Braem, Orchidee (Hamburg) 37: 59. 1986.

**Distribution:** On twigs of shrubs and small trees, mostly in undisturbed vegetation of dry and moist areas. Trail to Sieben (A2071); Fish Bay (A3910). Also known from St. Croix, St. Thomas, Tortola and Virgin Gorda; the Greater Antilles, except Jamaica.

#### **9. VANILLA** Plum. *ex* Mill.

- 1. Leaves shorter than the internodes, early deciduous V. barbellata
- 1. Leaves longer than the internodes, persistent V. planifolia
- 1. Vanilla barbellata Rchb.f., Flora 48: 274. 1865.

**Distribution:** Climbing vine in dry to moist scrub forests. Europa Bay (A4142). Also reported from St. Thomas and Virgin Gorda; Puerto Rico, the Bahamas, Cuba and Florida.

**2. Vanilla planifolia** G. Jackson *in* Andrews, Bot. Repos. 8: t. 538. 1808.

**Distribution:** Native to Mexico, introduced as a crop plant, persistent in moist habitats. Bordeaux (A4058). Also reported from St. Croix and St. Thomas; the West Indies and Mexico to South America.

Common name: vanilla.

### 17. POACEAE

(Grass Family)
By R.D. Webster and P.M. Peterson

### Key to the genera

- 1. Culms (1-)2-30 m tall or long, lignified and perennial; leaves dimorphic, those of the culm different from those of the foliage compliment; summit of leaf sheath bearing oral setae.
  - 2. Plant erect; culms 5-12 cm diam.; foliage leaves  $12-30 \times 1.5-4$  cm, lanceolate, flat, alternately arranged on the branch; culm leaves 30-45 cm long and about as wide **Bambusa**
  - 2. Plant scandent; culms < 1.5 cm wide; foliage leaves 2-12 × 0.02-0.1 cm wide, filiform and tightly involute, arranged in capillary whorls; culm leaves < 5 cm long, 1-3 mm wide **Arthrostylidium**
- 1. Culms usually much less than 2 m tall, herbaceous, annual or perennial; leaves the same on the culm as those borne along the branches; summit of leaf sheath never bearing oral setae.
  - 3. Spikelets usually paired, one sessile or subsessile and the other pedicellate, often dimorphic and with the pedicellate spikelet much reduced, if not paired, then spikelets in readily disarticulating racemes or the upper floret hyaline, geniculately awned.
    - 4. Pedicels and rachis internodes with a thin central longitudinal groove appearing as a translucent stripe; lower glume of the sessile spikelet with a conspicuous circular pit .

#### **Bothriochloa**

- 4. Pedicels and rachis internodes without a thin central longitudinal groove; lower glume of the sessile spikelet without a circular pit.
  - 5. Inflorescence compose of a solitary raceme.
    - 6. Sessile spikelet with a lemmatal awn 6-12 cm long, glumes dark brown; callus heavily bearded, the hairs coppery-brown **Heteropogon**
    - 6. Sessile spikelet with a lemmatal awn < 1.3 cm long; glumes straw-colored, callus bearded or glabrous, the hairs whitish . **Schizachyrium**
  - 5. Inflorescences compose of 2-9 racemes.
    - 7. Foliage not aromatic or lemon scented; inflorescence a large, broom-like, compound mass, the rachis straight; racemes erect to slightly divergent, borne upon unequal, terete bases . **Andropogon**
    - 7. Foliage aromatic, lemon scented; inflorescence an open, loosely arranged group of racemes along a zigzagging rachis; racemes usually drooping and sinuous, deflexed at maturity and borne upon subequal, flattened bases (cultivated) **Cymbopogon**
- 3. Spikelets not paired or dimorphic, or if paired, then neither in readily disarticulating racemes, nor the upper floret geniculately awned.
  - 8. Spikelets unisexual, dimorphic [plant monoecious].

- 9. Pseudopetioles 8-60 mm long, twisted at the summit to invert the blade; blades with oblique secondary venation; pistillate spikelets with florets covered with hooked hairs **Pharus** 
  - 9. Pseudopetioles 4-7 mm long, not twisted at the summit; blades with parallel venation; pistillate spikelets with florets never covered with hooked hairs
- 8. Spikelets bisexual, monomorphic.
  - 10. Lemmas prominently 3-awned. Aristida
  - 10. Lemmas awnless or awned but never 3-awned.
    - 11. Spikelets with the lower floret usually bisexual, not reduced, the upper floret usually sterile and reduced; floret(s) falling from the persistent glumes.
      - 12. Inflorescence a digitate or subdigitate terminal cluster of 2-many spike-like racemes.
        - 13. Spikelets with only a single bisexual floret (sterile or staminate florets also present); fruit with an adnate pericarp or outer wall, not separating upon hydration.
          - 14. Inflorescence with 7-15 racemes; lemmas awned; spikelets 2-several-flowered **Chloris**
          - 14. Inflorescence with 3-5 racemes; lemmas awnless; spikelets 1-flowered and with a rachilla internode prolonged as a sterile rudiment.

#### Cynodon

- 13. Spikelets with 2-many bisexual florets (sterile or staminate florets may also be present); fruit with a free pericarp or outer wall, this separating upon hydration.
- 15. Upper glume 1-nerved and awned; primary inflorescence branches terminating in a bare point or bristle; plants often stoloniferous

#### . Dactyloctenium

- 15. Upper glume 3-5-nerved and unawned; primary inflorescence branches terminating in a spikelet; plants lacking stolons **Eleusine**
- 12. Inflorescence a narrow to open panicle or group of racemosely arranged racemes, the branches arranged along a central rachis, and sometimes very short.
  - 16. Inflorescence forming glomerules of (1-)2-5 spikelets; upper glumes with rows of hooked spines along the nerves **Tragus**
  - 16. Inflorescence not forming small glomerules, usually containing many more spikelets; upper glumes without hooked spines located along the nerves.
    - 17. Inflorescence of 1-many, more or less spicate racemes, the spikelets arranged in two rows along the rachis.
      - 18. Spikelets not falling entire at maturity, usually disarticulating between the florets and above the glumes; plants usually less than 1 m tall, annuals or perennials of short duration, without rhizomes.
        - 19. Inflorescence 10-15 cm wide with more than 15 primary branches; spikelets 2.2-4.3 mm long, 3-7-flowered; lemmas 1.8-2.5 mm long, excluding the awns; blades 10-32 cm long, 7-12 mm wide, clasping near base with yellowish dewlaps; caryopsis 1-1.3 mm long; stamens 2 . **Leptochloa**
        - 19. Inflorescence 2-5 cm wide with only 3-7 primary branches; spikelets 6-9 mm long, 2-flowered; lemma 4.5-7 mm long, excluding the awn; blades 3-6 cm

- long, 2-4 mm wide, not clasping near base and without dewlaps; caryopsis 3-3.5 mm long; stamens 3 **Bouteloua**
- 18. Spikelets falling or disarticulating as a unit at maturity; plants usually 1-2 meters tall, stout perennials with well developed rhizomes.
  - 20. Spikelets 1-flowered, 7-12 mm long; sheaths glabrous to scabrous, never with a tuft of soft hairs just below and to one side of the ligule; glumes 3-12 mm long, the upper at least as long as or longer than the spikelet; lemma 5.5-8.5 mm long; anthers 3-5 mm long **Spartina**
  - 20. Spikelets 2-6-flowered, 2.5-6 mm long; sheaths ciliate with long soft hairs in tufts just below and to one side of the ligule, the hairs 1-2.5 mm long; glumes 1-2.5 mm long, both shorter than the spikelet; lemmas 1.8-2. 8 mm long; anthers 1-2 mm long **Uniola**
- 17. Inflorescence an open to contracted panicle, the spikelets not arranged in two rows along the rachis
  - 21. Spikelets 1-flowered Sporobolus
  - 21. Spikelets 2-many-flowered Eragrostis
- 11. Spikelets with the lower floret reduced, either staminate or sterile (rarely pistillate or bisexual), the upper floret bisexual; spikelets usually falling entire from the summit of the pedicel.
  - 22. Rachis terminating in a spikelet.
    - 23. Lower glume fused with the callus to form a cup Eriochloa
    - 23. Lower glume not fused with the callus or absent.
      - 24. Lemma of upper floret with flat margins.
        - 25. Disarticulation at the base of the primary branches; pedicels absent; lodicules absent . **Anthephora**
        - 25. Disarticulation at the spikelet base; pedicels present; lodicules present.
          - 26. Upper floret membranous to chartaceous; spikelets laterally compressed; spikelets not distinctly 1-sided or distichous . **Rhynchelytrum**
    - 26. Upper floret cartilaginous to indurate; spikelets plano-convex; primary branches with 1-sided or distichous spikelets.
      - 27. Lemma of the lower floret toward the rachis; culm internodes usually solid **Axonopus**
      - 27. Lemma of the lower floret away from the rachis; culm internodes usually hollow . **Digitaria**
- 24. Lemma of upper floret with involute or convolute margins.
  - 28. Lemma of upper floret rugose. Urochloa
  - 28. Lemma of upper floret not rugose.
    - 29. Lemma of upper floret differentiated at the apex.
      - 30. Spikelets terete; ligule a membrane or a ciliate membrane; primary branches with spreading secondary branches . **Lasiacis**
      - 30. Spikelets dorsiventrally compressed or plano-convex; ligule a fringe of hairs or absent; primary branches with appressed secondary branches . . **Echinochloa**
    - 29. Lemma of upper floret not differentiated at the apex.
      - 31. Lower glume present.
        - 32. Lower glume encircling the spikelet base . Panicum
        - 32. Lower glume not encircling the spikelet base.
          - 33. Lower glume muticous to apiculate; spikelets abaxial; lemma of upper floret dull **Paspalum**
          - 33. Lower glume awned; spikelets adaxial; lemma of upper floret shiny **Oplismenus**

- 31. Lower glume absent.
  - 34. Lemma of the lower floret toward the rachis; pedicels concave **Axonopus**
  - 34. Lemma of the lower floret away from the rachis; pedicels convex **Paspalum**
- 22. Rachis terminating in a bristle.
  - 35. Disarticulation at the spikelet base; lemma of upper floret rugose.
    - 36. Main axis with distichous or 1-sided primary branches . **Paspalidium**
    - 36. Main axis with primary branches neither distichous or 1-sided . Setaria
  - 35. Disarticulation at the base of the primary branches; lemma of upper floret not rugose.
    - 37. Callus flared at apex . Cenchrus
    - 37. Callus prolonged but not flared at apex . Pennisetum

#### 1. ANDROPOGON L.

**1. Andropogon bicornis** L., Sp. Pl. 1046. 1753.

**Distribution:** Occasional herb of disturbed sites, clearings, old pastures, and open grasslands. Rosenberg (B305). Also on St. Croix, St. Thomas, and Tortola; Mexico, to Argentina including the West Indies.

#### 2. ANTHEPHORA Schreb.

1. Anthephora hermaphrodita (L.) Kuntze, Revis. Gen. Pl. 2: 759. 1891.

**Distribution:** Occasional grass of dry to moist disturbed areas, waste places, and pastures. Yawzi Point trail (W557). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout tropical South America and the west Indies.

#### 3. ARISTIDA L.

**1. Aristida cognata** Trin. & Rupr., Mém. Acad. Imp. Sci. St. Pétersbourg VI, 5: 127. 1842. **Distribution:** Occasional in rocky soils and on dry hillsides. Rosenberg (E3003); Bass Gut (*Eggers s.n.*). Also on St. Thomas; Cuba, Hispaniola, Lesser Antilles, and Venezuela.

## **4. ARTHROSTYLIDIUM** Rupr.

**1. Arthrostylidium farctum** (Aubl.) Soderstr. & Lourteig, Phytologia 64: 163. 1987. **Distribution:** Occasional in wooded slopes, forest margins, and dry thickets. Along road to Ajax Peak (A2652). Also on St. Thomas; Bahamas, Cuba, Hispaniola, and Puerto Rico.

## 5. AXONOPUS P. Beauv.

1. Axonopus compressus (Sw.) P. Beauv., Ess. Agrostogr. 154. 1812.

**Distribution**: An occasional roadside weed. Bethany to Rosenberg (B282); Bordeaux (A2615); Lameshur (W311). Also on St. Croix and St. Thomas; a tropical and subtropical weed, commonly used as a lawn grass.

#### **6. BAMBUSA** Schreb.

1. Bambusa vulgaris Schrad. ex J. C. Wendl., Coll. Pl. 2: 26, pl. 47. 1808.

**Distribution**: Uncommon, persistent after cultivation. Visually recorded at L'Esperance. Cultivated and commonly escaped in the New World tropics; a native of South East Asia.

Common name: bamboo.

#### 7. BOTHRIOCHLOA Kuntze

1. Bothriochloa pertusa (L.) Camus, Ann. Soc. Linn. Lyon II, 76: 164. 1931.

**Distribution:** Common weed of open disturbed areas. Dittlif Point (A3980); East End (A3785); western slopes of Fish Bay (A3913). Also on St. Croix and St. Thomas; native to the Old World, now naturalized in the West Indies, Central America, Mexico, and the southern United States.

Common name: hurricane grass.

### 8. BOUTELOUA Lag.

1. Bouteloua americana (L.) Scribn., Proc. Acad. Nat. Sci. Philadelphia 50: 306. 1891. Distribution: Occasional weed of open disturbed areas. Bethany to Rosenberg (B280); Coral Bay (A4030); Lameshur (B633). Also on St. Croix, St. Thomas, and Virgin Gorda; Mexico to Brazil, and the West Indies.

#### 9. CENCHRUS L.

Key to the species

- 1. Involucre of interlocking spines in one whorl, usually < 4 mm wide, densely crowded on the main axis . **C. brownii**
- 1. Involucre with spines emerging at irregular intervals, usually > 4 mm wide, not densely crowded on the main axis . **C. echinatus**
- 1. Cenchrus brownii Roem. & Schult., Syst. Veg. 2: 258.

**Distribution**: An occasional roadside weed. Chocolate Hole (A4068); Herman Farm (A822). Also on St. Croix and St. Thomas; southern United States to Brazil, the West Indies and introduced into Australia.

**Common names:** sandbur, sand-spurs.

**2.** Cenchrus echinatus L., Sp. Pl. 1050. 1753.

**Distribution**: A common herb of coastal sandy beaches. Great Cruz Bay (A788); Little Lameshur (A2020). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; a common weed of disturbed soil sites in tropical and warm temperate America.

#### 10. CHLORIS Sw.

**1. Chloris barbata** Sw., Fl. Ind. Occ. 1: 200. 1797.

**Distribution:** A common weed of open disturbed habitats, often near the coast. Center Line road (A1856); Cruz Bay (A858); Fish Bay (A3882). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda (acc. to Britton and Wilson, 1924); worldwide in tropical and warm temperate regions, native to the New World.

#### 11. CYNODON Rich.

1. Cynodon dactylon (L.) Pers., Syn. Pl. 1: 85. 1805.

**Distribution:** Occasional in pastures and disturbed habitats. Cinnamon Bay (M17088); Emmaus (A2003); along road from Fish Bay to Coccoloba Key (A2813). Now cosmopolitan in tropical and warm temperate regions, but apparently native to Africa.

Common name: Bermuda grass.

#### 12. DACTYLOCTENIUM Willd.

1. Dactyloctenium aegyptium (L.) Willd., Enum. Pl. 1029. 1809.

**Distribution:** Common in cultivated fields and disturbed areas. Western slope of Fish Bay (A3916); In vic. of Bordeaux (A2629); East End (A3790). Also on Anegada, St. Croix, St. Thomas, and Tortola; native to the Old World, now widespread through the tropics and subtropics.

### 13. DIGITARIA Haller

About 250 species from the tropics and warm temperate regions.

### Key to the species

- 1. Spikelets covered with long silky hairs; spikelets greater than 3.9 mm long . **D. insularis**
- 1. Spikelets without long silky hairs; spikelets less than 3.8 mm long.
  - 2. Upper floret brown, muricate; primary branches not winged **D. hitchcockii**
  - 2. Upper floret yellow, striate; primary branches distinctly winged.
    - 3. Spikelets greater than 2.8 mm long **D. ciliaris**
    - 2. Spikelets less than 2.8 mm long . D. horizontalis
- 1. Digitaria ciliaris (Retz.) Koel., Descr. Gram. 27. 1802.

**Distribution**: Occasional weed of open disturbed areas. Herman Farm (M17087); Lameshur (W334). Found throughout the tropics and subtropics of the world.

2. Digitaria hitchcockii (Chase) Stuck., Annuaire Conserv. Jard. Bot. Géneve 17: 287. 1914.

**Distribution**: Occasional in open disturbed habitats. Ram Head (W189). Known otherwise from Texas and Mexico.

**3. Digitaria horizontalis** Willd., Enum. Pl. 92. 1809.

**Distribution**: Occasional weed of open disturbed places. Bordeaux (W189); Lameshur (A3211). Also on St. Thomas; throughout the tropics and subtropics of the world.

**4. Digitaria insularis** (L.) Mez ex Ekman, Ark. Bot. 11: 17. 1912.

**Distribution**: Common roadside weed. Bordeaux (A3800); Center Line road (A2619); Maho Bay (A1943). Also on St. Thomas; through tropical and subtropical America.

#### 14. ECHINOCHLOA P. Beauv.

1. Echinochloa colona (L.) Link, Enum. Hort. Berol. 2: 209. 1833.

**Distribution**: Common in moist, disturbed places. Enighed (A5099); Fish Bay (A2811). Also on St. Croix, St. Thomas and Tortola; throughout the tropics and subtropics of the world, originally native to Old World.

#### 15. ELEUSINE Gaertn.

1. Eleusine indica (L.) Gaertn., Fruct. Sem. Pl.1: 8. 1788.

**Distribution:** Occasional in disturbed pastures and along roadsides, introduced from the Old World. Bordeaux Mt. (A2613, A3803, A3851). Also on St. Croix, St. Thomas, and Tortola; worldwide in warm climates.

Common name: Dutch grass.

#### 16. ERAGROSTIS Wolf

- 1. Panicles open, cylindrical to narrowly ovate or ovate lanceolate, 1-7 cm wide; branches ascending and spreading usually 0.5-4 cm long; base of panicle branches at junction of culm axis with a few scattered hairs; spikelets with pedicels of main culm axis bearing a few hairs; spikelets with pedicels 0.8-7 mm long **E. amabilis**
- 1. Panicles contracted, narrow and glomerate, usually less than 1.4 cm wide; branches ascending, usually less than 2.5 cm long; base of panicle branches at junction of culm axis glabrous; spikelets commonly sessile or with pedicels less than 1 mm long **E. ciliaris**
- **1. Eragrostis amabilis** (L.) Wight & Arnott *in* Hook. & Arnott, Bot. Beechey Voy. 251. 1838. **Distribution:** Occasional in open disturbed areas. Emmaus (A2000); Lameshur (A3210, B501). Also on St. Croix; native to the Old World, naturalized in the New World.
- **2. Eragrostis ciliaris** (L.) R. Br. *in* Tuckey, Narr. Exped. Zaire 478. 1818. **Distribution**: Occasional weed of grassy, open areas. Cinnamon Bay (W368); Coral Bay (W795-a); Cruz Bay Gut (W792). Native to the Paleotropics, now naturalized in the New World.

#### 17. ERIOCHLOA Kunth

**1. Eriochloa punctata** (L.) Desv. ex Ham., Prodr. Pl. Ind. Occ. 5. 1825.

**Distribution**: Occasional herb of wet to dry, open areas. Bordeaux (W66); Lameshur (W523-c). Also on St. Croix, St. Thomas and Tortola; southern United States to South America and Greater Antilles

#### **18. HETEROPOGON** Pers.

Heteropogon contortus (L.) P. Beauv. ex Roem. & Schult., Syst. Veg. 2: 836. 1817.
 Distribution: Occasional grass of disturbed coastal habitats. East End Haulover (W596).
 Also on St. Thomas (Water Island) and Virgin Gorda; pantropical.

### 19. LASIACIS (Griseb.) Hitchc.

### Key to the species

- 1. Ligule of the upper leaves more than 1.6 mm long
  - 2. Primary branches reflexed to spreading; sheaths glabrous or hairy L. ligulata
  - 2. Primary branches appressed to spreading; sheaths papillose hispid or pubescent L. sorghoidea
- 1. Ligule of the upper leaves less than 1.6 mm long . L. divaricata
- 1. Lasiacis divaricata (L.) Hitchc., Contr. U. S. Natl. Herb. 15: 16. 1910.

**Distribution**: Common in secondary vegetation. Bordeaux (A3795); Carolina (R1306); Kingshill (E3121). Also on St. Croix, St. Thomas, and Tortola; southern Florida, Mexico to South America and the West Indies.

2. Lasiacis ligulata Hitchc. & Chase, Contr. U.S. Natl. Herb. 18: 337. 1917.

**Distribution**: Occasional in secondary vegetation, along trails or roadsides. Trail to Sieben (A2688). Also on St. Thomas; throughout the West Indies and Central America to Bolivia and Brazil.

3. Lasiacis sorghoidea (Desv.) Hitchc. & Chase, Contr. U. S. Natl. Herb. 18: 338. 1917.
Distribution: Occasional in disturbed areas. Bordeaux (A3853); Susannaberg (A3844).
Also on St. Croix and St. Thomas; throughout the West Indies and Mexico to Argentina.

#### 20. LEPTOCHLOA P. Beauv.

**1. Leptochloa virgata** (L.) P. Beauv., Ess. Agrostogr. 71. 166, t. 5, f. 1. 1812.

**Distribution**: Occasional weed of open disturbed, moist to dry areas. Bordeaux (W436); Mamey Peak (W552). Also on St. Croix and St. Thomas; southern United States, Mexico to Argentina and the West Indies.

1. Olyra latifolia L., Syst. Nat. ed. 10, 2: 1261. 1759.

**Distribution**: Occasional in secondary vegetation. Bordeaux (W731); L'Esperance (M17027). Also on St. Thomas and Tortola; throughout the West Indies and Mexico to Argentina; naturalized in Africa.

#### 22. OPLISMENUS P. Beauv.

1. Oplismenus hirtellus (L.) P. Beauv., Ess. Agrost. 54. 1812.

**Distribution**: Occasional in forest understory and shaded roadbanks. Cinnamon Bay (W635); Solomon Beach (A2289); Susannaberg (A3843). Also on St. Thomas; throughout the tropics.

#### 23. PANICUM L.

1. Panicum diffusum Sw., Prodr. 23. 1788.

**Distribution**: Known on St. John from a single collection of Eggers (3068) without specific locality (Hitchcock, 1936). Also on Buck Island, St. Croix and St. Thomas; throughout the West Indies.

### **24. PASPALIDIUM** Stapf

1. Paspalidium geminatum (Forssk.) Stapf, Fl. Trop. Afr. 9: 583. 1920.

**Distribution**: Uncommon, found in open, moist areas. Lameshur (B611); John's Folly (W528). Also on St. Croix and St. Thomas; throughout the tropics and warm temperate regions of the world.

## 25. PASPALUM L.

- 1. Upper glume and lower lemma broadly winged to produce a circular spikelet **P. fimbriatum**
- 1. Upper glume and lower lemma not broadly winged.
  - 2. Racemes 2, conjugate.
    - 3. Spikelets < 2 mm long **P. conjugatum**
    - 3. Spikelets > 2 mm long.
      - 4. Lower lemma membranous; leaves distinctly distichous; spikelets typically < 1.6 mm wide . **P. vaginatum**
      - 4. Lower lemma chartaceous; leaves not distinctly distichous; spikelets typically 1.1-2.4 mm wide **P. notatum**
    - 2. Racemes not conjugate, usually more than 2.
      - 5. Pedicels as long as the spikelets; spikelets loosely imbricate **P. molle**
      - 5. Pedicels much shorter than the spikelets; spikelets closely imbricate **P. laxum**
- 1. Paspalum conjugatum Berg., Acta Helv. Phys. Math. 7: 129. 1762.

**Distribution**: Occasional grass of open disturbed areas. Cinnamon Bay (W369). Also on St. Croix and St. Thomas; throughout the tropics and subtropics.

**2. Paspalum fimbriatum** Kunth *in* Humb., Bonpl. & Kunth, Nov. Gen. Sp. 1: 93. 1816.

**Distribution**: Common roadside weed. Bordeaux (A2630); Center Line Road (A2704); Susannaberg (M16577). Also on St. Croix; Central America to Brazil and the West Indies.

**3. Paspalum laxum** Lam., Tabl. Encycl. 1: 176. 1791.

**Distribution**: A common weed of disturbed, open areas. Reef Bay trail (A2933); Rosenberg (B292); trail to Sieben (A2642). Also on Anegada, St. Croix, St. Thomas, Tortola and Virgin Gorda; throughout the West Indies, and southern United States to Central America.

**4. Paspalum molle** Poir. in Lam., Encycl. 5: 34. 1804.

**Distribution**: Uncommon herb of moist open areas. Bordeaux (W62). Also on St. Thomas; southern Florida, Mesoamerica to northern South America and the West Indies.

**5. Paspalum notatum** Flüggé, Monogr. Paspalum 106. 1810.

**Distribution**: Uncommon herb of disturbed sites. Lameshur (W847); Maria Bluff (W801). Also on St. Thomas; Central and South America.

6. Paspalum vaginatum Sw., Prodr. 21. 1788.

**Distribution**: Uncommon coastal herb. Fish Bay (W808). Also on St. Croix and Tortola; throughout the tropics and subtropics.

#### 26. PENNISETUM Rich.

1. Pennisetum clandestinum Chiov., Ann. Inst. Bot. Roma 8: 41. 1903.

**Distribution**: An occasional herb of open disturbed areas. Cinnamon Bay (W855). Native of tropical Africa, introduced into the New World as a forage grass.

#### 27. PHARUS P. Br.

1. Pharus lappulaceus Aubl., Hist. Pl. Guiane 2: 859. 1775.

**Distribution**: A common herb of forest understory. Bethany (B223); Bordeaux (A3852). Found throughout the West Indies and Mexico to Argentina and Paraguay.

#### 28. RHYNCHELYTRUM Nees

1. Rhynchelytrum repens (Willd.) C.E. Hubb., Kew. Bull. 1934: 110. 1934.

**Distribution**: A common roadside weed. Annaberg (W853); Peter Peak (A4106). Also on St. Thomas; widely introduced throughout the West Indies and warm to temperate North America; native to Africa.

#### **29. SCHIZACHYRIUM** Nees

1. Schizachyrium sanguineum (Retz.) Alston, Suppl. Fl. Ceylon 334. 1931.

**Distribution**: Occasional grass of coastal areas. Ditlif Point (W650). Also on St. Croix; pantropical.

#### 30. SETARIA P. Beauv.

### Key to the species

- 1. Bristles present only at the termination of the primary branch S. utowanaea
- 1. Bristles present beneath each spikelet S. setosa
- 1. Setaria setosa (Sw.) P. Beauv., Ess. Agrost. 51, 171. 1812.

**Distribution**: A common herb of open, dry to moist areas. Fish Bay (W470); Lameshur (W430); Margaret Hill (W530). Also on St. Croix, St. Thomas, and Virgin Gorda; West Indies to northern South America.

**2. Setaria utowanaea** (Scribn. *ex* Millsp.) Pilg., Nat. Pflanzenfam. ed. 2, 14e: 72. 1940. **Distribution**: Uncommon grass of dry forest understory. Francis Bay (W537). Also on Anegada; Cuba, Puerto Rico and Lesser Antilles.

#### 31. SPARTINA Schreb.

1. Spartina patens (Aiton) Muhl., Descr. Gram.55. 1817.

**Distribution:** Occasional on sandy beaches. Caneel Bay (W177); Solomon Bay (A2285). Also on St. Croix; eastern North America to the Caribbean, introduced to Europe.

#### **32. SPOROBOLUS** R. Br.

- 1. Plants strongly rhizomatous and/or stoloniferous; culms widely creeping in rows with virgate branching; leaves strongly distichous or appearing subopposite; plants predominantly coastal, in saline habitats **S. virginicus**
- 1. Plants cespitose, without widely creeping rhizomes or stolons, not branching as above; leaves not distichous; plants of various habitats.
  - 2. Cespitose, long-lived annuals or perennials; spikelets 1.3-2.7 mm long; panicles narrow, contracted, with ascending and appressed branches, floriferous near base, the pedicels appressed; caryopses 0.8-1.1 mm long, oblong . **S. indicus**
  - 2. Delicate, short-lived annuals; spikelets 0.7-1.1 mm long; panicles diffuse, with spreading to reflexed branches, naked near base, the pedicels widely spreading; caryopses 0.5-0.7 mm long, broadly pyriform . **S. tenuissimus**
- **1. Sporobolus indicus** (L.) R. Br., Prodr. Fl. Nov. Holl. 1: 170. 1810. **Distribution:** Occasional in open disturbed habitats. East End (A2744). Also on St. Croix and St. Thomas; pantropical, a very polymorphic species as currently recognized.
- 2. Sporobolus tenuissimus (Schrank) Kuntze, Revis. Gen. Pl. 3: 369. 1898.

**Distribution:** Uncommon. Known on St. John only from a single collection by Raunkiær (1383). Also on Tortola and St. Croix; now pantropical, but perhaps originally native to the New World.

3. Sporobolus virginicus (L.) Kunth, Révis. Gramin. 1: 67. 1829.

**Distribution:** A common grass of sandy beaches, coastal dunes, and saline habitats. Dittlif Point (A3963); Little Lameshur (A2019); Reef Bay (A2729). Also on Anegada, St. Croix, and St. Thomas; pantropical.

#### 33. TRAGUS Haller

1. Tragus berteronianus Schult. in Roem. & Schult., Syst. Veg. 2: 205. 1824.

**Distribution**: An occasional weed of open, dry disturbed habitats. Drunk Bay (A5064); Nanny Point (A2452). Also on St. Croix and St. Thomas; native to the Old World, now a pantropical weed.

### 34. UNIOLA L.

1. Uniola virgata (Poir.) Griseb., Fl. Brit. W. I. 531. 1864.

**Distribution**: Locally common, in open exposed areas especially along the coast. Maria Bluff (A1980); Reef Bay (W326). Also on Little St. James and St. Thomas; throughout the West Indies.

### 35. UROCHLOA P. Beauv.

### Key to the species

- 1. Primary branches paniculate with spreading secondary branches, whorled at the lowermost inflorescence node **U. maxima**
- 1. Primary branches racemose with appressed secondary branches, not whorled at the lowermost inflorescence node.
  - 2. Upper glume and lower lemma reticulate-nerved, glabrous; spikelets typically < 3 mm long **U. fasciculatum**
  - 2. Upper glume and lower lemma not reticulate-nerved, pubescent; spikelets typically > 3 mm long **U. adspersa**
- 1. Urochloa adspersa (Trin.) R.D. Webster, Syst. Bot. 13: 607.1988.

**Distribution**: Occasional in open disturbed areas. Bethany (B334); Fish Bay (W491). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; warm temperate North America to tropical South America and the West Indies.

2. Urochloa fasciculatum (Sw.) R.D. Webster, Australian Paniceae 235. 1987 [1988].
Distribution: A common roadside weed. Bordeaux (A3798); Great Cruz Bay (A2354);
Fish Bay (A3884). Also on St. Croix, St. Thomas and Tortola; southern United States to South America and the West Indies, introduced in Australia.

**3. Urochloa maxima** (Jacq.) R.D. Webster, Australian Paniceae 241. 1987 [1988].

**Distribution**: An occasional weed. Fish Bay (A3887); Lameshur (W845). Also on St. Croix and St. Thomas; originally native to Africa, widely introduced and naturalized in the tropics and subtropics for pasture improvement.

Common name: guinea grass.

**Cultivated species:** Cymbopogon citratus (DC.) Stapf commonly known as lemon grass was reported by Woodbury and Weaver (1987) as occurring on St. John, the species, however, is only known in cultivation.

# 18. POTAMOGETONACEAE

(Pondweed Family)
By Mark T. Strong

## 1. RUPPIA L.

1. Ruppia maritima L., Sp. Pl. 127. 1753.

**Distribution:** In shallow brackish to saline waters of lagoons, ponds, and pools. Coral Bay Quarter in intermittent brackish pool by entrance to Fortsberg (A2421). Also on St. Croix and St. Thomas; cosmopolitan.

## 19. SMILACACEAE

(Sarsaparilla Family)

#### 1. SMILAX L.

1. Smilax coriacea Spreng., Syst. Veg. 2: 103. 1825.

**Distribution**: Occasional in open disturbed areas. Coral Bay Quarter along road to Bordeaux (A3818); Reef Bay Quarter at Lameshur (B522). Also on St. Croix, St. Thomas, Tortola and Virgin Gorda; Hispaniola, Puerto Rico (including Vieques) and the Lesser Antilles.